

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No. 50-220/86-06
Docket No. 50-220
Category: C
Licensee: Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, New York 13202
Facility: Nine Mile Point Nuclear Station, Unit 1
Location: Scriba, New York
Dates: April 1 to May 18, 1986
Inspectors: S. D. Hudson, Senior Resident Inspector
C. S. Marschall, Resident Inspector

Reviewed by: G. W. Meyer
G. W. Meyer, Project Engineer

6/9/86
date

Approved by: J. C. Linville
for J. C. Linville, Chief, Reactor
Projects Section No.2C, DRP

6/5/86
date

Inspection Summary: Inspection on April 1, 198

Inspection on April 1, to May 18, 1986 (Report No. 50-220/86-06)

Areas Inspected: Routine inspection by the resident inspectors (134 hours).
Areas inspected included: operational safety verification, physical security,
plant tours, Licensee Event Reports, Emergency Notification System Reports,
refueling activities, safety system operability verifications, periodic and
special reports, and maintenance activities.

Results: No violations were identified.

DCS Nos. 50220-860308
50220-860401
50220-860402
50220-860409
50220-860415
50220-860422
50220-860502
50220-860505

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DETAILS

1. Persons Contacted

J. Aldrich, Superintendent, Operations
T. Roman, Station Superintendent

The inspectors also interviewed other licensee personnel during the course of the inspection including shift supervisors, administrative, operations, health physics, security, instrument and control, and contractor personnel.

2. Summary of Plant Activities

The plant was shutdown throughout the period for refueling and modifications. The fourteen week outage which began March 8, 1986 is currently scheduled for completion approximately June 20, 1986. Significant outage modifications include replacement of Emergency Condenser piping and steam supply isolation valves, replacement of the containment spray system heat exchangers, modifications to the Diesel Generator lube oil system, and replacement of the Source Range Monitor (SRM) and Intermediate Range Monitor (IRM) dry tubes.

3. Operational Safety Verification

a. Control Room Observation

Routinely throughout the inspection period, the inspectors independently verified plant parameters and equipment availability of engineered safeguard features. The following items were observed:

- Proper control room manning and access control;
- Adherence to approved procedures for ongoing activities;
- Proper valve and breaker alignment of safety systems and emergency power sources;
- Reactor control panel instrumentation and recorder traces;
- Reactor protection system instruments to determine that the required channels are operable;
- Stack gas monitor recorder traces;
- Core thermal limits; and
- Shift turnover.

b. Review of Logs and Operating Records

The inspectors reviewed the following logs and instructions:

- Control Room Log Book
- Station Shift Supervisor's Log Book
- Station Shift Supervisor's Instructions
- Reactor Operation Log Book



The logs and instructions were reviewed to:

- Obtain information on plant problems and operation;
- Detect changes and trends in performance;
- Detect possible conflicts with Technical Specifications or regulatory requirements;
- Assess the effectiveness of the communications provided by the logs and instructions; and
- Determine that the reporting requirements of Technical Specifications are met.

No violations were identified.

4. Observation of Physical Security

The inspectors made observations to verify that selected aspects of the plant's physical security system were in accordance with regulatory requirements, physical security plan and approved procedures. The following observations relating to physical security were made:

- The security force was properly manned and appeared capable of performing their assigned functions.
- Protected area barriers were intact - gates and doors closed and locked if not attended.
- Isolation zones were free of visual obstructions and objects that could aid an intruder in penetrating the protected area.
- Persons and packages were checked prior to entry into the protected area.
- Vehicles were properly authorized, searched and escorted or controlled within the protected area.
- Persons within the protected area displayed photo badges, persons in vital areas were properly authorized, and persons requiring an escort were properly escorted.
- Compensatory measures were implemented during periods of equipment failure.

No violations were identified.

5. Plant Tours

During the inspection period, the inspectors made frequent tours of plant areas to make an independent assessment of equipment conditions, radiological conditions, safety and adherence to regulatory requirements. The following areas were among those inspected:

- Turbine Building
- Auxiliary Control Room
- Vital Switchgear Rooms
- Cable Spreading Room



- Diesel Generator Rooms
- Reactor Building

The following items were observed or verified:

a. Fire Protection:

- Randomly selected fire extinguishers were accessible and inspected on schedule.
- Fire doors were unobstructed and in their proper position.
- Ignition sources and combustible materials were controlled in accordance with the licensee's approved procedures.
- Appropriate fire watches or fire patrols were stationed when equipment was out of service.

On April 4, 1986 the inspector discovered the doors connecting one of the Diesel Generator Rooms and two associated Power Board Rooms were being held open by fire department personnel. The CO2 fire suppression systems were inoperable due to ongoing modifications and a continuous fire watch for each room was required by Technical Specification. On two occasions the inspector pointed out to the fire department personnel that fire doors are required to be closed unless a completed breach permit exists. When the inspector reported the incident to licensee management, corrective personnel action was taken. During the subsequent inspections in these rooms, the fire doors were closed.

b. Equipment Controls:

- Jumper and equipment mark-ups did not conflict with Technical Specification requirements.
- Conditions requiring the use of jumpers received prompt licensee attention.
- Administrative controls for the use of electrical jumpers and equipment mark-ups were properly implemented.

c. Vital Instrumentation:

- Selected instruments appeared functional and demonstrated parameters within Technical Specification Limiting Conditions for Operation.

d. Radioactive Waste System Controls:

- Gaseous releases were monitored and recorded.
- No unexpected gaseous releases occurred.



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e. Housekeeping:

- Plant housekeeping and cleanliness were in accordance with approved licensee programs.

f. Radiation Protection:

- Personnel monitoring was properly conducted.
- Randomly selected radiation protection instruments were calibrated and operable.
- Radiation Work Permit requirements were being followed.
- Area surveys were properly conducted and the Radiation Work Permits were appropriate for the as-found conditions.

No violations were noted.

6. Review of Licensee Event Reports (LER's)

The LER's submitted to NRC, Region I were reviewed to determine whether the details were clearly reported, including accuracy of the description of the cause and adequacy of the corrective action. The inspectors also determined whether the assessment of potential safety consequences had been properly evaluated, whether generic implications were indicated, whether the event warranted on site follow-up and whether the reporting requirements of 10 CFR 50.73 had been met.

During this inspection period, the following LERs were reviewed:

<u>LER No.</u>	<u>Event Date</u>	<u>Subject</u>
86-03	March 8, 1986	HPCI Initiation Due to Turbine Trip

On March 8, with the unit at 18% power the turbine was manually tripped while shutting down for a scheduled refueling outage. A HPCI signal was received as expected and was reset. However, failure of the Emergency Governor Limit Switch to change state permitted a second, unexpected HPCI initiation when the generator lockout relays repositioned three seconds after turbine stop valve closure. The Emergency Governor Limit Switch failed to change state due to a stuck Emergency Governor Unit. The licensee has done extensive work on the turbine controls during this outage to correct this and other turbine control related problems.

86-04	March 8, 1986	HPCI Initiation Due to Turbine Trip
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On March 8, 1986 with the unit shutdown for refueling a high reactor water level was initiated by YARWAY instrumentation while an operator monitored level according to GEMAC instrumentation. Although no disparity exists between the two types of instrumentation at reactor pressure for full power, a significant difference exists at low reactor pressure with YARWAY instrumentation indicating higher level than GEMAC instrumentation at low



pressures. The licensee intends to investigate procedural or hardware changes to prevent recurrence of the event. The inspector noted that HPCI initiation resulting from the disparity in water level instrumentation has occurred on several occasions in the past. The inspector also noted that the protective trip functions are not actuated by the instrumentation used to control level at low reactor pressure. The inspector will review licensee corrective action in a future inspection report.

86-05	April 2, 1986	Loss of Power to One Channel of Reactor Protection System Resulting in Full Scram
86-06	April 9, 1986	Partial Loss of Liquid Effluent Release Monitoring Capability
86-07	April 15, 1986	Inaccurate Fuel Zone Level Indication

No violations were identified.

7. Review of Emergency Notification System Reports

The inspectors reviewed the following events which were reported to the NRC via the Emergency Notification System as required by 10 CFR 50.72. The purpose of this review was to determine if the event was properly reported, if any generic implications exist, and if appropriate corrective action has or will be taken. Additionally, the significance of each event was evaluated to determine if on-site followup may be necessary to ensure that the safety significance of each event has been properly determined.

During the current inspection period, the following reports were reviewed:

<u>Event Date</u>	<u>Subject</u>
April 1, 1986	Unusual Event declared due to contaminated injured worker.
April 2, 1986	Reactor scram with reactor in cold shutdown. This event was discussed under LER 86-05.
April 9, 1986	Service Water Radiation Monitor sample line plugged. This event was discussed under LER 86-06.
April 15, 1986	Accident Monitoring Water Level indication inaccurate in nonconservative direction. This event was discussed under LER 86-07.
April 22, 1986	Initiation of Reactor Building Emergency Ventilation.
May 2, 1986	Unusual Event declared - Contaminated Worker Transported Offsite.



May 16, 1986 Both fire pumps out of service.

No unacceptable reports were noted.

8. Safety System Operability Verification

On a sampling basis, the inspectors directly examined selected safety system trains to verify that the systems were properly aligned in the standby mode. This examination included:

- Core Spray System
- Reactor Building Emergency Ventilation System

No violations were noted.

9. Review of Periodic and Special Reports

The inspectors reviewed the following periodic and special reports to determine whether the safety significance of each event has been properly evaluated, to monitor plant operations, to determine if appropriate corrective action has been taken and to ensure compliance with NRC reporting requirements.

During this inspection period, the following reports were reviewed:

<u>Type</u>	<u>Date</u>	<u>Subject</u>
Monthly	April 4, 1986	Operating Statistics for March 1986.
Special	April 11, 1986	Fire barrier penetrations.
Special	April 30, 1986	Fire barrier penetrations.
Monthly	May 5, 1986	Operating Statistics for April 1986.
Special	May 9, 1986	Fire barrier penetrations.
Special	May 12, 1986	Fire barrier penetrations.
Special	May 16, 1986	Fire barrier penetrations.

The inspector determined that the requirements of Technical specifications were met and no violations were noted.

10. Refueling Activities

The inspectors witnessed refueling activities to determine whether activities were being controlled and conducted as required by Technical Specifications and approved procedures. The following activities were observed or verified:



- Periodic testing and verification of operability of refueling related equipment.
- Removal of the Source Range Monitoring (SRM) and Instrument Range Monitoring (IRM) Dry Tubes.
- Fuel handling operations.
- Housekeeping and loose object control in the refueling and spent fuel areas.

The inspector noted that the refueling bridge experienced fewer failures than during previous periods of the outage.

No violations were observed.

11. Maintenance

The inspector examined portions of various safety related maintenance activities. Through direct observation and review of records, he determined that:

- These activities did not violate the limiting conditions for operation.
- Required administrative approvals and tagouts were obtained prior to initiating the work.
- Approved procedures were used or the activity was within the skills of the trade.
- Appropriate radiological controls were implemented.
- Quality control inspections were implemented.
- Post maintenance testing was performed.

During this inspection period, the following activities were examined:

- Feedwater pump overhaul
- Hydrostatic testing of Standby Liquid Poison System
- HFA relay replacement
- Snubber replacement
- Calibration of pressure transmitters
- In service inspection of reactor vessel head

The licensee sent eight Safety Relief Valves (SRV) to Wyle laboratories for testing in accordance with Technical Specification 3/4.2.8. The licensee informed the inspector that five of the eight valves lifted at a pressure 1% or greater below the nameplate pressure for the particular valve. The licensee's position is that an SRV lifting below set pressure



is not reportable. The licensee has committed to reporting failure of an SRV at a pressure not greater than 3% above nameplate pressure per ANSI standards.

No violations were noted.

12. Exit Interview

At periodic intervals throughout the reporting period, the inspector met with senior station management to discuss the inspection scope and findings.

Based on the NRC Region I review of this report, it was determined that this report does not contain information subject to 10 CFR 2.790 restrictions.

