

August 12, 1988

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

Re: Nine Mile Point Unit 1
Docket No. 50-220

Gentlemen:

Your Combined Inspection Report 50-220/88-22 and 50-410/88-23 dated July 8, 1988, requested that Niagara Mohawk respond to this report identifying actions taken or planned to address the deficiencies as well as the specific unresolved items identified within 30 days of receipt of your letter.

Niagara Mohawk acknowledges the problems associated with the Unit 1 Emergency Operating Procedures (EOPs) as identified in the inspection report, and we are taking aggressive action to correct the specific deficiencies and the underlying causes. Correction of these deficiencies and their root causes is also being addressed in response to Confirmatory Action Letter (CAL) 88-17 which requires Niagara Mohawk to identify root causes of problems identified, and to develop a corrective action plan for NRC Region I approval.

To avoid duplication and/or premature decisions on required actions to correct the underlying causes of these and similar problems, the specific actions to be taken as addressed in this letter should be considered preliminary. Actions to correct EOP and operator training deficiencies will be further addressed in the action plan for Unit 1 restart in response to CAL 88-17.

The Unit 1 licensed operators are currently undergoing training on the EOPs. During the course of this training, evaluations will be conducted to determine its effectiveness and the operators ability and proficiency in use of the EOPs.

An Operations team is reviewing the EOPs and performing walkdowns in the plant to identify and correct any inconsistencies between the procedures and the actual plant conditions. Also, the Quality Assurance Department (QA) has become actively involved in the EOP program and an administrative procedure is being revised to include QA in the EOP process.

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Page 2
Nine Mile Point Unit 1
Docket No. 50-220

Attachment I describes preliminary actions taken or planned to address the specific deficiencies.

Very truly yours,

Niagara Mohawk Power Corporation


C. V. Mangan
Senior Vice President

CVH/cla
(1382C)

Attachment

xc: Regional Administrator, Region 4
Mr. R. A. Capra, Director
Ms. M. Haughey, Project Manager
Mr. W. A. Cook, Senior Resident Inspector
PPF





NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT UNIT 1
Docket No. 50-220
License No. DPR-63

RESPONSE TO DEFICIENCIES AND UNRESOLVED ITEMS FROM INSPECTION
REPORT 50-220/88-22 and 50-410/88-23

DEFICIENCY

The first significant deficiency was identified concerning the Unit 1 operating crew performance during the evaluation of the EOPs on the simulator. The NRC determined that the Unit 1 operating crew could not properly implement the EOPs and that the crew lacked an understanding of the bases for the EOPs. This deficiency appears to be the result of inadequate management attention to the quality of training provided to the licensed operators at Unit 1.

RESPONSE

Niagara Mohawk recognizes the problem with the quality of training provided to the licensed operators at Unit 1 and is taking the following actions to correct it.

Management oversight of licensed operators training has been improved by the following actions:

- 1) Niagara Mohawk is developing a System Approach to Training based retraining program.
- 2) The Operations Regualification Training Team which was formed to address training problems has published a set of recommended actions. This team is being continued as the Operator Training Program Advisory Committee to oversee the entire licensed operator training program. The Committee is made up of licensed operators, training instructors, and operation and training management.
- 3) A new Operations Superintendent was recently appointed and has become actively involved with requalification training for licensed operators. The ownership of the operator training program now belongs with the Operations Department.

To specifically address the EOP problem, the Unit 1 licensed operators are currently undergoing training on the EOPs. During the course of this training, evaluations will be conducted to determine its effectiveness. These will consist of self-evaluations by the operators as well as evaluations by the Training Instructors and Operations management. If the evaluations indicate the need for additional training on the EOPs it will be given.

A human performance evaluation is being performed to determine the root cause of why Operations Management was unaware that the operators were unable to implement the EOPs despite the training they were given. This evaluation will also be used to determine what other deficiencies with licensed operator EOP training may exist and is scheduled to be completed by August 31, 1988. At that time, management will review the results to determine what further actions are required.



DEFICIENCY

The second significant deficiency identified was the lack of assurance that the EOPs can be implemented in the plant. This deficiency is based on the lack of adequate pre-planning on the equipment, tools, jumpers and material needed to perform the specific EOP tasks; lack of validation of out of control room EOP actions; lack of verification of plant hardware specifically against the EOPs; lack of training on out of control room EOP actions; lack of adequate administrative controls to assure that changes made to procedures referenced in the EOPs do not impact the EOPs; and, lack of quality assurance involvement in the EOP program.

RESPONSE

Niagara Mohawk recognizes that there is a lack of assurance that the EOPs can be implemented in the plant and is taking steps to correct this.

An Operations team has performed a verification and validation of the outside of Control Room EOP actions. Follow up actions will include the dedication of appropriate administrative controls for plant hardware needed to perform EOP tasks. A verification and validation of the appropriate operating procedures and special operating procedures will be performed by August 31, 1988.

As stated above, the licensed operators at Unit 1 are receiving additional training on the EOPs. Training has been completed on out of Control Room EOP tasks.

Also, administrative controls will be developed to assure that changes made to procedures referenced in the EOPs are controlled to ensure that the changes do not affect the EOPs.

The Quality Assurance Department (QA) is now actively involved in the EOP program. Procedure AP-2.0 is being revised to include QA review in the EOP process. QA is performing an independent review of each EOP and walkdowns of selected EOPs.



UNRESOLVED ITEM 88-22-01

Based on findings for procedure inconsistencies and other findings identified during the walkthrough, the inspector inquired if procedures referenced or interfacing with the EOPs are assessed against the EOPs before being modified. A review of AP-2 "Production and Control of Procedures" did not identify sufficient controls to assure procedures referenced by EOPs are not changed without assessing the EOPs for possible impact. Facility actions are needed to assure adequate administrative control. Facility actions to resolve technical adequacy concerns will be tracked as unresolved item 220/88-22-01.

RESPONSE

Niagara Mohawk's immediate corrective action to address this item is to perform a review of the Operations Procedures (OPs) to ensure that the sections of the OPs referenced by the EOPs address the intended subject. Operator's are also performing walkthroughs of the OPs to determine if the procedures need to be corrected or clarified.

New administrative controls are being developed to assure that procedures referenced by EOPs are not changed without assessing the possible effect on the EOPs. These controls will be in place prior to Unit 1 restart.

UNRESOLVED ITEM 88-22-02

The inspectors walked down the EOPs and procedures referenced therein to confirm that the procedures can be implemented. The purpose of the walkdowns was to verify that instruments and controls contained or required to be used to implement the procedures are consistent with the installed plant equipment, insure that the indicators, controls, annunciators referenced in the procedures are available to the operator, and ensure that the task can be accomplished. Detailed comments identified are also noted in Attachment B. General comments, observations and conclusions from the detailed comments are discussed below.

The walkdowns identified a general inconsistency in the plant labeling. There were differences with the procedure names and plant labels. Gages were not always labeled. Sometimes the plant label referred to a name and sometimes referred to a number. The facility indicated that actions resulting from the detailed control room design review would respond to many of these observations.

The team observed a general lack of distinct labeling for EOP related instruments and equipment. There was no clear distinction between instruments that relate to the EOPs and those that do not.



The facility did not have any pre-staged storage of equipment, tools, or jumpers necessary to accomplish EOP required tasks but only planned on using tools that are generally available on site. The facility walkdown of EOPs and procedures referenced in the EOPs had not been done to assure that the procedures can be accomplished, as evidenced by: the lack of physical methods to add the boron to the tank, the lack of the controls necessary to accomplish the containment sampling activities, the inaccessibility of plant equipment in the overhead, the difficulty in locating some EOP related electrical equipment, and the lack of information to indicate some of the EOP entry conditions in Secondary Containment Control.

The team concluded that because of the general lack of adequate pre-planning to carry out the EOPs, the facility could not demonstrate that the EOPs could be carried out in the plant. Facility actions to resolve items generated during the walkdown will be tracked as unresolved item 220/88-22-02.

RESPONSE

Niagara Mohawk is reviewing the EOPs and performing walkdowns in the plant to identify and correct any inconsistencies between the procedures and the actual plant conditions. Plant hardware needed to perform EOP tasks will be dedicated and administratively controlled. The labeling inconsistencies identified will be corrected before the Unit 1 start-up.

UNRESOLVED ITEM 88-22-03

The human factors assessment of the flow chart version of the EOPs concluded that in general the EOPs are high quality procedures with an appropriate level of detail and a clearly designed format. However, in spite of the high quality, the EOPs do contain a number of weaknesses in areas that have a strong relationship to potential human error. The items are relatively few in number and easily corrected. (Unresolved item 50-220/88-22-03).

RESPONSE

All the EOPs have been reviewed by Operations and the appropriate changes have been made to address the human factors concerns identified in the NRC audit.



UNRESOLVED ITEM 88-22-04

The NRC team inspected the ongoing evaluation program for EOPs. This program consists of a two year review, in accordance with AP 2.0 Production and Control Procedures, Section 13.0, Periodic Review of Procedures. Comments on any procedures are documented in accordance with S-SUP-4 Procedure Evaluation Requests. An informal log of instructor generated comments during simulator training sessions is maintained at the simulator. The NRC team determined that the on-going evaluation program of the EOPs was unstructured to ensure quality EOPs are maintained and modified as necessary from plant operational experience and use, training, control room walkthroughs and plant modifications. Facility actions to resolve this item will be tracked as unresolved item 50-220/88-22-04.

RESPONSE

Niagara Mohawk will review the ongoing evaluation program for the EOPs to determine how it can be improved. Based on this review, the necessary corrective actions will be implemented. This will be in place prior to Unit 1 restart.

UNRESOLVED ITEM 88-22-05

Lack of QA involvement in the EOP development program and review of EOPs is considered to be a facility management deficiency. This is considered an unresolved item. (50-220/88-22-05)

RESPONSE

The QA Department is now actively involved in the EOP program through review of the EOPs, the EOP flowcharts, observing simulator walkthroughs by Operators and by performing in-plant walkdowns of selected EOPs. Administrative procedure AP 2.0 is being revised to include QA in the EOP process.

UNRESOLVED ITEM 88-22-06

During the recent QA review of EOP activities (surveillance report 88-10292 dated 6/20/88), the QA organization noted that the procurement of consultant services for RO/SRO training was procured as non-safety related. QA submitted a Determination of Appendix B Quality Requirements to NMPC Licensing. This request was for a determination if consultants procured for licensed operator instruction must meet the requirement of 10 CFR 50 Appendix B. NMPC Licensing determined that Appendix B Quality Requirements apply to consultants procured for RO/SRO instruction.



Based on this determination, NMPC-Nuclear Quality Assurance-Operations prepared a Corrective Action Request (CAR) to be acted upon by the Nuclear Training organization.

This CAR contains two concerns:

1. SRO Certified Training Instructors have been contracted from General Physics Corporation and General Electric. These contractors provide services which include the design, modification, development and implementation of RO/SRO training at NMP-1 and NMP-2. These services were procured as non-safety related. The contractor summary for these contractors does not include evaluation of training services or certification at the SRO level to meet the quality requirements of 10 CFR 50 Appendix B.
2. There is presently a lack of definition as to what elements of the Training Program are to be considered safety related.

This CAR was still under management review at the time of the NRC team inspection. This item represents a potential problem with the quality of training provided to NMP-1 and NMP-2 operation staff that warrants immediate senior management attention to resolve. This item is considered unresolved (50-220/88-22-06).

RESPONSE

The following actions are being taken to address the CAR and are scheduled to be fully implemented by August 31, 1988:

- A) For those contract instructors presently providing instructional support to the licensed operator training and retraining programs, the following actions will be taken:
 - 1) A file containing a current resume, a copy of the examination(s) and performance evaluation(s) upon which the SRO certification was based and an outline of the training curriculum utilized to support the certification will be assembled. The last item may have to be "reconstructed" for some of the contractor instructors who have been at NMP for several years due to the fact that such records may not exist in sufficient detail.
 - 2) Successful completion of a Nine Mile Point license class audit examination or a Nine Mile Point Operator Requalification examination will constitute an acceptable substitute for a vendor administered SRO certification examination/performance audit. A matrix or description of each contractor performing instruction which identifies which have taken Audit Examinations, Requal Examinations and which if any do not meet this criteria will be assembled.
 - 3) Documentation will be procured from each contractor providing instructors who must be SRO certified as to the existence of a formalized SRO certification program.



All documentation will be assembled in the training center by August 31, 1988.

B. For contract instructors who may be utilized at some future date to provide instructional support to the Operator Training and Retraining Programs, the following actions will be taken:

- 1) The Request for Quotation and Purchase Requisition will require a detailed resume, an SRO Certification, a copy of the examination(s) and performance evaluations(s) and a written description of the training program upon which the SRO certification was based. This program description will include at a minimum a course outline describing the subject areas included in the certification program. Contractors will be required to provide verification of all education and experience cited in each of the proposed instructor's resume.
- 2) The Nuclear Training Instruction (or Nuclear Training Procedures) will be revised to include requirements for a contractor SRO certification. The requirements stated in B1 above will be incorporated into this procedure with the stated intent being to acquire contractor instructors who possess technical and instructional skills similar to those of our own instructors.

All Requests for Quotations and Purchase Requisitions written after August 31, 1988 as well the addition of any instruction to existing contracts which seek SRO certified instructors, will incorporate the requirements of B1 as described above. Training Instructions (NTI's) will be revised by August 31, 1988 to include the items addressed in B1 above.

Since these actions are applicable to all contractors, any other similar conditions would be addressed. These actions should serve to prevent recurrence of this situation.

Full implementation is anticipated on or before August 31, 1988.

Niagara Mohawk has determined that, while 10 CFR 50 Appendix B quality requirements apply to the licensed operator training program, the procurement of vendors to support this training does not have to meet the Appendix B requirements if the following condition is met: It would be acceptable to hire vendors not on Niagara Mohawk's Qualified Vendors list for licensed operator training provided that Niagara Mohawk's programs and procedures are invoked. Vendor could perform the training activities, but only under the direct supervision of qualified Niagara Mohawk personnel. The responsible supervisor provides appropriate indoctrination or training of the vendor representatives based on the job assignment to ensure that site procedures and program requirements normally followed by training personnel, the intent of 10 CFR 50 Appendix B, and, therefore, the integrity of safety related training has been maintained.



UNRESOLVED ITEM 88-22-07

Several concerns have been generated by a review of the NMP-1 EOP verification and validation process. They are:

1. Compatibility with plant hardware and instrumentation outside of the control room was not evaluated during the verification process.
2. The validation process did not include physical walkthrough of actions required outside of the control room, and steps that could not be exercised on the simulator were not necessarily walked through in the control room.
3. The validation and verification process did not utilize an adequate multi-disciplinary team approach. For example, one contractor was represented as fulfilling the roles of technical writer, human factors specialist, engineer, and validation and verification director. The licensee actions to resolve these concerns will be included as unresolved item (50-220/88-22-07).

RESPONSE

Niagara Mohawk has performed a complete verification and validation for the changes that have been made to the EOPs since they were established. This process included in-plant walkthroughs by operators and training instructors. This team consisted of the contractor who was on the initial verification and validation process, an engineer from the Technical Support group and a training instructor. The engineer holds a Senior Reactor Operator Certification for Unit 1 and the training instructor has a Senior Reactor Operator Certification from General Physics. We believe that these individuals provide the expertise needed for an effective multidisciplinary review.

UNRESOLVED ITEM 88-22-08

Several concerns have been generated by the initial review of the NMP-1 EOP training program. They are:

1. The number of hours per individual operator of pre-implementation EOP training ranged from 32 to 88 hours. No clear explanation of this variance was available.
2. The only documented EOP training since the pre-implementation training in mid-1986 totalled 14 hours per individual. This total does not include 8 hours of pre-implementation training on EOP 4.1 during 1988.
3. Although text EOPs are still the only approved EOPs at NMP-1, all training within the last year (both classroom and simulator) is reported to have used the flowchart version of the EOPs.
4. Documentation of EOP training prior to March 1988 did not necessarily distinguish between simulator and classroom hours.



5. Documentation of EOP training does not distinguish between text and flow-chart format.
6. During pre-implementation EOP training, steps not able to be exercised on the simulator were talked through and thus not necessarily walked through or physically exercised by operators.
7. Training records did not allow easy access to documentation requested by the inspection item. Reconstruction of the information was required and resulted in an incomplete and sometimes unclear description about the training provided.
8. Records of pre-implementation training suggest that some training department instructors had not fully completed their own EOP training prior to instructing NMP-1 operators on use of the EOPs.
9. Training did not include local EOP operations.

No conclusion on the adequacy of the EOP training could be reached as a result of this brief review. However, it does suggest that the facility training program on EOPs is at least a part of the reason that the operating crew experienced difficulty during the simulator portion of this inspection. This is considered to be an unresolved item (50-220/88-22-08).

RESPONSE

1. The reason for the variance in the number of hours of pre-implementation EOP training received by different operators is that some shift operators participated in the EOP validation process and were given credit for the time they spent doing it. Not all shifts participated in this effort.
2. During July and August, 1988, all shifts will receive approximately 80 hours of concentrated EOP training which will be divided approximately equally between classroom training and simulator training.
3. The flowchart version of the EOPs is being used in the current EOP training because the flowcharts are the choice of Operations management and they will be approved for use by August 31, 1988.
4. The computerized tracking system which is being developed to manage the training records will be able to distinguish between classroom and simulator training. This new system is scheduled to be operational by the end of 1988. The current manual record keeping system also distinguishes between classroom and simulator training.
5. All EOP Training is using the flowchart version. The flowcharts will be approved by August 31, 1988, after which the text version will be discontinued.
6. The EOP Lesson Plans now require thorough plant walkdowns of the EOPs to cover the steps which cannot be exercised on the simulator.
7. The new computerized tracking system will allow easy access to training records and will be able to provide information on specific training activities.



8. We are continuing to verify all Training Department instructors who have instructed Unit 1 operators on use of the EOPs had completed their own EOP training prior to their teaching.
9. The EOP Lesson Plans now require thorough plant walkdowns of the EOPs to cover the steps which cannot be exercised on the simulator.



August 12, 1988

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

Re: Nine Mile Point Unit 1
Docket No. 50-220

Gentlemen:

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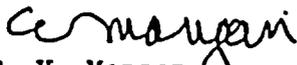


Page 2
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Niagara Mohawk Power Corporation


C. V. Hangan
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Attachment

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NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT UNIT 1
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RESPONSE

Niagara Mohawk recognizes the problem with the quality of training provided to the licensed operators at Unit 1 and is taking the following actions to correct it.

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- 2) The Operations Regualification Training Team which was formed to address training problems has published a set of recommended actions. This team is being continued as the Operator Training Program Advisory Committee to oversee the entire licensed operator training program. The Committee is made up of licensed operators, training instructors, and operation and training management.
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RESPONSE

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UNRESOLVED ITEM 88-22-01

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RESPONSE

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RESPONSE

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Lack of QA involvement in the EOP development program and review of EOPs is considered to be a facility management deficiency. This is considered an unresolved item. (50-220/88-22-05)

RESPONSE

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2. There is presently a lack of definition as to what elements of the Training Program are to be considered safety related.

This CAR was still under management review at the time of the NRC team inspection. This item represents a potential problem with the quality of training provided to NMP-1 and NMP-2 operation staff that warrants immediate senior management attention to resolve. This item is considered unresolved (50-220/88-22-06).

RESPONSE

The following actions are being taken to address the CAR and are scheduled to be fully implemented by August 31, 1988:

- A) For those contract instructors presently providing instructional support to the licensed operator training and retraining programs, the following actions will be taken:
 - 1) A file containing a current resume, a copy of the examination(s) and performance evaluation(s) upon which the SRO certification was based and an outline of the training curriculum utilized to support the certification will be assembled. The last item may have to be "reconstructed" for some of the contractor instructors who have been at NMP for several years due to the fact that such records may not exist in sufficient detail.
 - 2) Successful completion of a Nine Mile Point license class audit examination or a Nine Mile Point Operator Regualification examination will constitute an acceptable substitute for a vendor administered SRO certification examination/performance audit. A matrix or description of each contractor performing instruction which identifies which have taken Audit Examinations, Regual Examinations and which if any do not meet this criteria will be assembled.
 - 3) Documentation will be procured from each contractor providing instructors who must be SRO certified as to the existence of a formalized SRO certification program.



All documentation will be assembled in the training center by August 31, 1988.

B. For contract instructors who may be utilized at some future date to provide instructional support to the Operator Training and Retraining Programs, the following actions will be taken:

- 1) The Request for Quotation and Purchase Requisition will require a detailed resume, an SRO Certification, a copy of the examination(s) and performance evaluations(s) and a written description of the training program upon which the SRO certification was based. This program description will include at a minimum a course outline describing the subject areas included in the certification program. Contractors will be required to provide verification of all education and experience cited in each of the proposed instructor's resume.
- 2) The Nuclear Training Instruction (or Nuclear Training Procedures) will be revised to include requirements for a contractor SRO certification. The requirements stated in B1 above will be incorporated into this procedure with the stated intent being to acquire contractor instructors who possess technical and instructional skills similar to those of our own instructors.

All Requests for Quotations and Purchase Requisitions written after August 31, 1988 as well the addition of any instruction to existing contracts which seek SRO certified instructors, will incorporate the requirements of B1 as described above. Training Instructions (NTI's) will be revised by August 31, 1988 to include the items addressed in B1 above.

Since these actions are applicable to all contractors, any other similar conditions would be addressed. These actions should serve to prevent recurrence of this situation.

Full implementation is anticipated on or before August 31, 1988.

Niagara Mohawk has determined that, while 10 CFR 50 Appendix B quality requirements apply to the licensed operator training program, the procurement of vendors to support this training does not have to meet the Appendix B requirements if the following condition is met. It would be acceptable to hire vendors not on Niagara Mohawk's Qualified Vendors list for licensed operator training provided that Niagara Mohawk's programs and procedures are invoked. Vendor could perform the training activities, but only under the direct supervision of qualified Niagara Mohawk personnel. The responsible supervisor provides appropriate indoctrination or training of the vendor representatives based on the job assignment to ensure that site procedures and program requirements normally followed by training personnel, the intent of 10 CFR 50 Appendix B, and, therefore, the integrity of safety related training has been maintained.



UNRESOLVED ITEM 88-22-07

Several concerns have been generated by a review of the NMP-1 EOP verification and validation process. They are:

1. Compatibility with plant hardware and instrumentation outside of the control room was not evaluated during the verification process.
2. The validation process did not include physical walkthrough of actions required outside of the control room, and steps that could not be exercised on the simulator were not necessarily walked through in the control room.
3. The validation and verification process did not utilize an adequate multidisciplinary team approach. For example, one contractor was represented as fulfilling the roles of technical writer, human factors specialist, engineer, and validation and verification director. The licensee actions to resolve these concerns will be included as unresolved item (50-220/88-22-07).

RESPONSE

Niagara Mohawk has performed a complete verification and validation for the changes that have been made to the EOPs since they were established. This process included in-plant walkthroughs by operators and training instructors. This team consisted of the contractor who was on the initial verification and validation process, an engineer from the Technical Support group and a training instructor. The engineer holds a Senior Reactor Operator Certification for Unit 1 and the training instructor has a Senior Reactor Operator Certification from General Physics. We believe that these individuals provide the expertise needed for an effective multidisciplinary review.

UNRESOLVED ITEM 88-22-08

Several concerns have been generated by the initial review of the NMP-1 EOP training program. They are:

1. The number of hours per individual operator of pre-implementation EOP training ranged from 32 to 88 hours. No clear explanation of this variance was available.
2. The only documented EOP training since the pre-implementation training in mid-1986 totalled 14 hours per individual. This total does not include 8 hours of pre-implementation training on EOP 4.1 during 1988.
3. Although text EOPs are still the only approved EOPs at NMP-1, all training within the last year (both classroom and simulator) is reported to have used the flowchart version of the EOPs.
4. Documentation of EOP training prior to March 1988 did not necessarily distinguish between simulator and classroom hours.



5. Documentation of EOP training does not distinguish between text and flow-chart format.
6. During pre-implementation EOP training, steps not able to be exercised on the simulator were talked through and thus not necessarily walked through or physically exercised by operators.
7. Training records did not allow easy access to documentation requested by the inspection item. Reconstruction of the information was required and resulted in an incomplete and sometimes unclear description about the training provided.
8. Records of pre-implementation training suggest that some training department instructors had not fully completed their own EOP training prior to instructing NMP-1 operators on use of the EOPs.
9. Training did not include local EOP operations.

No conclusion on the adequacy of the EOP training could be reached as a result of this brief review. However, it does suggest that the facility training program on EOPs is at least a part of the reason that the operating crew experienced difficulty during the simulator portion of this inspection. This is considered to be an unresolved item (50-220/88-22-08).

RESPONSE

1. The reason for the variance in the number of hours of pre-implementation EOP training received by different operators is that some shift operators participated in the EOP validation process and were given credit for the time they spent doing it. Not all shifts participated in this effort.
2. During July and August, 1988, all shifts will receive approximately 80 hours of concentrated EOP training which will be divided approximately equally between classroom training and simulator training.
3. The flowchart version of the EOPs is being used in the current EOP training because the flowcharts are the choice of Operations management and they will be approved for use by August 31, 1988.
4. The computerized tracking system which is being developed to manage the training records will be able to distinguish between classroom and simulator training. This new system is scheduled to be operational by the end of 1988. The current manual record keeping system also distinguishes between classroom and simulator training.
5. All EOP Training is using the flowchart version. The flowcharts will be approved by August 31, 1988, after which the text version will be discontinued.
6. The EOP Lesson Plans now require thorough plant walkdowns of the EOPs to cover the steps which cannot be exercised on the simulator.
7. The new computerized tracking system will allow easy access to training records and will be able to provide information on specific training activities.



8. We are continuing to verify all Training Department instructors who have instructed Unit 1 operators on use of the EOPs had completed their own EOP training prior to their teaching.
9. The EOP Lesson Plans now require thorough plant walkdowns of the EOPs to cover the steps which cannot be exercised on the simulator.

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 Document Control Branch (Document Control Desk)

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 Insp Repts 50-220/88-22 & 50-410/88-23.

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August 12, 1988

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

Re: Nine Mile Point Unit 1
Docket No. 50-220

Gentlemen:

Your Combined Inspection Report 50-220/88-22 and 50-410/88-23 dated July 8, 1988, requested that Niagara Mohawk respond to this report identifying actions taken or planned to address the deficiencies as well as the specific unresolved items identified within 30 days of receipt of your letter.

Niagara Mohawk acknowledges the problems associated with the Unit 1 Emergency Operating Procedures (EOPs) as identified in the inspection report, and we are taking aggressive action to correct the specific deficiencies and the underlying causes. Correction of these deficiencies and their root causes is also being addressed in response to Confirmatory Action Letter (CAL) 88-17 which requires Niagara Mohawk to identify root causes of problems identified, and to develop a corrective action plan for NRC Region I approval.

To avoid duplication and/or premature decisions on required actions to correct the underlying causes of these and similar problems, the specific actions to be taken as addressed in this letter should be considered preliminary. Actions to correct EOP and operator training deficiencies will be further addressed in the action plan for Unit 1 restart in response to CAL 88-17.

The Unit 1 licensed operators are currently undergoing training on the EOPs. During the course of this training, evaluations will be conducted to determine its effectiveness and the operators ability and proficiency in use of the EOPs.

An Operations team is reviewing the EOPs and performing walkdowns in the plant to identify and correct any inconsistencies between the procedures and the actual plant conditions. Also, the Quality Assurance Department (QA) has become actively involved in the EOP program and an administrative procedure is being revised to include QA in the EOP process.

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Page 2
Nine Mile Point Unit 1
Docket No. 50-220

Attachment I describes preliminary actions taken or planned to address the specific deficiencies.

Very truly yours,

Niagara Mohawk Power Corporation


C. V. Mangan
Senior Vice President

CVM/cla
(1382C)

Attachment

xc: Regional Administrator, Region 1
Mr. R. A. Capra, Director
Ms. M. Haughey, Project Manager
Mr. W. A. Cook, Senior Resident Inspector
PPF



NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT UNIT 1
Docket No. 50-220
License No. DPR-63

RESPONSE TO DEFICIENCIES AND UNRESOLVED ITEMS FROM INSPECTION
REPORT 50-220/88-22 and 50-410/88-23

DEFICIENCY

The first significant deficiency was identified concerning the Unit 1 operating crew performance during the evaluation of the EOPs on the simulator. The NRC determined that the Unit 1 operating crew could not properly implement the EOPs and that the crew lacked an understanding of the bases for the EOPs. This deficiency appears to be the result of inadequate management attention to the quality of training provided to the licensed operators at Unit 1.

RESPONSE

Niagara Mohawk recognizes the problem with the quality of training provided to the licensed operators at Unit 1 and is taking the following actions to correct it.

Management oversight of licensed operators training has been improved by the following actions:

- 1) Niagara Mohawk is developing a System Approach to Training based retraining program.
- 2) The Operations Requalification Training Team which was formed to address training problems has published a set of recommended actions. This team is being continued as the Operator Training Program Advisory Committee to oversee the entire licensed operator training program. The Committee is made up of licensed operators, training instructors, and operation and training management.
- 3) A new Operations Superintendent was recently appointed and has become actively involved with requalification training for licensed operators. The ownership of the operator training program now belongs with the Operations Department.

To specifically address the EOP problem, the Unit 1 licensed operators are currently undergoing training on the EOPs. During the course of this training, evaluations will be conducted to determine its effectiveness. These will consist of self-evaluations by the operators as well as evaluations by the Training Instructors and Operations management. If the evaluations indicate the need for additional training on the EOPs it will be given.

A human performance evaluation is being performed to determine the root cause of why Operations Management was unaware that the operators were unable to implement the EOPs despite the training they were given. This evaluation will also be used to determine what other deficiencies with licensed operator EOP training may exist and is scheduled to be completed by August 31, 1988. At that time, management will review the results to determine what further actions are required.



DEFICIENCY

The second significant deficiency identified was the lack of assurance that the EOPs can be implemented in the plant. This deficiency is based on the lack of adequate pre-planning on the equipment, tools, jumpers and material needed to perform the specific EOP tasks; lack of validation of out of control room EOP actions; lack of verification of plant hardware specifically against the EOPs; lack of training on out of control room EOP actions; lack of adequate administrative controls to assure that changes made to procedures referenced in the EOPs do not impact the EOPs; and, lack of quality assurance involvement in the EOP program.

RESPONSE

Niagara Mohawk recognizes that there is a lack of assurance that the EOPs can be implemented in the plant and is taking steps to correct this.

An Operations team has performed a verification and validation of the outside of Control Room EOP actions. Follow up actions will include the dedication of appropriate administrative controls for plant hardware needed to perform EOP tasks. A verification and validation of the appropriate operating procedures and special operating procedures will be performed by August 31, 1988.

As stated above, the licensed operators at Unit 1 are receiving additional training on the EOPs. Training has been completed on out of Control Room EOP tasks.

Also, administrative controls will be developed to assure that changes made to procedures referenced in the EOPs are controlled to ensure that the changes do not affect the EOPs.

The Quality Assurance Department (QA) is now actively involved in the EOP program. Procedure AP-2.0 is being revised to include QA review in the EOP process. QA is performing an independent review of each EOP and walkdowns of selected EOPs.



UNRESOLVED ITEM 88-22-01

Based on findings for procedure inconsistencies and other findings identified during the walkthrough, the inspector inquired if procedures referenced or interfacing with the EOPs are assessed against the EOPs before being modified. A review of AP-2 "Production and Control of Procedures" did not identify sufficient controls to assure procedures referenced by EOPs are not changed without assessing the EOPs for possible impact. Facility actions are needed to assure adequate administrative control. Facility actions to resolve technical adequacy concerns will be tracked as unresolved item 220/88-22-01.

RESPONSE

Niagara Mohawk's immediate corrective action to address this item is to perform a review of the Operations Procedures (OPs) to ensure that the sections of the OPs referenced by the EOPs address the intended subject. Operator's are also performing walkthroughs of the OPs to determine if the procedures need to be corrected or clarified.

New administrative controls are being developed to assure that procedures referenced by EOPs are not changed without assessing the possible effect on the EOPs. These controls will be in place prior to Unit 1 restart.

UNRESOLVED ITEM 88-22-02

The inspectors walked down the EOPs and procedures referenced therein to confirm that the procedures can be implemented. The purpose of the walkdowns was to verify that instruments and controls contained or required to be used to implement the procedures are consistent with the installed plant equipment, insure that the indicators, controls, annunciators referenced in the procedures are available to the operator, and ensure that the task can be accomplished. Detailed comments identified are also noted in Attachment B. General comments, observations and conclusions from the detailed comments are discussed below.

The walkdowns identified a general inconsistency in the plant labeling. There were differences with the procedure names and plant labels. Gages were not always labeled. Sometimes the plant label referred to a name and sometimes referred to a number. The facility indicated that actions resulting from the detailed control room design review would respond to many of these observations.

The team observed a general lack of distinct labeling for EOP related instruments and equipment. There was no clear distinction between instruments that relate to the EOPs and those that do not.



The facility did not have any pre-staged storage of equipment, tools, or jumpers necessary to accomplish EOP required tasks but only planned on using tools that are generally available on site. The facility walkdown of EOPs and procedures referenced in the EOPs had not been done to assure that the procedures can be accomplished, as evidenced by: the lack of physical methods to add the boron to the tank, the lack of the controls necessary to accomplish the containment sampling activities, the inaccessibility of plant equipment in the overhead, the difficulty in locating some EOP related electrical equipment, and the lack of information to indicate some of the EOP entry conditions in Secondary Containment Control.

The team concluded that because of the general lack of adequate pre-planning to carry out the EOPs, the facility could not demonstrate that the EOPs could be carried out in the plant. Facility actions to resolve items generated during the walkdown will be tracked as unresolved item 220/88-22-02.

RESPONSE

Niagara Mohawk is reviewing the EOPs and performing walkdowns in the plant to identify and correct any inconsistencies between the procedures and the actual plant conditions. Plant hardware needed to perform EOP tasks will be dedicated and administratively controlled. The labeling inconsistencies identified will be corrected before the Unit 1 start-up.

UNRESOLVED ITEM 88-22-03

The human factors assessment of the flow chart version of the EOPs concluded that in general the EOPs are high quality procedures with an appropriate level of detail and a clearly designed format. However, in spite of the high quality, the EOPs do contain a number of weaknesses in areas that have a strong relationship to potential human error. The items are relatively few in number and easily corrected. (Unresolved item 50-220/88-22-03).

RESPONSE

All the EOPs have been reviewed by Operations and the appropriate changes have been made to address the human factors concerns identified in the NRC audit.



UNRESOLVED ITEM 88-22-04

The NRC team inspected the ongoing evaluation program for EOPs. This program consists of a two year review, in accordance with AP 2.0 Production and Control Procedures, Section 13.0, Periodic Review of Procedures. Comments on any procedures are documented in accordance with S-SUP-4 Procedure Evaluation Requests. An informal log of instructor generated comments during simulator training sessions is maintained at the simulator. The NRC team determined that the on-going evaluation program of the EOPs was unstructured to ensure quality EOPs are maintained and modified as necessary from plant operational experience and use, training, control room walkthroughs and plant modifications. Facility actions to resolve this item will be tracked as unresolved item 50-220/88-22-04.

RESPONSE

Niagara Mohawk will review the ongoing evaluation program for the EOPs to determine how it can be improved. Based on this review, the necessary corrective actions will be implemented. This will be in place prior to Unit 1 restart.

UNRESOLVED ITEM 88-22-05

Lack of QA involvement in the EOP development program and review of EOPs is considered to be a facility management deficiency. This is considered an unresolved item. (50-220/88-22-05)

RESPONSE

The QA Department is now actively involved in the EOP program through review of the EOPs, the EOP flowcharts, observing simulator walkthroughs by Operators and by performing in-plant walkdowns of selected EOPs. Administrative procedure AP 2.0 is being revised to include QA in the EOP process.

UNRESOLVED ITEM 88-22-06

During the recent QA review of EOP activities (surveillance report 88-10292 dated 6/20/88), the QA organization noted that the procurement of consultant services for RO/SRO training was procured as non-safety related. QA submitted a Determination of Appendix B Quality Requirements to NMPC Licensing. This request was for a determination if consultants procured for licensed operator instruction must meet the requirement of 10 CFR 50 Appendix B. NMPC Licensing determined that Appendix B Quality Requirements apply to consultants procured for RO/SRO instruction.



Based on this determination, NMPC-Nuclear Quality Assurance-Operations prepared a Corrective Action Request (CAR) to be acted upon by the Nuclear Training organization.

This CAR contains two concerns:

1. SRO Certified Training Instructors have been contracted from General Physics Corporation and General Electric. These contractors provide services which include the design, modification, development and implementation of RO/SRO training at NMP-1 and NMP-2. These services were procured as non-safety related. The contractor summary for these contractors does not include evaluation of training services or certification at the SRO level to meet the quality requirements of 10 CFR 50 Appendix B.
2. There is presently a lack of definition as to what elements of the Training Program are to be considered safety related.

This CAR was still under management review at the time of the NRC team inspection. This item represents a potential problem with the quality of training provided to NMP-1 and NMP-2 operation staff that warrants immediate senior management attention to resolve. This item is considered unresolved (50-220/88-22-06).

RESPONSE

The following actions are being taken to address the CAR and are scheduled to be fully implemented by August 31, 1988:

- A) For those contract instructors presently providing instructional support to the licensed operator training and retraining programs, the following actions will be taken:
 - 1) A file containing a current resume, a copy of the examination(s) and performance evaluation(s) upon which the SRO certification was based and an outline of the training curriculum utilized to support the certification will be assembled. The last item may have to be "reconstructed" for some of the contractor instructors who have been at NMP for several years due to the fact that such records may not exist in sufficient detail.
 - 2) Successful completion of a Nine Mile Point license class audit examination or a Nine Mile Point Operator Regualification examination will constitute an acceptable substitute for a vendor administered SRO certification examination/performance audit. A matrix or description of each contractor performing instruction which identifies which have taken Audit Examinations, Regual Examinations and which if any do not meet this criteria will be assembled.
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All documentation will be assembled in the training center by August 31, 1988.

B. For contract instructors who may be utilized at some future date to provide instructional support to the Operator Training and Retraining Programs, the following actions will be taken:

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1. The reason for the variance in the number of hours of pre-implementation EOP training received by different operators is that some shift operators participated in the EOP validation process and were given credit for the time they spent doing it. Not all shifts participated in this effort.
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