

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

REGION III

Report Nos: 50-440/81-11; 50-441/81-11

Docket Nos: 50-440; 50-441

License Nos: CPPR-148; CPPR-149

Licensee: Cleveland Electric Illuminating Company  
P.O. Box 5000  
Cleveland, OH 44101

Facility Name: Perry Nuclear Power Plant, Units 1 and 2

Inspection At: Perry Site, Perry, OH

Inspection Conducted: May 2-7 and June 1-30, 1981

Inspector: *J. Hughes*  
J. Hughes

7/14/81

Approved By: *R. F. Warnick*  
R. F. Warnick, Chief  
Reactor Projects Section 2B

7/30/81

Inspection Summary

Inspection on May 2-7 and June 1-30, 1981 (Report No. 50-440/81-11; 50-441/81-11)  
Areas Inspected: Routine inspection by the IE Regional Resident Inspector of safety related construction activities, including followup on previously identified unresolved items; followup on 50.55(e) report; plant tours (independent inspection); observation of containment dome installation (Unit 1); observation of welding activities of containment dome (Unit 1); observation of welding and documentation for safety related piping (Unit 1); observation of installation of intake structure (Unit 2); and observation of installed instrumentation (Unit 1). This inspection involved 141 inspector hours onsite by one NRC inspector including 30 inspector hours onsite during off-shifts.  
Results: No items of non-compliance or deviations were identified.

## DETAILS

### 1. Persons Contacted

#### a. CEI

- \*M. Edelman, Manager, Nuclear Engineering Department
- \*R. Farrell, Manager, Nuclear QA Department
- \*P. Martin, General Supervising Engineer, Training & Administration
- \*W. Kacer, General Supervising Engineer, CQS
- \*R. Vondrasek, General Supervising Engineer, PQS
- \*G. Leidich, QA Supervisor, CQS
- K. Combs, Engineering Aide, CQS
- S. Tulk, Lead Electrical Quality Engineer, CQS
- H. Walls, Nondestructive Examination, Level III

#### b. Other Contractors Personnel

- R. Matthys, CQS Quality Engineer (GAI)
- J. Anulies, QA Manager (PBI)
- J. Abson, CQC QC Mechanical Inspector (KEI)
- B. Ware, CQS Quality Engineer (GAI)

The inspector also contacted and interviewed other licensee and contractor personnel during this reporting period.

\*Denotes those attending at least one of the exit meetings.

### 2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (440/81-03-01): Possibility of intergranular stress corrosion cracking between field welds. The RI visually inspected field welds no. 03 and no. 05 located in the Fuel Pool Cooling and Cleanup System. These welds were associated with small lengths of pipe added to the spools to correct a condition originally identified in Pullman Power Products (PPP) Fab Shop. Field welds were installed in accordance with ISO drawing 1G41-33 and PPP weld process sheet. The inspector determined that the above-mentioned welds had not been sensitized by the welding process. This item is closed.

### 3. Licensee Action on Other Items - Units 1 and 2

(Closed) 10CFR50.55(e) Report, Subject: "Deficiency concerning Class "A" backfill around safety related piping in Emergency Service Water System." The RI reviewed documentation pertaining to inadequate compaction of Class "A" backfill evident from failing in-place density tests and settling of individual pipes below design elevation. Data included the Design Engineer's stress analysis, survey of entire length of pipe, nonconformance reports, and Corrective Action Report. Based upon the review of all data, the inspector determined that no buckling failure or significant distortion had occurred. Also, in the low areas the backfill was removed and replaced around the pipes. The inspector has no further questions on this subject.

(Closed) 10CFR50.55(e) Report and Comsip, Inc. Part 21 Report, Subject: "Deficiency concerning Post-LOCA H<sub>2</sub> Analyzers." During a functional testing of one unit by Comsip, Inc., a pump failed because one of the panel

outlet valves was closed when the pump was started, which caused the pump to become over-pressurized. To correct this malfunction, the manufacturer installed a check/relief valve to bypass the pump when the pressure exceeds 100 psi. The RI observed the installed check/relief valve in Post-LOCA H<sub>2</sub> Analyzer Cabinets 1H51-P00-22A and 22B, 2H51-P00-22A and 22B and determined that they were installed in accordance with Comsip, Inc. drawing number 063720, revision 5. The inspector has no further questions on this subject.

(Closed) 10CFR50.55(e) Report, Subject: "Deficiency concerning breakdown in the quality program for the nuclear coatings contractor, Metalweld, Inc." This deficiency report by the licensee pertains to a regional inspection conducted during the week of January 21-23, 1981, which resulted in an Immediate Action Letter (IAL) dated January 28, 1981 from the Region III Director. The Resident Inspector observed and reviewed the licensee corrective action to resolve the IAL and documented the review in NRC IE Inspection Report no. 440/81-05 and 441/81-05. On February 13, 1981, RIII released the Stop Work Order for the nuclear coatings contractor. The licensee released a partial stop work release for Class I coatings only. The licensee had not reviewed the contractor's program for Class II concrete and steel substrata for the Perry site. After completion of licensee Corrective Action Request #0504, a full stop work release was issued April 29, 1981. The RI reviewed the corrective action by the licensee and nuclear coatings contractor and determined that the corrective actions taken by the licensee and contractor are satisfactory. This item is closed.

4. Functional or Program Areas Inspected - Units 1 & 2 (Independent Inspection)

One or more plant areas were toured several times during this reporting period to observe general construction activities.

Three tours were made on off shift.

No items of noncompliance or deviations were identified.

5. Observation of Containment Dome Installation (Unit 1)

The inspector observed the installation activities for the Unit 1 containment dome lift.

- a. The inspector observed the positioning/preparing of Transi Lift Crane (Lampson) for proper attachments to the dome in accordance with Newport News Industrial Corporation (NNIC) procedure 701-F-S014, revision B.
- b. Lifting of dome and verification of proper attachment by lifting dome off pad was observed by RI. Surveyors checked the circularity of the dome and levelness.
- c. The inspector observed the lifting, transporting and setting of the Unit 1 containment dome lift performed by NNIC procedure 701-F-S014, revision B. All parameters were observed and all requirements of the procedure were met. The dome was set on the containment shield wall.

- d. The inspector witnessed a 360° placement and fit-up by NNIC and CQC inspectors. Results of the dome lift and placement were satisfactory.

No items of noncompliance or deviations were identified.

6. Containment Dome - Observation of Welding Activities - Unit 1

During this reporting period, the RI observed the welding activities for welding of the containment dome to the shield wall and verified the following: installation drawing 249910, revision A101 was current; welding procedures 701-F-W002 and 465-NC-W001 were being adhered to; NNIC Quality Control Inspectors were doing visual inspections in accordance with procedure 701-N-N003, revision A; and, radiographs (RT) were being performed in accordance with NNIC's procedure 465-NC-N002, revision C.

No items of noncompliance or deviations were identified.

7. Safety Related Piping - Observation of Work and Work Activities - Unit 1

The inspector observed the following partially completed and completed welding activities (PPP):

- a. Feedwater System Weld No. 14 on Isometric No. 1-N27-1, revision 8.
- b. Feedwater System Weld No. 18 on Isometric No. 1-N27-2, revision 5.
- c. Feedwater System Weld No. 14 on Isometric No. 1-N27-3, revision 8A.
- d. Residual Heat Removal System Weld No. 07 on Isometric No. 1-E12-28, revision 4.
- e. Residual Heat Removal System Weld No. 06 on Isometric No. 1-E12-48, revision 8A.
- f. Residual Heat Removal System Weld No. 01 on Isometric No. 1-E12-41, revision 7.
- g. Reactor Water Clean Up System Weld No. 94 on Isometric No. 1-G36-4, revision 3.
- h. Reactor Water Clean Up System Weld No. 03 on Isometric No. 1-G36-1, revision 2.
- i. Reactor Water Clean Up System Weld No. 01 on Isometric No. 1-G36-7, revision 2.

It was determined that, (1) work was conducted in accordance with PPP weld process sheets; (2) proper welding materials were used; (3) welding procedure requirements were met; (4) the work area was free of weld rod stubs; and, (5) physical appearance was acceptable.

No items of noncompliance or deviations were identified.

8. Observation of Water Intake Structure - Unit 2

The inspector observed the installation of Unit 2 water intake structure and underwater concreting. During the installation of the intake structure, the inspector observed the testing and placement activities of the concrete pour and determined that S & M Constructors, Inc. procedures WP No. 9, revision 2, "Installation of Two Intake Structures"; WP-10, revision 0, "Tremie Concrete Pumping" and QCP-109, revision 0, "Inspection of Installing Two Off-Shore Intake Structures" were being adhered to. The review of documentation of the above-mentioned operation appears to be satisfactory in accordance with procedures and specifications.

No items of noncompliance or deviations were identified.

9. Observation of Instrumentation Work and Work Activities - Unit 1

The inspector observed work of partially completed and completed safety related instruments installed on Unit 1 condensate storage tank.

During the inspection, the RI observed that level transmitters 1E51-N035E and 1E51-N035A had metal identification tags attached, which indicated that the items were to be used on another project; i.e., Limerick, etc. Upon questioning the licensee representative (QA), the inspector was notified that a nonconformance report (NR) was being generated to identify several instruments supplied by General Electric were of this nature. The RI will monitor the progress of the licensee NR.

No items of noncompliance or deviations were identified.

10. Other Areas Inspected

The RI verified that the licensee has all necessary information (Dikkers Instruction Manual G471-6/125.04:10) on the installation, maintenance and operations of Dikkers Class I Safety Relief Valves. The inspector reviewed General Electric letter to Cleveland Electric Illuminating Co. dated May 28, 1981 which states in part, "liquidation of Dikkers Company will not impede our ability to provide any warranty services required for these valves under our NSSS contract. GE bought ownership of valve design and rights to manufacture to these designs."

The RI attended pre-hearing conference June 2-3, 1981 in Painesville, Ohio held by the Atomic Safety and Licensing Board for the operating license hearings of the Perry Nuclear Power Plant.

No items of noncompliance or deviations were identified.

Exit Meetings

The inspector met with licensee representatives (denoted in Persons Contacted) on May 7, June 5, 12, 19 and 26, 1981.