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November 26, 2007

BV-L-07-138
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Ms. Cynthia A. Carpenter
Director, Office of Enforcement
United States Nuclear Regulatory Commission
Washington, DC 20555-0001

Beaver Valley Power Station, Unit Nos. 1 and 2
Docket Nos. 50-334 and 50-412

Davis-Besse Nuclear Power Station, Unit No. 1
Docket No. 50-346

Perry Nuclear Power Plant, Unit No. 1
Docket No. 50-440

Subject: Actions Required by Confirmatory Order EA-07-199

By letter dated August 15, 2007, the Nuclear Regulatory Commission (NRC) issued a Confirmatory Order (Order) to the FirstEnergy Nuclear Operating Company (FENOC) to formalize commitments made by FENOC following the NRC issuance of a Demand for Information (DFI) on May 14, 2007. In addition to the commitments made by FENOC in response to the DFI in letters dated June 13, 2007, and July 16, 2007, the Order contains requirements to provide letters to the Director, NRC Office of Enforcement, prior to implementation and following completion of selected commitments.

Attachment 1 to this letter includes a discussion of the effectiveness review that will be conducted in January 2008. It provides the identity of the external consultant leading the assessment, his qualifications, and the scope and depth of the plan for assessing effectiveness as required by item 2 of the Order.

IE36

Attachment 2 to this letter includes a summary of the results of the root cause evaluation of the events that culminated in the issuance of the May 14, 2007, DFI as required by item 6 of the Order. This summary includes corrective actions that were identified in addition to the requirements of the Confirmatory Order.

Attachment 3 identifies that there are no commitments contained in this response. If there are questions, or additional information is required, please contact Mr. Gregory H. Halnon, Director- Fleet Regulatory Affairs, at 330-384-5638.

I declare under penalty of perjury that the foregoing is true and correct. Executed on November 26, 2007.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Hagan". The signature is fluid and cursive, with a large loop at the end.

Attachments:

1. 2008 External Effectiveness Review Plan
2. Root Cause Evaluation Summary
3. Commitment List

cc: Document Control Desk
Assistant General Counsel for Materials Litigation and Enforcement
Regional Administrator, NRC Region I
Regional Administrator, NRC Region III
NRC Project Manager – Davis-Besse and Perry
NRC Resident Inspector – Davis-Besse
NRC Project Manager – Beaver Valley
NRC Resident Inspector – Beaver Valley
NRC Resident Inspector – Perry Nuclear
Utility Radiological Safety Board
Mr. D. A. Allard, Director BRP/DEP
Mr. L. E. Ryan, BRP/DEP
Ms. N. Dragani, Ohio Emergency Management Agency

2008 External Effectiveness Review Plan

The 2008 External Effectiveness Review will be conducted by a team led by John M. Griffin, President of The Kestrel Group, Inc. Two industry peers will participate in the evaluation.

Mr. Griffin has over thirty years of experience, which include senior executive management of an electric utility, responsibility for the operation of a nuclear power station, executive consulting, and management of a large consulting company. For the past ten years, Mr. Griffin has worked with clients in the government, utility and energy sectors to establish and maintain healthy Safety Conscious Work Environments. Mr. Griffin has a Bachelors of Science degree from the United States Naval Academy.

The team will evaluate the following areas:

1. Development of regulatory sensitivity training
2. Selection of population to be trained
3. Conduct of training
4. Understanding of enabling objectives of the regulatory sensitivity training

The review will consist of an assessment within each of these areas through observation of training; structured interviews of FirstEnergy and FirstEnergy Nuclear Operating Company employees at Beaver Valley Power Station, Davis-Besse Nuclear Power Station, Perry Nuclear Power Plant, and at the Akron General Office; and a review of documentation. The team leader has attended one of the Regulatory Sensitivity training sessions in order to be better prepared to begin the effectiveness review.

Specifically, within the areas identified above, the following aspects will be reviewed:

1. Development of regulatory sensitivity training
 - a. Terminal and enabling training objectives
 - b. Training material
2. Population of employees to be trained
 - a. Selection process for target population
 - b. Attendance of target population at scheduled training

3. Conduct of training
 - a. Qualifications of instructors conducting training
 - b. Class room environment
 - c. Training delivery
 - d. Class participation
 - e. Use of training materials
 - f. Measurement of participant understanding
 - g. Participant feedback

4. Understanding of enabling objectives of the regulatory sensitivity training
 - a. Mission of the Nuclear Regulatory Commission (NRC)
 - b. How the NRC fulfills their mission
 - c. Define Nuclear Safety Culture and Safety Conscious Work Environment
 - d. Four Pillars of a Safety Conscious Work Environment
 - e. Organizational factors leading to the Davis-Besse reactor head event
 - f. Basis for Davis-Besse restart approval
 - g. Cost of Davis-Besse reactor head event in monetary and political terms
 - h. Institute for Nuclear Power Operations criteria for corporate performance
 - i. Lessons learned from Exponent Report case study
 - j. Process to prevent recurrence of events leading to NRC Demand for Information
 - k. Regulatory consequences of issues within participant's organization

Root Cause Evaluation Summary

Condition Report Subject

Response to Demand for Information (DFI): Commitment to Evaluate the FirstEnergy Nuclear Operating Company (FENOC) May 2, 2007 Response to a Nuclear Regulatory Commission (NRC) Request for Information

Problem Statement

FirstEnergy and FENOC were not sensitive to the regulatory implications of the Exponent and Mattson reports, as demonstrated by the limited FENOC involvement in the report development and review, and the failure to perform a technical review of the reports in response to the NRC letter dated April 2, 2007. This led to a perception that FENOC was no longer accepting responsibility for the Davis-Besse Reactor Pressure Vessel (RPV) head degradation event.

Investigation/Analytical Methods Used

Event and Causal Factor Chart
TapRoot®
Barrier Analysis
Management Oversight and Risk Tree (MORT)

Scope/Intent of Investigation

The Root Cause Team was assigned to determine the root and contributing cause(s) of why FirstEnergy and FENOC lacked the sensitivity to the regulatory implications of the Exponent and Mattson reports. Specific issues to be addressed include:

- Determine why reports related to the Davis-Besse head insurance claim arbitration were not proactively communicated to the NRC as items of regulatory interest.
- Determine why a detailed point by point comparison of the Exponent report and the existing root cause reports was not performed before submitting the May 2, 2007 response.
- Determine why the Davis-Besse regulatory submittal review process did not prevent the ineffective May 2, 2007 response to the NRC request letter dated April 2, 2007.

Report Abstract

Root Cause

The root cause of this issue was determined to be that "FENOC applied a narrow focus on an insurance arbitration matter coordinated by the FirstEnergy Legal Department and did not recognize the regulatory significance associated with a potential nuclear safety issue resolved without invoking the FENOC Corrective Action Program."

Relative to the Davis-Besse event, FENOC pursued an insurance claim with Nuclear Electric Insurance Limited (NEIL), which had entered arbitration. FENOC had limited involvement in the process, which was being pursued by FirstEnergy Legal. Legal counsel characterized the arbitration effort as a commercial business issue, to be handled in a confidential manner, i.e., "attorney-client communications".

An independent technical evaluation of the Davis-Besse head degradation event was commissioned to address specific aspects of the insurance claim, and documented in a report entitled, "Review & Analysis of the Davis-Besse March 2002 Reactor Pressure Vessel Head Wastage Event" (Exponent report). Outside legal counsel also retained a regulatory expert to evaluate the Davis-Besse Boric Acid Corrosion Control (BACC) Program, documented in a report entitled, "Report on Reactor Pressure Vessel Wastage at the Davis-Besse Nuclear Power Plant" (Mattson report). The reports were reviewed by FENOC and FirstEnergy before submitting them to the insurance arbitration. Legal counsel characterized the reports as expert testimony for insurance arbitration purposes.

FENOC reviewers of the Exponent report were desensitized to the regulatory significance of the technical information about the Davis-Besse reactor head degradation. Reviewers questioned a potential safety issue but were satisfied by information provided by the authors of the expert testimony that no safety concern existed.

The arbitration effort and expert testimony were directly related to the Davis-Besse head degradation event, which is regarded as one of the more significant events in the history of the commercial United States nuclear industry. The head degradation event resulted in significant impacts on the NRC and the nuclear industry, and Davis-Besse restart-related corrective actions and on-going assessments of Davis-Besse performance that are still in place. However, the arbitration matter, including the information developed to support it, was not viewed as a current Davis-Besse operational issue, and regulatory impact was not considered since there was no safety concern. Because the potential safety

issue had not been addressed within the FENOC corrective action program, the established process for prioritizing and resolving potential safety concerns was not used. As a result, the regulatory significance of the expert testimony was not adequately considered or communicated to the NRC as having regulatory interest.

Contributing Causes and Missed Opportunity

As the insurance claim was being pursued, the FENOC President was kept informed of the overall effort, which was managed by FirstEnergy Legal. After the initial claim had been denied, FENOC made the decision to enter arbitration to continue pursuit of the insurance claim. The cause analysis concluded that no Standards, Policies, or Administrative Controls were in place to consider the regulatory and business risks of continuing to pursue the insurance claim through arbitration.

Because there was no process in place to assess the regulatory risk, the investigation determined a contributing cause to be: "Administrative controls are not in place for evaluating potential regulatory risk associated with a commercial business activity being pursued by FENOC." Associated with this was a missing barrier, because there was no process for assessing the risk to FENOC of non-nuclear FirstEnergy business activities.

During the arbitration process, FENOC involvement was limited to providing Davis-Besse specific information needed for the development of the arbitration expert testimony as requested by outside counsel. FENOC management personnel provided review comments on expert testimony drafts prior to filing with NEIL. FirstEnergy and FENOC were subject to regulatory and business risk without appropriate consideration of the regulatory significance and stakeholder interest associated with the conclusions of the reports.

After the potential safety concern had been communicated by the insurer, FENOC documented the concern in the corrective action program and began communicating with the NRC regarding the expert testimony. FENOC requested input from a consultant with a regulatory background to help characterize the significance of the expert's conclusions and assess regulatory reporting requirements. The consultant provided conclusions that were dependent upon associated recommendations, which included the need for a rigorous analysis comparing the conclusions of the expert testimony against the conclusions previously reported by FENOC. These recommendations were not fully acted upon.

The consultant's recommendations provided insights into the regulatory impact and need for communications with the regulator and stakeholders. In particular, had the rigorous analysis involving a detailed point by point comparison been completed, the information would have been available in response to the NRC's information request on April 4, 2007. The cause analysis identified that FENOC disregarded certain recommendations related to regulatory risks that were provided by a consultant with significant regulatory experience and underestimated stakeholder interest associated with the Exponent report conclusions.

A missed opportunity was also identified in that Fleet Regulatory Affairs was not involved until late in the course of events, and as a result, a coordinated regulatory response strategy was not developed and implemented. Such a strategy would likely have ensured that the NRC request for information was satisfied by FENOC's May 2, 2007 response.

Corrective Actions

Corrective actions have been established to address the causes identified to raise the organization's sensitivity to issues that have regulatory implications. Several actions include the strengthening of policies and procedures in the areas of regulatory risk management, and the current corrective action program. Other actions include sensitivity training in these areas.

The corrective actions developed by the root cause team are encompassed by corrective actions that were previously included in the requirements of the Confirmatory Order, with the exception of the corrective actions listed below:

- The President of FENOC will reinforce the importance of being sensitive to the impact of all commercial activities on FENOC with the FirstEnergy Risk Management Committee.

This corrective action has been completed. Working with the President of FENOC, the FirstEnergy Chief Risk Officer issued a memorandum to the Risk Policy Committee reinforcing the importance of being sensitive to nuclear regulatory risk.

- Develop guidance within the FENOC document hierarchy which contains the information and expectations developed in the FENOC Regulatory Interface Strategies for Principles of Regulatory Interface, Building/Maintaining Credibility and Confidence with the Regulator, and Communication with the Regulator Rules of Engagement, to establish

criteria for developing a regulatory response strategy when an issue with potential regulatory impact is identified.

This corrective action is underway and is scheduled to complete concurrent with the procedural guidance that was included in the requirements of the Confirmatory Order.

In addition to the above corrective actions, the performance of a root cause evaluation programmatically requires an effectiveness review. This effectiveness review is distinct from the external effectiveness reviews that were committed to in the July 16, 2007, supplement to the DFI response and included in the requirements of the Confirmatory Order and the ongoing internal effectiveness reviews that were committed to in the July 16, 2007, supplement to the DFI response.

Commitment List

The following table identifies those actions committed to by FirstEnergy Nuclear Operating Company (FENOC). Any other statements in this letter are provided for information purposes and are not considered regulatory commitments. Please notify Mr. Gregory H. Halnon, Director- Fleet Regulatory Affairs, at 330-384-5638, of any questions regarding this document or associated regulatory commitments.

| Commitment | Due Date |
|------------|----------|
| None | N/A |
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