R3

From: Bruce Burgess
To: Scott Langan
Date: Tue, Jul 24, 2007 10:56 AM
Subject: Fwd: FirstEnergy Nuclear Operating Company Supplemental Response to May 14, 2007 DFI

Scott,
Here is the electronic version of the supplemental response to the DFI. I was so busy yesterday that I didn't remember to send to you until today.

F-290

Mail Envelope Properties (46A62113.CFC : 23 : 3652)

Subject: Fwd: FirstEnergy Nuclear Operating Company Supplemental Response to May 14, 2007 DFI
Creation Date Tue, Jul 24, 2007 10:56 AM
From: Bruce Burgess

Created By: BLB@nrc.gov

Recipients	**Action**	**Date & Time**
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ch_po.CH_DO	Delivered	07/24/07 10:56 AM
SJL1 (Scott Langan)	Opened	07/24/07 1:37 PM

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ch_po.CH_DO	07/24/07 10:56 AM	nrc.gov

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Options

Auto Delete:	No
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Priority:	Standard
ReplyRequested:	No
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Concealed Subject:	No
Security:	Standard
To Be Delivered:	Immediate
Status Tracking:	Delivered & Opened

From: James Caldwell
To: Anne Boland; Anthony Hsia; Bruce Burgess; Cynthia Pederson; Jared Heck; Kenneth O'Brien; Mark Satorius; Steven West
Date: Mon, Jul 16, 2007 12:44 PM
Subject: Fwd: FirstEnergy Nuclear Operating Company Supplemental Response to May 14, 2007 DFI

Mark/Jared/Ken - Here it is. What's the plan?

>>> <ghalnon@firstenergycorp.com> 07/16/2007 12:16 PM >>>

Distribution:
Sam Collins
Cynthia Carpenter
Jim Caldwell
Cheryl Montgomery
Doug Starkey
Ken O'Brien
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Catherine Haney
Jack Rutkowski
Dave Werkheiser
Mark Franke

Ladies and Gentlemen,
Attached is FirstEnergy Nuclear Operating Company's supplemental reply to the May 14, 2007 Demand For Information. Please call me if you have any questions or trouble opening the document. The document is being mailed today to the Document Control Desk, original to Ms. Carpenter and copies to Assistant General Counsel for Materials Litigation and Enforcement and the Regional Administrators.

Ms. Carpenter, should this be provided in electronic format to any media persons outside the NRC, if possible please have your Public Affairs Office notify us so that we may provide appropriate support for any media inquiries.
Regards

Greg Halnon
Director Regulatory Affairs
FirstEnergy Nuclear Operating Company
76 S Main St
A-GO-2
Akron, OH 44308
Akron Office: 330-384-5638
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(See attached file: FENOC Supplemental Response to May 14 2007 DFI.pdf)

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FirstEnergy

76 South Main Street
Akron, Ohio 44308

Anthony J. Alexander
President and Chief Executive Officer

330-384-5793
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July 16, 2007

BV-L-07-097
DB-Serial Number 3354
PY-CEI/NRR-3048L

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: Supplemental Information Regarding the FirstEnergy Nuclear Operating Company (FENOC) Response to Demand for Information

By letter dated May 14, 2007, the Nuclear Regulatory Commission (NRC) issued a Demand for Information (DFI) to the FirstEnergy Nuclear Operating Company (FENOC), regarding the evaluation of two reports associated with reactor pressure vessel head wastage at the Davis-Besse Nuclear Power Station. The two reports were the "Review and Analysis of the Davis-Besse March 2002 Reactor Pressure Vessel Head Wastage Event," prepared by Exponent Failure Analysis Associates and Altran Solutions Corporation (Exponent Report) and the "Report on Reactor Pressure Vessel Wastage at the Davis-Besse Nuclear Power Plant," prepared by Roger J. Mattson, Ph.D. (Mattson Report).

We responded to the DFI by letter dated June 13, 2007. On June 27, 2007, a public meeting was held between the NRC and FENOC representatives to discuss the circumstances leading up to the DFI and our response to the DFI. In follow-up discussions, we were requested to provide supplemental information to clarify certain aspects of the DFI response, and to provide additional details regarding plans to implement the commitments established therein.

The additional information requested is provided in the attachments to this letter. Specifically, Attachment 1 addresses the deletion of text from the draft Exponent Report prior to issuance, and clarifies the role of senior counsel in providing information from the authors of the Exponent Report to our Chief Nuclear Officer. Attachment 2 provides additional detail regarding the actions that we are planning to take to implement the commitments made in the DFI response, and describes plans for additional training and effectiveness reviews. This information is provided to clarify the steps that we are taking to implement the commitments made in response to the DFI and does not change those commitments. Attachment 3 identifies the additional commitments that we are making relative to training and effectiveness reviews.

I want to reassure the NRC that operating our nuclear facilities safely and reliably is of the utmost priority for FirstEnergy Corp. Additionally, FirstEnergy fully supports FENOC in exercising its authority regarding all matters associated with our nuclear operating company. I also want to emphasize that the regulatory commitments and implementation steps described in the attachments to this letter reflect FirstEnergy's priority to improve the interfaces between FENOC and our other corporate organizations.

If you have any questions regarding our response, please contact Mr. Joseph J. Hagan, President and Chief Nuclear Officer, at (330) 761-7895 or Mr. Gregory H. Halnon, Director, Fleet Regulatory Affairs, at (330) 384-5638.

Sincerely,

Anthony J. Alexander
President and Chief Executive Officer, FirstEnergy Corp.
Chief Executive Officer, FENOC

Affidavit

I, Anthony J. Alexander, being duly sworn, state that I am the Chief Executive Officer for FirstEnergy Nuclear Operating Company ("FENOC") and for its parent company, FirstEnergy Corp., that I am authorized to sign and file this application with the Nuclear Regulatory Commission on behalf of FENOC and its affiliates, and that the statements contained in this letter and attachments one through three, are true and correct to the best of my knowledge and belief. I am authorized by the FirstEnergy Nuclear Operating Company to make this submittal. I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Anthony J. Alexander
Chief Executive Officer, FENOC
Chief Executive Officer, FirstEnergy Corp.

STATE OF OHIO

COUNTY OF SUMMIT

Subscribed and sworn to before me, a Notary Public, in and for the County and State above named, this 16th day of July, 2007.

Dorothy A. Bratanov

My Commission Expires: _____

Dorothy A. Bratanov
Notary Public, State of Ohio
My Comm. Exp. Feb. 24, 2008

Affidavit

Attachments:

1. Supplemental Information Regarding the FENOC Response to a Demand for Information, Dated June 13, 2007
2. Additional Detail Regarding the Planned Implementation of Commitments Established in the FENOC DFI Response
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

Supplemental Information Regarding the FENOC Response
to a Demand for Information, Dated June 13, 2007

Following the public meeting that was held on June 27, 2007 to discuss the Demand for Information (DFI), the Nuclear Regulatory Commission (NRC) requested FirstEnergy Nuclear Operating Company (FENOC) to provide the following additional information regarding:

Deletion of Safety Implications Discussion that was included in the draft report reviewed by FENOC but removed prior to Issuance of Final Exponent Report

Attachment 1 of the FENOC response to the DFI that was submitted to the NRC on June 13, 2007 contains the following statement on page 5 of 55:

> During this review of the draft Exponent Report, FENOC executive management raised the question whether the report could have possible safety implications. Senior Counsel relayed information related to Exponent's conclusion that its analysis did not raise a safety concern and that the industry inspection guidance is adequate. Staff involved with the drafting of the Technical Root Cause Report likewise commented on the difference in the corrosion/wastage timeline.
>
> The draft Exponent Report that circulated within FENOC for review explained that if the current NRC-ordered inspections had been in place at 12RFO [twelfth refueling outage] in 2000, the cracks in CRDM [Control Rod Drive Mechanism] nozzles would have been identified and repaired and the head wastage would not have happened. This explanation was not included in the formal report because it was part of a larger section that was condensed prior to issuing the final report.

The explanation provided in the draft report that was reviewed by FENOC, but subsequently removed prior to issuance of the final report, is as follows:

> We [Exponent] show in Section 8 that at the 2000 refueling outage (12RFO), Davis-Besse almost certainly had PWSCC [Primary Water Stress Corrosion Cracking] through wall cracks on nozzle 2 and 3 (see Section 8). We believe that at that outage, the cracks were short enough that leakage through them would have been minimal, likely of the order of the leakage observed for similar size cracks at the Oconee-3 plant in February 2001. Therefore, just a

> visual inspection might have missed the leakage, even had the head been clean with little or no pre-existing deposits of boric acid from CRDM flange leaks.
>
> However, such cracks would have been readily detected by either UT [Ultrasonic Testing] or ECT [Eddy-Current Testing], and if the EA-03-009 order had been in place in 2000, those cracks would have been identified and repaired, and the Davis-Besse wastage would not have happened.

This discussion was not included in the final Exponent Report because it was determined not to be relevant to the issues in the insurance arbitration. The removal of this quotation should not be construed to be a change of position by Exponent. During telephone conferences with the NRC held in March 2007, Exponent stated that the cracks would have been detected in 2000 if the current inspection regime would have been in place at that time.

The Role of Senior Counsel in Providing Information from the Authors of the Exponent Report to the FENOC Chief Nuclear Officer

The safety implications of the Exponent Report were discussed among Exponent, FirstEnergy Legal Department, and outside counsel during the review of the draft Exponent Report in December 2006. During these discussions, Exponent reiterated their view that the results of their analysis showing faster crack growth rates did not raise a safety concern because the NRC's current inspection requirements for the reactor pressure vessel head nozzles were adequate to detect cracking in the nozzles calculated to occur at Davis-Besse. The results of these conversations were relayed to the Chief Nuclear Officer (CNO).

As discussed in Attachment 1 to the FENOC Response to the Demand for Information, the senior counsel served as a conduit for information between Exponent and the CNO. The CNO and senior counsel discussed whether Exponent believed that its report raised safety concerns or called into question the NRC inspection requirements for the reactor pressure vessel head. Exponent concluded that no safety concern existed at Davis-Besse from the development of the Exponent Report because of the crack growth rates calculated. Based on discussions between Exponent and senior counsel as relayed to the CNO, the CNO understood that Exponent was an expert in the field, had considered these issues, and had concluded that its analysis neither raised a safety concern nor adversely affected the NRC's inspection requirements.

Additional Detail Regarding the Planned Implementation
of Commitments Established in the FENOC DFI Response

Some of the activities described below are inter-related and apply to more than one commitment. For example, one benchmarking survey and one root cause will be conducted, but they apply to several of the commitments described below. The activities described in the implementation steps are not commitments, but represent the current plans to meet the commitments.

The due dates for the commitments were chosen based on the need to complete the root cause evaluation, benchmark with other utilities, develop procedural guidance and training, conduct the training, and the issuance of the final process. Interim actions have been put in place and will remain in effect until the procedural guidance is approved.

COMMITMENT 1
FirstEnergy Nuclear Operating Company (FENOC) will develop a formal process to review technical reports prepared as a part of a commercial matter. The process will provide criteria for FENOC to utilize to determine if the report has the potential for regulatory implications or impact on nuclear safety both at our sites and within the nuclear industry. This process will provide for the timely and critical evaluation of this type of report and will complement our existing formal nuclear process for obtaining technical reports from our agents and contractors. Due 12/14/2007

IMPLEMENTATION STEPS

1. Complete the root cause evaluation of the events that culminated in the issuance of the Demand for Information (DFI). Begin with the commissioning of the Exponent Report and include the development of the response to the NRC Request for Information, dated May 2, 2007.
2. Develop and issue an industry benchmarking survey, to seek relevant information on Communications Policies, Correspondence Procedures, Processes to Review/Accept Commercial Reports, and Regulatory Sensitivity and Awareness Training.

3. Develop a new process, to a) establish criteria for FENOC to determine if commercial reports are being developed within the company that could have potential nuclear safety regulatory implications, b) establish criteria for their review for nuclear safety implications and if communication with the NRC is appropriate; c) provide for FENOC's involvement at relevant points in the process, including a final review when a report is issued, d) provide for the timely and critical evaluation of this type of report; and e) complement the existing formal nuclear process for obtaining technical reports from our agents and contractors.
4. Prepare a change management plan to ensure that the appropriate FirstEnergy and FENOC employees are trained on the process and will implement it appropriately when provided with a technical report that was developed as part of a commercial matter.
5. Approve and implement the process.

COMMITMENT 2
FENOC will also provide an Operating Experience (OE) document to the nuclear industry through the established OE process. This OE document will discuss the issues surrounding this Demand for Information (DFI), including the review of technical reports prepared as part of a commercial matter. Due 8/10/2007

IMPLEMENTATION STEPS

1. Draft OE document. The OE document will include a description of the events leading up to the receipt of the DFI, a summary of the findings of the apparent cause evaluation that was conducted in support of the submittal of the DFI, and the corrective actions that are being taken as a result of our experience.
2. Obtain FENOC approvals for the OE.
3. Issue OE document to the industry.

COMMITMENT 3
Process changes will be made to the NRC Correspondence procedure to ensure specific questions are asked during the process relative to the experience gained from the efforts to respond to this DFI. Due 12/14/2007

IMPLEMENTATION STEPS

1. Complete the root cause evaluation of the events that culminated in the issuance of the Demand for Information (DFI). Begin with the commissioning of the Exponent Report and include the development of the response to the NRC Request for Information, dated May 2, 2007.
2. Develop and issue an industry benchmarking survey, to seek relevant information on Communications Policies, Correspondence Procedures, Processes to Review/Accept Commercial Reports, and Regulatory Sensitivity and Awareness Training.
3. Prepare a draft of the revised process, including specific questions to be asked during the correspondence preparation and review process relative to the experience gained from the efforts to respond to this DFI. These questions will help FENOC to focus on the information required to fully respond to the NRC.
4. Prepare a change management plan that will ensure that the appropriate FENOC employees are aware of the process and will implement it appropriately when preparing or reviewing NRC Correspondence.
5. Approve and implement the process changes.

COMMITMENT 4
FENOC's policy on Regulatory Communications will be assessed for potential enhancements through the Corrective Action Program (CAP). Due 11/30/2007

IMPLEMENTATION STEPS

1. Complete the root cause evaluation of the events that culminated in the issuance of the Demand for Information (DFI). Begin with the commissioning of the Exponent Report and include the development of the response to the NRC Request for Information, dated May 2, 2007.
2. Develop and issue an industry benchmarking survey, to seek relevant information on Communications Policies, Correspondence Procedures, Processes to Review/Accept Commercial Reports, and Regulatory Sensitivity and Awareness Training.
3. Prepare a draft of the revised policy, ensuring it addresses the appropriate conclusions from the root cause evaluation and the industry benchmarking.

4. Prepare a change management plan to implement policy changes.
5. Approve and issue the revised policy.

COMMITMENT 5
The May 2, 2007 response to the April 2, 2007 NRC Request for Information was narrow in scope and resulted in unintended conclusions relative to FENOC's regulatory position. This will be addressed through CAP. Due 11/30/2007

IMPLEMENTATION STEPS

1. Complete the root cause evaluation of the events that culminated in the issuance of the Demand for Information (DFI). Begin with the commissioning of the Exponent Report and include the development of the response to the NRC Request for Information, dated May 2, 2007.
2. Based on the root cause evaluation, determine what other corrective actions and/or enhancements will be implemented.
3. Develop a schedule for the additional corrective actions and/or enhancements.

COMMITMENT 6
Conduct regulatory sensitivity training for selected non-FENOC FirstEnergy employees. Due 11/30/2007.

IMPLEMENTATION STEPS

1. Complete the root cause evaluation of the events that culminated in the issuance of the Demand for Information (DFI). Begin with the commissioning of the Exponent Report and include the development of the response to the NRC Request for Information, dated May 2, 2007.
2. Develop and issue an industry benchmarking survey, to seek relevant information on Communications Policies, Correspondence Procedures, Processes to Review/Accept Commercial Reports, and Regulatory Sensitivity and Awareness Training.
3. Identify population to be trained – this is currently expected to be Vice Presidents, Directors, and selected other individuals with approval authority in the following organizations: Legal, Business Development, Energy Delivery, Finance, Rates and Regulatory Affairs (State Public Utility Commissions), Corporate Security, Information Technology, Governmental Affairs, and Supply Chain.

4. Develop training module with an emphasis on when to engage FENOC employees in commercial matters. The training module is expected to include the handling of the Exponent Report as a case study, and a discussion of the lessons learned and the need for regulatory sensitivity. This training is also expected to include a basic conceptual overview of NRC regulations, including 10 CFR 50.9, design and licensing basis, and commitments.
5. Conduct training of target population.
6. Establish a mechanism to schedule training for new employees in the selected job classifications.

COMMITMENT 7
Conduct effectiveness reviews to determine if an appropriate level of regulatory sensitivity is evident. The first effectiveness review will be conducted in January 2008 by an external consultant. Internal effectiveness reviews will be conducted as part of the FENOC Integrated Performance Assessment process. A follow-up external effectiveness review will be conducted in January 2009.

IMPLEMENTATION STEPS

1. Develop an effectiveness review plan to effectively determine if an appropriate level of regulatory sensitivity is evident.
2. Conduct the first external effectiveness review (by industry consultants) through observation, documentation review, and interviews to determine if an appropriate level of regulatory sensitivity is evident among targeted FENOC and non-FENOC FirstEnergy employees.
3. Determine if additional actions are required based on the results of the initial external effectiveness reviews and take necessary corrective action.
4. Assess the regulatory sensitivity on an on-going basis through the performance of the Integrated Performance Assessment process within FENOC.
5. Conduct the second external effectiveness review (by industry consultants) through observation, documentation review, and interviews to determine if an appropriate level of regulatory sensitivity is evident among targeted FENOC fleet and non-FENOC FirstEnergy employees.

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
Conduct regulatory sensitivity training for selected non-FENOC FirstEnergy employees.	11/30/2007
The first effectiveness review will be conducted in January 2008 by an external consultant.	1/31/2008
A follow-up external effectiveness review will be conducted in January 2009.	1/31/2009
Internal effectiveness reviews will be conducted as part of the FENOC Integrated Performance Assessment process.	On-going