U.S. NUCLEAR REGULATORY COMMISSION

REGION I

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| Report Nos.: | 50-220/90-02<br>50-410/90-02 |
| Docket Nos.: | 50-220<br>50-410 |
| License Nos.: | DPR-63<br>NPF-69 |
| Licensee: | Niagara Mohawk Power Corporation<br>301 Plainfield Road<br>Syracuse, New York 13212 |
| Facility: | Nine Mile Point, Units 1 and 2 |
| Location: | Scriba, New York |
| Dates: | February 1, 1990 through February 28, 1990 |
| Inspectors: | W. A. Cook, Senior Resident Inspector<br>R. R. Temps, Resident Inspector<br>R. A. Laura, Resident Inspector |

Approved by: Glenn W. Meyer 3-14-90
Glenn W. Meyer, Chief — Date
Reactor Projects Section No. 1B


Inspection Summary:

This inspection report documents routine and reactive inspections during day and backshift hours of station activities including: plant operations; radiological protection; surveillance and maintenance; emergency preparedness; security; engineering and technical support; and safety assessment/quality verification.

Results:

Three NON-CITED VIOLATIONs were identified during this inspection period involving energized equipment tagging practises, licensed operator required physical examinations and use of overtime. An Executive Summary follows.

## EXECUTIVE SUMMARY

Plant Operations: Inspector followup of the incomplete licensed operator physical examinations concluded Niagara Mohawk oversight of this activity was poor. Followup of an unresolved item involving the improper use and authorization of station employee overtime concluded appropriate corrective actions had been taken. Numerous unresolved items from the Unit 2 IATI were reviewed and closed during this inspection period. Inspector review of the Unit 2 scram on February 1 concluded that it was the result of maintenance personnel error. Several maintenance personnel errors in recent months indicated a poor performance trend.

Radiological Protection: Cleanup activities on the 225 foot elevation of the Unit 1 Radwaste Building were well planned and well executed. Inspector observations of General Employee Training and Radiation Protection Training indicated more emphasis has been placed on improving employee radiation protection practices.

Surveillance and Maintenance: Followup of the maintenance staff involvement in the Unit 1 SRM problem identified a non-cited violation of the station markup procedures. The Unit 1 special core spray testing was well planned and conducted. Unit 2 inspector tours identified some obvious equipment discrepancies which should be more promptly identified and resolved by the station staff. Inspector followup of a Temporary Inspection Instruction on EDG air start systems identified a weakness in the vendor manual revision process.

Emergency Preparedness: No noteworthy findings.

Security: Inspector review of security and safeguards training during General Employee Training indicated satisfactory coverage of the area.

Engineering and Technical Support: Inspector assessment of the Unit 1 emergency ventilation deluge system modification package presented to SORC concluded that the proposed modification was poorly researched and designed and that there was limited communication or input from the station in developing this proposal.

Safety Assessment/Quality Verification: Observations of a HPES presentation on the Unit 1 SRM problem to SORC indicated some fundamental weaknesses in the overall HPES process as used for this event analysis. The Unit 2 cotenants' initiative for having MATS assess Unit 2 operations appeared to be a sound decision with evidence of thorough and detailed assessments. Overall assessment of Niagara Mohawk performance in improving in the areas of the Restart Action Plan underlying root causes 2 and 4 was mixed this inspection period.

## DETAILS

1. Plant Operations (Modules 71707, 71710, 93702)

On February 1, station management informed the resident staff that they had identified a deficiency in the medical examinations administered to the licensed operators at both units. Based upon discussions with a medical doctor, recently contracted by Niagara Mohawk to perform the physical examinations, and the previously contracted physician, they concluded that laboratory work (various blood tests) was not previously performed during the examinations. Niagara Mohawk took the position that their licensed operators satisfied the minimum health and physical fitness requirements to continue routine watchstanding. However, all license holders would be expeditiously reexamined to the physical examination standards published in ANSI/ANI-3.4-1983, Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants.

The inspector identified that Niagara Mohawk's previously contracted physician had not used the guidance of ANSI/ANI-3.4 for performing routine physical examinations and Niagara Mohawk had not provided the physician with a specific checklist. Also, Niagara Mohawk had not verified the specific physical attributes checked during the medical examinations. Niagara Mohawk was fortunate in that the newly contracted physician questioned the minimum physical examination requirements and sought clarification prior to certifying the licensed operators' medical status on NRC Form 396.

By letter dated February 21, 1990, Niagara Mohawk provided the NRC with a summary of this event and a commitment to complete all medical reexaminations by February 23, 1990. A subsequent letter will be submitted by Niagara Mohawk documenting the results of these reexaminations after the laboratory tests have been reviewed.

The NRC Region I staff concluded that no enforcement action will be taken against Niagara Mohawk or the individual license holders for this failure to completely adhere to 10 CFR Part 55 operator licensing requirements. This concern was brought to the attention of the NRC by Niagara Mohawk, promptly addressed by the expeditious reexamination of all license holders and was of minimal safety consequence. The actions to prevent recurrence appeared to be adequate. These actions were being formalized in a procedure by the Niagara Mohawk Employee Relations Department with the assistance of the station staff. In accordance with the discretionary enforcement guidance of 10 CFR 2, Appendix C, Section V.A., no Notice of Violation has been issued for this event. NON-CITED VIOLATION 50-220/90-02-01 and 50-410/90-02-01.

1.1 Unit 1

During this inspection period the unit remained in cold shutdown with the core reloaded and the reactor vessel head in place. The vessel head studs had not been tensioned. Preparations continued for unit restart.

a. The inspector monitored various aspects of the reactor cavity drain down and reactor vessel reassembly. In accordance with the Niagara Mohawk Nuclear Improvement Plan, the station staff closely monitored the reactor cavity shelf drain leakage while draining down the reactor cavity in preparation for vessel reassembly. At approximately 12 feet down from the top of the cavity, shelf drain system leakage significantly decreased. Subsequent visual inspection of the reactor cavity stainless steel liner identified a puncture type hole in the liner between 100 and 110 degrees from North. The inspector determined that Niagara Mohawk plans to repair the liner prior to unit startup. The inspector judged this approach to be acceptable.

b. During a routine review of the Unit 1 control room operator logs, the inspector noted that the reactor building R21 sump pump had failed and a temporary pump was installed to pump the sump to the adjacent floor drain. Upon further investigation, the inspector determined that the practice was not uncommon of operators connecting a temporary air-operated pump to the sump discharge piping and pumping the contents to the floor drain system, given the frequent failures of the non-safety related sump pump.

After further discussion with the Unit 1 radwaste supervisor, the inspector determined that the sump discharge piping had been modified several years ago to provide a connection for the temporary pump. The radwaste supervisor identified that the control drawings for this piping system had not been updated to reflect this change. Secondly, the radwaste supervisor indicated his staff had typically not been made directly aware of the R21 sump pump failures and alternate pumping to the floor drain system initiated by the operations staff. No procedural guidance or instructions were documented for either the operations or radwaste staff for this evolution.

The inspector concluded that better controls and communication were needed for this type of temporary evolution/activity. The poor communications and poor drawing controls indicated a potential for an adverse impact on safety related systems and worker safety. The inspector discussed his concerns with station management, and after further consideration they stated that their controls would be broadened for this and similar activities involving temporary systems.

c. Review of Open Items

1. (Closed) Unresolved Item (50-220/89-81-01): This item was opened based on a finding during the Integrated Assessment Team Inspection (IATI). The team found that the Unit 1 Operations Department method for tracking overtime was not in compliance with the unit's Technical Specifications (TS). Specifically, overtime was being tracked on a calendar week basis, rather than by the TS required seven day rolling basis. Additionally, overtime in excess of the limits was being routinely approved by blanket authorization.

   The inspector reviewed Niagara Mohawk's actions to correct this concern. These actions included: the identification of Nuclear Generation personnel affected by the overtime requirements (primarily those involved in safety related functions); rescindment of the blanket authorization for overtime in excess of the TS limits; and changeover to a rolling seven day method of tracking overtime as required by TS 6.2.2. Further, NMPC plans to extract the rules governing use of overtime from AP-4.0 (Administration of Operations) and issue them, together with more comprehensive administrative and management review controls, in a new procedure, AP-4.3, Control of Overtime. Based on review of the final draft of AP-4.3 and of the corrective actions, this item is closed.

   Although the failure to properly track and control overtime per the Unit 1 Technical Specifications is a violation, a Notice of Violation is not being cited in accordance with the discretionary enforcement guidance in 10 CFR 2, Appendix C, Section V.A. NON-CITED VIOLATION (50-220/90-02-02).

2. (Closed) Unresolved Item (50-220/89-81-02): This item was opened during the IATI based on deficiencies noted in the reload system walkdowns. To address this item, Niagara Mohawk conducted several meetings to review performance deficiencies and to develop lessons learned for incorporation into the restart systems walkdown procedure. The inspector reviewed Temporary Procedure N1-88-7.6, "System and Area Walkdown for Restart Procedure". Review of this procedure indicated that numerous enhancements had been made as a result of the review. Some of the important

changes included criteria for more effective, comprehensive walkdowns of systems by multi-disciplinary inspection teams, a better method for assigning follow-up action for identified deficiencies, use of a deficiency tagging system, and independent verification to assess the results of the walkdowns. Based on review of this procedure and its satisfactory implementation, this item is closed.

3. (Closed) Unresolved Item (50-220/89-81-04): This item was opened during the IATI and was based on the inspectors' concern about the timeliness of the scheduled review of non-channel functional test surveillances. Based on the procedure inadequacies identified during the channel functional test review, which ultimately resulted in a 100% review of these procedures, the team was concerned about the adequacy of the remaining surveillance procedures. Additionally, they were concerned that under Niagara Mohawk's schedule for review, not all of these procedures would be reviewed prior to restart.

   Since the IATI, Niagara Mohawk has completed a 100% review of channel and non-channel functional tests. Niagara Mohawk was in the process of reviewing and assessing the findings from these reviews during this inspection. Separate reports, one for channel functional tests and one for non-channel functional tests, were to be issued in March. Items identified during these reviews which involve failure to meet TS requirements are to be documented in Occurrence Reports and will subsequently be incorporated into supplements for Licensee Event Reports (LERs) 89-03 or 89-07. Based on the actions taken and the adequacy of the reviews in progress, this item is closed.

4. (Closed) Unresolved Item (50-220/89-81-05): This item was opened during the IATI based on a Niagara Mohawk commitment to complete implementation of preventive maintenance for electrical area inspections for motors designated as important to safety. Following the IATI, Niagara Mohawk resumed the performance of all portions of electrical preventive maintenance procedure N1-EMP-GEN-M178, Monthly Rounds. The inspector reviewed the completed data sheets from this procedure for three months (November 89 - January 90) and verified the appropriate inspections were being satisfactorily performed. This item is closed.

5. (Closed) Unresolved Item (50-220/89-81-10): Niagara Mohawk was to clarify the procedural guidance for analyzing root causes and reporting problems. The IATI report stated a concern that the root cause evaluation did not provide guidance in the areas of trigger criteria (for the initiation of root cause evaluations) and that the mechanism for requesting and initiating evaluations was not defined. The inspector reviewed a draft copy of procedure DP-16.01, Revision 00, Root Cause Evaluations, and confirmed that the above concerns had been appropriately addressed in the draft procedure.

   Another aspect of this unresolved item concerned the Problem Report (PR) system. The inspectors noted what appeared to be two different programs within the Nuclear Division as evidenced by two different procedures, S-SUP-2 and NEL-018, dealing with PRs. The IATI inspectors were concerned about: numbering, tracking and prioritizing of PRs; responsibility for reportability review of PRs; and three different PR forms in use. Following the IATI, NEL-018 was replaced by NEL-900, Problem Report Program. Review of this procedure and S-SUP-2, Revision 4, by the inspector indicated that the above concerns have been adequately addressed and that the PR program was consistently outlined and implemented by these two procedures. This item is closed.

1.2 Unit 2

Repairs to the reactor feedwater pumps were completed, and the reactor was taken critical on February 4. The unit operated at power during the remainder of this inspection period.

a. While shutdown on February 1, an automatic reactor scram occurred when I&C technicians were backfilling the reference column of a reactor water level transmitter. Station staff investigation determined the cause of the scram was the technician failed to follow the procedure and inadvertently left a plastic tube connected to the transmitter test port with its isolation valve open. This condition resulted in a drop in the variable leg pressure, which falsely indicated a decrease in reactor water level.

The inspector was concerned that this event was another of several maintenance personnel errors in recent months due to inattention to detail and failure to follow procedures. The inspector addressed this concern with station management and planned to review their corrective actions and associated LER 90-04 in a subsequent report.

b. Safety System Operability Verification: The inspectors directly examined portions of selected safety system trains to verify that the systems were properly aligned in the standby mode. The following systems were examined:

-- High Pressure Core Spray
-- Low Pressure Core Spray

The inspector found the systems to be properly aligned and fully operational.

2. Radiological Protection (Modules 71707, 83723)

a. Review of Radwaste Building 225 Foot Elevation Cleanup

The inspectors reviewed the cleanup activities on the 225 foot elevation of the Unit 1 radwaste building. At the time of this review the radwaste staff was conducting manual decontamination of the operating aisle. The inspectors were accompanied by a radwaste supervisor who was involved with the cleanup efforts and who explained the cleanup processes and progress made via the aid of remote monitoring equipment. The monitoring equipment consists of several remotely controlled cameras complete with continuously monitored remote displays and video recording equipment. Video surveillance is maintained to support the work crews and to ensure ALARA practices are being followed, to allow additional supervisory oversight without unnecessary exposure, and to provide historical records for future ALARA planning.

Cleanup activities appeared to be progressing smoothly. Decontamination of the storage aisles is dependent upon delivery of the tethered remote operating device (TROD). Niagara Mohawk representatives have been working extensively with the vendor to improve the capabilities and precision of the robotic arm at the vendor's facility. This effort is expected to reduce the potential number and severity of difficulties encountered when the TROD is placed in operation on the 225 foot elevation.

Overall, the inspectors considered the cleanup activities to be well planned, implemented and supervised.

b. Radiation Protection Training

During this inspection period the inspectors attended the annual employee radiation protection (RP) training course given in conjunction with General Employee Training (GET). The inspector considered the course to be well structured and presented. The inspectors noted that no station employees are allowed to validate or test out of RP training this year because of a demonstrated need to improve employee knowledge and RP practices at the station. Testing out will be reconsidered next year pending improved performance. The inspector also noted a significant change in the RP practical portion of the course. RP workers are now required to take a graded (pass/fail) practical exam at the conclusion of training. This is considered a positive training attribute.

3. Surveillance and Maintenance (Modules 71707, 61726, 62703)

The inspectors observed portions of the surveillance testing and maintenance activities listed below to verify that the test instrumentation was properly calibrated, approved procedures were used, the work was performed by qualified personnel, limiting conditions for operations were met, appropriate system or component isolation was provided and the system was correctly restored following the testing or maintenance activity.

3.1 Unit 1

a. Maintenance activities observed included:

As part of the inspector's investigation into the source range monitor (SRM) bypass incident (reference IR 50-220/89-33), the inspector determined that Niagara Mohawk administrative rules for equipment markups were violated when repairs to the SRM were made. Specifically, during replacement of the faulty coil in the SRM, electrical isolation was provided by pulling a relay module; however, a component markup (tagout) was not used for this isolation. Rather, the isolation was controlled by an individual at the job site maintaining control over the pulled relay until the coil replacement was completed. Use of "human markups" was contrary to station administrative procedures and the Niagara Mohawk safety manual.

After a week of maintenance staff review and frequent discussions with the inspector following the inspector's initial presentation of their concerns, the station maintenance staff developed a clear and accurate summary of this maintenance activity. They concluded that while a markup was not used when isolation was provided, via the pulled relay, the individual replacing the faulty coil worked as if the electrical equipment was still energized. This lessened the personnel safety concern over this maintenance activity.

Further review by the maintenance staff concluded that the practice of providing isolation using "human markups" has occurred routinely in the past. The site maintenance manager informed the inspector that this practice would not be allowed to continue, that a lessons learned transmittal would be issued and trained on, and that a soon to be issued administrative procedure would clarify the demarcation between troubleshooting and maintenance activities.

The failure to provide appropriate SRM electrical isolation to repair a faulty coil was contrary to station Adminstrative Procedure 4.2., Control of Equipment Markups. In that this violation was of minor safety significance, low severity level, not a concern previously identified by the NRC, and Niagara Mohawk corrective actions to prevent recurrence appear to be adequate, no Notice of Violation is being issued in accordance with the guidance of 10 CFR 2, Appendix C, Section V.A. NON-CITED VIOLATION (50-220/90-02-03).

The inspector concluded that when the concerns were initially identified to maintenance management, the responses were slow and tended to confuse the issue rather than clarifying it. After a week, the correct facts were finally determined and presented to the inspectors. In summary, this event was another example of poor problem identification, slow resolution of an identified problem and inadequate self-assessment.

b. Surveillance testing observed included a review of the special core spray system testing conducted in accordance with N1-88-7.12, Core Spray System Injection Test, performed on February 22 for loop No. 11. This test assessed pump performance and potential system water hammer. Results of the test were within the acceptance criteria, and the inspector considered the test to have been properly performed.

3.2 Unit 2

a. The inspector observed the performance of N2-OSP-EGF-Q001, Emergency Diesel Generator (EDG) fuel oil pump quarterly surveillance test, on the Division II EDG. In order to obtain proper vibration data, the fuel oil pump motor top guard had to be removed. The inspector observed that this aspect of the surveillance test was recognized by the operations surveillance procedure, but not the Inservice Testing (IST) vibration procedure (GENE-28). Also, the inspector noted that the vibration test points were identified by stickers on the top cover vice the motor casing. This was an incorrect IST test location. These two concerns were discussed with operations management and adequately resolved.

b. The reactor core isolation cooling system (RCIC) operability test performed during plant startup was observed by the inspector. This procedure was recently rewritten as part of the procedure upgrade process. During the performance of the test, test methodology problems were identified by the reactor operator responsible for the test. The inspector noted that the operator stopped, sought clarification from inservice inspection personnel, and processed a procedure change to correct the problems. Overall, the inspector concluded that the test was well controlled by the reactor operator and that the test changes represented good problem identification and resolution.

c. Various aspects of the Niagara Mohawk and General Electric staffs inspection and transfer of new fuel to dry storage were observed. No noteworthy findings were identified.

d. During tours of the reactor building and emergency diesel generator (EDG) spaces, the inspector identified two deficiencies:

   -- A conduit for leads going to the Division II EDG control circuits was broken. The wires inside the conduit were not damaged.

   -- The reactor building component cooling system (CCP) head tank water supply totalizer was leaking a drop per second onto a CCP pump terminal box.

   In both cases, the inspector subsequently determined that no work request had been initiated by station personnel to address these two obvious discrepancies. The inspector considered this a weakness that maintenance, operations and management personnel had not identified and initiated corrective actions. This was discussed with the station superintendent who agreed with the concern and reemphasized the importance of plant equipment deficiency identification to station personnel.

e. During a tour of the Division II EDG space, the inspector noted a large cloth towel left laying against the base of the diesel cylinder head. Closer inspection revealed the towel was draped to catch oil leakage from an improperly installed cylinder cover gasket. This oil leak was previously identified as evidenced by a deficiency tag. The inspector was concerned that the oil soaked towel was a potential fire hazard. This concern was brought to the attention of the operating staff, and the towel was promptly removed from the upper cylinder area.

3.3 Units 1 and 2

a. Region I Temporary Instruction 86-03: Inspection of GE HGA Relays. In October 1986, while designing a circuit modification for mechanical vacuum pumps, Susquehanna station identified four GE HGA relays (part #12HGA17C52G) which should have been replaced in 1981. These particular GE HGA relays were found to be susceptible to contact chatter during seismic testing. The inspector requested that Niagara Mohawk determine if this type relay was used for any applications at Units 1 and 2.

The Niagara Mohawk staff concluded that there was an extremely low probability of any application of these relays at Unit 1 or 2. The warehouse inventory was checked, computerized purchase orders were reviewed, the Unit 2 Master Equipment List (MEL) was reviewed, and a spot check of HGA relays in the Unit 1 auxiliary control room was conducted, and no evidence was found of these specific type HGA relays. Further, the GE site representative conducted a GE Purchase Part Drawings/Category Number search and found none procured by Niagara Mohawk. The GE site representative also identified that the subject relay was categorized "inactive for new design" prior to 1983. The inspector concluded that a reasonable search to locate this type GE HGA relay was performed by Niagara Mohawk and that Temporary Instruction 86-03 is closed.

b. Region I Temporary Instruction 87-06: Diesel Generator Air Start Motor Lubrication Followup. On July 13, 1987, the Electric Motor Division (EMD) of General Motors issued an owner's advisory (Power Products Pointer) identifying an error in the EMD Engine Maintenance Manual. The advisory stated that the air motor starting system in-line lubricator needle valve should be adjusted to provide one to two drops per second, vice three to four drops per minute as stated in the maintenance manual.

The inspector determined from the maintenance staff that, at Unit 2, the applicable diesel generator maintenance procedure (N2-MSP-EGS-R002) for the Division III diesel was revised to reflect this lubrication adjustment. At Unit 1, although documented evidence of either a vendor manual revision or completed maintenance record of the lubrication adjustment could not be provided, the maintenance supervisor was knowledgeable of the Power Products Pointer and was confident that the in-line lubricator was adjusted to provide ample lubrication during the last diesel generator overhaul. In support of his statement, no history of air start motor failures due to insufficient lubrication were known to have occurred at Unit 1.

The inspector was satisfied that the maintenance performed on the air-start systems at Units 1 and 2 were in accordance with the July 13, 1987 owner's advisory. However, the inspector was concerned that the Unit 1 vendor manual was not properly revised to reflect the EMD Power Products Pointer correction. Further discussion with station management indicated that there is a problem with the prompt reviews and approval of all vendor manual revisions such as this. Management indicated that corrective actions were being taken to improve this process. The inspector will followup on this concern in a subsequent report and review this item in conjunction with Unresolved Item 50-220/89-81-03. Temporary Instruction 87-06 is closed.

4. Emergency Preparedness (Module 71707)

No noteworthy findings or observations were identified this inspection period.

5. Security (Modules 71707, 83723)

During this inspection period the inspectors attended the General Employee Training course. The inspectors considered the training to be well structured and presented.

No noteworthy security of safeguards findings were identified this inspection period.

6. Engineering and Technical Support (Module 93702)

Unit 1

(Update) Unresolved Item (50-220/89-08-04): This open item deals with the deficiencies identified by the NRC with the deluge system modification installed in the emergency ventilation (EV) system. The inspector attended a SORC meeting where the proposed modification package for modifying the present deluge system was presented to SORC by corporate engineering. Due to numerous deficiencies and oversights in the proposed modification, SORC rejected the package and requested a reevaluation and resubmittal.

The inspector concluded that SORC acted properly in rejecting the proposed modification. The proposed design modification indicated poor conceptual design review, weak station technical staff review, and a lack of communication between engineering and the station for proper, effective resolution to the problem. The design engineer appeared unfamiliar with the system, and it was apparent that not all alternatives for location of the remote deluge supply and drain valves had been adequately pursued or even considered.

7. Safety Assessment/Quality Verification (Module 40500)

a. The 1988 SALP report identified a safety concern regarding a large number (50 to 60) of normally lit control room annunciators. The large number of lit annunciators desensitizes operators' annunciator response and contributes to a poor control room environment which could potentially mask an operational event. The numerous lit annunciators were a contributing factor in the September 9, 1989 problem concerning Division III EDG unit cooler operability.

Progress in lit annunciator reduction has been slow. The inspectors attribute this to inadequate management oversight. In January 1990, Niagara Mohawk formed a task force to address and eliminate nuisance lit annunciators. There are still approximately 50 lit annunciators on the front panels in the control room while the reactor is at rated power. Niagara Mohawk has recently developed a method to provide status of annunciator reduction on a monthly basis to senior management. However, as stated above, progress in annunciator reduction has been slow and management involvement has been lacking relative to this concern.

b. In July 1989 the cotenants of Unit 2 contracted a private consulting firm, Management, Analytical and Technical Services, Inc. (MATS), to monitor, assess and assist Niagara Mohawk in improving the overall operation of Unit 2. MATS conducts detailed assessments in a wide variety of functional areas. To date, MATS has completed major assessments in the areas of outage management, operations and maintenance, all of which the inspector reviewed during this inspection period. The assessments were structured to review various aspects of the functional area from management oversight and program adequacy to field activities and worker training. The inspector considered these assessments to be quite comprehensive and sufficiently detailed.

The inspector discussed recent MATS activities with the President and Chief Executive Officer, Joseph Firlit. Mr. Firlit indicated that his organization had made a slight shift in their overall objective, focusing more on assistance to the Niagara Mohawk staff and less on pure assessments. Discussions with station management indicated this approach has been better received by the Unit 2 staff. Mr. Firlit stated that feedback from the cotenant Management Committee (comprised of senior executives from all four cotenant utilities) was favorable for the information provided by the MATS assessments and their Unit 2 performance monitoring data. This type of information and performance indicators were not previously available to the cotenants. In summary, the utilization of the MATS organization appeared to be a good initiative by the Unit 2 cotenants to not only monitor their financial interest in the unit, but to improve Unit 2 performance.

c. The inspector attended the SORC meeting at which the Human Performance Evaluation System (HPES) group's findings concerning the Unit 1 SRM bypass event were discussed. The SORC members had requested that the HPES group perform an independent root-cause analysis of the SRM bypass incident. The inspector was concerned about assessments made by representatives of the HPES group. Their assessments seemed to indicate that they did not understand the application of Administrative Procedure 4.0, Conduct of Operations, with respect to the use of hold out tags, nor did they have a full understanding of the manner in which maintenance on the SRM was conducted, despite interviewing the individuals who did the work.

At a routine weekly meeting with the unit superintendents, the inspector discussed this concern. The superintendents responded that the technical review (i.e., SORC review) of the material presented by the HPES personnel had corrected the misunderstandings. While the inspectors agreed that the technical (SORC) review of presented material can ensure identification of conceptual errors in that material, it cannot ensure review of omitted material. The inspector's fundamental concern was that if personnel performing root-cause analyses are not fully familiar with how things are supposed to be done, or if they fail to maintain a fully questioning attitude, then important root-causes or causal factors may be overlooked. Consequently, unless the technical review identifies an omission, identified root-causes may be deficient and therefore inadequate corrective actions may be taken. The unit superintendents acknowledged this concern and indicated it would be promptly addressed with the HPES staff.

d. <u>Underlying Root Causes 2 and 4 Performance</u>

The IATI, conducted in October 1989, concluded that Niagara Mohawk progress in the Restart Action Plan underlying root cause areas of problem solving and standards of performance/self-assessment was weak. Accordingly, increased inspection emphasis has been placed in these areas to monitor Niagara Mohawk progress in support of Unit 1 restart and overall performance improvement. Overall, performance in these two areas was observed to be mixed during this inspection period.

In this report period, the following activities were viewed as examples of improvement in problem identification and resolution and standards of performance/self-assessment: cleanup efforts on the 225 foot elevation radwaste building; enhancements in the GET/RP annual refresher training programs; contracting of MATS, Inc. by the Unit 2 cotenants to assess Unit 2 operations; and the operator control of RCIC testing at Unit 2.

In contrast, the following examples indicated marginal or no improvement in these same underlying root cause areas: progress in reducing lit/nuisance annunciators at Unit 2; poor assessments by the maintenance and HPES staffs of the SRM incident at Unit 1; an unsatisfactory proposal by engineering of an emergency ventilation deluge system modification at Unit 1, although, to Niagara Mohawk's credit, it was rejected by the SORC; and the apparent informal control of temporary systems potentially impacting safety related systems as demonstrated by the temporary R21 sump pump at Unit 1.

8. LER Review (Module 92700)

The following LERs were reviewed and found satisfactory:

Unit 2

-- LER 89-31, 10/13/89, Reactor water cleanup system isolation caused by equipment malfunction.

-- LER 89-32, 10/11/89, Inoperable reactor water cleanup flow transmitter due to operator error.

-- LER 89-33, 9/25/89, Reactor water cleanup isolation caused by valves left out of their normal positions. This operational event was caused by operator error and resulted in an uncontrolled intersystem discharge of reactor coolant. The corrective actions taken were satisfactory.

-- LER 89-34, 10/12/89, Inoperable radiation monitor that resulted from personnel error.

-- LER 89-36, 10/18/89, Reactor scram from high neutron flux caused by operator error.

-- LER 89-37, 10/18/89, Appendix R valve not properly controlled while the unit was in Hot Shutdown.

-- LER 89-38, 10/20/89, An operator inadvertently started the wrong emergency diesel generator.

9. Exit Meetings (Module 30703)

At period intervals and at the conclusion of the inspection, meetings were held with senior station management to discuss the scope and findings of this inspection. Based on the NRC Region I review of this report and discussions held with Niagara Mohawk representatives, it was determined that this report does not contain Safeguards or 10 CFR 2.790 information.