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**New York Power Authority**

**Robert J. Barrett**
Site Executive Officer

May 8, 1998
IPN-98-051

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

SUBJECT: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
**Reply to Notice of Violation 50-286 / 98001**

REFERENCE: 1. NRC Integrated Inspection Report 50-286/98-01 and Notice of Violation, John F. Rogge to Robert J. Barrett, dated April 9, 1998.

Dear Sir:

This letter provides, in Attachment I, the Authority's response to three violations documented in Reference 1. The Authority agrees with these violations and has taken appropriate corrective actions. In addition, other actions described in the attached reply will be taken to further improve our performance.

There are no new commitments made by the Authority with this letter. If you have any questions, please contact Mr. Ken Peters at (914) 736-8029.

Very truly yours,

Robert J. Barrett
Site Executive Officer
Indian Point 3 Nuclear Power Plant

cc: next page



IE01

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## Reply to Notice of Violation 50-286 / 98001-02

Violation 98001-02

10 CFR Part 50, Criterion V, "Instruction, Procedures, and Drawings," requires that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings.

Contrary to the above, two examples were identified in which activities affecting quality were not prescribed by procedures appropriate to the circumstances.

1. On March 8, 1997, procedure 3PT-Q77, Revision 3, "Containment Fan Cooler Units Manual Isolation Valves," was not appropriate to the circumstances because the procedure incorrectly reflected the positions of valves SWN 71-1 through 71-5 as open. Engineering test ENG-281, "Service Water System Flow Balance Test," had established the correct position of these valves as throttled. As a result, these valves were found in the open position vice the throttled position.

2. On March 9, 1998, procedure COL-EL-5, Revision 21, "Emergency Diesels," was not appropriate to the circumstance because the procedure did not reflect the revised speed setting for the 31 emergency diesel generator governor.

This is a Severity Level IV violation (Supplement I).

Response to Violation

The New York Power Authority agrees with this violation.

Reason for Violation

1 During the 1997 refueling outage (RO9) the Authority performed a flow balance of the Service Water System (SWS) using ENG 281B. One result of this flow balance effort was a conclusion that system performance could be improved by maintaining the SWS supply valves (SWN-71-1 through SWN-71-5) to the containment fan cooler units in a throttled position. Previously, these manual isolation valves were maintained full open. A revision to the operator checkoff list (COL-RW-2) was issued on August 28, 1997 to reflect the new throttled position. A surveillance procedure (3PT-Q77) which implements quarterly inservice inspection requirements for these valves was not identified as requiring a similar revision. Therefore, when 3PT-Q77 was performed in December 1997 the subject valves were returned to the full open position as required by that procedure. When COL-RW-2 was subsequently performed on March 8, 1998, the valve position discrepancy was identified by the operator and documented in Deviation Event Report (DER) 98-0365. The valve positions were restored to the throttled position and 3PT-Q77 was revised to reflect the results of ENG 281B. The deviation occurred because the management expectation to identify other affected procedures was not met by the procedure writer who changed COL-RW-2.

2. During the 1997 refueling outage (RO9), the Authority conducted a 6-year preventive maintenance (PM) activity on the 31 Emergency Diesel Generator (EDG). During this PM, the EDG speed governor was replaced and on June 21, 1997, procedure 3PT- V48 was performed to test the replacement governor. Adjustments of the governor, as directed in 3PT-V48, resulted in a speed setting different than that used on the replaced governor. The operator log sheets (OPT-16 and OPT-17) were revised to reflect the new setting. However, a checkoff list (COL-EL-5) that is periodically used to verify EDG and supporting system component configuration was not identified as an affected procedure. On March 9, 1998, an NRC inspector observed that the checkoff list had not been updated to reflect the new setting and the discrepancy was documented in DER 98-0372. The checkoff list had not been used during the period following governor replacement and the setting for the governor remained at the correct value established by 3PT-V48. The deviation occurred because the management expectation to identify other affected procedures was not met by the procedure writer who changed OPT-16 and OPT-17.

Corrective Actions Taken

Corrective actions were taken for both examples cited to correct the procedure discrepancies. For the first example, 3PT-Q77 was revised on March 25, 1998 to reflect the throttled position of the service water supply valves to the fan cooler units as established by the flow balance test. For the second example, COL-EL-5 was revised on April 30, 1998 to reflect the appropriate speed setting on the 31 EDG governor based on the result of the post-maintenance testing performed after the replacement governor was installed.

A meeting with the Operations Department procedure writing group was held on May 4, 1998 to emphasize the management expectation regarding identification of other affected procedures when making procedure revisions or when preparing new procedures. This expectation was further emphasized in a revision to Operations Department directive OD-10, "Operations Supplemental Procedure Writers Guide and Controls" to identify responsibilities and to include a requirement to verify that other potentially affected procedures are identified. The revised procedure is effective May 11, 1998.

The overall station Administrative Procedure, AP-3 for procedure preparation, review, and approval was previously revised effective February 17, 1998 to include a requirement for identification and revision of affected procedures.

Corrective Actions that will be Taken

The Authority believes that corrective actions already taken will avoid recurrence. The Authority is also developing an action plan to explore further improvements in this area.

Date When Full Compliance was Achieved

Compliance was achieved for the first example on March 25, 1998 when procedure COL-RW-2 was revised. Compliance was achieved for the second example on April 30, 1998 when procedure COL-EL-5 was revised.

## Reply to Notice of Violation 50-286 / 98001-03

Violation 98001-03

10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires in part that measures be established to assure that conditions adverse to quality are promptly identified and corrected. Further, in the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Contrary to the above, two examples were identified in which significant conditions adverse to quality were either not promptly identified and corrected, or the cause of the condition was not determined and actions not taken to preclude repetition.

1. From March 1, 1995, through July 2, 1997, the New York Power Authority (NYPA) did not promptly identify and correct a significant condition adverse to quality associated with the potential for a common cause carbon dioxide control system failure that could isolate ventilation to the three emergency diesel rooms.

2. From August 2, 1997 through March 6, 1998, NYPA did not determine the cause of a fan cooler unit motor breaker failure to close and did not take corrective actions to preclude repetition of the failure. As a result, on March 6, 1998, the same fan cooler unit motor breaker failed to close.

This is a Severity Level IV violation (Supplement I).

Response to Violation

The New York Power Authority agrees with this violation.

Reason for Violation

1. A 1995 Deviation Event Report (DER) identified the potential for carbon dioxide system ($CO_2$) circuits and components located in non-seismic areas to fail, causing a loss of safety related equipment. The Emergency Diesel Generator (EDG) ventilation system is interlocked with the respective $CO_2$ fire suppression system such that $CO_2$ system controls could shutdown the associated exhaust fans and close the associated intake dampers.

   In 1995, Electrical Engineering with the assistance of a senior level fire protection industry expert performed the DER evaluation for the potential common cause failure mechanisms. In 1997, Engineering concluded that the DER evaluation was inadequate in that it did not adequately consider the effects of seismic interaction. This was caused by an error in 1995 when the corrective action process was not properly followed. The process called for an operability evaluation to be performed while the actual corrective action taken was the performance of a critique. The operability evaluation would have required a more formal evaluation against the system design criteria. This critique relied upon the evaluation of the fire protection expert. The critique was not reviewed by a structural engineer who would

have recognized the deficiencies in the evaluation. A possible contributing cause was the separation of the civil and electrical functions under separate managers in 1995. Although not performed as a corrective action, the design engineering functions are now under a single manager and the Authority expects that manager to be cognizant of the various engineering disciplines.

2. On August 2, 1997, the 31 Fan Cooler Unit (FCU) 31 motor breaker failed to close from the Control Room (CR) during a test. The test group supervisor directed the breaker fuses to be checked and then, after noting the breaker was not charged, had the breaker manually charged. The manual charging of the breaker was not appropriate in this case since it could mask the cause of the breaker failure. A problem identification (PID) tag was written and a work request was developed to troubleshoot the breaker failure prior to exiting cold shutdown. No DER was written to initiate an operability evaluation. The 31 FCU was successfully operated on August 7, 8, 11, and 13. This indicated the breaker was working properly. The troubleshooting work request was rescheduled to March 1998. When the breaker failed to close during a March 6, 1998 test, corrective action was initiated by writing a DER and declaring the component inoperable.

   The error was caused by poor work practices and insufficient guidance on how to respond to the event. Contributing causes were the failure to write a DER and delays in performing the troubleshooting work request. These contributing causes were due to personnel error, failure to follow procedure, and management methods.

Corrective Actions Taken

1. LER 97-010 reported the corrective actions for the event and the following have been completed:

   - NYPA disabled the interlocks that isolate EDG room ventilation, isolated the $CO_2$ tank, and posted continuous fire watches.

   - A review of the $CO_2$ systems protecting the 480 volt switchgear and the cable spreading room has been completed. This review concluded that a $CO_2$ discharge would not have an adverse effect on safety systems.

   - A review of non-seismic $CO_2$ panels has been completed. This review concluded that there was no impact based on past corrective action. LER 98-001 identified where this corrective action had been inadequate.

   - A field test to measure the actual diesel generator room heat up rate was conducted. This showed that the heat up rate was acceptable.

   - Alarm Response Procedure ARP 15, "Panel SMF-Safety Injection" and ARP-27, "Fire Display Control Panel" were revised. The revisions provided guidance to the operators on how to proceed following interlock operation without a fire.

   - The IP3 Fire Protection System was reviewed. This review identified interlocks that could adversely affect the function of a safety related system or component. LER 98-001 and LER 98-002 describe the findings.

- Plant ventilation systems that provide support to safety related systems and components were reviewed. This review showed that no interlocks exist which could adversely affect the function of the safety related systems or components.

- A case study was developed by the Training Department on performing failure and effects analysis for plant modifications. The case study, which included a discussion on LER 97-010, was added to the Engineering Support Personnel continuing training.

The operability evaluation program was relatively new when the 1995 DER evaluation was completed. Since then, the corrective action program has evolved and NYPA believes it is adequate to prevent recurrence of the event. For example, the operability program has been integrated into the corrective action procedure, and the process for describing operability considerations to the shift manager has been made more formal.

2. Corrective action initiated following the failure of the FCU breaker on March 6, 1998 included an evaluation of the cause of the failure, identification of actions required to prevent future failures and replacement of the breaker with a tested spare to assure operability.

   Corrective action associated with recent industry experience has heightened awareness of the significance of breaker concerns, lowered the threshold for DERs in conjunction with PIDs (related to breaker problems) and resulted in a team response to breaker problems. We have observed this year that breaker problems have been identified by DERs and timely corrective action taken. Therefore, we believe that these actions will prevent recurrence of similar events.

Corrective Actions that will be Taken

1. LER 97-010 reported the actions and one corrective action remains to be completed. A seismically qualified auxiliary control panel will be installed for the EDG $CO_2$ systems to prevent inadvertent operation from seismic, tornado generated missiles or adverse environment interactions. This is scheduled for completion March 1, 1999. This is a change from the May 15, 1998 date identified in LER 97-010.

2. By May 15, 1998, Operations will issue administrative guidance to ensure that breakers and other components (e.g., pumps and valves) are not operated in a manner that can prevent failure evaluation when they fail to operate as designed. In 1998, Licensed Operator training will incorporate guidance based on this occurrence so operators will recognize how operation of failed equipment can mask the cause of equipment failures.

Date When Full Compliance was Achieved

1. Compliance was achieved on July 2, 1997 when corrective action was taken to assure the function of the EDG ventilation systems.

2. Compliance was achieved on March 7, 1998 when the FCU breaker was replaced and satisfactorily retested.

## Reply to Notice of Violation 50-286 / 98001-05

Violation 98001-05

10 CFR 73.56(g) requires each licensee audit its access authorization program at least every 24 months to ensure that the requirements of 10 CFR 73.56 are being satisfied.

The Indian Point Station, Unit #3, Physical Security Plan (the Plan), Revision 15, dated April 26, 1996, Section 4.3.4, states, in part, that "Personnel to whom unescorted access to the Protected or Vital Areas is granted, are screened in accordance with Regulatory Guide 5.66 and that all elements of Regulatory Guide 5.66 have been implemented to satisfy the requirements of 10 CFR 73.56."

The Appendix to Regulatory Guide 5.66, "Industry Guidelines for Nuclear Power Plant Access Authorization Programs," developed by the Nuclear Management Resources Council (NUMARC 89-01), provides an approach acceptable to NRC staff by which the licensee can meet the requirements of 10 CFR 73.56. Section 13.1 of NUMARC 89-01 states, in part, that an independent evaluation of the unescorted access authorization program and its conformance to these guidelines must be made within 12 months of the effective date of implementation of the access authorization program and at least once every 24 months.

Contrary to the above, on February 20, 1998, the inspector determined that the most recent audit of the access authorization program was not performed in accordance with regulatory requirements and licensee commitments. The determination was based on the audit teams' use of a Nuclear Energy Institute (NEI) document, (94-02), Part 2, titled "Standardized Access Authorization Audit Checklist," as the method of auditing the licensee's access authorization program. This particular audit checklist was developed for use by industry auditors when conducting audits of a licensee's contracted access authorization program. The NEI method is not suitable for auditing of a licensee's program. Several key elements of the licensee's program were excluded during the audit process, including the evaluation criteria for unescorted access and grandfathering of employees under the provisions of 10 CFR 73.56.

This is a Severity Level IV violation (Supplement III).

Response to Violation

The New York Power Authority agrees with this violation.

Reason for Violation

The reason for this violation is that the lead auditor failed to use an Indian Point 3 (IP3) site specific checklist for conduct of the audit. The checklist used was an NEI standard checklist, which did not include all areas of access authorization that were or should have been investigated by the audit. A contributing factor was failure of supervisory oversight to ensure that an IP3 site specific checklist was developed.

Audit 97-01W, "IP3 Access Authorization Program," was performed utilizing the NEI 94-02 checklist. All aspects of a licensee's program are not addressed in the NEI checklist. Although the lead auditor believes those required elements were reviewed, no documentation to demonstrate that these elements were actually addressed could be located. Additionally, the audit report did not specifically state that these additional aspects were reviewed or verified.

Corrective Actions Taken

- On March 10, 1998, a supplemental surveillance was performed regarding the Appeal Process associated with denying and/or the revocation of unescorted access.

- Currently there are twenty-four (24) individuals who maintain access at IP3 who were granted unescorted access between October 28, 1990 and April 25, 1991. This access was prior to implementation of the rule and in accordance with the requirements of 10 CFR 73.56 and Regulatory Guide 5.66. On April 29, 1998, a supplemental surveillance was performed by the Quality Assurance (QA) Department and a self-assessment was performed by Access Authorization group on April 9, 1998, to assure that all elements for granting unescorted access were satisfied.

- The QA Department has revised their audit procedure to include the requirement for supervisory review and approval of checklists used on all audits.

- The extent of condition of this issue is limited to instances where industry developed checklists are used in audits. There are no other instances where only industry developed checklists are solely used in QA audits. QA audits have specific checklists developed and used to ensure that all aspects of the programs being audited are evaluated. There have been no prior instances identified of QA using incomplete checklists or of performing an incomplete audit.

Corrective Actions that will be Taken

The Authority believes that the above corrective actions taken will avoid recurrence.

Date When Full Compliance was Achieved

Compliance was achieved on May 8, 1998 when the QA Department revised their audit procedure to include supervisory review and approval of checklists used on all audits. Supplemental surveillances were performed on March 10, 1998 and April 29, 1998 by the QA department to assure that all elements for granting unescorted assess were satisfied.