

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-341/82-17(DETP)

Docket No. 50-341

License No. CPPR-87

Licensee: Detroit Edison Company
2000 Second Avenue
Detroit, MI 48226

Facility Name: Enrico Fermi Atomic Power Plant, Unit 2

Inspection At: Fermi 2 Site, Monroe, MI

Inspection Conducted: September 27-29, 1982

Inspector: *D.H. Danielson*
for K. D. Ward

10/19/82

Approved By: *D.H. Danielson*
D. H. Danielson, Chief
Materials and Processes Section

10/19/82

Inspection Summary

Inspection on September 27-29, 1982 (Report No. 50-341/82-17(DETP))

Areas Inspected: Review of preservice inspection (PSI) work activities, nondestructive examination (NDE) personnel certifications and data; IE Bulletin 82-01 activities; previous inspection findings; 10 CFR 55.55(e) items. The inspection involved a total of 25 inspector-hours onsite by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

DETAILS

Persons Contacted

Detroit Edison Company (DECo)

- *S. Noetzel, Site Manager
- *G. Trahey, Assistant Director, Project QA
- *D. Ferencz, Acting Supervisor, Construction QA
- *E. Newton, Supervisor, Operational Assurance
- E. Muszkiewicz, Supervisor, Quality Information Center

Daniel International Corporation (DIC)

- *W. Leverette, QA Engineer

Nutech Engineers, Chicago (NEC)

- B. Sheffel, Lead ISI Engineer

Southwest Research Institute (SWRI)

- T. Mayces, Lead Auditor

The inspector also contacted and interviewed other licensee and contractor employees.

*Denotes those present at the exit interview.

Licensee Action on IE Bulletin

- References:
- a. IE Bulletin No. 82-01, Revision 1 titled, "Alteration of Radiographs of Welds in Piping Subassemblies" dated May 7, 1982.
 - b. NRC Report No. 50-341/82-09, (Inspector's action taken).
 - c. Final response dated July 16, 1982.

(Closed) IE Bulletin No. 82-01, Revision 1: The inspector reviewed the final response and radiographs of twenty welds as stated in NRC Report No. 50-341/82-09. The inspector considers appropriate action was taken.

Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (341/79-03-01): Pipe whip restraints not welded in compliance with procurement documents. The inspector reviewed the final response dated March 14, 1979, DDR's and repair documents. The inspector considers the item closed.

(Closed) Noncompliance (341/79-13-01): W&B did not receive proper training and indoctrination. The inspector reviewed the final response dated July 12, 1979. W&B QA Manual has been revised to reflect more appropriately the needs of the various departments requiring training. Project QA Audits have found training to be acceptable. The inspector considers corrective action was adequate.

(Closed) Noncompliance (341/79-14-04): Failure to take prompt corrective action and make adequate source inspection. The inspector reviewed the final response dated August 24, 1979 including nonconformances documented on DDR's, QC Surveillance Summary Reports and NDE Reports. The inspector considers the item closed.

(Closed) Noncompliance (341/79-18-01): Failure of W&B to perform receipt inspection. The inspector reviewed the final response dated November 21, 1979. W&B reviewed all receiving inspection reports for completeness and adequacy, also the "Field Inventory Requisitions." The inspector considers the item closed.

(Closed) Violation (341/80-22-02): Documentation for welds dispositioned by W&B DDR's included a part number rather than a heat number, and one heat number was incorrectly documented. The inspector reviewed the DDR's 1937 and 1939 with the corresponding heat numbers, and DDR 1938 which now correctly documents the heat number 716L65. The inspector considers the item closed.

(Closed) Violation (341/82-01-01): RPV access procedure was not being followed. The inspector reviewed the final response dated June 7, 1982. A clean room has been established at the entrance to the reactor pressure vessel and the logging of tools and securing of personal items is now being performed. Personnel controlling access to the reactor vessel were reindoctrinated in the requirements of RCI Procedure AC-1, Revision 2. The inspector considers the item closed.

(Closed) Violation (341/82-01-02): The licensee's subcontractor's QC personnel failed to promptly identify and report on machining chips found in the control rod drive housings in accordance with the licensee's procedures. The inspector reviewed the final response dated June 7, 1982. All loose and easily removed chips have been removed and the control rod drive housings have been reinspected. DDR's have been written on 9 CRD housing assemblies from which the chips could not be removed or which have a rough machined surface. This item is considered closed.

(Closed) Violation (341/82-01-03): The licensee's subcontractor failed to provide documented instructions for an activity affecting quality, i.e., the removal of machining chips from the control rod drive housing. The inspector reviewed the final report dated June 7, 1982, documented instructions and the GE Mfg. Drawing for acceptance or rejection of the assemblies. The inspector considers the item closed.

(Closed) Violation (341/82-01-04): Effective measures were not established to prevent the installation of nonconforming control rod drive housings in

the reactor pressure vessel. The inspector reviewed the final response dated June 7, 1982 and the additional steps taken to improve source inspection activities. The inspector considers the item closed.

(Closed) Violation (341/82-01-06): Inadequate corrective actions were taken with regard to the failure of the core spray system expansion bellows. The inspector reviewed the final response dated June 7, 1982, the NCR for removal of the Core Spray System Bellows, and Engineering re-evaluation of system components and investigation of the problem. This item is considered closed.

(Closed) Unresolved Item (341/78-18-06): Material/examination/welder qualification records, no records were readily retrievable concerning the minus 2 psig test. DECo memo dated January 19, 1979 stated that negative pressure test of the air lock was not required. This item is considered closed.

(Closed) Unresolved Item (341/79-12-01): Questioned if ASME, Winter 1971 Addenda on pipe wall met wall thickness and ovality. The inspector reviewed documentation from Dravo stating that the minimum wall thickness and ovality tolerance for pipe bending were met. This item is considered closed.

(Closed) Unresolved Item (341/79-14-06): Seismic documentation for various racks in "Testability Option" requirements not found. The inspector reviewed installation and seismic documentation and considers the item closed.

(Closed) Unresolved Item (341/79-14-08): The weld symbol for the anchor structure required the anchor legs be welded completely around, however, the drawing was not changed to indicate that welds were deleted. The Drawing No. 6M721-9163 has been changed and this item is considered closed.

(Closed) Unresolved Item (341/79-14-09): NDE inspection report for anchor structure welds is inconsistent. The inspector reviewed a re-examination by UT report for field welds 5 and 6 and considers the item closed.

(Closed) Unresolved Item (341/79-24-04): Potential problems with travelers for RHR and core spray pumps. The inspector reviewed several travelers from the Equipment Group which required updating to the Vendors Manual and considers the item closed.

(Open) Unresolved Item (341/80-22-03): Allegation 7, Daniel audits indicated that documentation deficiencies and discrepancies exist in weld packages for systems constructed by the Parsons Company and by Nooter Corporation. The Wismer and Becker review of Parsons' documentation is an ongoing process and will be completed in the near future.

(Closed) Open Item (341/81-03-04): Inaccurate Procedures and Procedure of Compliance. Daniel Procedure AP-1V-20 was issued to give procedural direction for the disassembling and reassembling of permanent plant components. The inspector considers the item closed.

(Closed) Open Item (341/81-10-03): Maintenance procedure for safety and relief valves. DECo now has a maintenance procedure titled SRV Solenoid Valve Disassembly, Reassembly and Inspection, Revision 0, dated May 25, 1982. The inspector reviewed the procedure and has no questions at this time.

(Closed) Open Item (341/81-20-01): Inspector review of licensee's administrative control regarding valve operation and maintenance is pending. The licensee developed a procedure to provide various controls. The inspector reviewed procedure "Jamesburg Butterfly Valve Mode 8222 - Ex Mode A, Disassembly and Assembly, M1-M100, Revision 0," dated July 20, 1982 and has no questions at this time.

Licensee Action on 10 CFR 50.55(e) Items

(Closed) 341/72-03-EE (3) Reactor Pressure Vessel Rework. Final report May 2, 1975. The inspector reviewed the final report which consisted of the completion of rework performed on the RPV. The inspector considers the item closed.

(Open) 341/79-01-EE (14) RHR Heat Exchanger Relief Valve Capacity. Date reported February 5, 1979. Final report September 1980. The inspector reviewed the final report and in the paragraph, Recommendations, it states in part, "Design will be modified to replace the 3 valves described..., and their associated piping with the appropriate size." There is no documentation stating the status of the valves. Another final report will be submitted.

(Closed) 341/ - -EE (15) Damaged Core Spray Motor. Date reported February 23, 1979. Final report March 5, 1981. The inspector reviewed the final report and various records. There were actually two motors involved, not one as stated in the final report. These two motors were returned to the manufacturer at San Jose, California for repair and reconditioning and returned to the site for installation. This item is considered closed.

(Open) 341/79-04-EE (17) A36 steel plate laminations. Date reported July 23, 1979. Final report March 28, 1980. This item is still working and another report will be submitted in the near future.

(Open) 341/79-12-EE (25) Cut rebar - RX building floor loads. Date reported December 27, 1979. Final report July 29, 1981. This item is still working and another report will be submitted in the near future.

(Closed) 341/80-01-EE (26) Nonseismic equipment installed over seismic. Date reported January 18, 1980. Final report March 10, 1982. The inspector reviewed the final report, the Final Piping System Report, design erection and detail drawings and has no questions at this time.

(Open) 341/80-12-EE (37) 10 valves from fisher controls designed without addressing natural frequency. Date reported December 31, 1980. Edison is awaiting input for a new seismic analysis.

(Open) 341/81-03-EE (40) Torque wrenches were not properly calibrated. Date reported March 3, 1981. Waiting disposition of DDR.

(Closed) 341/81-04-EE (41) Inadequate Penetration for Dravo lugs. Date reported March 24, 1981. Final report August 21, 1981. The inspector reviewed the final report, NDE reports, DDR's and repair documentation. This item is considered closed.

(Closed) 341/81-10-EE (48) Grout Spill into penetration. Final report April 29, 1982. The inspector reviewed the final report and documents for the removal of the grout including the hydro-lance and vacuum hose that was used. The inspector considers the item closed.

(Open) 341/82-01-EE (50) 5/8" Parker/Hannifin SS tee cracking. Date reported January 13, 1982. Final report February 10, 1982. There has been additional problems found and another report will be submitted in the near future.

(Closed) 341/82-02-EE (51) Chips or Burrs on CRD housing assemblies. Date reported January 26, 1982. Final report May 10, 1982. The inspector reviewed final report, visual examination report, DDR's, procedure and drawing and considers the item closed.

(Closed) 341/82-04-EE (53) In-line expansion of bellows in the core spray system which burst during flushing. Date reported February 2, 1982. Final report June 19, 1982. The inspector reviewed the final report and nonconformance report No. 82-04. The damaged expansion joint was removed. The new expansion joints will be installed in the core spray pump suction piping. The inspector has no questions at this time.

(Open) 341/82-07-EE (56) Failure of main steam isolation valves. Date reported February 17, 1982. There is a procedure being developed to describe methods to be used.

(Closed) 341/82-11-EE (60) Grafoil pipe sealant tape prior to May 1981. No particular catalog number of grafoil tape was specified and no certificate of compliance was required. Date reported March 9, 1982. This was determined to be nonreportable.

(Open) 341/82-13-EE (62) Type 316 and 316H stainless steel schedule 160 pipe has been installed instead of type 316L in safety related systems. DDR's have been written. The licensee is segregating material that is not installed. DECo engineering is evaluating the acceptability of the installed piping. Date reported March 17, 1982. Waiting DDR's to be dispositioned by Engineering.

(Closed) 341/82-14-EE (63) Rusting of female threads in the reactor pressure vessel stud holes. The licensee found corrosion and pitting in the bottom of the holes. DECo engineering has taken samples of the rust inhibitor. Molds have been made of the worst holes for microscopic examination. GE has been contracted for acceptance criteria. Date reported March 23, 1982. Final report May 10, 1982. The inspector reviewed the final report, DDR's and the Metallurgical Report No. 82A55-5. It was determined that the RPV stud holes will be cleaned and used and the minor pitting left in the hole after cleaning will have no impact on the parts safety function. The inspector has no questions at this time.

(Open) 341/82-15-EE (64) Longitudinal crack found in a section of 3/4" carbon steel piping in the RHR system during a flushing operation on the system. Date reported April 1, 1982. Waiting response from manufacturer.

(Open) 341/82-16-EE (65) During installation of process piping on an instrument rack, it was found that some of the instrument tubing had been incorrectly routed by the vendor. Date reported April 1, 1982. Waiting response from manufacturer and engineering evaluation.

(Open) 341/82-17-EE (66) During installation of a core spray pump motor, a gouge was found on the shaft. It appears that it may have been hit by a forklift. It will be returned to GE for rework or replacement. Date reported April 1, 1982. Because of the gouge, the motor was returned to the manufacturer and has not been returned to the site.

(Closed) 341/82-21-EE (70) Water leak in drywell bellows area. Date reported January 4, 1982. Final report August 20, 1982. The inspector reviewed the final report, NCR and leak test procedure. After incomplete seal welds in the Reactor Well had been located and repaired, the leakage was stopped. The inspector considers the item closed.

(Open) 341/82-22-EE (71) Improper assembly of core spray pump. Date reported June 15, 1982. Investigation of this problem is continuing.

Functional or Program Areas Inspected

1. General

- a. During the course of completing our Inspection Program the following was brought to the attention of Region III.

Problem

Approximately July 1, 1980 Reactor Controls, Inc. (RCI) was performing welding in the vicinity of the slot in the fuel pool utilized for transfer of fuel from the reactor. A 440 volt electrical line to one of the welding machines accidentally fell into the fuel pool, causing an area which "blew a hole" in the stainless steel fuel pool liner. Copper from the electrical line was mixed with the stainless steel due to the heat of the resulting arc. RCI ground the damaged area, and re-welded the holed spot. The welding was improperly done, causing cracking and "bubbling up" of copper from the affected area.

NRC Findings

In 1980 RCI personnel were working in the torus only. Several site personnel who had been on site in 1980 were questioned about the above item, including:

- . DECo welding QA personnel (at that time, 1980)
- . W&B Welding Engineers
- . RCI QC personnel
- . Daniels QA/QC personnel

Daniels Vendor Records Supervisor. During this review the supervisor requested all DDRs from a computer relating to the above subject and reviewed the DDR Log Book. The only DDR, DDR No. W4967, that came near the above subject was issued in July 29, 1980 in which RCI had, "blow throughs," from pads being welded to the torus vent header.

The NRC inspector visually examined the stainless steel fuel pool liner and found no indications of a repair.

This item could not be substantiated.

2. Preservice Inspection

Ref. NRC Report No. 50-341/79-06(PSI)
NRC Report No. 50-341/82-09(PSI)

a. Material and Equipment Certification

The inspector reviewed the certification documents relative to the following items:

- . Ultrasonic instruments, calibration blocks, transducers and couplant.
- . Liquid penetrant, magnaflux materials, penetrant, cleaner and developer.

b. NDE Personnel Certifications and Observation of Work Activities

The inspector reviewed several SWRI NDE personnel certifications in accordance with SNT-TC-1A, 1975 Edition and observed ultrasonic examinations on welds SW-E11-2299-1W5 and FW-E11-2299-0W1.

c. Review Data Reports and Audits

The inspector reviewed data reports and determined that they demonstrated that the QA/QC requirements were met.

The inspector also reviewed DECo Surveillance Report of PSI No. 82-0137, dated September 23, 1982 and the Hartford Steam Boiler Inspection and Insurance Company Audit of PSI, dated June 7, 1982.

No items of noncompliance or deviations were identified.

Exit Interview

The inspector met with site representatives (denoted in Persons Contacted paragraph) at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection noted in this report.