

U. S. NUCLEAR REGULATORY COMMISSION
Region I

Report No. 50-220/83-07

Docket No. 50-220

License No. DPR-63

Priority --

Category C

Licensee: Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, New York

Facility Name: Nine Mile Point No. 1

Inspection At: Oswego, New York

Inspection Conducted: March 16-25, 1983

Inspectors: *H. W. Kerch*
H. W. Kerch, Lead Reactor Engineer

4/12/83
date signed

Richard H. Harris
Richard Harris, Engineering Technician

4/12/83
date signed

Approved: *Jacques P. Durr*
Jacques P. Durr, Chief, Materials and
Processes Section

4/14/83
date signed

Inspection Summary: Inspection on March 16-25, 1983 (Report No. 50-220/83-07)

Areas Inspected: A routine, announced NRC independent measurements inspection associated with repair of the recirculation loop piping. The inspection was performed using the NRC Mobile Non-Destructive Examination (NDE) Van and two Region I based personnel assisted by two NRC subcontracted NDE personnel. The inspection involved 388 onsite hours and 160 offsite hours. The purpose of this inspection was to verify the adequacy of the licensee's welding quality control and NDE program. A representative sample of the piping welds were re-examined in accordance with NRC procedures, applicable codes and standards.

Results: No violations were identified.

DETAILS

1. Persons Contacted

- *Tom Perkins, General Superintendent
- *Tom Roman, Station Superintendent
- *Gary Leskin, QC Engineer
- *Greg Gresock, Project Manager

NRC Personnel

- *Steven D. Hudson, Senior Resident Inspector
- *Richard H. Harris, Engineer Technician

*indicates those present at the exit meeting on March 24, 1983.

2. Recirculation System Radiographic Inspection

Five stainless steel pipe weldments, 28 inches in diameter were radiographed using an Iridium 192 source per NRC Procedure NDE-5, Revision 0.

Radiographs and weldments were identified as follows: FW135-7, FW15S-7, FW155-8, FW15D-6, and FW12D-5.

Radiographs for weld FW15D-6 revealed an elongated indication at the edge of the weld root which required further evaluation. The licensee's radiographs did not show the elongated indication to be as severe as depicted on the NRC radiographs. The licensee performed an additional examination (ultrasonic inspection) that verified this elongated indication was an acceptable pipe mismatch condition.

The NRC inspector concurs with the findings based on the results of the supplemental examination. The five welds examined meet the applicable code requirements and no violations were identified.

3. Recirculation System Ultrasonic Inspection

Two Stainless Steel pipe weldments 28 inches in diameter and adjacent base metal were ultrasonically examined per NRC Procedure NDE-1, Revision 0 and related section of those approved procedures used by the utility. The results of the examination verified that the welds are acceptable and comply with the above referenced procedures.

4. QC Records Review

Ultrasonic and radiographic weldment records were reviewed to verify compliance with ASME III Code and regulatory requirements. The following weldment records were examined:

Ultrasonic

FW14D-4

FW14S-4

Radiographic

FW12D-5

FW1S-7

FW15S-7

FW15S-8

FW15D-6

Two sources were used onsite for radiography, one was a .1" x .1" (.141" effective focal spot), 100 curie, Iridium 192 source and the other a .1" x .2" (.223" effective focal spot), 200 curie, Iridium 192 source. All radiographic reader sheets indicate that the .1" x .1", 100 curie source was used. However, it has been established that the .1" x .2", 200 curie source was used on some of the radiographs. The radiograph acceptance must be based on the source used (i.e., geometric unsharpness). This item is unresolved pending correction of radiographic reader sheets and re-evaluation of acceptability. (220/83-07-01)

5. Reverification of Radiographic Examination

The inspector reinterpreted the licensee's radiographs to verify the adequacy of the licensee's radiography program at this facility.

Twenty-two welds were radiographically reinterpreted. These piping welds had been accepted by the licensee. The welds selected by the NRC for reinterpretation were field and shop welds.

The inspector's review revealed that the five Tee's manufactured by Crane Midwest Fittings were radiographed with a material thickness of 2" thick. Crane machined the ends of the Tee's for a weld prep of 1" material thickness. Existing radiographic reports do not provide proper ASME indication acceptance standard for the 1" weld prep. Site field weld radiographs cover part of the machined 1" weld prep, the 60° taper has not been adequately interpreted to ASME acceptance standard for the finished material thickness. Site NDE Level III personnel have reinterpreted all involved radiographs to the appropriate ASME material thickness acceptance standards, and have issued a NDE report with no rejectable indications. The inspector concurred with the corrective action and has no further concerns.

No violations were identified.

6. Exit Interview

An exit interview was held on March 24, 1983, with members of the licensee's staff. The inspector summarized the purpose, scope of the inspection and the findings.