

Indian Point 3
Nuclear Power Plant
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L. M. Hill
Site Executive Officer

November 11, 1995
IPN-95-112

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

Subject: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
License No. DPR-64
Reply to Notice of Violation 50-286/95-13-01

Dear Sir:

This letter provides, in Attachment I, the New York Power Authority's response to the subject Notice of Violation. The New York Power Authority agrees with the Notice of Violation contained in NRC Region I Inspection Report 50-286/95-13 dated October 12, 1995.

The commitments made by the New York Power Authority with this letter are contained in Attachment II.

Very truly yours,

A handwritten signature in black ink, appearing to read 'L.M. Hill'.

L.M. Hill
Site Executive Officer
Indian Point 3 nuclear Power Plant

Attachments

cc: See next page

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PDR ADOCK 05000286
Q PDR

Handwritten initials in black ink, possibly 'JH' or similar, with a vertical line extending downwards.

cc: Mr. Thomas T. Martin
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U.S. Nuclear Regulatory Commission
Resident Inspectors' Office
Indian Point 3 Nuclear Power Plant

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VIOLATION

During an NRC inspection conducted on August 8, 1995, through September 18, 1995, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (60 FR 34381; June 30, 1995), the violation is listed as follows:

10 CFR 50, Appendix B, Section XVI, Corrective Actions, requires in part, that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected.

Contrary to the above, on August 16, 1995, the condition of valve NNE-AOV-863 was not adequately assessed prior to declaring the valve operable after having been identified as not stroking smoothly by a plant operator. Further, the valve was not scheduled for repair in a timely manner. Valve NNE-AOV-863 subsequently failed a routine surveillance test on August 25, 1995, and later failed open while being stroked for observation resulting in the initiation of a technical specification required reactor shutdown.

This is a Severity Level IV violation (Supplement I)

RESPONSE TO THE VIOLATION

The New York Power Authority agrees with this violation. One clarification is that the valve failed to fully close while being stroked.

REASON FOR THE VIOLATION

As further described below, the primary reason for this violation was that operators failed to recognize that the degraded condition of the valve affected its operability.

Contributing factors for this violation were as follows:

- Inadequate instructions in the procedure for the work control process (OPS-SD-01) regarding operability determinations for problem identifications (PIDs).
- Inadequate communications.
- Lack of an aggressive questioning attitude.

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Failure to Recognize Degraded Condition Affected Operability

On August 16, 1995, a Nuclear Plant Operator (NPO) observed the containment isolation valve of the nitrogen system (NNE-AOV-863) to jerk when it started to open during accumulator fill activities. The NPO also observed that the valve stem position indicator did not show the valve to be fully shut. The NPO notified the Reactor Operator (RO) of his observation and described his observation as "valve did not stroke smoothly and does not fully shut." Upon receiving this notification, the RO verified the valve's operation by stroking it from the control room and checking the valve's position status lights, and system pressure. The RO instructed the NPO to initiate a problem identification (PID) in accordance with procedure OPS-SD-01, "Work Control Process."

On August 16, 1995, the Shift Manager (SM) delegated PID review to the Work Control Center (WCC). Procedure OPS-SD-01, requires the SM or his designee to assess each PID generated once per shift, but the procedure introduction states the SM may designate, to the WCC staff, PID review functions. OPS-SD-01 defines the SM designee as any individual designated by the SM who is currently or previously licensed as a Senior Reactor Operator (SRO). WCC staff are responsible for review and approval of PIDs under the direction of the SM.

The WCC performed a review of PIDs including the PID (No. 95.19958) describing valve NNE-AOV-863 not stroking smoothly and not fully seating. A Work Control (WC) supervisor concluded, based on review of the PID, and communications with plant operators and a WCC SRO, that the valve was still operable and corrective actions to improve valve performance was an outage task. WC assigned a high priority to corrective actions for the next refueling outage. The WC supervisor had consulted with the reactor operator (RO) on shift on August 16, 1995, concerning the valve's operation and the information provided to him by the NPO. The RO stated he checked the valve operation through two means and confirmed that it shut as indicated by position indication and system differential pressure. WC consulted an SRO on August 16, 1995 concerning the valve's "does not stroke smoothly" operation. Both the RO on shift and an SRO did not consider the valve's condition an operability issue. WC was advised that the valve had a history of not smooth action but had satisfied surveillance test criteria and performed satisfactorily in the past. The valve had been tested and met operability criteria during the performance of quarterly surveillance test 3PT-Q26 on June 18, 1995, and had been used and operated satisfactorily after that time.

Work control procedure OPS-SD-01 requires the SM or his designee to consider operability concerns in accordance with administrative procedure AP-8, "Deviation Event Reporting and Operability Determination Manual."

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Procedure AP-8 contains guidance for operability determinations for degraded and non-conforming conditions. The procedure for operability determinations (AP-8) states that only the SM can declare equipment operable or inoperable. During the shift for August 16, 1995, the SM did not perform an operability determination for degradation of valve NNE-AOV-863, which was described in a PID reviewed by WC. Operations failed to recognize the problem described in the PID as a degraded condition that affected operability and pursue operability to the depth required.

Lack of a Questioning Attitude

Operators and WC lacked an aggressive questioning attitude. Although the operators checked the ability of the valve to open and fully close, and checked to that it maintained pressure, they did not consider the impact of the degraded condition with respect to closing time. Because the valve is a containment isolation valve, closing time is part of its design basis. The Operators did not go far enough in questioning the operability of the valve. WC questioned operations, but did not pursue the SM for a determination of operability. The SM was not advised by the RO or WC of the problem. Since the valve had to be used to charge the accumulators every few days, the potential problem of closure time was not adequately considered for further degradation.

Inadequate Communications

The RO did communicate to WC that the valve was considered operable but the Control Room Supervisor (CRS) was not consulted or informed. WC assessed the PID description of the valve problem, but the PID did not describe the valve's actual problem, indicate that the valve was a containment isolation valve, or that Technical Specifications were applicable. The actual problem was an initial jerk when the valve started to open then slowly stroked, and failure of the valve stem's position indicator to show full closed. Consequently, after communications with the RO and operations staff, WC finished their review, completed and scheduled the PID. On August 25, 1995, at approximately 0125 hours, valve NNE-AOV-863 failed the operability criteria of surveillance procedure 3PT-Q26 by stroking in 2.45 seconds which was not within the test's criteria of 2.0 seconds. A DER (95-1973) was initiated and the SM notified. The valve was determined to be inoperable and was maintained in the closed position to maintain containment integrity. As a result of inadequate problem descriptions on the PID, WC failed to recognize a valve problem that may have affected operability. The PID stated the valve does not stroke smoothly and does not fully shut. However, verbal communications with the RO indicated that he confirmed the valve shut and that system was pressure appropriate. As a result, WC did not question the operability of the valve any further. The miscommunication resulted in failure to notify the SM so that a qualified person could assess valve operability.

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Inadequate Instructions in the Procedure for the Work Control Process (OPS-SD-01)

Procedure OPS-SD-01 along with AP-8 provide the requirements and responsibilities for assessment and determination of operability. The administrative barrier that prevents unqualified personnel from making operability determinations for PIDs is procedure OPS-SD-01. OPS-SD-01 failed because it contains ambiguous requirements on responsibilities and is not consistent with the requirements of administrative procedure AP-8. AP-8 states "only the SM may declare a Structure, System, Component (SSC) to be Operable or Inoperable." OPS-SD-01 does not require the SM to perform an operability determination nor indicate in the PID whether the equipment is operable or inoperable. The procedure only requires the SM to review the PID identified problem and "consider" operability in accordance with AP-8.

OTHER DEFICIENCIES ASSOCIATED WITH THIS EVENT

Inadequate Planning

On August 25, 1995, valve NNE-AOV-863 was tested in accordance with surveillance test 3PT-Q26 and failed to meet the stroke time criteria. After the valve failed the surveillance test, a DER and PID were written to report the inoperable valve, and a work package initiated. On August 25, 1995, at approximately 1200 hours, maintenance requested operations to cycle valve NNE-AOV-863 so that maintenance could observe valve performance. Operations cycled the valve several times requiring multiple entries into a one hour LCO for containment integrity. During the final cycling attempt, the valve bound up and failed to fully close. Attempts were made to shut the valve, but it could not be closed within the 1 hour LCO action time and a Technical Specification plant shutdown commenced. Subsequently, maintenance was able to force the valve to close and at approximately 1320 hours the plant stopped the shutdown and was restored to full power. There was inadequate planning for troubleshooting an inoperable valve problem. Planning was inadequate because there was no coordination to minimize cycling the valve and no precautions or contingency actions developed for valve failure.

Failure To Document Deviation

Because valve NNE-AOV-863 was shut, accumulators for both the safety injection system and power operated relief valves could not be recharged. Due to minor system leakage, the accumulators required recharging every few days. An alternate method was developed to charge the accumulators using a temporary fill rig attached to accumulator sample piping. On August 29, 1995, an NRC inspector found the temporary nitrogen rig connected to the tee on the sample piping rather than removed as required by the system design and operating procedures. The NRC informed the SM who had the rig properly disconnected. However, a Deviation Event Report (DER) was not issued until the next day (DER 95-2004, dated August 30, 1995) when the SM was questioned by the NRC.

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In responding to the DER, operations determined that Term Procedure Change (TPC) 95-1134 to System Operating Procedure (SOP-SI-1) provided inadequate instructions. The TPC provided instructions to disconnect the temporary equipment when complete. However, the TPC was not specific on which flexible hose (one at nitrogen bottles or one at the sample sink connection) to disconnect when complete. Also, NYPA recognizes that the DER for the improper connection should have been written earlier.

CORRECTIVE ACTIONS TAKEN

- On September 18, 1995, the Manager of Planning and Scheduling directed the supervisor of Work Control not to perform SM level review of PIDs.
- An Operational Shift Order dated September 18, 1995, was issued to require PID approval by a currently licensed SRO. The SM may not delegate PID review to a Work Control person who is not a currently licensed SRO.
- Disciplinary action was taken.
- Repair of valve NNE-AOV-863 was initiated on September 11, 1995. The work on the valve was completed, the valve tested and returned to service on September 14, 1995.
- TPC 95-1134 was cancelled. TPC 95-1137 was issued on August 29, 1995, to provide specific instructions to disconnect the temporary equipment when nitrogen repressurization is completed at the sample sink.
- Management determined the expectations for writing a DER for equipment failure needed clarification. Administrative procedure AP-8 contains the requirements for the DER process, but also provides the requirements and responsibilities for operability determinations. A memorandum was distributed on November 3, 1995, to general and department managers for communication to plant staff that included discussion of the guidance about writing a DER associated with equipment failure and referenced the plant standard for a DER threshold (PS 02.02). The memorandum stated when PIDs would be used and specified when a DER should be written referencing an attached PS 02.02.
- Procedure AP-21, "Conduct of Operations," was revised on November 3, 1995, to provide clarification of management expectations to include a section establishing a DER threshold for the operations department and the additional conditions that require the initiation of a DER.

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CORRECTIVE ACTIONS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

- Procedure OPS-SD-01 will be revised by December 20, 1995, to include:
 - requiring the SM or a currently licensed SRO to make an operability determination for each PID,
 - precluding Work Control from approving PIDs at the shift manager's level, and
 - requiring supervisory review of new PIDs for comprehensiveness and PID quality.
- Revise AP-8 to agree with procedure OPS-SD-01 regarding responsibility for operability determination (i.e., SM or a currently licensed SRO). This revision is scheduled for December 20, 1995.
- The operations staff will be counseled on management's expectations for a questioning attitude on operability. The operations staff counseling will be completed by December 20, 1995.

THE DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Compliance regarding proper identification of operability for valve NNE-AOV-863 was achieved when the valve was declared inoperable on August 25, 1995, following a surveillance test.

Compliance concerning correcting the valve problem was achieved when the valve was repaired and returned to service on September 14, 1995.

As noted above, the inadequacies in procedure OPS-SD-01, "Work Control Process," will be revised on December 20, 1995.

The New York Power Authority is continuing to evaluate the causes of the violation and the corrective actions to prevent recurrence and avoid further violations. The evaluation will be completed by February 8, 1996. If the results of the evaluation significantly changes the response to this violation or additional corrective actions are identified, a supplement to this violation response will be provided within 30 days of completion.

LIST OF COMMITMENTS

Number	Commitment	Due
IPN-95-112-01	Procedure OPS-SD-01 will be revised to include: requiring the SM or a currently licensed SRO to make an operability determination for each PID, precluding Work Control from approving PIDs at the shift manager's level, and requiring supervisory review of new PIDs for comprehensiveness and PID quality.	December 20, 1995.
IPN-95-112-02	The operations staff will be advised on managements expectations for a questioning attitude on operability.	December 20, 1995.
IPN-95-112-03	Revise AP-8 to agree with procedure OPS-SD-01 regarding responsibility for operability determination (i.e., SM or a currently licensed SRO).	December 20, 1995.

Number	Commitment	Due
IPN-95-112-04	Continue to evaluate the causes of the violation and the corrective actions to prevent recurrence and avoid further violations. If the results of the evaluation significantly changes the response to this violation or additional corrective actions are identified, a supplement to this violation response will be provided within 30 days	February 8, 1996.