

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

Region I

Report No. 50-410/78-09

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 and Syracuse, New York

Inspection conducted: October 30 - November 2, 1978

Inspectors: Lewis Narrow  
L. Narrow, Reactor Inspector

11/17/78  
date signed

A. A. Varela  
A. A. Varela, Reactor Inspector

Nov 15 1978  
date signed

R. W. McGaughy, Chief, Construction Projects  
Section, RC&ES Branch

\_\_\_\_\_  
date signed

Approved by: R. W. McGaughy  
R. W. McGaughy, Chief, Construction  
Projects Section, RC & ES Branch

November 20, 1978  
date signed

Inspection Summary:

Inspection on October 30 - November 2, 1978 (Report No. 50-410/78-09)

Areas Inspected: Routine, unannounced inspection by regional based inspectors, of preplacement preparation, mixing, placing and testing of concrete; review of records and procedures for storage and preventive maintenance of equipment; review of revised Quality Standard; and review of the status of outstanding items. The inspection involved 50 inspector-hours on site by two NRC regional-based inspectors and seven hours onsite by a supervisor.

Results: No items of noncompliance were identified.

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## DETAILS

### 1. Persons Contacted

#### Niagara Mohawk Power Corporation

- \*S. H. Haybrook, Senior Site Construction Representative
- \*C. G. Honors, QA Engineer
- \*C. D. Terry, Senior Site QA Representative
- \*K. D. Ward, QA Engineer

#### Stone and Webster Engineering Corporation

- \*B. W. Gatlin, Superintendent Field QC
- \*C. E. Gay, Assistant Superintendent, Field QC
- \*J. E. Rogers, Chief Office Engineer
- W. Stone, Senior Field Engineer
- \*T. J. Vaughn, Assistant Superintendent, Field QC

#### Walsh Construction Company

- L. Allen, Craft Supervisor
- T. Rossi, Area Engineer

#### Northern Ready Mix Company

- M. McCormick, Batch Plant Superintendent

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

\*denotes those present at the exit interview.

### 2. Plant Tour

The inspectors made a tour of the site to observe work activities in progress, completed work and the status of construction. The inspector examined work items for any obvious defects or noncompliances with regulatory requirements and observed QC activities and evidence of quality control of the work. Specific activities observed by the inspectors included protection of Cadweld "B" sleeves on the B-7 containment liner (knuckle plate), storage of reinforcing steel and down comers, preparation for concrete placement for the reactor pedestal and primary containment wall, batch plant maintenance and concrete placement for a control building wall.

No items of noncompliance were identified.



### 3. Concrete Preplacement Preparation

The inspector observed preparatory work for concrete placement of primary wall, pour number 1-122-017 P, and the reactor pedestal, pour number 1-122-005 P. Inspection was made for conformance to criteria identified in the following:

- Nine Mile Point Station, Unit 2 PSAR, Appendix D and S & W's modified "Standard Nuclear Quality Assurance Program"
- Codes and Standards committed in PSAR sections on structures and concrete
- S&W Specifications No. S203H, S203A and S203C for Concrete Testing Services, Mixing and Delivering Concrete and Placing Concrete and Reinforcing Steel
- S&W Construction drawings No. EC-30 and EC-40 for the primary reactor building wall and the reactor pedestal wall.
- S&W Instructions and Procedures: QAD-9.1, 9.3, 10.2, 11.2, 11.3 and QS-10.3, 10.12 and 10.13

The inspector determined that work and inspection activities were accomplished according to applicable specifications codes, standards, drawings and procedures in the following areas:

- Forms - properly secured, tight and clean
- Rebar and Embedments - properly placed and clean
- Rebar Splicing - cadweld splices made by qualified operators and inspected by qualified QC personnel
- Cement Storage - adequately protected
- Aggregate Storage - adequate segregation and pile heights
- Inspection performed to meet specification requirements
- Prequalification and certification of concrete batch plant and concrete materials.

No items of noncompliance were identified.



#### 4. Concrete Placement

The inspector observed work and inspection activities associated with concrete placement of pour number 1-222-005P for the reactor pedestal wall on November 2, 1978. He determined that work and inspection activities were accomplished in conformance to criteria identified in paragraph 3 above for batch plant operation; and for delivery, testing and placement of the concrete.

- Accuracy of material and temperature control
- Generation and control of batch records
- Inspection accomplished by qualified inspection personnel for frequency and scope conforming to requirements
- Proper mix specified and delivered
- Duration of concrete mixing and transporting
- Pumped concrete through carbon steel pipelines
- Testing at end of pump line meets acceptance criteria, using calibrated equipment and concrete controlled for temperature
- Adequacy of placement location for temperature control
- Adequacy of placement crew, equipment and techniques was observed at start of placement and continued through one half of the placement
- Activities of construction supervisory personnel, field engineers and QC personnel in direction of the work and verification of conformance to drawing, specification and procedure requirements

No items of noncompliance were identified.

#### 5. Cleaning of Cadweld Sleeves

During the plant tour the inspector observed that the protective covers on some of the Calweld "B" sleeves attached to the containment liner knuckle plate were displaced and in some cases had been removed. Evidence of rust was observed on the interior of the sleeves.





Item 5 of the Vendors Catalogue Addenda provides a procedure for cleaning of rusty sleeves. However, addenda is not clearly identified in specifications as applicable to the work.

This item is unresolved pending clarification of the cleaning requirements. (78-09-01)

6. Quality Standard Revision

Quality Standard QS-14.2 "Inspection Report System" had been extensively revised by Revision C. The inspector reviewed this QS as well as QAD-14.1, Revision B "Inspection Report System/Preparation.

No items of noncompliance were identified.

7. Nonconformance and Disposition Reports

The inspector examined N & D reports which had been dispositioned for the period April 14, 1978 to October 19, 1978. The reports were found to be complete, legible and retrievable; corrective action required was specified and the proper approvals were shown. In addition the reports had been reviewed for reportability.

No items of noncompliance were identified.

8. Storage and Maintenance of Equipment

The inspector reviewed procedures and records of storage and maintenance of equipment and discussed a "Visirecord Card System" which is being implemented with the licensee's representative. This system will provide easier identification of the maintenance status of equipment as well as additional space for a description of maintenance requirements. Maintenance records are presently being transferred to the new cards and it is anticipated by the licensee that this system will be in use in the near future. The inspector reviewed the specification and records shown below:

- Specification SM01, dated June 29, 1978, "Storage and Maintenance During Storage of Permanent Plant Equipment
- Maintenance records for:
  - Motor Operated Valve No. 2 RCS-MOV-1DA
  - Diaphragm Control Valve No. 2 RDS-ADV-124
  - Seal Purge Flow Rotameter No. 2 RCS-F 13B
  - Condensate Pump No. 2 CNM-PIA



Glove Valve No. 2 WCS-V118

Low Frequency M-G Set No. 2 RCS-MG-1A

The inspector also observed storage conditions and equipment in storage in the warehouse.

During review of maintenance records for condensate pump No. 2 CNM-PIA the inspector observed that the Equipment Storage History card did not show that humidity indicators had been checked although Byron-Jackson Procedure No. 1403, "Recommended Handling and Storage Instruction for Long Term Outside Storage of Vertical Pumps" requires that they be checked every 30 days. This item is unresolved pending the determination as to whether this requirement had been deleted from the instruction. (78-09-02)

9. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (78-04-02): Cold weather concrete curing records. S & W's E & DCR's number P00449 and P00493 have emphasized and clarified specific requirements and underscored responsibility regarding construction and QC procedures to assure that concrete placed in cold weather will produce an amply strong and durable structure.

(Closed) Unresolved Item (78-07-01): Inadequate spacing of reinforcing steel in Screenwell base mat pour No. 5-310-025 P. S & W N & D report No. 0676 identified the problem, dispositions it and shows corrective action to have been taken.

10. Audits

The inspector examined S&W Audit Report No. 12 which was conducted August 14-18, 1978. This audit included; among other items, Mixing and delivering concrete; placing concrete and reinforcing steel; testing concrete; and material/equipment preventive maintenance and storage. The audit conformed to the audit plan and deficiencies identified were followed up for corrective actions.

No items of noncompliance were identified.

11. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, or items of noncompliance. Unresolved items disclosed during the inspection are discussed in Paragraphs 5 and 8.



12. Exit Interview

At the conclusion of the inspection on November 2, 1978, a meeting was held with representatives of the licensee. The inspector summarized the results of the inspection as described in this report.

