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SUBJECT: Forwards response to NRC SALP rept dtd 900507.

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NINE MILE POINT NUCLEAR STATION/P.O. BOX 32, LYCOMING, N.Y. 13093/TELEPHONE (315) 343-2110

NMP67591

July 2, 1990

United States Nuclear Regulatory Commission Attention: Document Control Desk Washington, DC 20555

RE: Nine Mile Point Unit 1 Nine Mile Point Unit 2 Docket No. 50-220 Docket No. 50-410 DPR-63 NPF-69 Systematic Assessment of Licensee Performance

## Gentlemen:

This letter transmits Niagara Mohawk Power Corporation's response to the NRC's Systematic Assessment of Licensee Performance (SALP) Report dated May 7, 1990. These written comments incorporate the oral responses and discussion provided during our meeting of June 14, 1990, at the Nine Mile Point site.

We are in basic agreement with the report's findings and concur that improvements were still necessary in key areas of both nuclear units at the conclusion of the period covered by the SALP report. As you are aware, many of the enhancements and corrective actions which were undertaken, both in reference to the specific matters identified in the SALP and in the implementation of the Restart Action Plan and the Nuclear Improvement Program, occurred too late to be fully effective during the assessment period. However, significant results from these measures are now evident.

Equally important, and certainly encouraging to us, is the NRC Staff's observation that our Restart Action Plan is working at Nine Mile Point Unit 1, and that greater management involvement is making a difference at both units. We believe the Restart Action Plan was responsible for the better problem identification, more critical problem evaluation and self-assessments, and the establishment of better programs and standards to promote and sustain good performance. This approach appears to be responsible for the improved results noted in the engineering and surveillance areas, and the generally improving trend in most other areas.

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Page 2 United States Nuclear Regulatory Commission July 2, 1990

In summary, Niagara Mohawk's management team is committed to meeting the highest standards of excellence on a consistent basis in all aspects of operations and will take the necessary actions to reach that goal.

Very truly yours,

L. Burkhardt, III Executive Vice President Nuclear Operations

cc: Regional Administrator, Region I Mr. R. A. Capra, Director Mr. Robert E. Martin, Project Manager Mr. W. A. Cook, Senior Resident Inspector Records Management

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# SPECIFIC COMMENTS AND RESPONSE TO RECOMMENDATIONS

#### **OPERATIONS**

<u>Unit 1</u>

Niagara Mohawk was pleased to note NRC's recognition that Station management has made substantial progress in addressing and correcting concerns from the previous SALP report (i.e., for the period March 1, 1988 to February 28, 1989), and concurs with NRC's assessment of performance during the period covered by this present SALP report.

Company's own assessment is that this latter period The was characterized by inconsistent performance. The SALP report appropriately identifies a number of areas in which significant improvement was evident, such as the Licensed Operator Requalification Program, management attention to licensed Operator training, increased Operations Department responsibility for the quality of training, Operator use of and proficiency with the Emergency Operating Procedures (EOPs), licensed Operators' improved support of maintenance and surveillance activities, and other instances of licensed Operators demonstrating improved performance. Operations Department management was also credited with having achieved a better approach to operations in certain areas. Nevertheless, Station management concurs with the SALP findings concerning specific weaknesses cited in the report and has taken aggressive corrective actions in each case.

For example, in the area of personnel performance (page 8, SALP report):

- Crew communications discipline has been improved by the implementation of a communications protocol. In addition, communications practices are now being routinely evaluated during simulator training.
- The roles of Reactor Operators (ROs) have been standardized by an Operations Instruction on use of EOPs that directs the Station Shift Supervisor (SSS) to assign the Operators to specific panels, and provides guidance on the role of the Chief Shift Operator (CSO) during emergencies. Simulator training continues to stress this standardized approach.
- Four applicable procedures have been revised to strengthen Operator response to electrical problems, and additional training on electrical distribution and circuit breaker interlocks has been provided to Operators. In addition, additional emphasis has been placed on proper assessment of electrical powerboard malfunctions during simulator training.

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- To help ensure that all available indications will be used for diagnosis of events and expedite recognition of plant trends, additional guidance in these areas is now provided by the EOP User's Guide. In addition, performance in the diagnosis of events is now being evaluated by use of guidelists during simulator training.
- A formal self-assessment program has been implemented, which includes detailed guidelists for evaluating effectiveness of classroom, simulator and on-the-job training. This program should improve management's early recognition of Operator problems and/or generic weaknesses.
- Inadequate work practices and communication deficiencies were identified as the causes of the accidental flushing of a condensate demineralizer to radioactive waste processing (page 8, SALP report). As a result, procedural improvements have been made and verification of markup points is now required prior to reissue of a markup. In addition, the importance of clear and accurate communications has been emphasized in training sessions and department meetings.
- All shifts have received training in the area of procedural adequacy and compliance so as to prevent a recurrence of the procedural and personnel errors which led to Reactor Building Emergency Ventilation System initiations (page 8, SALP report). Personnel are now required to stop activities when procedural deficiencies are identified and take corrective actions to resolve the deficiencies before continuing. Two Operations procedures were revised to correct specific deficiencies. In addition, applicable training material was revised, and a Lessons Learned Transmittal was generated to inform Operators of these events.
  - A plant impact statement on all Markup Request Forms is now required prior to submission to the Control Room; an independent review of potential plant impact is now required by both Operations and the markup man; and, the Chief Shift Operator and the Station Shift Supervisor responsibilities with respect to markups have been clarified. These actions should correct the situation with respect to Reactor Building Emergency Ventilation System initiation due to improper tagging control (page 8, SALP report).
  - Fuel Handling Procedures were revised to specifically recognize the applicable Technical Specification requirement relating to the Source Range Monitor (SRM) bypass function (page 8, SALP report). Also, a Shift Check Procedure was revised to assure that the SRM Technical Specification's requirements are checked once per shift. In addition, Operations management met with all shifts to discuss the Lessons Learned Transmittal, and corrective actions were taken to correct the tagging deficiencies.

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- Addressing the valve misalignment of the Reactor Building Closed Loop Cooling System (page 8, SALP report), a list of valves identified as non-conventional is being developed to aid Operators in valve lineups, and the Operations' directive on markups was revised to minimize the potential for valve misalignment due to application and restoration of equipment markups.
- With regard to deficiencies noted during the initial set of reload system walkdowns (page 8, SALP report), the lessons learned regarding improvement of management oversight and implementation of management self-assessment have been incorporated into the Walkdown Procedure and utilized during the reperformance of system walkdowns.

In addition to the foregoing, a number of other actions have been taken to provide greater management oversight of daily operations and more effective overall management control. These include:

- Management tracking and control of overtime (page 8, SALP report) have been improved by the issuance of a new Administrative Procedure.
- Licensed Operators' medical examinations (page 8, SALP report) are now scheduled quarterly and a new procedure is being developed to help management assure that these examinations are performed in accordance with the ANSI/ANI - 3.4 Standard.
- Management conducted meetings with Operators to explain the "systems approach" to training for requalification examinations (page 8, SALP report), and to discuss a new examination process. Weekly examinations using questions from the exam bank are now included in the training program.
- Management has acted decisively to correct deficiencies noted in connection with the SRM incident (page 8, SALP report). The manner in which investigations are conducted has been strengthened by immediately convening a fact-finding meeting and involving the Incident Investigation Group (IIG).
- A number of actions were taken by management to improve the effectiveness of self-assessments (page 8, SALP report). These actions included: (i) development of detailed guidelists for assessing Operations activities, (ii) participation by all Operations management personnel in the self-assessments, and (iii) periodical assessment of the effectiveness of the self-assessment efforts.
- Organization changes were made to enhance management oversight of day-to-day operations, which included: (i) reassignment of a Unit 1 SRO-licensed manager as Assistant Superintendent of Operations in charge of Operations outage coordination; (ii) reassignment of an Assistant Superintendent of Operations as

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full-time department training coordinator; (iii) reassignment of a rotational SSS to the Training Department for training duties; (iv) assignment of a rotational SSS as Work Control Center Technical Reviewer of work requests; and (v) reassignment of the Assistant to the Superintendent of Operations as Work Control Center Operations Planner/Scheduler.

Collectively, the foregoing corrective actions and procedural and organizational enhancements greatly strengthen operational capability of the Unit and provide for more effective management control, particularly in the oversight of daily operations, to help achieve the Company's goal of safe, error free, operation.

### <u>Unit 2</u>

Niagara Mohawk concurs with the SALP assessment of Unit 2 Operations, including the finding that performance was inconsistent for the report period. Many of the factors which contributed to this inconsistent performance are discussed below, along with identification of corrective actions and other enhancements, where appropriate.

• The SALP report identified events attributable to personnel errors (page 10) which have been addressed as follows:

For those errors associated with inadequate control of system and component configuration, a significant contributing factor was lack of direction in the administrative program which addresses control of components and systems placed in an offnormal condition. As a result, changes were made to the Administrative Procedures to require that when components or systems are discovered or placed in a condition other than as described in the appropriate procedures, such components and systems must either be "tagged out" via the equipment markup process, or appropriate changes to procedures must be immediately implemented to reflect the altered configuration. In either case, the duty Shift Supervisor must be informed of the situation to ensure that appropriate controls have been established.

Another significant contributing factor to the personnel errors was a lack of direction in the Administrative Program to specify responsibilities for plant impact review of work activities including equipment markups. Programmatic changes have been instituted, initially by administrative directive and revisions to Operating Department Instructions, and later by revisions to Administrative Procedures, to delineate responsibilities of the working department, the Control Room Operator and the Shift Supervisor to develop, verify and approve the plant impact of work to be performed on equipment markups that are to be hung. The program now in place requires that for corrective and preventative maintenance activities, a "Work In Progress" form must be included with all work packages to indicate specific

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plant impact. This is reviewed by a qualified Operations person as well as by the Shift Supervisor prior to performance of the work. For surveillance activities, the applicable procedure must contain a specific plant impact statement which is reviewed by the Shift Supervisor prior to performance. For equipment markups, plant impact is researched and determined by a qualified Operations person, double verified, and reviewed by both the Chief Control Room Operator and Shift Supervisor prior to implementation.

Another programmatic improvement made was the strengthening of the Post Maintenance Test (PMT) Program. Failure to perform a proper PMT resulted in a component being declared operable in accordance with the Technical Specifications without having been properly restored for standby service. This would have been prevented had a PMT been performed. Included on the Work In Progress form is a section to specify post maintenance testing requirements. These are established by the working department and reviewed by a qualified Operations person. Prior to returning a component to service, the PMT results are reviewed by the Shift Supervisor to assure operability requirements are There have been no incidents of inadequate or satisfied. improper PMT maintenance testing of systems or components since this programmatic improvement was made.

Eliminating personnel error is a high priority matter with Niagara Mohawk. Accordingly, Niagara Mohawk has taken several further actions to eliminate personnel error:

- (i) Increased management oversight and direction of Operations activities.
  - a. Operations management has reviewed events in 1989 and conducted special meetings in November to focus specifically on personnel errors.
  - b. A Deputy Station Superintendent has been added to the plant staff, and the vacant position of Assistant Superintendent of Operations has been filled. These additions result in increased management oversight.
  - c. A Senior Monitoring And Recognition Tours (SMART) program provides greater management assessment of plant activities.
- (ii) Increased emphasis on personnel accountability.
  - a. Periodic Operations management meetings with Station Shift Supervisors and crews stress personal accountability and management expectations of error free Operator performance.

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- b. Maintenance management meetings with crews enforce procedural compliance.
- c. Greater use of remedial assignments brings about improved performance.
- d. Disciplinary action is employed when appropriate.
- (iii) Development and implementation of Operations Department Instructions, in the areas listed below, which establish standards and expectations:
  - a. Self-assessment practices
  - b. Tour requirements and reports by SSS and ASSS
  - c. Improved communications
  - d. Good practices for Operators
- (iv) Expanded goals for 1990 that incorporate the goals and philosophies of the Division.
- (v) Improved training programs, including the development of the Systematic Approach to Training (SAT) - based requalification program for licensed Operators, and implementation of a comprehensive on-the-job training program.
- (vi) Development of an Incident Investigation Group to assist in root cause determinations and to develop trends and analyze plant events.
- (vii) Procedure improvements. The procedures are being revised to a new Site Writer's Guide for improvement in human factor usage. This will reduce the possibility of personnel error.

Management has implemented extensive changes to enhance the Operator Requalification Program (Page 9, SALP report), obtain meaningful feedback and improve examination results. In this effort, appropriate "lessons-learned" from Unit 1 were extracted to improve the Unit 2 program. Some of the specific changes incorporated include:

(i) Operations Department Instructions were written and incorporated in the requalification program, covering roles, responsibilities and communications. A period of training was pursued for all Department personnel. Significant improvements in performance were subsequently noted, including the recent successful examination of Operators.

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- (iii) A Training Advisory Board (TAB) was established. It is chaired by the General Superintendent and reviews all issues affecting training programs. It also ensures that lessons are learned, and that training receives high priority and visibility.
- (iv) A Station Shift Supervisor has been assigned to the position of Unit 2 Operations Training Supervisor to promote Operations "ownership" of the program.
- (v) The shift crew training concept has been re-established and enhanced. Crews are no longer broken up for examination purposes, but train and test as a crew.
- (vi) The examination and validation processes have been strengthened. A major cause of the earlier requalification program failure was poorly developed and validated examinations. As a result, management has committed extensive resources to develop and validate an examination "bank", and has committed to strengthen it each year with new questions and scenarios.
- (vii) Information is now exchanged between Station Superintendents to ensure both training programs are "on track".
- (viii) Senior management has undertaken simulator observation periods.
- (ix) Cross plant observations by Operations management and instructors now take place to assure that lessons are learned and that both programs benefit.
- (x) Instructors are being trained in techniques designed to improve the students' simulator performance.
- (xi) Station Shift Supervisors lead critique sessions to strengthen training through greater Operator involvement.
- (xii) There is increased and improved use of video tapes in the Operator Requalification Program to highlight strengths and weaknesses for the Operators to personally review.

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The SALP report expressed some concerns in the area of staffing (page 11, SALP report). Management has given a high priority to staffing. The creation of eleven new Operator trainee positions, combined with an ongoing Reactor Operator/Senior Reactor Operator license program, provides for career development opportunities, assignment of rotational Station Shift Supervisors to other positions, and the future restoration of the six shift rotation. In addition, Shift Technical Advisors are being added to the Operations staff to enhance Control Room operation during emergency events and provide engineering expertise on shift. Station management remains committed to improving shift working conditions, enhancing career opportunities for Operations personnel, and maintaining an adequate staff for shift Operators.

Niagara Mohawk believes strongly in personal career development. The last two license classes were the largest in the history of either unit, with the exception of cold licenses. As a result, Operators can see career opportunities arising from promotions to positions in Engineering, Technical Services, Training, Safety, Regulatory Compliance, and Quality Assurance. In addition, the movement of Operations personnel to other departments strengthens those departments and should ultimately improve overall Division performance.

Limited progress was made in reducing the number of lit annunciators in the control room (page 11, SALP report). In January 1990, a task force, headed by an Operations Department Engineer, was formed to assess the scope, define the corrective actions, and provide a means of tracking progress in this area. Progress to date has been achieved by implementation of some design changes and continued maintenance work on failed components. Since February, the number of lit annunciators has been reduced from approximately ninety to about sixty. Operations, Maintenance, and Engineering management attention to this matter remains at a high level and it is anticipated that most lit annunciators will be corrected during the Fall 1990 refueling outage.

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The foregoing description of changes, enhancements and corrective actions taken at Unit 2 to improve that Unit's performance is not intended to be all-inclusive; rather, it is indicative of the vigor with which management is committed to bring about excellence in operation.

#### RADIOLOGICAL CONTROLS

Niagara Mohawk agrees that, as stated in the SALP report, Radiation Protection performance has remained acceptable and has improved in many areas. However, some of the conclusions drawn in the report may have been affected by some incorrect or incomplete information that was discussed at the June 14, 1990, meeting and is repeated below.

The items which should be clarified are as follows:

The SALP report stated that "ALARA performance was weak and needed more visible support of upper management". Niagara Mohawk believes this conclusion does not accurately characterize the status of the ALARA program or management support for the The conclusion may have stemmed, at least in part, on program. a belief that the Unit 1 goal for 1989 was 800 man-rem and, thus, did not represent an aggressive attempt to reduce exposure. In fact, the 800 man-rem figure was a 1988 goal. The 1989 goal was aggressively set at 510 man-rem. The Unit's actual performance for 1989 was 464 man-rem, even though the Unit was in an outage for the entire year and the scope of outage work, especially Inservice Inspection, expanded during the year. This compares well to the 442 man-rem average for all BWRs during 1989, and to other facilities in similar situations. This performance was a direct result of proactive identification of the potential for improvement on the established goal, and the involvement of all levels of Station management. Niagara Mohawk also believes the Unit 2 performance was excellent for 1989 in that only 61 man-rem were expended, as compared with a pre-established goal of 128 man-rem.

During 1989, there were specific ALARA goals for the site, each unit, and each department. Progress towards meeting these goals was closely followed by Division management by means of performance monitoring reports and ALARA committee meetings. Further visible support by upper management is evident by the inclusion of an ALARA Standard in the Nuclear Division Standards of Performance, by Management Policies on Radiation Protection and ALARA that were revised and approved in 1989, and by the establishment of a Nuclear Division ALARA Goal for 1990. Additionally, the General Superintendent, Nuclear Generation chairs the site ALARA committee, and the Station Superintendents chair their respective Unit ALARA committees.

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The intent of Niagara Mohawk's commitment to evaluate chemical decontamination of Unit 1 systems has not changed from the previous SALP response. Last year's SALP response was made with an expected mid-1989 Unit startup, and an expected outage in 1990. However, in the interim, Unit schedules have slipped. The commitment continues to be evaluation of chemical decontamination for the Unit during the first major outage following startup. The scope of this decontamination will be determined once the work planned for the outage is defined.

A number of corrective actions and programmatic enhancements have been undertaken to bring about improved Radiological Protection performance, including the following:

- Control of contamination and radiation improved, and the use of automated contamination detection equipment increased. Also, as noted in the SALP report (page 13), reduction of contaminated areas and improved hot particle controls were realized during the year. For example, the contaminated area (i.e., > 1000 dpm/100 cm2) in Unit 1 decreased from 13 percent in March 1989 to 8 percent in February 1990. This accomplishment surpassed the Unit 1 goal of 10 percent. Plant accessibility due to posted contaminated areas has improved. However, the actual extent of improvement realized has been limited by the relatively conservative posting levels. Use of low а contamination posting limit is consistent with the Company's goal, and that of the industry, in reducing all personnel contamination. This practice also helps to reduce the number of false alarms from the sensitive whole body contamination monitors used in the plant. Ongoing contamination and leakage control programs have been established and are expected to result in continued improvement in this area.
  - With regard to the SALP comment regarding valve leakage (page 13), many valves were repacked during 1989 with an EPRIrecommended graphite ribbon packing to reduce packing leaks. This packing is designed mainly for valves that are not routinely cycled, which includes most of the valves in the plant. A valve enhancement program is currently being developed with the expectation that live load packing replacement will commence in 1990.
  - Because of a concern for the operability of the Effluent Monitoring Systems, management has focused attention in this area and established a task force to address the long term solution to the overall problem. A root cause evaluation is currently in progress. In the interim, the Integrated Priority System is being used to help assure that these monitors receive appropriate attention to keep them operable. The Gaseous Effluent Monitoring System (GEMS) at Unit 2, and the Service Water Monitors at Unit 1, have been made operable.

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Niagara Mohawk believes that continued improvement has been shown in the Radiological Protection program. Actions have been taken and additional actions are planned to increase even further support for ALARA by upper management, and to improve availability of effluent monitors. The Company further believes that plans and resources applied to the Radiological Controls programs will ensure that continued improvement is achieved. In light of the above discussions, Niagara Mohawk requests that NRC reconsider the rating category assigned to the Radiological Controls area.

## MAINTENANCE AND SURVEILLANCE

Niagara Mohawk's assessment of the Maintenance and Surveillance performance is in basic agreement with the SALP report. Specifically, the Company recognizes the need to improve performance in the areas of management oversight, effectiveness of corrective actions, and adequacy of and compliance with Maintenance Procedures. Beginning late last year, management has taken a number of corrective actions to address each of the areas of weakness cited in the SALP report. These are described below:

# <u>Maintenance</u>

- New programs have been instituted in recent months that categorize and trend "backlog". These new programs lead to more effective use of resources to work off "critical" backlogged items. Increased staffing at the Work Control Center, the development of an Operations Support Group, and increased participation in work planning by Operations are a few of the actions taken recently by management to reduce the backlog. The use of the Work Request backlog tracking system, along with published goals, also assists in the backlog reduction effort.
- Niagara Mohawk management recognized the concern regarding implementation of the initial set of reload system walkdowns at Unit 1 (page 18, SALP report) and stopped further walkdowns until the necessary improvements had been made. These improvements consisted of interviews, with the personnel involved, reassessment of the scheduled times for the walkdowns, improved communications, clarification of inspection criteria, and increased management oversight. The Walkdown Procedure was rewritten, including management's expectations and "lessons learned". Later, the walkdowns were resumed, this time, with greatly improved results.
  - The SALP report noted that the investigation of the Unit 1 reload SRM bypass incident was ineffective in that it did not determine that Electrical and I&C Maintenance personnel had not adhered to tagging procedures while performing troubleshooting and repairs (page 18). The Company's review of this problem disclosed that the root cause was personnel error. Inadequate

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guidance in Administrative Procedure AP-4.2, "Control of Equipment Markups", regarding the use of "human markups" and personnel tags, was a contributing factor. A Lessons Learned Transmittal has since been issued and the AP's are being revised to control the use of personnel tags. Also, training on the revisions to AP-4.2 and the use of "human markups" will be provided after issuance of the revised document.

A new Administrative Procedure, AP-5.4.2, "Troubleshooting", was issued recently to strengthen diagnosis of equipment failures at both units (page 18, SALP report). This procedure formalizes the use of System Engineers/Site Engineering for system and component troubleshooting.

The SALP report also cited poor initial troubleshooting on problems related to a Motor Generator Set (page 17) as one of several events which indicate the need to improve the timeliness and effectiveness of corrective actions. Use of Administrative Procedure AP-5.4.2 should also correct this weakness.

In addition, management's new commitment to assign "Task Managers" to problems of this nature further enhances the overall troubleshooting program.

- Poor troubleshooting and repair of an Emergency Diesel Generator fuel transfer pump were also cited in the SALP report (page 17). This particular problem is addressed by a new "Temporary Modification Process" which was recently issued to enhance controls in this area.
  - It has been determined that many of the unplanned outages noted in the SALP report (page 16) for Unit 2 resulted from improper assessment of plant impacts and post maintenance testing. Accordingly, a new Administrative Procedure, AP-5.2.5, "Work In Progress", places improved controls on plant impact and post maintenance testing assessments. These assessments are required to be performed prior to the conduct of work. The new procedure also enhances individual accountability and promotes teamwork between Operations and Maintenance personnel during plant impact determinations.

Recent reports from Unit 2 indicate that the number of Licensee Event Reports (LERs) attributable to Maintenance personnel errors have been reduced. Similarly, the number of alarms in the Control Room have been reduced during this period.

Niagara Mohawk's review of the SALP finding that numerous Operational events at Unit 2 resulted from errors by Maintenance personnel (page 16) revealed that the cause of these errors was rooted in weak procedural adherence, poor procedure format, inadequate post maintenance testing, poor plant impact ۲ ۲ ۲ ۲ ۳

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assessment, and insufficient supervisory oversight. Corrective actions taken in this regard include:

- (i) The new Administrative Procedure, AP-5.2.5, "Work In Progress", is being used as well as other programs to reduce the potential for this class of problem.
- (ii) A new Site Maintenance Administrative Instruction, S-MAI-5.4-007, "Establishment and Maintenance of System Cleanliness", has been issued to solve the "flooding" problem cited in the SALP report (page 16). This document places controls on close-out of large vessels.
- (iii) Additional layers of safeguards were added to procedures which relate to the inadvertent Traversing Incore Probe insertion incident (page 16, SALP report).
- (iv) A major rewrite of Maintenance Procedures is currently in progress, intended as a general upgrade of these documents.
- (v) Several new programs have been initiated which increase the effectiveness of supervisors in the field. A new Site Maintenance Administrative Instruction, S-MAI-5.4-006, "Maintenance Self-Assessment", requires weekly documented observations of crews in the field by supervisors.
- (vi) Several vacant positions were filled and a Maintenance Support Group was added to reduce the administrative duties of supervisors.

The SALP report correctly observed that the Maintenance Program appeared to be informal in some areas with risk of degradation if any of the key managers were to depart (page 17). Some progress has been made in recognition of this vulnerability. For example, steps have been taken to "capture" the knowledge of senior managers by preparation and issuance of increasing Maintenance Instructions, and AP-5.0 series numbers of Maintenance Procedures. Also, contact is maintained with any key individuals who vacate their position. In addition, the use of the Preventive Maintenance/Surveillance Test (PM/ST) database to schedule and control preventative maintenance has increased substantially over the past year, with the result that less reliance is placed on key individuals. All senior Maintenance management positions are now filled, and a transition plan is in place to implement the changes underway.

A number of examples were cited in the SALP report (page 18) illustrating improper diagnosis of equipment failures and repetitive failures at Unit 2 during the assessment period. In each case, Engineering was consulted for assistance in the

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failure analysis, and the root cause of each individual problem has now been identified. All of these problems were complex and resulted from many causes or failure modes. (There was no common root cause.) Some of the specific problems identified have been corrected; while, for the balance, management is committed to resolve the remainder in a timely and adequate manner, and to continue to improve the root cause process.

Niagara Mohawk management recognizes the need for improvement in overall Maintenance performance, and in staffing this department. Many improvements have already been accomplished and the Company believes the trend is now in a positive direction. With the management attention this area is now receiving, and through the process of goalsetting, Maintenance activities will continue to improve steadily.

## <u>Surveillance</u>

 Niagara Mohawk believes the SALP assessment of the Surveillance program is accurate and positive. The few deficiencies noted have received appropriate "follow up" and are considered resolved. The Station's Surveillance personnel remain dedicated to achievement of high standards of excellence in their work.

## Recommendations

The recommendation contained in the SALP report for the licensee (page 20) regarding the need to "reassess the adequacy of the Maintenance program and management/supervisory oversight with respect to continuing deficiencies", has been effectively implemented by reassessments which resulted in the many new programs referenced above. These include:

- Troubleshooting
- Work in Progress
- Plant staff additions
- AP-5.0 series rewrites
- Maintenance self-assessments
- Senior Management Audit and Recognition Tours
- Procedure upgrade efforts
- Training program upgrades

As a result of increasing management oversight and the ongoing upgrade efforts, the Maintenance program will continue to improve. Niagara Mohawk's commitment to the Restart Action Plan, and the Nuclear Improvement Program, requires concomitant success in the Maintenance and Surveillance areas.

#### EMERGENCY PREPAREDNESS

Niagara Mohawk concurs with the SALP evaluation of Emergency Preparedness and will continue to strive for excellence in this program. The good performance achieved is indicative of the Company's commitment to Emergency Preparedness, both in maintaining the program

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and fostering the teamwork which was evident during drills and exercises. The strength of this program continues to be the support received from throughout the Niagara Mohawk organization, and from State and local agencies.

The Emergency Preparedness goals and objectives for 1990 and beyond continue to stress those areas the Company believes are essential to maintaining the performance noted in the SALP report. These include maintaining effective working relationships, fostering teamwork, maintaining facilities and procedures in a state of readiness, and excelling during drills and exercises.

#### SECURITY

Niagara Mohawk is pleased that the SALP assessment of Nine Mile Point Security reflects its own views of this program.

The Nuclear Security Department's mission is to provide a secure and safe environment for the operation of the units at the site. It accomplishes this mission by maintaining a proactive security program consisting of an efficient integration of state-of-the-art hardware, and highly professional, dedicated safeguards personnel.

The department will continue to take the initiative in changing the security program to address, as appropriate, changing conditions; perceived changes in the external environment; perceived changes in the level of threat; and, perceived areas where program improvements can be obtained.

The Security Department remains committed to being a leader in the nuclear security field and appreciates the NRC's recognition of this commitment.

# ENGINEERING/TECHNICAL\_SUPPORT

Niagara Mohawk agrees with the overall SALP assessment of Engineering and Technical Support and is pleased that the NRC recognized improvement overall and, in particular, for the resolution of previously identified concerns regarding design issues and engineering support at the plant site.

The Company shares the NRC's view of the need to improve the timeliness and quality of engineering work, as well as to strengthen the engineering training program. A team of Nuclear Engineering & Licensing and Nuclear Generation managers has been established to regularly assess technical issues and the overall effectiveness of engineering support. This team has been helpful in clarifying roles and responsibilities among engineers in Nuclear Generation, Site Engineering, and Nuclear Engineering. As a result of these efforts, senior management for Nuclear Engineering & Licensing and Nuclear

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Generation have issued a criteria document to clarify bounding criteria for handling resolution of technical issues. This will assure a clear understanding of when engineering support should be requested and provided. In addition, the strengthening of safety evaluations and establishing increased on-site capability to handle design changes should prevent recurrence of the specific problems cited in the SALP report.

Niagara Mohawk also agrees with the need to improve review of technical issues, particularly in preparation for Site Operation Review Committee (SORC) meetings, and conceptual reviews in general. A training program has been developed and the first classes are planned, following Unit 1 restart, for preparation and presentation skills for SORC meetings. Also, the department is strengthening its Conceptual Engineering Group with additional experienced manpower to improve early planning and analysis of issues. Eight positions have already been filled.

The Company concurs that there is need for continued management attention to Nuclear Engineering & Licensing training programs. The majority of the Critical Needs Training was completed during the SALP period. Both the Vice President, Nuclear Engineering & Licensing and the Manager, Nuclear Services have increased their personal attention in this area to assure that long term training improvements are implemented. Actions have been taken to expedite completion of the Nuclear Engineering & Licensing training needs assessment to identify engineering training requirements. This is planned to be completed by September 1990. Management attention will continue to be focused on this area to assure timely implementation of training identified by this process.

In summary, Niagara Mohawk is taking action and providing continued management attention to assure that progress continues in those areas where significant improvements have been made, as well as to assure improved performance in all areas.

## SAFETY ASSESSMENT/QUALITY VERIFICATION

Niagara Mohawk is in basic agreement with the SALP assessment in this area and concurs that there is need for continued improvement, which is the foundation of our vision of excellence for the future. However, the Company was disappointed with the rating in this area. Before focusing on the specific responses to the weaknesses noted in the SALP report, some discussion of the many positive initiatives Niagara Mohawk has undertaken is appropriate. The fundamental changes in the areas of staffing, performance monitoring and management effectiveness selfassessment have created an environment in which continued improvement in areas affecting Safety Assessment and Quality Verification are expected.

First, the Company believes that the emphasis in the Safety Assessment and Quality Verification area has been substantially increased, and

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the number and quality of personnel assigned to this area have improved considerably.

Second, the resolution tracking and monitoring of operations experience, open issues and backlogs have improved significantly and the safety culture and professionalism of the organization has changed dramatically for the better. Finally, a Restart Readiness Assessment, and follow-on assessments, have been completed that represent a significant management effectiveness improvement. Each of these areas will be discussed in more detail.

# Staffing

Niagara Mohawk has added senior qualified personnel to System and Site Engineering, Operation's Experience (Technical Assessment), Quality Assurance, Independent Safety Engineering Group, and the Independent Assessment Group. During the timeframe of the SALP period, about 200 people were added to the Nuclear Division, most of whom have 8 or more years of nuclear experience; some have over 10 years. Some of the key changes in these areas have been previously discussed with NRC during ACRS and Commission meetings. However, a brief review is in order:

- Personnel changes have been made, and the organization strengthened by focusing key elements of the organization within the Nuclear Division. These changes have occurred since February 1989 and include:
  - (i) The entire Quality Assurance organization has been moved into the Nuclear Division to make QA a more integral "part of the team", and to provide additional visibility of QA concerns to senior Nuclear managers.
  - (ii) A new Assessment Group has been established that helps promote the development of self-evaluation within nuclear. This group looks at management effectiveness, including the underlying issues.
  - (iii) The Nuclear Generation Department has been reorganized, with the addition of several key personnel:
    - a. An Operations Support Group, having three people, was established.
    - b. Operator positions were established enabling six rotating shifts, plus a relief shift, instead of the five previously.
    - c. Shift Engineer positions were established.

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d. Positions were established for five rotational SSSs, in addition to shift requirements.

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e. The Fire Protection Group was assigned to Operations.

- f. A painting crew was established as part of a comprehensive housekeeping plan.
- (iv) Twenty System Engineers have been added.
- (v) Within each department, Organizational Development Specialists have been providing in-line management .effectiveness training.
- The reporting level of the Independent Safety Engineering Group (ISEG) was elevated to the Site Engineering Manager.
- A new Site Engineering organization was established to improve the support of the operating organization.

These organization changes have made an impact on the ability of management to "stay tuned" to performance. (This is clearly noted in the SALP assessment of Engineering, for example.)

## Performance Monitoring

During the SALP period, Niagara Mohawk established goals and standards for key operating performance indicators. For example, the backlog of Quality Assurance Corrective Action, Requests (CARs), and Non-Conformance Reports (NCRs), and the operating experience information review backlog at both units, have been substantially reduced. In addition, the evaluation of Operations Experience Assessment (OEA) Open Items for Unit 2 has been reduced from 1600 to 600; while, at Unit 1, Open Items were reduced from 225 to 92. Other examples of increased performance are the reduction of Work Request backlogs on both units, and the reduction of Work Request backlogs on both units, and the reduction of open Problem Reports, Occurrence Reports and Nuclear Commitment Tracking items. These backlogs have continued to be reduced subsequent to the SALP period. A substantial effort has been made to close these open issues during a period of changing culture, returning Unit 1 to operation and continuing operation of Unit 2.

## Management Effectiveness Self-Assessment

In addition to the physical improvements, the Company has continued to monitor management effectiveness. The Restart Readiness Report and follow-on assessments continue to show clear improvements in problem solving, planning, teamwork, culture and self-assessment. Positive and negative examples of this performance exist in the follow-on assessments and provide a track record of continuing improvement. Another significant change is the higher Standards of Performance shown on the 1990 "wallet cards", as compared with the 1989 listing. A positive example of the continuing pursuit of excellence is the development of a new Standard of Performance - self-assessment -for 1990. Thousands of hours of Niagara Mohawk staff assessment of

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performance have resulted in improved internal assessment capability. Examples of these improvements include:

- (i) An Integrated Priority System was developed which has been pilot tested and implemented. This will help improve planning efforts.
- (ii) A Division-wide effort was undertaken to identify and resolve problems. Over 1400 Problem Reports were dispositioned during the Unit 1 outage.
- (iii) Under development, but not yet fully implemented, are a Nuclear Division Integrated Deficiency System, an upgraded root cause trending program, and a "Lessons-Learned" system.
- (iv) A Division-wide desire to continue to seek improvement has been created, at least in part, by management's walkarounds and solicitations of subordinate inputs.

The Company still continues to learn about its performance, but believes that substantial progress has been made during the SALP period, and that the Company will continue to improve in this important area. These examples have made a substantial improvement in the diagnostic capability of management effectiveness.

## <u>Specific Responses</u>

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- Although an important area, Niagara Mohawk's actions with regard to system walkdowns is discussed earlier in this response. This comment appears in several SALP report sections (eg: page 30). The Company's response is provided in the Unit 1 Operation's Section.
- Performance of the Unit 2 Operator Requalification Training (page 30, SALP report) was promptly addressed by successfully remediating the Operators who failed to perform adequately. A detailed plan was implemented to assure that Operator requalification training efforts were fully adequate to meet the standards.
- Niagara Mohawk acknowledges that the annunciator window corrective actions have not moved as rapidly as desired (page 30, SALP report). The Company's response is provided in the Unit 2 Operation's section.
- The Company also acknowledges that the initial identification and problem solving of the 125 VDC matter was not timely (page 30, SALP report), and so stated in its Restart Readiness Report. However, the Company believes that resolution of the 125 VDC problem before the Unit restarts is adequate to assure the public health and safety. The schedule for that work was as aggressive as could be achieved without affecting the safety

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related elements of the design. The concern was given the proper attention after identification by correcting the breaker problem before refueling, and the battery and motor generator problems before restart. Also, in some instances, management asked for more study on certain items, which had an effect on schedule. Niagara Mohawk will continue to strive to do better in the future, but doing it right will always take priority over doing it quickly.

#### Summary

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Niagara Mohawk agrees with the SALP assessment that it has passed a turning point in the approach to assuring Safety Assessment and Quality Verification, and is confident that the changes and enhancements already in place will result in consistently high organizational performance.

The SALP report contained no recommendations for improvement in this area. Although there is considerable room for additional improvement, Niagara Mohawk believes it has achieved substantial progress. In view of this, as well as the marked improvement NRC noted during the recent Readiness Assessment Team Inspection, Niagara Mohawk suggests NRC reconsider its SALP rating of our performance in Safety Assessment and Quality Verification.

Niagara Mohawk's plan for the future is to continue to improve performance through activities such as self-assessment, management by walking around, and effective implementation of the Nuclear Improvement Program. . 

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# ENCLOSURE 5

# SALP Board Report Revision Sheet

| Page   | Line   | Now Reads                               | Should Read  |  |  |  |
|--------|--|---|--|--|--|--|
| 13     | 33-36  | , there did not<br>appear postponed.    | , catch basins are still<br>extensively used to contain valve<br>leakage.                                      |  |  |  |
| Basis: | Statement regarding treatment of valve leakage changed and sentence<br>on postponement of decontamination deleted in response to Niagara<br>Mohawk comments. |   |  |  |  |  |
| 14     | 8  | ALARA performance was<br>weak           | ALARA performance for 1989 was<br>good for Unit 1 at 464 man-rem and<br>excellent for Unit 2 at 61<br>man-rem. |  |  |  |
| Basis: | Previous assessment on ALARA performance was in error and was revised<br>in response to Niagara Mohawk comments on 1989 ALARA performance.                   |   |  |  |  |  |
| 14     | 15-19  | The Unit 1 goal of<br>about 800 man-rem | (Sentence Deleted)   |  |  |  |
| Basis: | Sentence deleted in response to Niagara Mohawk clarification of 1989<br>ALARA goals and performance.   |   |  |  |  |  |
| 15     | 21   | However, upper manage-<br>ment support  | (Sentence Deleted) ·   |  |  |  |
| Basis: | Sentence deleted and previous assessment retracted based on the above clarifications regarding 1989 ALARA performance.                                       |   |  |  |  |  |