



Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

March 17, 1994

U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Brent Clayton letter to R. Tuetken dated February 15, 1994
transmitting Notice of Violation (NOV) in NRC Inspection
Report 50-295(304)/94002.

NRC Docket Numbers 50-295 and 50-304

Enclosed is the Commonwealth Edison Company (CECo) response to the subject Notice of Violation (NOV). The NOV cites one Severity Level IV violation for ineffective corrective actions in preventing the recurrence of a significant condition adverse to quality, specifically, foreign material intrusion into safety related systems.

If you have any questions or require additional information, please contact Marcia Jackson, Regulatory Performance Administrator at (708) 663-7287.

Very truly yours,

Dennis Farrar
Nuclear Regulatory Services Manager

MJ/gp

cc: J. B. Martin, Regional Administrator, RIII
C. Y. Shiraki, Project Manager, NRR
J. D. Smith, Senior Resident, Zion Station

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ZION STATION
RESPONSE TO NOTICE OF VIOLATION
50-295(304)/94002

VIOLATION: 295(304)/94002-01

During an NRC inspection conducted January 7, 1994 through February 10, 1994, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions", 10 CFR Part 2, Appendix C, the violation is listed below:

Title 10 of the Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion XVI, "Corrective Actions" requires, in part, that conditions adverse to quality be 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 actions taken to preclude repetition.

Contrary to the above, from October 7, 1993 to February 10, 1994, corrective actions for a significant condition adverse to quality, foreign material intrusion into safety related systems (specifically, the 1A auxiliary feedwater pump as discovered on September 17, 1992), failed to prevent recurrence. Corrective actions to exclude foreign material from critical areas failed at various times to prevent debris from being introduced into both reactor cavities throughout the outage.

This is a Severity Level IV Violation (Supplement I)

REASONS FOR THE VIOLATION

Commonwealth Edison Company (CECo) acknowledges the violation. The reason for the violation has been identified as a failure on the part of station management to adequately communicate and enforce expectations for the station Foreign Material Exclusion (FME) program.

The corrective actions identified as a result of the September 17, 1992 failure of the 1A auxiliary feedwater pump are described in Zion's Licensee Event Report 295/92014 dated October 13, 1992. These corrective actions have been effective at preventing a recurrence of further FME problems with auxiliary feedwater pumps. However, one of the corrective actions identified in the LER was designed to address the broader issue of FME through defining expectations and monitoring implementation of the station's FME program. In reviewing the specific steps taken under this corrective action, it became clear that while they were effective in the short term, no mechanisms were established to ensure long term effectiveness.

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Based on trending information provided by the station's Integrated Reporting Program, the Root Cause committee on November 17, 1993 directed that a level II root cause investigation be performed to determine the causes of Zion's inability to effectively implement its FME program. The elevation to a Level II root cause investigation necessitated the formation of a multi-disciplinary investigation team headed up by a senior manager. This investigation was completed on December 30, 1993.

This level II investigation identified a lack of adequate communication, ongoing management oversight, and follow-up on implementation of the station's FME program as the primary cause of the station's recurring FME related events. In addition, the investigation identified the following three contributing causes: 1) FME training to station personnel was not sufficient in stressing the importance of the global FME issue and the expectations of Senior Station Management; 2) effective implementation of previous Zion Management Action Plans (ZMAPs) on FME corrective actions was not accomplished, primarily because of a lack of Management ownership and follow-through; and 3) the usage of the FME procedure (ZAP 400-01B) was also cited as a contributing factor. While the content of the procedure itself was not determined to be a contributing factor, the communication of the expectations for adherence to the procedure was found to be inadequate.

As described in the subject inspection report, during the performance of the recent Unit 2 fuel re-load, a fuel assembly would not fully seat. Upon investigation, a stainless steel nut was discovered on the lower core plate. A level II root cause investigation was initiated and is currently ongoing. The nut is believed to have originated from brackets used to secure a FME net over the reactor cavity. The preliminary results of the investigation conclude that this is another example of ineffective implementation of the station's FME program due to a failure in the communication of management's expectations. This is consistent with the root cause of previously documented events. It should be noted that the corrective actions identified from the investigation completed on December 30, 1993 were not yet implemented at the time of this event.

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CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

Utilizing the results of the Level II Investigation completed December 30, 1993, a comprehensive Management Action Plan (ZMAP #1224) was created. This ZMAP includes steps to ensure ongoing assessment of the effectiveness of implementation of the corrective actions. A Senior Manager (Maintenance Superintendent) was assigned primary ownership and responsibility for overall coordination and implementation of this ZMAP. This ZMAP currently contains a total of forty-three corrective actions, of which twenty have been completed.

A meeting was held by the Zion Station Manager with senior station management personnel to address the failure of the FME program implementation to date. The Station Manager re-emphasized his FME expectations for the station.

The immediate corrective actions taken as a result of the nut found on the core plate include removal of the nut, re-inspection of the lower core plate, and communication with both the Maintenance and Fuel Handling Departments to ensure that this event was not duplicated on Unit 1 during net manipulation for that unit.

During the fourth quarter of 1993, an agreement on basic FME expectations for the work groups was adopted. This was signed by Zion Station's Chief Union Steward, Union Stewards, Maintenance Masters, Maintenance Staff Supervisor, Quality Control Supervisor, and Maintenance Superintendent to indicate understanding and acceptance.

Integrated Quality Effort (IQE), Zion Station's self-assessment tool, has recently created departmental "windows" for monitoring FME performance. In addition, the criteria used to evaluate performance has been modified to include low level, inconsequential events. This has lowered the threshold for identifying FME performance concerns to senior management.

The current FME procedure (ZAP 400-01B) has been revised. Input was solicited and received from management and bargaining unit personnel in order to make changes to the FME procedure that would result in a more practical and "user friendly" procedure. The FME procedure was approved by on-site-review on March 7, 1994.

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A special edition station newsletter article has been written calling attention to the level II investigation results and status to date. It further states and emphasizes the importance of individuals supporting the station FME program. Other methods being employed to raise station awareness to requirements of the FME program include the use of bulletin boards and the Station Information Display System (SIDS) - a closed circuit television system that broadcasts to display monitors through-out the Station.

CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER VIOLATIONS

ZMAP #1224, which is being utilized to track the corrective actions for the December 1993 level II investigation on FME, has twenty-three action items that are either open or on-going. Some of the key corrective actions in this action plan are described below.

A comprehensive training program to address the issues relating to FME is being developed by the Zion Training Department. The training syllabus is being developed by soliciting input from knowledgeable and experienced station and industry personnel that deal with FME practices on a routine basis in the field. Station personnel from various departments provided input to the Training Department on the FME issue to ensure that the appropriate level of information is included for various work groups. Accordingly, a "general" training session will be conducted for those groups who work in the plant, but do not typically open or close systems, or work around open systems to any great extent, and a "specific" more detailed training session will be conducted for those groups who must establish control, start work in, or release FME zones. The "specific" training session will address proper usage of the revised FME procedure. The Zion Training Department has committed to start the training by April 15, 1994 and complete the training by July 15, 1994.

The Station Manager has committed to have a senior management person present to "kick-off" each FME training session. The senior manager will re-emphasize the importance of the FME Program, adherence to the FME procedure, and the expectations for all station personnel regarding FME. An opportunity for a question/answer session will also be provided.

Department Training Coordinators for the applicable departments will ensure that FME requirements are discussed at a training meeting at least annually.

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FME issues and FME performance will be addressed as part of the outage kick-off meeting prior to the next Zion refueling outage.

The Site Quality Verification Group will perform an overview of the station FME program prior to the start of the next refueling outage to evaluate effectiveness of implementation.

Upon completion of the level II root cause investigation being performed for the nut found on the Unit 2 core plate, the recommendations of the investigation will be reviewed for incorporation into ZMAP #1224 and planned training.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Zion Station will be in full compliance by July 15, 1994 when the general and specific FME training described above has been completed.