



Commonwealth Edison  
1400 Opus Place  
Downers Grove, Illinois 60515

June 16, 1994

Director, Office of Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Dresden Nuclear Power Station Units 2 and 3 Response to Notice of Violation Regarding Inadequate Corrective Actions  
Inspection Report 50-237/94002; 50-249/94002  
NRC Docket Numbers 50-237 and 50-249

References: J. B. Martin letter to M. J. Wallace, dated May 17, 1994,  
transmitting Notice of Violation and Proposed Imposition of Civil  
Penalty; Inspection Report 50-237/94002; 50-249/94002

E. G. Greenman letter to M. D. Lyster, dated March 11, 1994,  
transmitting Inspection Report 50-237/94002; 50-249/94002.

Enclosed is Commonwealth Edison Company's (ComEd) response to Notice of Violation regarding Inadequate Corrective Actions associated with Reactor Water Level Yarway Instrumentation which was transmitted with Inspection Report 50-237(249)/94002. The response is being submitted as requested in the referenced J. B. Martin letter. Responses to the Notice of Violation and Notice of Deviation that were transmitted in the referenced E. G. Greenman letter were submitted on April 11, 1994.

We do not contest your action to classify the violations as a Severity Level III problem or the proposed civil penalty. Accordingly, enclosed is a check in the amount of \$75,000.

If your staff has any questions concerning this letter, please refer them to Sara Reece-Koenig, Regulatory Performance Administrator at (708) 663-7250.

Sincerely,

*for D. Farrar*  
D. Farrar  
Nuclear Regulatory Services Manager

attachments  
enclosure

cc: J. B. Martin, Regional Administrator Region III  
J. F. Stang, Project Manager, NRR  
M. N. Leach, Senior Resident Inspector, Dresden

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ATTACHMENT  
RESPONSE TO NOTICE OF VIOLATION  
NRC INSPECTION REPORT  
50-237/94002; 50-249/94002

**VIOLATION:** (50-237/94002-04)

10 CFR Part 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. 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. The identification of the significant condition adverse to quality, the cause of the condition, and the corrective action shall be documented and reported to the appropriate levels of management.

Contrary to the above, as of January 11, 1994, the licensee had failed to promptly correct a significant condition adverse to quality as demonstrated by the following:

- A. Since 1991, Dresden Units 2 and 3 Yarway reactor water level switches 2/3-263-72 A through D were out-of-tolerance or completely failed to actuate at least 50 times. The instrumentation provides signals to the reactor low water level low pressure coolant injection (LPCI), core spray and high pressure coolant injection (HPCI) initiation, automatic depressurization system (ADS) permissive, and diesel generator start logic. The instrumentation also provides a signal to trip HPCI on high level.
- B. The licensee's Vulnerability Assessment Team (VAT) identified in 1992 excessive drift of the Yarway reactor water level switches. The VAT recommended that station management should continue to follow-up on the availability of new like-for-like replacement switches, and finalize a course of action.
- C. The licensee submitted LER No. 249/93001 because on January 13, 1993, Yarway reactor water level switch 3-263-72A was found outside the required Technical Specification range. The LER stated in the Corrective Actions section, that "[d]ue to continuing problems with the Yarway level indication switches and their becoming obsolete, reduced parts availability, and reduced vendor support, the Station has proceeded to investigate possible alternatives to the Yarway switches.... Presently, a feasibility study is under way to evaluate replacement of these switches. This feasibility study will be complete by 06/01/93".
- D. The licensee submitted LER No. 249/94003 because on January 19, 1994, Yarway reactor water level switch 3-263-72B failed to trip on a low reactor water level signal.

This is a Severity Level III violation (Supplement I). (01013)  
Civil Penalty - \$75,000.

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RESPONSE TO NOTICE OF VIOLATION  
NRC INSPECTION REPORT  
50-237/94002; 50-249/94002  
(Continued)

**REASON FOR THE VIOLATION:**

Commonwealth Edison Company (ComEd) acknowledges the alleged violation, as stated above, as a valid violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action".

Based on the investigation performed for this event, the root causes of the violation are as follows: 1) Prior to 1993, the process used to prioritize technical issues was weak, and did not provide a mechanism to formally include safety significance in the prioritization process; 2) The Integrated Reporting Process (IRP) equipment failure and failure rate data was not reviewed in an effort to identify adverse performance trends; and 3) The performance of the Yarway reactor water level switches was not trended and analyzed.

These root causes were determined through a process which identified the following inappropriate actions: 1) Prior to 1994, Dresden Station did not implement long term corrective actions commensurate with the safety significance to replace the Yarway reactor water level switches. Similarly, Dresden Station did not communicate priority commensurate with the safety significance for obtaining NRC approval of the Technical Specification change related to the Yarway level switch setpoint which was submitted in March of 1993. This failure to communicate appropriate priority resulted in the continuation of repeated adjustments being made to maintain switch setpoints within the narrow Technical Specification setpoint band while the approval was awaited; 2) Root cause evaluations were not performed to determine cause of switch failures, and upon removal, equipment was discarded preventing any evaluations from being performed; and 3) The Station did not recognize the increased failure rate of the Yarway reactor level switches on Unit 2 through either the Integrated Reporting Process, or other methods of trending equipment performance. Furthermore, several switches had indicated negative performance trends prior to failure, but the trend was not recognized or acted upon, therefore switch failures were experienced.

**CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED:**

The Technical Issues Resolution Program has been revised to include a formal prioritization process which addresses the safety significance of each issue.

In the fall of 1993, a cost effective solution to replace the Yarway reactor level switches was identified. This solution was approved as a station modification in February of 1994.

An operability evaluation for the Yarway reactor level switches was performed in February of 1994 which revealed potential root causes for the switch failures. As a result of the evaluation, the Dresden Yarway Administrative Action Plan was developed, containing compensatory actions to be taken to address the switch failure issue. This plan will continue to attempt to determine root cause of the switch failures by recording data and inspecting the switches during calibration surveillances and comparing the observations with potential root causes.

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50-237/94002; 50-249/94002  
(Continued)

**CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED:** (continued)

Other parts of the administrative plan include: 1) Continuing monthly calibration surveillances for the Yarway reactor level switches in accordance with Dresden Instrument Surveillance, DIS 0500-03, "Reactor Water Level ECCS Initiation Indicating Switch Calibration" - this action is ongoing; 2) Develop optimization actions for the Yarway reactor water level switches and incorporate those actions into DIS 0500-03 - this action has been completed; 3) Perform trending of the as-found calibration data for the Yarway reactor water level switches, and perform corrective actions as identified in the administrative plan - the trending and corrective actions are ongoing; 4) Obtain Yarway reactor level switch setpoint tolerance Technical Specification change approval from the NRC - this action has been completed; and 5) Implement Technical Specification setpoint changes on the Yarway reactor water level switches upon obtaining Technical Specification change approval from NRC - Unit 2 setpoint change has been implemented; Unit 3 setpoint change will be implemented prior to end of current refueling outage (D3R13).

**CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER VIOLATION:**

The Instrument Maintenance Department personnel have started to initiate Problem Identification Forms (PIFs) for all instrument out-of-tolerance conditions, i.e., administrative limits, as well as Technical Specification limits being exceeded. Prior practice was to initiate PIFs only if the Technical Specification limit(s) had been exceeded. This action is complete.

The station Regulatory Assurance Department will develop appropriate guidance for a station trending program concentrated on station IRP Level 4 events and the program will be implemented. The first part of the program development will include a program scope which will be developed with input from the Maintenance and Engineering Departments. These actions will be completed by July 1, 1994.

Based upon the trending program guidance provided by the Regulatory Assurance Department, the System Engineering Department will initiate trending of IRP Level 4 event data related to equipment performance. Implementation of this trending process will begin immediately upon the guidance being provided by the Regulatory Assurance Department. To administratively control the System Engineering trending process, System Engineering Memo 25, "Plant Performance Monitoring - Program Overview", will be revised to contain the expectation that IRP data be reviewed for adverse trends and frequent equipment failures. The Memo revision will be completed by September 30, 1994.

The station Self Assessment Director (SAD) will develop appropriate guidance for a station performance trending program and the program will be implemented. The program will concentrate on station IRP level 1, 2, and 3 events. This program shall be considered the primary station performance monitoring program. These actions will be completed by August 1, 1994.

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(Continued)

**CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER VIOLATION:** (continued)

The Technical Issues Resolution Program will be revised to include a periodic re-prioritization of technical issues based on changes in failure trends. Revision of the program will be completed by the System Engineering Department by September 30, 1994.

To improve the physical control over equipment which is awaiting root cause determination, System Engineering Department will develop a methodology and incorporate the methodology into the administrative controls of a station procedure, or a System Engineering Department Memo. This action will be completed by October 31, 1994.

The Maintenance and System Engineering Initiatives are ComEd Corporate efforts being undertaken to improve the system engineering function. The initiatives are designed to correspond with the Maintenance Strategy being developed to address the Maintenance Rule. Therefore, the initiatives will focus on what, and how equipment performance monitoring is performed, which will include the use of IRP data. Dresden System Engineering Department will implement recommendations from these initiatives as they relate to equipment trending. The implementation of these recommendations will be an on-going process with initial recommendation implementation to be completed by December 15, 1994.

**DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:**

Date of full compliance will be achieved upon completion of all of the corrective actions listed above. All of the corrective actions will be completed by December 15, 1994.