



**GENERATION  
BUSINESS GROUP**

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October 15, 1997  
NMP1L 1260

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

RE: Nine Mile Point Unit 1  
Docket No. 50-220  
DPR-63


Nine Mile Point Unit 2  
Docket No. 50-410  
NPF-69

**Subject:** *Reply to Notice of Violation Contained in NRC Inspection Report 97-06,  
Dated September 15, 1997*

Gentlemen:

This letter responds to the Notice of Violation regarding 1) the failure to properly implement procedures, and 2) the failure to implement two requirements of the emergency plan. The attachment to this letter addresses the specific items required by the Notice of Violation.

Sincerely,

  
B. Ralph Sylvia  
Chief Nuclear Officer

BRS/TWP/cmk  
Attachment

xc: ~~Mr. H. J. Miller, Regional Administrator, Region I~~ /  
Mr. B. S. Norris, Senior Resident Inspector  
Mr. A. W. Dromerick, Acting Director, Project Directorate I-1, NRR  
Mr. D. S. Hood, Senior Project Manager, NRR  
Records Management

*7-1006-77*



ATTACHMENT

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT UNIT 1 AND UNIT 2  
DOCKET NO. 50-220/50-410  
DPR-63/NPF-69

REPLY TO NOTICE OF VIOLATION DATED SEPTEMBER 15, 1997  
AS CONTAINED IN INSPECTION REPORT  
50-220/97-06 AND 50-410/97-06

A. VIOLATION 50-220/97-06-01 and 50-410/97-06-01

NMP1 Technical Specification, Section 6.8.1, requires procedures to be written and implemented that meet the requirements of NRC Regulatory Guide (RG) 1.33, "Quality Assurance Program Requirements (Operation)."

NMP2 Technical Specification, Section 6.8.1, requires procedures to be written and implemented that meet the requirements of NRC RG 1.33.

RG 1.33, Appendix A, identifies procedure adherence as one of the safety related activities that should be covered by written procedures.

Nine Mile Point Nuclear Interface Procedure NIP-PRO-01, "Use of Procedures," Revision 04, Section 3.2.1, requires procedures to be implemented as written.

- (1) NMP1 Surveillance Test Procedure N1-ST-Q6B, "Containment Spray System Loop 121 Quarterly Operability Test," Revision 04, Step 8.1.14, requires the operator to throttle flow control valve 80-118, to establish a required containment spray flow rate.

Contrary to the above, on July 1, 1997, during the performance of N1-ST-Q6B, a licensed reactor operator operated containment spray blocking valve 80-40, instead of valve 80-118, which resulted in approximately 150 gallons of water being sprayed into the containment.

- (2) NMP1 Generation Administrative Procedure GAP-OPS-02, "Control of Hazardous Energy and Configuration Tagging," Revision 09, Step 3.4.3, requires operators to use a copy of the application sheet and place all necessary devices in the required protective position and apply the completed tags.

Contrary to the above, on July 23, 1997, during the isolation of motor generator set #167, two NMP1 operators opened the maintenance supply circuit breaker



instead of the normal supply circuit breaker as specified on the application sheet, resulting in the loss of the plant process computer.

- (3) NMP2 Fire Preventive Maintenance Procedure N2-FPM-FPW-A004, "Sprinkler Alarm Test," Revision 00, Step 7.2.1, requires operators to initiate sprinkler system fire alarm indication by operating the alarm test valve.

Contrary to the above, on July 22, 1997, on at least three occasions, a fire department individual operated the manual release test valve to initiate the system fire alarm instead of the alarm test valve resulting in pressurization of the water deluge sprinkler system.

- (4) Nine Mile Point Nuclear Interface Procedure NIP-PRO-01, "Use of Procedures," Revision 04, Section 3.3.3, states that if a procedure cannot or should not be performed as written, users shall notify supervision of the deficiency or condition and notify the Station Shift Supervisor (SSS) of unexpected results or conditions.

Contrary to the above, on July 18, 1997, while restoring a radiological waste system after maintenance, an operator failed to notify either supervision or the SSS that three valves had been left in a position other than the authorized restoration position, and resulted in overflowing a tank in the radiological waste building.

In the aggregate, this is a Severity Level IV violation (Supplement I).

#### **I. THE REASON FOR THE VIOLATION**

Niagara Mohawk (NMPC) admits to the violation. Four events are described in this violation and the specifics will be discussed individually as appropriate. All of the events involved failure to implement procedures due to the inadequate use of work practices such as self-checking, performing the appropriate verification, or use of a questioning attitude.

Collectively, these four events represent a continuing performance issue at Nine Mile Point, and in particular, Nine Mile Point Unit 1 (NMP1). The events pointed to weakness in work practices, procedural adherence and execution, ownership and accountability. Senior management had been aware of the declining performance and had initiated some changes prior to these events to correct the trend. These four events confirmed managements concerns and prompted accelerated changes.

As a result, immediate changes were made in the area of ownership, accountability, expectations regarding current work practices and new work practices. The individual events and reasons for the events are discussed below.



### Incorrect Valve Operation During Containment Spray Surveillance

During the performance of the surveillance test, the operator was establishing the test flow conditions by throttling closed valve 80-118 (flow control valve). The operator removed his hand from the control switch to point at the appropriate flow indication (proper self-checking). The flow indication was low and when the operator proceeded to increase flow using the control switch, he did not use proper self-checking to verify his hand was on the correct control switch and inadvertently opened valve 80-40 (blocking valve). This resulted in a flow path from containment spray loop 121 (the loop in test) through the loop 111 spray header and into the drywell. The operator immediately realized the error and closed the valve. A drywell leakage alarm was received, and while the Chief Shift Operator (CSO) and Assistant Station Shift Supervisor (ASSS) were responding to the alarm, the operator informed the CSO of the valve mispositioning and also adjusted the flow control valve to achieve the required test flow. The Station Shift Supervisor (SSS) was notified and the test was stopped until conditions could be evaluated and the test lineup verified.

The operator failed to apply self-checking to ensure the correct switch was operated. Additionally, he failed to immediately stop the test when the incorrect switch was operated. Contributing causes were inappropriate level of supervision during the test and no pre-job brief.

### Wrong Circuit Breaker Operated

In preparation for work to be performed on motor generator set 167, the operators had successfully secured motor generator 167 and provided power to the plant process computer from the alternate power supply (I&C Bus 130). The operators then hung red tags to ensure the system configuration was controlled during maintenance. The last tag to be hung was the supply breaker identified as "167 MG SET COMP. PNL SUPPLY". The operators proceeded to the designated panel in the auxiliary control room and upon opening the panel, discovered that the breakers were not labeled. Adjacent to the designated panel was a separate panel and breaker labeled "COMPUTER PNL 167 MAINT. SUPPLY 100A". Believing that this was the correct breaker, the operators opened this breaker, which resulted in a loss of power to the plant process computer.

Both operators failed to perform the required verification and to demonstrate a questioning attitude when confronted with the differences between the tag and breaker label.

### Use of Wrong Test Valve During Fire System Testing

A fire protection preventative maintenance procedure was in progress which verifies that fire alarms are received at the respective fire control panels upon initiation of flow through the system (either actual flow or simulated flow through an alarm test valve). On three occasions during the test, a firefighter incorrectly operated the manual release valve instead of the alarm test valve for the specific sprinkler system zone. Operation of the manual release valve caused





the system control valve to actuate as designed, resulting in the system being charged. During operation of the first valve, the firefighter did not notice any unusual system response. The firefighter recognized an unusual response for the second tested valve, which was the largest of the valves which were operated. He contacted his fire chief to request assistance, but did not wait for this assistance before proceeding to the third valve. The third valve was similar to the first valve, and therefore he believed it could be successfully tested before the fire chief arrived. As a result of these valve operations, water flowed into the respective turbine condenser area. In addition, the fire brigade was also activated as a result of unusual indications in the turbine building resulting from this test.

The firefighter failed to follow the procedure and operated the wrong valves on multiple occasions due to inadequate self-checking and failure to obtain supervisory resolution to an unusual condition encountered during the test.

#### Valves Left In Off Normal Position Following System Restoration

A radwaste operator was removing red tags on the filter sludge clarifier system. During the process of restoring the system to normal in accordance with the tagout restoration sheet, three valves were left in the closed position. The operator believed that if the valves were opened, water would be placed onto the floor. The restoration sheet was filled out by the operator noting that the three valves were left in a different position than directed and the red tags were removed. The restoration sheet and tagout sheets were returned to the control room where the SSS placed them on the CSO's desk for review. The tagout restoration sheet was later reviewed by the CSO who failed to notice that the valves were left in off-normal positions. There were no hold out tags placed on the valves in accordance with procedure GAP-OPS-02 to maintain configuration control. The filter sludge clarifier system was later operated and water subsequently backed up onto the floor due to the valves being closed.

The radwaste operator failed to follow procedure (instructions on the tagout restoration sheet) and did not communicate to anyone that the valves were not returned to the as directed position. The operator believed that the direction on the restoration sheet was incorrect and as a result, took independent action in violation of procedure to position valves without proper research or contacting supervision in advance. Additionally, the CSO performed an inadequate review of the tagout restoration sheet. The CSO failed to identify that the valves were positioned contrary to the direction given on the tagout restoration sheet as required.

## **II. CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED**

As stated in Section I, immediate changes were made to deal with these issues. Several of the actions taken apply generically to work practice issues and address the causes of the recent problems. The comprehensive corrective actions that were taken are listed below and therefore, are not discussed under the individual events.



- Control Room Command and Control - Responsibilities for the SSS and ASSS have been clarified and controls put in place to ensure administrative activities and work schedules promote the safe and controlled operation of the plant. The physical layout of the control room was changed to separate the SSS and ASSS; the SSS and ASSS previously sat side by side. In this new arrangement, the functions of shift manager and control room supervisor are strengthened. For example, the SSS provides an initial review of planned control room activities and limits these activities as appropriate. The ASSS, or control room supervisor, maintains the direct oversight of ongoing plant and control room activities.
- New department wide work practices have been put into place, including peer checking and a new technique for self-checking: TVAMO (Touch, Verify, Anticipate, Manipulate and Observe).
- Expectations were revised for pre job briefings and supervisory involvement. The ASSS now briefs the control room personnel prior to surveillance testing or planned maintenance activities. Specific elements of the brief include areas where plant safety could be affected, self-checking requirements, verification requirements and whether direct oversight by shift management is required. The guidance for supervisory involvement was revised to address when direct oversight is required (i.e., when scram or isolation signals are inserted).
- Individual responsibility and ownership have been reinforced. Operations department personnel were briefed on the need for individuals to be responsible for their actions. Expectations were reinforced that individuals must give their full attention to their assigned tasks and that the tasks must be accomplished without error.
- The individuals involved in each of these events received disciplinary action or performance counseling.
- Three part communications have been strengthened. The Operations Manager met with the operations department and operations training instructors to reinforce and reaffirm the need for constant and complete three part communications.
- The Senior Management Team (SMT) has become more directly involved in a leadership role. SMT members reviewed each of the events and the corrective and preventive measures for them.

It should be noted that the corrective actions described above were taken for NMP1, even though one of the events occurred at Nine Mile Point Unit 2 (NMP2). The firefighters involved with the fire protection maintenance at NMP2 functionally report to the NMP1 Operations Manager.



The following are specific corrective actions taken for each of the four events.

#### Incorrect Valve Operation During Containment Spray Surveillance

1. Shift management placed the test in a safe hold point until plant conditions could be evaluated. The test lineup was reverified and the test completed later using peer checking. Technical Specification (TS) 3.2.5 was entered due to the increase in unidentified drywell leakage rate. The TS was later exited after the leakage rate stabilized below the limits.
2. The NMPC SMT became involved with the investigation to ensure the event was properly evaluated and that there was a broad perspective review applied. A special investigative team was assembled. The events were reenacted in the simulator and personnel involved were interviewed. The results of these findings were discussed with the Operations Manager and SMT.
3. The on-duty shift completed a stand down to discuss the self-checking process. The operator performing the test was directed to Fitness for Duty for post incident testing and was removed from shift duties pending completion of remedial actions.
4. Additional expectations were included in the SSS instructions on July 1, July 2, and July 14, 1997. These expectations addressed the root cause and contributing causes of the event. The onsite safety review committee evaluated the event and the actions that were being taken.
5. Engineering performed a plant operability evaluation and confirmed the acceptability of continued plant operation. Significant recent plant events were reviewed for common threads, as well as other Deviation/Event Reports that dealt with work practices.
6. A drywell walkdown was performed on July 12, 1997 during a plant forced outage. No adverse consequences were identified as a result of the inadvertent spray.

#### Wrong Circuit Breaker Operated

1. The tagout activity was stopped and the SSS was immediately notified.
2. The "COMPUTER PNL 167 MAINT. SUPPLY 100A" breaker was reclosed to supply power to the plant process computer and the plant process computer was reinitialized.
3. The appropriate circuit breakers were labeled or relabeled to clearly identify the normal supply and alternate supply breakers. The description/location field in the tagout database was revised to provide a more detailed location description.



### Use of Wrong Test Valve During Fire System Testing

1. The systems were restored to normal.
2. A stand down was held with the firefighters. Firefighters were specifically trained on self-checking (TVAMO) and procedural compliance. The firefighter was temporarily removed from shift until the additional training was completed.

### Valves Left in Off Normal Position Following System Restoration

1. The valves were restored to the correct positions and the floor area was decontaminated.
2. The radwaste operator was suspended from performing tagout activities and removed from shift. A remediation plan was completed that involved reviews of various procedures, JPM performance, development of a lessons learned memorandum, and interviews with supervision and management.
3. A lessons learned memorandum was developed and reviewed with Unit 1 operating shifts.

### III. ACTIONS TAKEN TO PREVENT RECURRENCE

Continuing self assessments and audits will be used to ensure that a course of steady improvement is maintained. Additionally, the SMT periodically reviews/evaluates department performance, looking for trends, work practice issues and general regulatory performance. Several actions were taken to address work practice issues. These included:

- The Operations Manager met with each operating crew during cyclic training to discuss each of these events individually and as a whole. The areas of ownership and accountability, work practices, changes and enhancements to command structure and an assessment of current performance were specifically discussed. All of these actions should also foster an environment that promotes a questioning attitude.
- Each licensed operator performed a Job Performance Measure (JPM) related to work practices during cyclic training to reinforce management expectations.
- A common standard for the conduct of operations for both NMP1 and NMP2 will be developed to draw out the best practices from each unit. Some of the recently implemented work practices at NMP1 were previously utilized at NMP2. This action will be completed by June 30, 1998.





**IV. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED**

Full compliance was achieved immediately following each event. The events involved failure to follow procedures. Actions were taken after each event to correct the individual discrepancies.

As mentioned, NMPC management recognizes the identified weaknesses and has implemented comprehensive actions to improve performance. We are confident that the changes that were made and those that are planned will improve our performance. In fact, a recent internal audit on control room performance showed significant improvement. NMPC will continue to monitor operator performance as part of our self assessment process to ensure long term improvement continues and will make changes as necessary to achieve superior results.



B. VIOLATION 50-220/97-06-04/05 and 50-410/97-06-04/05

10 CFR 50.54(q) states that a licensee authorized to possess and operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards in 50.47(b) and the requirements in Appendix E of this part.

- (1) The Nine Mile Point Emergency Plan, Paragraph 8.1.1.d, states that personnel assigned to the emergency organization, with specific duties and responsibilities, shall receive specialized training for their respective assignments. Figure 8.2 lists the personnel who shall receive specialized training, the type of training, and the frequency of such training. Category 3 of Figure 8.2 states that personnel responsible for accident assessment and/or management (including Offsite Dose Assessment Managers (ODAM) and radiological assessment support (RAS)) shall be retrained on an annual basis.

Nuclear Training Procedure NTP-TQS-202, "Emergency Preparedness Training/ Qualification Program," Paragraph 3.3.4, states that completion of all continuing training requirements requalifies an individual as an Emergency Response Organization member. Paragraph 4.3 states that annual continuing training requirements will be completed within a 15 month period. Attachment 2 requires that personnel qualified in the emergency response positions of ODA and RAS shall receive dose assessment and protective action recommendation refresher training as position-specific continuing training.

Contrary to the above, from June 6, 1997 through July 16, 1997, nine of the qualified individuals for dose assessment had exceeded the 15 month limit for receiving refresher training, yet continued to be listed as qualified members of the Emergency Response Organization.

- (2) The Nine Mile Point Emergency Plan, Paragraph 8.1.2, states the periodic exercises and drills are conducted in order to test the state of emergency preparedness of participating individuals, organizations, and agencies ... in accordance with EPMP-EPP-04, "Emergency Exercise/Drill Procedure."

EPMP-EPP-04, Paragraph 2.2.1, states that drills and exercises shall be scheduled in accordance with EPMP-EPP-01, "Maintenance of Emergency Preparedness." Attachment 2, Item 7, requires an annual ERO augmentation drill, by activation of the Community Alert Network system, with actual response to the emergency facilities from offsite.

Contrary to the above, from November 8, 1994, through July 18, 1997, there were no activations of ERO members that involved actual personnel response from offsite to the emergency facilities.

In the aggregate, this is a Severity Level IV Violation (Supplement VIII).



## **I. THE REASON FOR THE VIOLATION**

Niagara Mohawk admits to the violation. Two events are described in this violation and the specifics will be discussed individually. Both events involved failure to implement requirements due to EP personnel not performing the appropriate verification.

### **Failure to Maintain Personnel Qualification**

An EP instructor is responsible for tracking the qualifications of the Emergency Response Organization (ERO) personnel. The instructor failed to adequately track the training due dates to ensure qualification was maintained. When the 1997 ERO training schedule was published, two of the three scheduled dates for position specific training were outside the 15 month window, which is the maximum time interval allowed to maintain qualifications. The instructor and supervision failed to identify this error.

Procedure NIP-EPP-01, Emergency Response Organization Expectations and Responsibilities, establishes individual accountability and requires ERO initial and secondary responders to maintain the required training and qualifications associated with their position. Additionally, the procedure requires Team 1 ERO initial responders who have secondary responders reporting to them to develop and maintain a list of names of qualified secondary responders. Even though these changes were reviewed, approved and trained on, ERO members failed to realize the change in accountability for tracking individual or group qualification status. These procedural controls failed and were not effective in maintaining ERO qualification.

It is important to note that sufficient personnel were qualified and available to staff the ERO in accordance with the Site Emergency Plan, had a real emergency occurred. Additionally, the ERO responders that were delinquent in training had completed all required initial training, and thus would have been capable of performing their required duties.

A point of clarification is provided regarding a statement in the executive summary of the inspection report that the licensee's annual audit failed to identify the problems (i.e., that some ERO members were delinquent in their training). At the time that the audit was conducted in May 1997, no ERO members were delinquent in their training.

### **Failure to Conduct Offsite Activation Drill**

Procedure EPMP-EPP-01 requires that an ERO augmentation drill, with actual response of ERO personnel from offsite to the emergency facilities, be conducted annually. In 1995, a review of all EP program requirements was performed and resulted in a revision to EPMP-EPP-01 to reflect these requirements. The drill requirement in question was added to the procedure at that time, but an error in the drill frequency was not recognized. The drill frequency should have been stated as every six years. The review of the procedure revision was not sufficiently comprehensive to detect the frequency error.



EP personnel failed to comply with the procedure as written, and erroneously took credit for the satisfaction of this requirement by conducting notifications/communications drills with offsite agencies and notification drills with NMPC personnel on a quarterly basis. EP personnel did not refer to EPMP-EPP-01 while developing drill scenarios, but assumed that the objectives list contained in the implementing procedure, EPMP-EPP-04, Attachment 1, implemented the requirement in EPMP-EPP-01. The EPMP-EPP-01 and EPMP-EPP-04 procedures were inconsistent with each other.

It should be noted that a drill was conducted in 1994 and that NMPC remained in compliance with the intended six year drill performance requirement.

## **II. CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED**

### **Failure to Maintain Personnel Qualification**

Requalification training for affected ERO members was immediately conducted upon discovery of this deviation. A review of EP training records was conducted to determine if other initial responders qualification had lapsed. No additional deficiencies were found.

An EP Training Due Report was developed which contains all training due dates. The report covers the period from the last training date and provides the training due date.

The instructor was counseled by management to reinforce expectations regarding qualifications and scheduling training.

### **Failure to Conduct Offsite Activation Drill**

NMPC verified that it was in compliance with the regulatory requirements for drill and exercise performance.

In our response to a notice of violation contained in Inspection Report 50-220/96-10 and 50-410/96-10, NMPC committed to a review of selected procedures to ensure that our licensing basis was adequately translated into approved procedures. The EP procedures which implement drill and exercise requirements will be included in this review, which is scheduled to be completed by December 31, 1997.

The EP staff members responsible for reviewing the procedure were counseled by management to reinforce expectations regarding procedure review and usage.

EP staff were coached regarding compliance with site procedures.





### **III. ACTIONS TAKEN TO PREVENT RECURRENCE**

#### **Failure to Maintain Personnel Qualification**

To address the contributing cause involving procedure NIP-EPP-01, EP provided a site-wide communication directed to all initial and secondary responders highlighting the procedural requirements for individual responsibility for tracking and maintaining ERO qualifications. Additionally, EP provided a copy of the procedure to all initial responders with secondary responder responsibilities. A Lessons Learned Transmittal that relates the problems identified in this event will be distributed to the appropriate personnel. This action will be completed by October 29, 1997.

EP provided ERO Team Leads and Team 1 ERO initial responders with the EP Training Due Report as well as posted the qualification status and due date reports in each ERO facility.

EP training generated a training change order to include NIP-EPP-01 responsibilities in continuing training for all ERO members. Training will be completed by June 30, 1998.

#### **Failure to Conduct Offsite Activation Drill**

No further preventive actions are required.

### **IV. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED**

Full compliance was achieved regarding personnel qualification on August 18, 1997, after requalification training was completed for the affected ERO members.

Full compliance with the procedure will be achieved regarding the offsite activation drill requirement after the procedure is revised (no later than November 26, 1997). NMPC is currently in compliance with the six year regulatory requirement for drill performance.

