

Indian Point 3
Nuclear Power Plant
P.O. Box 215
Buchanan, New York 10511

914-736-8000



August 21, 1989
IP3-89-063
RAL-89-089B

Docket No. 50-286
License No. DPR-64

Mr. James T. Wiggins, Chief
Reactor Projects Branch No. 1
Division of Reactor Projects
U.S. Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, PA 19406

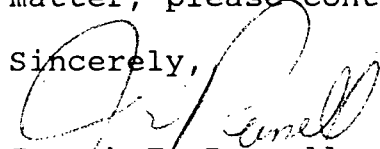
SUBJECT: Inspection No. 50-286/89-14 and Associated Notice of
Violation (89-14-01)

Dear Mr. Wiggins:

This letter and Attachment I provide the Authority response to the notice of violation (89-14-01) identified in Inspection Report No. 50-286/89-14.

Should you or your staff have any questions concerning this matter, please contact Mr. M. Peckham of my staff.

Sincerely,



Joseph E. Russell
Resident Manager
Indian Point Unit 3
Nuclear Power Plant

JER:RAL/rl

Attachment

cc: Document Control Desk (original)
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Resident Inspector's Office
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U.S. Nuclear Regulatory Commission
P.O. Box 337
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ATTACHMENT I
RESPONSE TO VIOLATION
89-14-01

VIOLATION:

10CFR50, Appendix B, Criterion XI, "Test Control" requires a test program to assure that all testing required to demonstrate that systems will perform satisfactorily in service be performed in accordance with requirements and acceptance limits contained in applicable design documents.

The licensee's Quality Assurance Program, section 17.2.11.1, "Test Control," requires that tests performed after modification, repair or replacement shall be in accordance with the original design testing requirements or alternatives.

Licensee procedure PFM-5, Rev. 0, "Retest Program," requires that for modifications undertaken, retests must ensure system and component operability.

Contrary to the above, the test program was inadequate in that pre-operational tests did not ensure system operability. Specifically:

1. On June 25, 1989, the licensee identified that Channel A feed flow transmitter sensing lines were installed incorrectly resulting in the failure of the transmitters to perform their intended function.
2. On June 24, 1989, the licensee identified that wires to the test/operate switch were installed incorrectly, resulting in the failure of loop 34 reactor coolant system temperature instrument to perform its intended function.

This is a Severity Level IV violation, Supplement I.

RESPONSE:

The Authority has reviewed in detail the notice of violation outlined in Attachment A of NRC Inspection Report 89-14 and agrees that the events occurred as discussed and were examples of inadequate pre-operational testing. The Authority believes that these events are examples of occurrences that will be eliminated by the Authority's expanding Modification Control Manual (MCM) program.

A discussion of the events described in the notice of violation is presented as follows:

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1. Feed Flow Transmitters:

The feedwater flow transmitters mentioned in the notice of violation were installed under Modification 88-03-222 INST in accordance with maintenance work request (MWR) 16390. The tubing in the Instrument Rack housing those transmitters, was installed prior to the onsite arrival of the transmitters for Modification 88-03-222 INST. That tubing was installed in accordance with drawing #M-INST-SK-005, Revision 2, which allowed a field-run of tubing in a neat and orderly manner and contained a sketch of a typical transmitter installation. The high pressure (HP) and low pressure (LP) ports of each transmitter, however, were not designated on the drawing because the exact configuration of the transmitter was not supplied by the vendor (Foxboro). The vendor supplied a dimensional drawing only, which showed the typical transmitter setup. Each transmitter has a flexibility to be installed with either the HP or LP ports on the right or left side. When the configuration is determined by the vendor, the side to be used has an adapter attached while the other side has a mounting bracket attached. Since no vendor certified drawing was available when M-INST-SK-005 Revision 2 was drawn, transmitter ports were not designated.

The individuals installing the transmitters started with the tubing completed and ready for transmitter installation per the typical installation sketch in the modification package. Although the HP and LP lines had been tagged as depicted in the drawing, tubing was not properly connected. A Quality Control inspector was assigned to observe this work but failed to identify this incorrect installation. The installation process did not require a post installation inspection to ensure that the lines and transmitters were properly installed.

The retest to verify transmitter operability following the modification was completed satisfactorily. The retest was conducted in accordance with Procedure 3PC-R28 Revision 3, "Alternate Feedwater Flow and Temperature Calibration". This retest consisted of connecting a pressure transmitting device to the LP and HP drain ports, injecting a signal and verifying instrument response. Since the ports were separate and distinct from the LP and HP sensing ports, the retest could not have determined that these transmitters were properly connected to the feedwater system.

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2. Loop 34 test/operate switch

During the recent Cycle 6/7 Refueling Outage the Authority completed a modification which involved removing the resistance temperature detector bypass manifold system and installing a new thermal well RTD system for Reactor Coolant System (RCS) temperature monitoring and protection. This modification included all mechanical and electrical rewiring necessary to install the new system. The portions of the MWR that detailed the electrical work, specifically the terminating of the T-hot and T-cold terminal blocks and test switches, were initiated and verified by the maintenance contractor foreman and contractor Quality Control inspector as having been properly terminated. The MWR required a point-to-point continuity check of every termination after each panel was completed, including the connections described in this event. Had these point-to-point continuity checks been correctly performed, the event would not have occurred. The Authority has submitted an LER (89-12) describing this event and its significance.

In both events the following situations occurred:

- the installation process did not identify the error
- the Quality Control process did not identify the error.
- the retest passed satisfactorily
- the problem was not identified until after the plant was operating

Similar events also occurring during the 6/7 Refueling Outage have been identified and indicate a potential trend which the Authority has committed to evaluate. This evaluation and any corrective actions which result will be transmitted to the NRC as a supplement to LER 89-12.

The Authority believes that these corrective actions as well as those outlined below will be effective in precluding similar future occurrences.

- 1) Maintenance Department supervision has reemphasized to departmental personnel the importance of correctly conducting post-maintenance tests in accordance with established procedures.

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- 2) Quality Control supervision has reemphasized to departmental personnel the importance of correctly conducting accurate independent surveillance that is under their purview.

- 3) Procedures are under development that will enhance existing programs for retests after modifications. These procedures are scheduled for completion and implementation before the next refueling outage.