

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

Region I

Report No. 50-220/78-13

Docket No. 50-220

License No. DPR-63 Priority -- Category C

Licensee: Niagara Mohawk Power Corporation

300 Erie Boulevard West

Syracuse, New York 13202

Facility Name: Nine Mile Point Nuclear Station, Unit 1

Inspection at: Scriba, New York

Inspection conducted: September 5-8, 1978

Inspectors: W. H. Baunack, Reactor Inspector

9/21/78  
date signed

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

Approved by: H. B. Kister  
H. B. Kister, Chief, Nuclear Support  
Section No. 2, RO&NS Branch

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date signed  
9/21/78  
date signed

Inspection Summary:

Inspection on September 5-8, 1978 (Report No. 50-220/78-13)

Areas Inspected: Routine, unannounced inspection by a regional based inspector of licensee action on previous inspection findings; Administrative Control Of Safety Related Calibrations; Surveillance Calibrations of Safety Related Components and Equipment Required by Technical Specifications; Calibrations required by Technical Specifications of Components and equipment associated with Safety Related systems and/or functions; calibration and control of test equipment; witnessing of calibration; technician qualification; and facility tour. The inspection involved 23 inspector-hours on site by one NRC regional based inspector.

Results: Of the eight areas inspected, no items of noncompliance were found in seven areas; one apparent item of noncompliance (deficiency-failure to adhere to administrative procedure relating to control of test instruments-Paragraph 6) was identified in one area.



1988

## DETAILS

### 1. Persons Contacted

Mr. J. Duell, Chemistry and Radiation Protection Supervisor  
\*Mr. T. Perkins, Station Superintendent  
\*Mr. M. Silliman, Results Supervisor  
\*Mr. C. Stuart, Operations Supervisor  
\*Mr. B. Taylor, Instrument and Control Supervisor

The inspector also interviewed other Licensee employees, including members of the Technical Staff, I&C Personnel and Reactor Operators.

\*denotes those present at the exit interview.

### 2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (220/77-15-01), establishment of acceptance criteria for time sequencing of ECCS loads in surveillance procedure N1-ST-R2. The acceptance criteria has been added to procedure N1-ST-R2 and the surveillance test was satisfactorily performed on October 4, 1977.

(Closed) Unresolved Item (220/77-20-01), Determination of the design basis for setpoint values used in the recirculation flow unit upscale block and half scram settings. General electric the NSSS vendor, by letter dated April 6, 1978, provided the licensee with the design basis for the setpoints.

(Closed) Unresolved Item (220/77-20-02), Revision of procedure IC-26 to include a check of system status indicators following paragraph 5.2.17. The check of system status indicators has been included in the procedure by Revision 3, dated November 22, 1977.

(Closed) Noncompliance (220/77-20-03), The program to establish calibration procedures for instrumentation used to monitor system parameters to comply with safety limits, limiting conditions of operation and/or meet the surveillance requirements of the technical specifications was not complete. The licensee has issued SORC approved Instrument Calibration Procedures for a significant number of facility instruments required to be calibrated. Some instruments will be calibrated using generic procedures. Additional instruments will be added to the program as they are identified and /or required. A schedule has been prepared for calibration of all instruments identified by the Licensee as requiring calibration.



(Closed) Noncompliance (220/77-20-04), Instrument Maintenance Procedure (IMP) not properly performed or reviewed. The IMP procedure has been rewritten. The new procedure NI-ICP-60, includes step check-off and review signature. The procedure was performed on October 26, 1978 to recheck the Hi/Low alarm setpoints.

3. Administrative Control of Safety Related Calibrations

The inspector reviewed the licensee's administrative procedures relating to the performance of calibrations of safety related components as a basis for reviewing test procedures and calibration data sheets. The following procedures were reviewed.

- Procedure No. APN-1, Procedure for Administrative Controls, Revision 2, June 19, 1978.
- Procedure No. APN-5, Procedure for Control of Procedures, Instructions, and Orders, Revision 1, January 16, 1978.
- Procedure No. APN-6, Preparation of Procedures, Instructions, and Orders, Revision 1, July 3, 1978.
- Procedure No. APN-8, Test and Inspection Procedure, Revision 0, October 27, 1977.
- Procedure No. APN-15, Procedure for Control and Calibration of Equipment used in Tests and Inspection, Revision 1, February 24, 1978.

No items of noncompliance were identified.

4. Surveillance Calibrations of Safety Related Components and Equipment Required by Technical Specifications

- a. The inspector reviewed calibration procedures and associated data sheets on a sampling basis to verify the following:
  - Calibration frequency requirements have been met;
  - Applicable system status during component calibration was in conformance with the Technical Specification limiting conditions of operation;
  - Procedure format provided detailed stepwise instructions;
  - Procedure review and approval were as required by Technical Specifications;



- Trip points of calibrated components were in conformance with Technical Specification requirements; and,
  - Technical content of procedures was sufficient to result in satisfactory calibration.
- b. The following calibration procedures/data were selected for the above review.
- Procedure No. N1-ISP-RE-02, Reactor Low-Low Water Level Instrument Channel Test/Calibration, Revision 1, January 5, 1978. Data were reviewed for calibrations performed June 16, 1978, March 23, 1978, December 30, 1977, and October 8, 1977.
  - Procedure No. RE-18, Low-Low-Low Reactor Water Level Instrument Channel Test/Calibration, Revision 3, February 24, 1978. Data were reviewed for calibrations performed April 28, 1978, February 3, 1978, and November 10, 1977.
  - Procedure No. N1-ISP-IC-14, High Temperature Main Steam Line Area Instrument Channel Test/Calibration, Revision 1, January 24, 1978. Data were reviewed for calibrations performed May 13, 1977.
  - Procedure No. N1-ISP-02-13.1, Turbine Anticipatory Trip Low Oil Pressure Instrument Channel Calibration, Revision 3, December 21, 1977. Data were reviewed for calibrations performed June 17, 1978, May 27, 1978, April 22, 1978, March 24, 1978, February 25, 1978, and January 28, 1978.
  - Procedure No. N1-ISP-IC-7, Main Steam Line High Radiation Monitor Instrument Channel Calibration, Revision 1, May 5, 1976. Data were reviewed for calibrations performed May 1, 1978, February 9, 1978, November 2, 1977, August 11, 1977, and May 3, 1977.
  - Procedure No. N1-ISP-RE-22, Main Steam High Flow Instrument Channel Test/Calibration, Revision 3, October 3, 1977. Data were reviewed for calibrations performed June 2, 1978, March 10, 1978, December 16, 1977, and September 30, 1977.
  - Procedure No. N1-ISP-RE-04, High Drywell Pressure Instrument Channel Test/Calibration, Revision 2, October 26, 1977. Data were reviewed for calibrations performed June 29, 1978, April 1, 1978, January 6, 1978, and December 10, 1978.





c. Findings

The acceptance criteria specified in Procedure No. N1-ISP-IC-7, Main Steam Line High Radiation Monitor Instrument Channel Calibration does not identify the Technical Specification required set point of  $\leq 5$  times normal background. The licensee stated a procedure change will be written which will resolve this matter. This item will be reviewed during a future inspection.

5. Calibrations Required by Technical Specifications of Components and Equipment Associated with Safety Related Systems and/or Functions

- a. The inspector reviewed, on a sampling basis, the program established for calibration of components associated with safety related systems required by ANSI 18.7-1972. These components are used to monitor system parameters to comply with the safety limits, limiting conditions of operation, and/or meet the surveillance requirements of the Technical Specifications.

The following were verified:

- Specific requirements have been established for the calibrations including schedules and frequencies;
- Procedures have been reviewed and approved in accordance with the Technical Specifications, contain acceptance criteria consistent with the Technical Specifications, and contain detailed instructions commensurate with the complexity of the calibration; and,
- Technical content of procedures are adequate to perform a satisfactory calibration.

- b. The following components identified in facility surveillance test procedures were selected at random and the specific requirements established for their calibration were verified.

- Emergency Cooling System Shell Side Level. To be calibrated in accordance with procedure N1-ICP-60. Scheduled to be performed each operating cycle.
- Control Rod Drive System Accumulator Pressure. To be calibrated in accordance with N1-ICP-48. Scheduled to be performed each operating cycle.
- Control Rod Drive System Drive Water Pressure. To be calibrated using generic procedure N1-IMP-90.4. Scheduled to be performed each operating cycle.



- Fire Pump Strainer Delta Pressure not currently included in the program. However, steps have been taken to add this instrument to the calibration program.
- Emergency Ventilation System Flow. To be calibrated in accordance with N1-ICP-202. Scheduled to be performed each operating cycle.
- Core Spray Pump Flow. To be calibrated in accordance with N1-ICP-81. Scheduled to be performed each operating cycle.
- Control Rod Drive Pump Flow. To be calibrated using generic procedure N1-IMP-90.5. Scheduled to be performed each operating cycle.
- Feedwater Pump Discharge Pressure. To be calibrated in accordance with N1-ICP-HPCI. Scheduled to be performed each operating cycle.
- Raw Water Pumps Flow. To be calibrated using generic procedure N1-IMP-90.4. Scheduled to be performed each operating cycle.
- Containment Spray Pump Discharge Pressure. To be calibrated in accordance with N1-ICP-80. Scheduled to be performed each operating cycle.

The inspector noted that instruments associated with safety related systems which are required to be calibrated are generally calibrated in accordance with Instrument Calibration Procedures (ICP). Several instruments identified above are to be calibrated using generic Instrument Maintenance Procedures (IMP). Those instruments to be calibrated using ICP's are all included in a master schedule. The instruments to be calibrated using IMP's, though scheduled to be performed each operating cycle, have not yet been added to the master schedule. A licensee representative stated all instruments would be added to the master schedule.

No items of noncompliance were identified.

b. Calibration and Control of Test Equipment

The inspector reviewed the calibration and control of three pieces of test equipment used as standards in the calibration of components identified in Paragraph 4.



Results of the review indicated measuring and test equipment are being maintained as required by administrative procedure with the exception that the administratively required "Use Record" does not in all instances appear to be properly maintained.

Of the three instruments selected for review the use records associated with two of the instruments were not properly maintained. In one instance a calibration performed with the test instrument was not logged on its use record, and in another instance a calibration performed was logged on the wrong test instruments use record. On further review it was also noted one of two deadweight testers used as standards had no use record on file and the use record for the other deadweight tester had no entries logged.

The failure to adhere to written administrative procedures is contrary to the requirement of Technical Specification 6.8 and is considered to be an item of noncompliance at the deficiency level (220/78-13-01).

No deficiencies were identified in the storage of test instruments, however, it was noted that Administrative Procedure APN-15 did not specify test instrument storage.

#### 7. Inspector Witnessing of Calibration

The inspector witnessed the performance of the reactor low pressure instrument channel tests.

The tests were performed and data recorded as required by Instrument Surveillance Procedure N1-ISP-RE-23. The procedure was adequately detailed to assure performance of a satisfactory surveillance.

The inspector had no further questions in this area.

#### 8. Technician Qualifications

The inspector reviewed the qualification records of four currently assigned technicians having responsibility for calibration testing of safety related systems and components. This review was performed to verify that the individuals experience level and training were in accordance with ANSI N18.1, "Selection and Training of Nuclear Power Plant Personnel."

No items of noncompliance were identified.



9. Facility Tour

During the witnessing of the calibration discussed in Paragraph 8 portions of the turbine and reactor buildings were toured. During the tour, the inspector observed plant operations, housekeeping, radiation control measures, monitoring instrumentation, and controls for Technical Specification compliance. In addition, the inspector observed control room operations for control room manning, and facility operation in accordance with administrative and Technical Specification requirements.

No items of noncompliance were identified.

10. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on September 8, 1978. The inspector summarized the purpose and the scope of the inspection and the findings.

