

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

Region I

Report No. 79-07

Docket No. 50-410

License No. CPPR-112 Priority -- Category A

Licensee: Niagara Mohawk Power Corporation

300 Erie Boulevard, West

Syracuse, New York 13202

Facility Name: Nine Mile Point Nuclear Station, Unit 2

Inspection at: Scriba, New York

Inspection conducted: October 9-12, 1979

Inspectors: *A.C. Cerne*
A.C. Cerne, Reactor Inspector

Oct 31, 1979
date signed

A.E. Finkel
A.E. Finkel, Reactor Inspector

Oct 31, 1979
date signed

Approved by: *J.E. Tripp*
for W. McGaughy, Chief, Construction-
Projects Section, RC&ES Branch

date signed
11/1/79
date signed

Inspection Summary:
Inspection on October 9-12, 1979 (Report No. 50-410/79-07)
Areas Inspected: Routine, unannounced inspection by regional based inspectors, of electrical procedures and instructions; downcomer installation and records; audits; the GE safety relief valve status; and a review of the status of outstanding items. The inspection involved 48 inspector-hours onsite by two regional based inspectors.
Results: No items of noncompliance were identified.



DETAILS

1. Persons Contacted

Niagara Mohawk Power Corporation

- *S. E. Czuba, QA Engineer
- J. L. Dillon, QA Engineer
- *L. G. Fenton, QA Engineer (Syracuse)
- *C. G. Honors, Construction Engineer
- *R. A. Norman, Senior Site QA Representative
- *R. L. Patch, QA Technician

Stone and Webster Engineering Corporation (S&W)

- P. Barbadora, QC Engineer
- T. Britt, Senior QC Engineer
- *B. F. Gallagher, Senior Resident Engineer
- *C. E. Gay, Superintendent of Field QC
- E. Magilley, Senior QC Engineer
- M. Matthews, Assistant Superintendent of Field QC
- *M. G. Pace, Assistant Project QA Manager
- *J. E. Rogers, Chief Office Engineer
- *L. E. Shea, Head, Site Engineering Office
- J. Taylor, Senior QC Engineer

ITT Grinnell Corporation (Grinnell)

- R. Graiko, Project Engineer
- D. R. Giguere, Field QC Manager

Cives Corporation

- P. Dowe, Field Superintendent, Miscellaneous Steel Erection

* Denotes those present at the exit interview.

The inspector also interviewed other licensee and contractor employees during the inspection.



2. Plant Tour

The inspector observed work activities in-progress, completed work and plant status in several areas of the plant during general inspection of the plant. The inspector examined work for any obvious defects or noncompliance with regulatory requirements or license conditions. Particular note was taken of presence of quality control inspectors and quality control evidence such as inspection records, material identification, nonconforming material identification, housekeeping and equipment preservation. The inspector interviewed craft personnel, supervision, and quality inspection personnel as such personnel were available in the work areas.

The inspector witnessed the preparation and firing of "B" type cadweld splices to the drywell containment liner and observed the condition and status of the stainless structural steel and connections in the wetwell. He later discussed the torquing requirements and inspection criteria for this structural steel erection with the responsible QA and QC engineers.

No items of noncompliance were identified.

3. Downcomer Installation and Material Certification

- a. The inspector observed the overall condition and methods of protection of the installed downcomers. Particular note was made of material type, stud and plate dimensions, and weld sizes and acceptability. These items were checked against the applicable portions of Dravo Corporation drawings E-3133-DPB and DPC, both Revision 3, and S&W drawing EV-79A-3.

The following Grinnell installation documents for one downcomer (Mark DPC-1) were reviewed to verify that inspection criteria were consistent with engineering requirements:

- Inspection Reports IP 55 and IP 56, both May 8, 1979.
- Field Planner and Control Reports, FP 57M, April 30, 1979 and FP 60M, May 1, 1979.



- QA and QC Deviation Report, 395, closed May 14, 1979.
- Welding Procedure Specification (WPS) 8-1-7-7 (September 26, 1977) with Procedure Qualification Records (PQR) 14532 (July 23, 1976) and T-19658-A (April 4, 1977).

A material certificate for the E308L electrodes (heat 782823, lot 54971) used in the downcomer installation field tack welding process was checked for compliance with the delta ferrite test requirements of S&W Specification P301Y and Regulatory Guide 1.31, Revision 1.

No items of noncompliance were identified.

- b. The following S&W downcomer receipt records for Mark Numbers DPC-1, 2, 4, and 8 were reviewed and evaluated for compliance with the technical requirements of S&W Specification P301Y with Addenda 1-4; the receiving inspection requirements of S&W Quality Assurance Directive, QAD-7.7, Revision A and Attribute List D7.7-8142; and the specific stud weld inspection criteria of S&W Nonconformance and Disposition Report, N&D 1286, closed May 15, 1978.

- S&W Material Receiving Report, MRR 79-0987 for January 24, 1979.
- S&W Quality Assurance Inspection Report for the shop inspection of Dravo on January 26, 1979.
- S&W Certificate of Compliance, January 23, 1979.
- S&W Quality Control Inspection Report QCIR P9001203, January 26, 1979.

Two Dravo stud welding procedures (WPS 1-1-S7010-A5, Revision 1 and 1-1/8-H0100-E7, Revision 1) used in the downcomer fabrication process were qualified with Procedure Qualification Records for which the inspector verified adherence to Section IX of the applicable edition of the ASME Boiler and Pressure Vessel Code with respect to the specified essential variables. The inspector also spot checked downcomer (Mark DPC-1) mill test reports for the required solution annealing of stainless steel material and reviewed the Dravo NPP-1 Data Report, dated January 15, 1979.

No items of noncompliance were identified.



4. Audit Program

The inspector reviewed the most recent S&W Audit Reports (NM2-C1, June 1, 1979 and NM2-C3, August 10, 1979) of ITT Grinnell Industrial Piping, Inc. and spot checked various S&W Quality Control Inspection Reports covering "Piping Surveillance" of the downcomer installation. He verified that the "QA Activities" section of the S&W Monthly Project Report met the intent of the PSAR commitment regarding reporting of audit activities to the licensee. QA and QC personnel were interviewed regarding the conduct and scheduling of audits with regard to other PSAR commitments.

The above items were evaluated against criteria established in the S&W QA Program, Sections 2 (Revision C) and 18 (Revision D); S&W Quality Standard QS-18.1 (Revision A) with Change 1; and S&W Quality Assurance Directive QAD-18.1 (Revision B).

No items of noncompliance were identified.

5. Electrical Procedures and Instructions

The inspector ascertained that procedures and instructions are in the process of being written to handle the safety-related electrical equipment in the areas of:

- Receipt Inspection, Handling and Storage,
- Installation,
- Material and Component Identification,
- Inspection and Construction Testing,
- Relay Coordination Study.

a. Receipt Inspection, Handling and Storage

The inspector verified that the licensee's procedures require that safety-related items be verified in conformance with listed purchase specifications. Storage and handling procedures with regard to specific cleanliness and maintenance criteria are required. The following procedures and specifications were reviewed by the inspector:



- Receiving Inspection - General - S&W Quality Assurance Directive (QAD-7.7, Revision A, December 28, 1977.)
- Mechanical Equipment Erection - Grinnell Specification NMP2-P275C, Addendum 1, May 25, 1979.
- Electrical Installation - S&W Specification E061A, Revision 1, February 7, 1979.

b. Installation

The inspector reviewed the following listed procedures to ascertain that instructions have been issued which reflect the PSAR commitments. The listed Quality Assurance Inspection Plans (QAIP's) detail the installation inspection criteria:

- Tray Installation - N2-OE061A-002, Revision 2, May 23, 1979.
- Field Inspections of Metallic Conduit Installations - N2-OE061A-003, Revision 1, June 5, 1979.
- Manholes, Handholes and Duct Lines - N2-OE061A-004, Revision 2, March 20, 1979.
- Field Inspection of Richmond Anchors Installation -N2-OE061A-006, Revision 2, July 2, 1979.
- Field Inspection of Sills for Electrical Equipment -N2-OE061A-007, Revision 1, March 20, 1979.
- Field Raceway Supports (Hangers) Inspection - N2-OE061A-008, Revision 1, May 17, 1979.
- Field Verification of Construction Crimp Tool Program - N2-OE061A-030, Revision 1, March 20, 1979.
- Field Unscheduled Cable Installation - N2-OE061A-035, Revision 1, July 20, 1979.



c. Material and Component Identification

The inspector verified that both S&W QAD-7.7 and Grinnell Specification NMP2-P275C identify requirements, from receipt to installation, of the safety-related items. Nonconforming items are identified and processed through procedures listed in the S&W and ITT quality reporting systems.

d. Inspection and Construction Testing

The inspector verified that specific electrical test requirements are defined in the Electrical Installation Specification (E061A) and other equipment specifications. The inspector reviewed the equipment specifications for the Standby Diesel Generator - NMP2-E31A, Addendum 3, January 18, 1978. The requirements referred in the PSAR were included in this specification. The verification that the purchase order reflects the specification requirements for the diesel generator will be reviewed during a later inspection, since this documentation was not at the site at this time.

e. Relay Coordinator Study

The safety-related portions of the facility onsite AC power system was discussed with the licensee. The protective devices and methods to be used by the licensee will be verified during a later inspection.

For the above-referred items, no items of noncompliance were identified.

6. Electrical Cables and Terminations

The inspector ascertained that the PSAR commitments on electrical requirements for cables and terminations have been addressed in the following type of specifications: procurement, storage, installation, inspection, identification, testing, separation, load requirements, fire, and change control.



S&W Specification E061A and Grinnell Specification NMP2-P275C define the requirements for electrical equipment. The environmental requirements are defined in Specification E061A and the applicable orders.

Electrical Construction and inspection procedures are in the process of being prepared, but the inspector did review the issued procedures as listed in paragraph 5b, above.

No items of noncompliance were identified.

7. Rigging and Handling Procedures

The inspector reviewed the licensee's Rigging and Handling Procedures for the site. The licensee's procedure identified detailed handling instructions for equipment by weight classification, but not as to the safety classification. The inspector indicated that the procedures should identify the specific acceptance criteria required by ANSI N45.2.2 for the handling of applicable safety related equipment.

This matter is considered to be unresolved (410/79-07-01).

8. Cable Splices

S&W Electrical Installation Specification E061A, Revision 1, appears to allow cable splices during installation. It does not define limitations on use and location of these splices, particularly with regard to the PSAR commitment that splices will not be allowed in cable trays.

This matter is considered to be unresolved (410/79-07-02).

9. Specification Review

Line 1935 of S&W Specification E061A requires that when the temperature is less than 149F, cable at this temperature shall not be pulled for 3 days, while it warms to room temperature. The inspection criteria in QAIP N2-OE061A-035, Revision 2, states that after 24 hours in a heated area, the cable can be pulled.

This matter is considered to be unresolved pending resolution of this conflict between engineering and inspection criteria (410/79-07-03).



10. Safety Relief Valve Status

The inspector inquired as to status of the GE safety relief valves manufactured by G. Dikkers and Co., which had been identified by the NRC Region IV Vendor Inspection Branch (VIB) as possibly having radiographic film with a density below minimum code requirements. The licensee indicated that the 18 valves presently onsite have been placed in "Reject" status, while the nine spare valves remaining in Dikkers' shop have been re-shot without finding any unacceptable indications.

Representatives of GE have informed the licensee that they believe the existing films can be interpreted despite the questionable density. The licensee is currently awaiting GE's recommendations before deciding upon further action.

Pending the licensee's decision on the course of action with regard to the relief valves onsite and pending any further NRC Vendor Inspection Branch resolution as to the acceptability of these valves, this item is unresolved (410/79-07-04).

11. 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. Unresolved items disclosed during the inspection are discussed in paragraphs 7, 8, 9 and 10.

12. Exit Interview

At the conclusion of the inspection on October 12, 1979, a meeting was held at the Nine Mile Point Unit 2 site with representatives of the licensee. Attendees at this meeting included personnel whose names are indicated by notation (*) in paragraph 1. The inspector summarized the results of the inspection as described in this report.

