

Indian Point 3  
Nuclear Power Plant  
P.O. Box 215  
Buchanan, New York 10511  
914 736.8001



Robert J. Barrett  
Site Executive Officer

September 18, 1998  
IPN-98-100

Director, Office of Enforcement  
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 and Proposed Civil Penalty, 50-286 / 98-05**

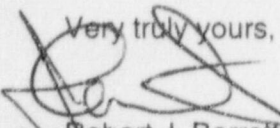
REFERENCE: 1. NRC Letter, H. J. Miller to R. J. Barrett, "Notice of Violation and Proposed Imposition of Civil Penalty," dated August 19, 1998.

Dear Sir,

This letter provides the Authority's response to two violations documented in Reference 1. The Authority agrees with these violations and has taken appropriate corrective actions as described in Attachment I. Payment of the \$55,000 civil penalty imposed for one of the violations has been made by electronic transfer of funds from the New York Power Authority to the Treasurer of the United States (Federal Reference Number 0749 on September 18, 1998).

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,

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

cc: next page

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cc: Regional Administrator  
U. S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Resident Inspector's Office  
Indian Point Unit 3  
U.S. Nuclear Regulatory Commission  
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Mr. George F. Wunder, Project Manager  
Project Directorate I-1  
Division of Reactor Projects I/II  
U.S. Nuclear Regulatory Commission  
Mail Stop 14 B2  
Washington, DC 20535

State of New York  
County of Westchester

James Comiotes, being duly sworn, deposes and says:

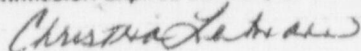
I am the acting Site Executive Officer of the Indian Point 3 Nuclear Power Plant of which the Power Authority of the State of New York is the owner and operator under Facility Operating License DPR-64. I have read the enclosed Reply to Notice of Violation and know the contents thereof; and that the statements and matters set forth therein are true and correct to the best of my knowledge, information and belief.



James Comiotes

Subscribed and sworn to before me  
this 18<sup>th</sup> day of September 1998.

**CHRISTINA LEITMANN**  
Notary Public, State of New York  
No. 01LE5070948  
Qualified in Putnam County  
Commission Expires January 8, 1999



## Reply to Notice of Violation 50-286 / 98005

### I. Violation Assessed a Civil Penalty

10 CFR Part 50, Appendix B, Criterion III, *Design Control*, requires, in part, that measures be established to assure that the design basis is correctly translated into specifications, drawings, and instructions. The design control measures shall provide for verifying or checking the adequacy of design, such as performance of design reviews, or by the performance of a suitable testing program. Design changes shall be subject to design control measures commensurate with those applied to the original design.

Contrary to the above, between October 24, 1997 and May 28, 1998, the licensee failed to assure that a design change in October 1997 was subject to design control measures commensurate with those applied to the original design. Specifically, during the design change made to the 32 and 33 EDGs that realigned the essential power supplies to the EDG auxiliary support systems (which include EDG room ventilation; the fuel oil transfer pump; and the crankcase exhaust blower), an undervoltage trip function was installed on the supply breakers to the EDG auxiliaries. With the undervoltage trip relay installed, the EDG auxiliary support systems would be deenergized following a loss of normal power and operator action would be required to restore power to the auxiliaries. This was contrary to the design basis for the EDGs. Without the auxiliary support systems, the EDGs could not be relied upon to operate for the required period of time without operator action. The design error was not identified during design reviews. (01013)

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

Civil Penalty - \$55,000

### Response to Violation

The New York Power Authority agrees with this violation.

### Reason for Violation

The violation occurred during the development of a modification because a design engineer did not identify a plant drawing that showed relevant existing wiring. The modification involved installation of two new feeder breakers in spare switchgear cubicles for two new motor control centers (MCC 36D and 36E). The spare switchgear cubicles were prewired with a Safety Injection / Undervoltage (SI/UV) trip signal that was not intended to be a design feature for the modification.

The Authority's evaluation of this event identified the following cause and contributing factors:

- Design inputs were not thoroughly documented for this modification. An engineering procedure, DCM-13 (Conduct of Engineering) provides a process and instructions for the preparation of a Design Input Summary Checklist. Although a checklist was prepared for this modification, it was not completed with the attention to detail intended by the procedure. The drawing which showed the presence of the SI/UV trip was not listed on the checklist.

- ▶ A contributing factor was that the number and title of the subject drawing were such that the engineer did not recognize that the drawing was relevant to the modification.
- ▶ Another contributing factor was that insufficient time may have been allocated for the assigned personnel to meet established deadlines.

In addition, several opportunities to identify the error were missed:

- ▶ Reviewers and approvers of the modification package did not question the level of detail recorded on the Design Input Summary Checklist and did not recognize that a relevant reference drawing was not identified for this project.
- ▶ A complete cross-check between the schematic and wiring diagrams was not performed. A cross-check did verify that all circuits on the schematic were also on the wiring diagram. However, a reverse cross-check to verify that relevant information on the wiring diagram was shown on the schematic was not performed.
- ▶ A modification acceptance test (MAT) did not identify the error because the test was not developed based on a review of design inputs using the approach described in the Authority's procedure for preparation of modification test requirements (MCM-11). The flawed schematic drawing that did not reflect the presence of the existing SI/UV circuit was the primary reference used for development of the MAT.

The error was discovered on May 28, 1998 during an unrelated event (Indian Point 3 Licensee Event Report 1998-003). Plant operators questioned the unexpected response of MCC 36D which deenergized during this event. The wiring error was discovered during the investigation performed later that day.

#### Corrective Actions Taken

Immediate action was taken to address the as-installed configuration of this modification by stationing an operator at the feeder breakers for MCC 36D and 36E until the condition was corrected. An Engineering Change Notice was issued and the wiring error was corrected the following day, May 29, 1998.

The Authority has completed the following corrective actions to prevent recurrence:

- ▶ This event was reviewed with design engineers at Indian Point 3 to emphasize the purpose and importance of using DCM-13 to thoroughly establish design inputs for plant modifications.
- ▶ Existing drawings for spare switchgear cubicles have been revised to facilitate future identification and use of this information.
- ▶ The Authority is implementing intermediate milestones to improve planning for refueling outages. Although this action was taken independently of the subject violation, the established milestones include preparation and review of modifications. The Authority believes that this approach will improve the allocation of time for assigned personnel to develop modification packages.

In addition, the Authority has completed the following actions regarding the failure to identify the error:

- A new engineering procedure, DED-AD-25, "Modification Quality Review Process" was issued in July 1997. This procedure was developed as a result of Authority self-assessment activities to improve overall quality of modification packages. The procedure includes instructions to reviewers regarding content of modification packages and verification that procedures and processes were appropriately followed in the preparation of the modification package. Although this action was taken independently of the subject violation, the Authority believes that the new procedure improves the modification review and approval process.
- Design Guide & Drafting Standard DDS 0 05 04, "Guidelines for Checking for Electrical Design Drawings," was revised on July 30, 1998 to include a specific statement for cross-checking schematic and wiring diagrams.
- Training was conducted by the Design & Analysis Manager to reinforce the general testing philosophy and expectations regarding post modification testing requirements and acceptance criteria as established in procedure MCM-11, "Preparation of Modification Test Requirements."

Corrective Actions that will be Taken

The Authority believes that actions already taken will prevent recurrence.

Date When Full Compliance was Achieved

Compliance was achieved on May 29, 1998 when the wiring error for MCC 36D and 36E was corrected.

## II. Violation Not Assessed a Civil Penalty

10 CFR Part 50, Appendix B, Criterion XVI, requires, in part, that measures be established to assure that conditions adverse to quality, such as deficiencies, deviations, and nonconformances are promptly identified and corrected.

Contrary to the above, between September 1997 and May 28, 1998, the licensee failed to promptly correct a condition adverse to quality involving the inadvertent closure of the reactor coolant pump (RCP) thermal barrier flow control valve (FCV). Specifically, between September 1997 and March 1998, the licensee initiated four deviation event reports (DERs) to address the inadvertent closure of FCV-625, the thermal barrier FCV, when swapping component cooling water (CCW) pumps. However, this condition had not been corrected as of May 28, 1998. On May 28, 1998, the inadvertent closure of FCV-625 in conjunction with loss of a charging pump resulted in a momentary loss of all RCP seal cooling. (02014)

This is a Severity Level IV violation (Supplement I)

### Response to Violation

The New York Power Authority agrees with this violation.

### Reason for Violation

The violation occurred because of a failure to clearly define and prioritize a problem reported by plant operators. The issue was initially documented in a Deviation Event Report (DER 97-2412) written by a plant operator in September 1997. The issue was reviewed by System Engineering staff and the DER was closed based on a belief that the valve closure was not the result of a system deficiency and was an expected system response for a specific set of test conditions. Therefore, the initial DER was closed based on a corrective action that revised the test procedure to include a warning of potential valve closure and direction to reopen the valve. This initial response created a mindset that influenced the disposition of subsequent problem reports written on this subject.

The Authority's evaluation determined that the failure to clearly define and prioritize the reported problem was the result of the following causes:

- ▶ The Plant Identified Deficiency (PID 36171) for this issue was not classified by the Shift Manager as an Operator Work Around and was closed by the PID Review Committee based on the response to the DER. Issues identified as Operator Work Arounds are monitored separately from DERs and are assigned a specific priority for action. The Shift Managers' role in screening PIDs for possible Operator Work Around classification is described in procedure SPO-SD-01, "Work Control Process."
- ▶ Subsequent DERs that reported repeat occurrences were not highlighted and identified by the Operations Review Group (ORG) as an adverse trend, so that a higher level of attention could be directed on the problem.

### Corrective Actions Taken

On May 26, 1998 a new Plant Identified Deficiency (PID 61049) was opened and the issue was classified as an Operator Work Around. Action to investigate and resolve the valve closure issue was assigned to the Engineering Department with a work priority consistent with the Operator Work Around classification. Engineering issued an Action Plan (IDSE-APL-98-012) on July 20, 1998 to document the approach for resolution. A principle component of the action plan was the performance of a test to collect data regarding the valve response. The test procedure (ENG-622) was performed on July 21, 1998. The data collected is being used to support development of a resolution.

The Authority has completed the following actions to prevent recurrence:

- ▶ The Operations Department issued a shift order to emphasize the importance of the Shift Managers' role in reviewing PIDs for possible classification as an Operator Work Around.
- ▶ On August 17, 1998 the Operations Review Group established a 'Recurring Issues List' to document DERs that may need a higher level of attention because of the repetitive nature of identified problems. Closure of FCV-625 is included on that list, pending completion of the action plan. The Authority is continuing to review alternative methods to ensure that repeat problems are appropriately identified and prioritized.

### Corrective Actions that will be Taken

The Authority believes that actions already taken will prevent recurrence. The Authority is continuing to implement the steps outlined in the Action Plan for FCV-625. The Authority will also review the current definition for Operator Work Around and if needed, provide additional criteria to assist the Shift Managers and PID Review Committee in classifying reported problems as Operator Work Arounds.

### Date When Full Compliance was Achieved

Compliance was achieved on July 20, 1998 when the Authority issued an Action Plan outlining the steps to be taken to prevent the inadvertent closure of FCV-625.