U.S. NUCLEAR REGULATORY COMMISSION

Region I

Report No. 82-12

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: July 1-31, 1982

Inspectors: S. D. Hudson — August 16, 1982
S. D. Hudson, Senior Resident Inspector — date signed

_____ — date signed

_____ — date signed

Approved by: H. B. Kister — 8/19/82
H. B. Kister, Chief, Reactor Projects Section 1C — date signed

Inspection Summary:

Inspection on July 1-31, 1982 (Report No. 50-220/82-12)

Areas Inspected: Routine, onsite regular and backshift inspections by the resident inspector (103 hours). Areas inspected included: licensee action on previous inspection findings, plant tours, observation of physical security, plant maintenance, TMI action items, quality assurance program, and review of periodic reports.

Results: No violations were identified in the areas inspected.

DETAILS

1. Persons Contacted

J. Aldrich, Supervisor, Operations
T. Breigle, Lead Q. A. Engineer
K. Dahlberg, Site Maintenance Superintendent
W. Drews, Technical Superintendent
J. Duell, Supervisor, Chemistry and Radiation Protection
G. Gresock, Safe End Project Manager
F. Hawksley, Supervisor, Mech. Maintenance
E. Leach, Superintendent of Chemistry and Radiation Management
D. Palmer, Supervisor, Quality Assurance
T. Perkins, General Superintendent, Nuclear Generation
T. Roman, Station Superintendent

The inspector 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. Licensee's Action on Previous Inspection Findings

(Closed) INSPECTOR FOLLOWUP ITEM (79-18-02): The mechanical compression type plug used during the repair of the Emergency Condenser safe end was only subjected to 15 to 20 psid and performed satisfactorily in use. No further documentation of its design pressure rating is required.

(Closed) INSPECTOR FOLLOWUP ITEM (77-11-01): A defect was found in the Emergency Condenser inlet piping elbow near the safe end to pipe weld during the 1977 refueling outage. The elbow was replaced at that time. The cause of the defect was probably due to intergranular stress corrosion cracking. The licensee examined four other safe end to pipe welds during that outage. No other defects were found. In 1979, the licensee began an augmented inservice inspection program that requires that each furnace sensitized safe end be examined each refueling outage. The plant is currently out of service for the replacement of the last ten of these safe ends.

(Closed) UNRESOLVED ITEM (77-04-03): Snubber surveillance procedure does not address rotation and representative sampling. The inspector reviewed MST-R3, "Hydraulic Snubber Functional Test," Revision 3, dated June 28, 1982 and determined that the procedure now addresses these concerns.

(Closed) INSPECTOR FOLLOWUP ITEM (79-06-01): Snubber surveillance does not include acceptable piston settings. The inspector reviewed MST-V1, "Hydraulic Snubbers Visual Inspection," Revision 4, dated September 25, 1980 and the data sheets for the cold piston settings taken during the 1981 refueling outage. All settings are reviewed by a corporate office staff engineer against the initial cold piston settings for acceptability.

(Open) UNRESOLVED ITEM (77-04-04): Snubber functional testing does not measure lock-up velocity or bleed rate. The licensee's Technical Specifications currently do not require measurements of the above values. However, on November 20, 1980, in a letter to all power reactor licensees, the Office of Nuclear Reactor Regulation requested that the licensee submit a Technical Specification change to incorporate these and other requirements affecting both hydraulic and mechanical snubbers. The item remains open pending the NRC's review and approval of the licensee's submittal.

3. Plant Tours

(1) During the inspection period, the inspector made multiple tours of plant areas to make a independent assessment of equipment conditions, radiological conditions, safety and adherence to regulatory requirements. The following areas were among those inspected:

-- Control Room

-- Turbine Building

-- Auxiliary Control Room

-- Vital Switchgear Rooms

-- Yard Areas

-- Radwaste Area

-- Diesel Generator Rooms

-- Screen House

-- Reactor Building

-- Drywell

(2) The following items were observed or verified:

(a) 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.

(b) 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.

-- Fire watches were posted during periods when smoke detection equipment was out of service.

(c) Equipment Controls:

-- Jumpers and equipment tagouts did not conflict with Technical Specification requirements.

-- The inspector independently verified that the following tagouts had been properly conducted by observing the position of breaks and/or valves:

BMU #68575 on the Fire Detection System

BMU #34865 on the Annulus Level Instrumentation

BMU #68465 on No. 162 Motor Generator Set

(d) Radioactive Waste System Controls:

-- The inspector observed portions of the solidification of contaminated waste oil to determine that the operation was being performed in accordance with an approved procedure. The inspector reviewed the isotopic analysis of all seven batches solidified in July to determine that each batch was properly analyzed. These drums will be shipped as a low specific activity shipment.

-- The inspector witnessed the survey of radioactive waste shipment #0782-177A prior to its departure from the site to verify that applicable Federal limits were not exceeded. The shipment consisted of 18.4 curies of dewatered powdex resins. The inspector reviewed the Radioactive Shipment Record and determined that it was properly completed. The inspector examined the shipment to verify that it was properly labelled and discussed with the truck driver his duties and responsibilities.

(e) Review of Logs and Operating Records:

The inspector reviewed the following logs and instructions for the period July 1, 1982 through July 31, 1982:

-- Control Room Log Book

-- Station Shift Supervisor's Log Book

-- Station Shift Supervisor's Instructions

-- Safe End Project Log

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;

-- Determine that records are being maintained and reviewed as required, and

-- Determine that the reporting requirements of technical specifications are met.

(f) Shift Turnover:

The repair of the recirculation system piping is proceeding on two-ten hour shifts. The inspector observed the shift turnover of the licensee's radiation protection foremen and Newport News Industrial construction, radiation protection and quality assurance supervisors to verify continuity of work between the day and night crews.

No violations were identified.

4. Observation of Physical Security

The inspector made observations and verified during regular and off-shift hours that selected aspects of the plants physical security system were in accordance with regulatory requirements, physical security plan and approved procedures. The following observations relating to the physical security plan were made:

-- The security force on both regular and off-shifts were properly manned and appeared capable of performing their assigned functions.

-- Protection 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.

-- Compensatory measures were implemented during periods of equipment failure.

-- The protected area was adequately lighted at night.

-- Persons within the protected area displayed photo-identification badges, persons in vital areas were properly authorized, and persons requiring an escort were properly escorted.

No violations were identified.

5. Plant 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 properly implemented.

-- Equipment was properly tested prior to returning it to service.

-- Quality Control hold points were observed.

-- Ignition/fire prevention controls were appropriate.

During this inspection period, the following maintenance activities were examined:

-- Decontamination of #15 recirculation (recirc) suction elbow.

-- Liquid penetrant (PT) and ultrasonic examinations of #13 and #15 recirc suction elbows.

-- Final weld preparation cut on #13 suction nozzle.

-- Repair of a PT indication on #13 suction nozzle.

After the final weld prep cut was performed on #13 suction nozzle, a PT examination revealed an 1/8" linear indication in the inconel buttering on the nozzle. This nonconformance was documented as NCR 1399K-24. The indication was shallow and was removed by hand filing the area. The inspector witnessed the repair and final PT examination to verify the indication had been completely removed.

No violations were identified.

6. Status of TMI Action Items

The inspector verified the implementation of various requirements of NUREG-0737, "Clarification of TMI Action Plan Requirements." An item that is closed by this inspection may still be subject to a post implementation review by the Office of Nuclear Reactor Regulation to determine the adequacy of the installed modification. The item numbers are referenced to NUREG-0737.

Item II.E.4.2.3 - Automatic Isolation of Nonessential Systems: The licensee stated in its letter dated December 31, 1980 to the NRC that it would install automatic isolation valves in the recirculation loop sample line and containment spray to radwaste line. One valve in each line is an AC powered motor operated valve and the other valve is DC powered. The valves are normally shut and designated to isolate on containment isolation signals of either high drywell pressure or low-low reactor water level. The inspector examined the installed equipment and reviewed the following documentation to determine that the modification had been properly completed.

-- Safety Evaluation, Revision 1, dated March 5, 1981.

-- Pre Operational Test #149, "Miscellaneous Valves," Revision 2, completed February 26, 1982.

-- Drawings #C-18012-C, Revision 14 and C-18020-C, Revision 7.

-- ST-R8, "Reactor Coolant and Primary Containment Isolation Valve Timing," Revision 4, dated February 18, 1982.

-- ST-R2, "Loss of Coolant and Emergency Diesel Generator Simulated Automatic Initiation Test," Revision 2, dated September 13, 1978.

-- ISP-25.2, "Primary Containment Isolation Valves Leak Rate Tests," Revision 7, dated June 23, 1981.

-- ISP-IC-23, "Integrated Leak Rate Test of Primary Containment," Revision 11, dated May 17, 1982.

-- Quality Control Inspection Reports #81-1640, 1534, 1521, 1579, 647, and 613.

The inspector noted that ST-R2 and ISP-25.2 had not been revised to reflect the installation on either pair of valves. ISP-IC-23 does not reflect the installation of the recirculation loop sample valve (#110-127 and 128). This item remains open pending licensee revision of the above procedures. (50-220/82-12-01)

Item II.E.4.2.5.B - Containment Pressure Setpoint: The licensee stated in its letter to the NRC dated December 31, 1980 that the existing containment isolation pressure setpoint of 3.5 psig is 1.3 psi higher than maximum observed pressure inside the containment during the past year of operation. A Safety Evaluation Report issued December 9, 1981 by the Office of Nuclear Reactor Regulation concluded that existing containment isolation setpoint is acceptable. This item is closed.

Item II.K.3.19 - Interlocks on Recirculation Pump Loops: The purpose of these interlocks is to ensure that reactor level instrumentation would not be isolated from the reactor core in the event of the recirculation loop isolation. The licensee proposed meeting this requirement by the use of instrument taps below the lower core plate instead of sensing water level in the downcomer region. A Safety Evaluation Report issued February 12, 1982 by the Office of Nuclear Reactor Regulation concludes that it is acceptable. This item is closed.

Item III.D.1.1 - Integrity of Systems Outside Containment: Initial measurements of leakage from systems outside containment likely to contain radioactive material were tested and reported by the licensee on June 30, 1980. The inspector examined the following documents to verify that the licensee had established a program to periodically monitor these systems in order to maintain leakage as low as practicable.

-- ST-C12, "Liquid System Integrity Leak Testing," Revision 1, dated May 18, 1981.

-- ST-Q1, "Core Spray Pumps and Motor Operated Valves Operability Test," Revision 9, dated October 29, 1981.

-- ST-Q6, "Containment Spray and Raw Water Pumps Operability Test," Revision 8, dated June 1, 1982.

-- ISP-IC-24.6, "Gaseous Systems Integrity Helium Leak Rate Test," Revision 4, dated May 29, 1981.

This item is closed.

7. Quality Assurance (QA) Program

On July 24, 1982, the licensee's QA organization issued Nonconformance Report (NCR) #82-33. The report identified a slowly deteriorating situation involving the implementation of the QA program used by Newport News Industrial, the prime contractor for the recirc system repairs. The NCR was based on a series of four procedural violations of controlled work instructions and/or QA hold points. A meeting was held between licensee senior station management and NNI's project managers to discuss the seriousness of these findings.

Corrective action involves supplemental training of all craft workers, and NNI supervisors in the significance of procedural compliance and QA hold points, assigning a Q. C. inspector to verify that all work in the drywell is properly initiated, and continuous monitoring of drywell activities by a construction supervisor or field engineer. The inspector will verify the licensee's followup of this NCR during a subsequent inspection. (50-220/82-12-02)

8. Review of Periodic Reports

The following report was reviewed to determine that the reporting requirements of Technical Specifications are being met and that plant operations are accurately reported:

-- Monthly Operating Report for June 1982.

No violations were identified.

9. Exit Interview

At periodic intervals during the course of the inspection, meetings were held with senior facility management to discuss the inspection scope and findings.