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

REGION III

Report No. 50-440/80-05; 50-441/80-05

Docket No. 50-440; 50-441 License No. CPPR-148; CPPR-149

Licensee: Cleveland Electric Illuminating Company
Post Office Box 5000
Cleveland, Ohio 44101

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

Inspection At: Perry Site, Perry, Ohio

Inspection Conducted: March 31, and April 1, 1980

Inspector: K. D. Ward 4/18/80

Approved By: D. H. Danielson, Chief 4/18/80
Engineering Support Section 2

Inspection Summary

Inspection of March 31, and April 1, 1980 (Report No. 50-440/80-05; 50-441/80-05)
Areas Inspected: Reviewed radiographs of safety relief valves. The inspection involved a total of six on-site inspection hours by one NRC inspector.
Results: No items of noncompliance or deviation were identified.

DETAILS

Persons Contacted

Cleveland Electric Illuminating Company (CEI)

M. Edelman, Manager, Quality Assurance
W. Kacer, General Supervisor Engineer - CQS
B. Barkley, General Supervisor Engineer - NDS
P. Mansin, PQS General Supervisor Engineer
R. Vondrasek, CQE Supervisor
H. Patre, Sr. Engineer, NSSS
P. Nichols, Responsible Engineer
H. Walls, Sr. NDE Administrator (Level III)

Gilbert Associates Incorporated (GAI)

R. Matthys, CQE

Kaiser Engineers Incorporated (KAI)

P. Gibson, CQC Supervisor

All the above were present at the exit interview.

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

Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (440/79-06-01; 441/79-06-01) - Previous experience not documented for J. Gester. The inspector reviewed the experience of J. Gester in accordance with SNT-TC-1A which is located on site.

(Closed) Unresolved Item (440/79-06-02; 441/79-06-02) - Verification of radiographic step wedge. The densities of the steps of the lab's film density step wedge No. 12654 was compared with those of a National Bureau of Standards No. 1008 step wedge by means of an X-Rite Company Model 301 Densitometer that conforms to conditions specified in American National Standards Diffuse Transmission Density - A.N.S.I. PH2.19-1976.

(Closed) Noncompliance (440/79-06-03; 441/79-06-03) - Qualification of liquid penetrant procedures down to 40°F - The Liquid Penetrant Examination Procedure 465-NC-N003, Revision 3, has been qualified to a temperature of 40°F in accordance with ASME Section V, 1974 Edition, Summer 1975 Addenda and Liquid Penetrant Inspection Procedure 948-N-N004, Revision C, has been qualified to a temperature of 40°F in accordance with ASTM E165-75.

Functional or Program Areas Inspected

Review of Safety Relief Valve Radiographs

On site there are 20 valves with approximately 80 films per valve. The valves were to have been radiographed in accordance with ASME Section III, 1974 Edition, Winter 1976 Addenda, and Dikkers Radiographic Procedure EB-0940101, Revision 6, approved by G.E. June 21, 1977. The radiography was performed by G. Dikkers and Company, N.V. in Hengelo, Netherlands.

CEI requested a formal review of the radiographs by GAI. Two Level II and one Level III of GAI and two Level III of CEI reviewed all radiographs 100% on 5 valves. One Level III of CEI present while the RIII inspector was on site informed the inspector that their findings were basically the same as his on all 5 valves and that they did not meet the Code. The procedure and shooting sketch for performing the radiography was not on site.

The inspector reviewed radiographs of the following assemblies and found discrepancies in approximately 25% of the radiographs reviewed as stated below:

Assy. No. 160846
Body No. 13.45.7/3

Assy. No. 160849
Body No. 13.46.7/5

Assy. No. 160847
Body No. 15.04.8/3

Assy. No. 160856
Cap No. 03.06.8/2

Assy. No. 160856
Body No. 05.48.7/2

Assy. No. 160856
Liner No. 53.16.8/1

Assy. No. 160851
Disc 59.04.8/3B

Assy. No. 160851
Cover No. 55.46.7/3

Asssy. No. 16085.7
Cap No. 11.12.8/1

Assy. No. 160855
Liner No. 61.15.8/1

Assy. No. 160855
Disc 53.03.8/4A

Assy. No. 160854
Body No. 12.04.8/1

Assy. No. 160854
Disc 55.018/1.A

Assy. No. 160858
Body No. 05.48.7/4

Assy. No. 160858
Cap No. 12.27/8/3

Assy. No. 160853
Cap No. 03.24.8/1

. Density down to 0.6 and up to 6.0 plus.

- The -15+30% density requirements were not met. (G.E. also agreed that items 1. and 2. were found in the radiographs and did not meet the Code).

- Areas were not masked; therefore, the thin edges were burned out and could not be read.

- Because of where the location markers were located and the density, it was impossible to verify that the valves were radiographed 100%.

- In some areas, a small area approximately 4" x 4" would be radiographed with lead location markers, lead ID markers, and the penetrameters all in the area of interest, although there would have been room to locate all the information on a block adjacent to the piece which would have helped mask the area of interest.

- There were areas where the penetrameters were larger than the original size because of the unacceptable geometic unsharpness.

- Some areas had a penetrameter in a radiograph that was smaller than required, indicating that the penetrameters were film side penetrameters, and there was no lead "F" identifying that the penetrameter was really film side.

- There were several artifacts, scratches, dents, crimps, etc.

- Although films were missing not covering certain areas of interest, the Dikkers reader sheet stated that area of interest was acceptable.

- When errors were made on the identification of the radiograph, a grease pencil was used to mark out the mistake which could be removed very easily.

- There were repairs made but there were no original radiographs or a record of repairs made.

A meeting was held April 3, 1980, at the NRC Headquarters in Bethesda, Maryland between GE and NRC to discuss the radiographs of the Dikkers safety relief valve castings. The licensee informed the personnel present that 80% of the radiographs of the 5 valves were readable.

At the conclusion of the meeting, the NRC informed the personnel present that each licensee would have to supply to NRR a report justifying the acceptability of each valve.

This is an unresolved item pending review by NRR (50-440/80-05-01; 50-441/80-05-01).

No items of noncompliance or deviations were identified.

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. An unresolved item diclosed during the inspection is discussed in this report.

Exit Interview

The inspector met with site representatives at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection noted in the report.