U.S. NUCLEAR REGULATORY COMMISSION

Region I

Report No. 82-08

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: June 1-30, 1982

Inspectors: S. D. Hudson — 7/13/82
S. D. Hudson, Senior Resident Inspector — date signed

S. D. Hudson for — 7/13/82
L. T. Doerflein, Resident Inspector — date signed

_____ — _____
date signed

Approved by: H. B. Kister — 7/14/82
H. B. Kister, Chief, Reactor Projects Section 1C — date signed

Inspection Summary:

Inspection on June 1-30, 1982 (Report No. 50-220/82-08)

Areas Inspected: Routine, onsite regular and backshift inspections by the resident inspectors (91 hours). Areas inspected included: licensee action on previous inspection findings, operational safety verification, physical security, plant maintenance, licensee action on IE Bulletins and Circulars, status of TMI Action Plan items, and 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
T. Perkins, General Superintendent, Nuclear Generation
T. Roman, Station Superintendent
P. Volza, Emergency Planning Coordinator
T. Wood, Supervisor, Training

The inspectors also interviewed and talked with 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) UNRESOLVED ITEM (220/77-13-01): Technical Specification 3.6.4 does not contain a complete list of installed safety related snubbers. The licensee submitted a Technical Specification (T.S.) change request in April 1980 to update the listing of safety related snubbers. This unresolved item is similar to open inspector follow item 220/79-06-03 concerning the updating of the T.S. snubber list and is closed for administrative purposes.

(Closed) UNRESOLVED ITEM (220/78-17-02): Determine if instrument trip setpoints have been set in conservative direction to compensate for drift. The licensee has revised the calibration procedures for Technical Specification (T.S.) instruments by including guide values in addition to the T.S. trip point. The guide values are recommended trip setpoints which are sufficiently conservative to prevent exceeding the T.S. limit if the instrument drifts. The inspector reviewed the following procedures and verified that they all contained guide values and that these values were conservative with respect to the T.S. limit: N1-ISP-RPS-TP, "Reactor Protection System-Auto Trip System Instrument Trip Channel Test/Calibration," Revision 10; N1-ISP-IC-3-1, "APRM Instrument Channel Calibration," Revision 4; N1-ISP-IC-13, "High Area Temperature (Cleanup System) Instrument Channel Test/Calibration," Revision 3; and N1-ISP-IC-14, "High Area Temperature-Main Steam Line Tunnel Instrument Channel Test/ Calibration," Revision 3.

(Open) UNRESOLVED ITEM (220/79-01-01): Interpretation of operability of fire protection CO_2 system. The licensee has modified the CO_2 Deluge System by installing isolation valves such that a portion of the system may be removed from service while the rest of the system remains operable. A licensee representative stated that a Technical Specification (T.S.)

change request was being prepared which would specify what actions needed to be taken, including posting fire watches, when each portion of the system was removed from service. This item remains open pending submission and approval of the T.S. revision and subsequent NRC review.

(Closed) UNRESOLVED ITEM (220/79-12-01): Analog transmitter trip system power supply failures. The power supply failures were due to overheating of the ferro-resonant windings of the transformer caused by using thermally inferior and undersized wire during fabrication. The licensee has replaced all eight power supplies with those from a different vendor and has not experienced any more problems with the power supplies. General Electric Service Information Letter No. 314 informed licensees of the potential problem with the ELMA 24 VDC power supplies and recommended that all power supplies used in Class 1E applications be returned for transformer replacement.

(Closed) INFRACTION (220/79-21-06): Valves checked not installed. The inspector reviewed the Reactor Shutdown Cooling drawing, C-18018-C, Revision 5, and the valve checkoff list (VCOL) in procedure N1-OP-4, Shutdown Cooling and Head Spray System, Revision 4, and noted that both have been revised to delete valves SC-303 thru 309. The inspector also questioned several operators and verified that they had been instructed to report deficiencies with VCOL's to the shift supervisor for resolution.

(Closed) INSPECTOR FOLLOWUP ITEM (220/79-26-01): Implement revised radwaste procedures. The licensee has implemented procedures N1-WHP-1 thru 12 covering the transfer, packaging, and transport of radioactive waste.

3. Operation Safety Verification

a. Control Room Observations

Routinely throughout the inspection period, the inspector independently verified plant parameters and equipment availability of engineered safeguard features to ensure the following items were observed:

-- Proper control room manning;

-- Availability and proper valve line-up of safety systems;

-- Availability and proper alignment of onsite and offsite emergency power sources;

-- Reactor control panel indications and bypass switches;

-- Stack monitor recorder traces, and

-- Liquid poison tank level and concentration.

Selected lit annunciators were discussed with control room operators to verify that the reasons for them were understood and corrective action, if required, was being taken.

Shift turnovers were observed to ensure proper control room and shift manning on both day and backshifts. Shift turnover checklists and log review by the oncoming and off-going shifts were also observed by the inspector.

No violations were identified.

b. Review of Logs and Operating Records

The inspector reviewed the following logs and instructions for the period June 1-30, 1982:

-- Control Room Log Book

-- Station Shift Supervisor's Log Book

-- Station Shift Supervisor's Instructions

-- Licensee Event Report Log

-- Equipment Markup Log

-- Jumper 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;

-- 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.

c. 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:

-- 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.

(c) Housekeeping/Cleanliness Conditions:

-- No unacceptable conditions were identified in the area of housekeeping and cleanliness.

No violations were identified.

d. Tagout Verification

The inspector independently verified that the following tagouts were properly conducted by observing the position of breakers, switches and/or valves:

-- RMU #134106 on No. 12 Emergency Condenser

-- RMU #134329 on the Emergency Condenser Fill Blocking Valves

-- BMU #34907 on No. 172 Motor Generator Set

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.

-- Protected area barriers were intact - gates and doors closed and locked if not attended.

-- Communication checks were conducted. Proper communication devices were available.

-- 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.

-- Persons within the protected area displayed photo-identification badges, persons in vital areas were properly authorized, and persons requiring a 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 tag outs 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 are appropriate.

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

-- Rebrushing #167 Motor Generator Set

-- Troubleshooting #121 Emergency Condenser Vent Monitor

-- Cutting of the weld preparation cut of #15 recirc system suction nozzle.

-- Final alignment verification of the cutting machine for #14 recirc system suction nozzle.

Although a shield plug is installed inside the reactor vessel nozzle after the safe end and piping elbow are removed, the inspector discussed provisions for additional shielding of the 400 mrem/hr area on either side to the nozzle with the licensee. An individual must work in this area during the weld preparation cutting operation. The licensee's evaluation determined that shielding the nozzle is impractical but that it may be possible to reduce the radiation level by flapping inside of the nozzle. A glove bag is being prepared so that this method may be tested.

No violations were identified.

6. Licensee Action on IE Bulletins and Circulars

a. IE Bulletins

The inspector reviewed licensee action on the following Bulletin to verify that:

-- Written response was within the stated time period and contained the required information.

-- Written response includes adequate corrective action commitments.

-- Licensee management forwarded copies of the written response to appropriate onsite management.

-- Information discussed in the licensee's written response was accurate.

-- Corrective action taken by the licensee was described in the written response.

The following Bulletin is closed:

-- IEB 79-24, Frozen Lines. As stated in it's response dated October 24, 1979, all safety related systems are located within a heated building with the exception of the liquid nitrogen storage and supply system and the diesel fuel oil storage tanks. The liquid nitrogen will not freeze and the diesel fuel tanks are buried three feet below ground level so that neither system is susceptible to freezing.

b. IE Circulars

The inspector reviewed the IE Circulars listed below to verify that the Circulars were received by licensee management, that a review for applicability was performed, and that appropriate corrective actions were taken.

-- IEC 79-04, Loose Locking Nut on Limitorque Valve Operators.

-- IEC 79-18, Loose Locking Devices on Ingersoll-Rand Pump Impellers.

7. 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.B.4 - Training for Mitigating Core Damage

The inspector reviewed selected training records to determine that training described in the letter dated December 31, 1980 from NMPC to NRC had been conducted. The training consisted of five series of lectures and was given to all licensed operators thru the plant manager. Selected topics were presented to the radiation protection and instrument and control technicians and supervisors. Written examinations were given for each series and all participants were required to obtain a minimum passing score of 80%.

Item II.K.3.14 - Isolation of the Isolation Condenser on High Radiation

This item required the automatic isolation of the isolation condensers on high radiation signal sensed at the shell side vent to the atmosphere. This feature is already incorporated in the design of Nine Mile Point, Unit 1 and its operability requirements are specified in the Technical Specifications. This item is closed.

Item K.3.13.B - Modify HPCI and RCIC Initiation Levels
Item K.3.15 - Spurious Isolations of HPCI and RCIC
Item K.3.22 - Automatic Switchover of RCIC Suction
Item K.3.24 - Adequacy of Space Cooling for HPCI and RCIC

Nine Mile Point, Unit 1 does not have steam driven High Pressure Coolant Injection (HPCI) System nor a Reactor Core Isolation Cooling (RCIC) System. These items are not applicable to this type of boiling water reactor.

9. Review of Periodic Reports

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

-- Monthly Operating Report for May 1982.

No violations were identified.

10. 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.