UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of

FIRSTENERGY NUCLEAR OPERATING COMPANY

(Davis-Besse Nuclear Power Station, Unit 1)	)	Docket No. 50-346
(Perry Nuclear Power Plant, Unit 1)	)	50-440
(Beaver Valley Power Station, Units 1 and 2)	)	50-334
	)	50-412
	)	
	)	License No. NPF-3
	)	NPF-58
	)	DPR-66
	)	NPF-73
	)	
	)	EA 07-199

CONFIRMATORY ORDER
(EFFECTIVE IMMEDIATELY)

I.

FirstEnergy Nuclear Operating Company (FENOC or licensee) is the holder of four NRC Facility Operating Licenses issued by the U.S. Nuclear Regulatory Commission (NRC or Commission) pursuant to 10 CFR Part 50, which authorizes the operation of the specifically-named facilities in accordance with the conditions specified in each license. License No. NPF-3 was issued on April 22, 1977, to operate the Davis-Besse Nuclear Power Station, Unit No. 1. License No. NPF-58 was issued on November 13, 1986, to operate the Perry Nuclear Power Plant, Unit No. 1. License Nos. DPR-66 and NPF-73 to operate the Beaver Valley Power Station, Units 1 and 2, were issued on July 2, 1976, and August 14, 1987, respectively. Davis-Besse is located near Toledo, Ohio; Perry is located near Painesville, Ohio; and Beaver Valley is located near McCandless, Pennsylvania.

II.

The events leading up to this Confirmatory Order date back several years. In 2005, the NRC took enforcement action against FENOC, imposing a $5,450,000 civil penalty for regulatory violations associated with the 2002 reactor pressure vessel head degradation event at the Davis-Besse Plant. In response to that event, FENOC performed root cause evaluations. Among other things, FENOC's root cause reports determined that the reactor pressure vessel head degradation was the result of ongoing and undetected Control Rod Drive Mechanism nozzle leakage that had lasted more than four years.

In February 2007, the licensee informed the NRC that Davis-Besse was initiating a condition report based on information contained in a letter received from Nuclear Electric Insurance Limited (NEIL). The NEIL letter referenced a new analysis that FENOC had commissioned of the Davis-Besse reactor pressure vessel head degradation event. The new analysis, submitted to NEIL as expert testimony in an insurance arbitration on December 18, 2006, was performed by Exponent Failure Analysis Associates and Altran Solutions Corporation (Exponent) and concluded that the time period between the beginning of substantial leakage from the reactor pressure vessel head nozzle and the development of the large cavity next to the nozzle may have been as short as four months.

On April 2, 2007, after several conference calls with the licensee and Exponent to assess whether the Exponent Report raised any immediate safety concerns (it did not), the NRC requested FENOC to respond in writing to four questions regarding information and conclusions presented in the Exponent Report. Among other things, the NRC's request for information asked FENOC to "discuss any differences between the Exponent Report information and

conclusions drawn therein, and information previously provided in the Root Cause Analysis Report and Licensee Event Report for the Davis-Besse reactor pressure vessel head wastage event."

In its May 2, 2007, response to the NRC's request for information, FENOC stated that it "ha[d] not specifically evaluated all of the assumptions used by Exponent" but nevertheless concluded that the Exponent Report "more accurately characterizes the time line of the reactor head degradation event based on [Exponent's] use of more recently available test data in conjunction with detailed analytical modeling." FENOC's response did not include a detailed discussion of the differences between the operational experience data and the Exponent Report assumptions.

Consequently, on May 14, 2007, the NRC issued FENOC a Demand for Information (DFI) pursuant to 10 CFR 2.204 to determine whether further enforcement action was necessary to provide reasonable assurance that FENOC would continue to operate its licensed facilities in accordance with the terms of its licenses and the Commission's regulations. The DFI required FENOC to provide a detailed discussion of the process used to determine if the Exponent Report assumptions, analyses, conclusions, or other related information should have been reported to the NRC in a more prompt manner; a detailed discussion of the differences in assumptions, analyses, conclusions, and other related information of the Exponent Report and technical and programmatic root cause reports developed in 2002; and a position on whether FENOC endorsed the conclusions of a second contractor report prepared in connection with the NEIL insurance arbitration.

FENOC responded to the DFI in writing on June 13, 2007. In that response, FENOC stated that its May 2, 2007, response "was primarily focused on the detailed analytical studies that form the

basis for the Exponent Report's time line for the crack growth and wastage phenomenon . . . and was not a comprehensive review of the differences between our root cause reports and the Exponent Report." According to the June 13 response, FENOC "continues to believe" that its earlier root cause reports "provide a comprehensive explanation of the progression and causal factors of the Davis-Besse reactor pressure vessel head degradation event and, hence, contain the most appropriate information to have used in development and implementation of corrective actions to prevent recurrence." FENOC's June 13, 2007, response further acknowledged that it "should have communicated more effectively internally and more promptly with the NRC" about the Exponent Report, and included commitments to implement corrective actions in those areas.

On June 27, 2007, the NRC held a public meeting with FENOC to discuss the DFI response. During the meeting, the NRC questioned the corporate safety culture at FirstEnergy and whether FENOC had changed its position regarding the root causes of the Davis-Besse reactor pressure vessel head degradation event. The NRC further questioned why FENOC had not immediately shared the Exponent Report with the NRC, given the importance of its subject matter and potential safety significance. The NRC also sought clarification regarding the licensee's proposed corrective actions and FENOC agreed to provide clarification in a supplemental DFI response.

On July 16, 2007, FENOC provided the NRC its supplemental response to the DFI, which elaborated on the commitments and corrective actions discussed at the public meeting. In general, FENOC's commitments and corrective actions are designed to prevent recurrence of the events that culminated in the issuance of the NRC's Demand for Information. Specifically, FENOC's commitments are designed to ensure that information of potential regulatory

significance is recognized by FENOC and FirstEnergy employees and communicated to the NRC in a timely and effective manner.

In the short term, FENOC has implemented interim corrective actions to prevent recurrence of the events that culminated in the issuance of the NRC's Demand for Information. Specifically, FENOC has developed criteria to be used in determining whether documents developed in support of commercial matters, including the pending insurance arbitration with NEIL, contain information of potential regulatory interest to the NRC. FENOC's interim actions will remain in place until the procedural changes required by this Confirmatory Order are implemented.

III.

On August 14, 2007, the Licensee consented to the issuance of this Order to confirm the commitments described in Section IV below. The Licensee further agreed that this Order is effective upon issuance and has waived its right to a hearing.

I find that the commitments set forth in Section IV are acceptable and necessary and conclude that with these commitments the public health and safety are reasonably assured. In view of the foregoing, I have determined that public health, safety, and interest require that the Licensee's commitments be confirmed by this Order. Based on the above and the Licensee's consent, this Order is immediately effective upon issuance.

IV.

Accordingly, pursuant to sections 103, 104b, 161b, 161i, 161o, 182 and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR 2.202, IT IS HEREBY ORDERED, **EFFECTIVE IMMEDIATELY**, THAT THE LICENSEE SHALL IMPLEMENT THE FOLLOWING:

1. The Licensee shall conduct regulatory sensitivity training for selected FENOC and non-FENOC FirstEnergy employees to ensure those employees identify and communicate information that has the potential for regulatory impact either at FENOC sites or within the nuclear industry to the NRC. At least 30 days prior to conducting the training, the Licensee shall submit by letter to the Director, NRC Office of Enforcement, a description of 1) the population to be trained, 2) the planned training methodology and materials, and 3) the training objectives. The Licensee shall complete its regulatory sensitivity training no later than November 30, 2007, and within 60 days following completion shall inform the Director, NRC Office of Enforcement, by letter.

2. The Licensee shall conduct effectiveness reviews to determine if an appropriate level of regulatory sensitivity is evident among FirstEnergy employees including those who received regulatory sensitivity training. The first effectiveness review shall be conducted in January 2008 by an external consultant. A follow-up effectiveness review shall be conducted in January 2009. At least 45 days prior to starting each external effectiveness review, the Licensee shall inform, by letter, the Director, NRC Office of Enforcement, of the identity of its external consultant, the qualifications of its external consultant, and the scope and depth of its plan for assessing effectiveness. Within 60 days following

completion of each external effectiveness review, the Licensee shall inform, by letter, the Director, NRC Office of Enforcement, of a summary of the results of the review and a description of any actions taken or planned in response to those results.

3. The Licensee shall develop a formal process to review technical reports prepared as part of a commercial matter. The process shall provide criteria for the Licensee to use in determining whether a report has the potential for regulatory implications, or impact on nuclear safety either at FENOC sites or within the nuclear industry. The Licensee shall implement the process no later than December 14, 2007, and within 30 days following implementation shall submit a description of the process by letter to the Director, NRC Office of Enforcement.

4. The Licensee shall assess its Regulatory Communications policy and make process changes to its NRC Correspondence procedure to ensure specific questions are asked during the process relative to the experience gained from efforts to respond to the NRC's May 14, 2007, Demand for Information. The Licensee shall complete any revisions to its NRC Correspondence procedure or Regulatory Communications policy no later than December 14, 2007, and within 30 days following completion shall submit a description of the policy and procedure changes, if any, or the basis for the determination that such revisions were not necessary, by letter to the Director, NRC Office of Enforcement.

5. The Licensee shall provide an Operating Experience (OE) document to the nuclear industry through the industry's established OE process. The document shall discuss the issues surrounding the NRC's May 14, 2007, Demand for Information, including the review of technical reports prepared as part of a commercial matter. The OE document

shall be provided to the nuclear industry, and to the Director, NRC Office of Enforcement, within 30 days of the date of this Order

6. The Licensee shall complete a root cause evaluation of the events that culminated in the issuance of the NRC's May 14, 2007, Demand for Information. The licensee shall make the root cause evaluation available for review by NRC inspectors and summarize the results of the evaluation in a letter to the Director, NRC Office of Enforcement, no later than December 14, 2007. The Licensee's letter to the NRC shall document the results of an assessment as to whether the results of the root cause evaluation reflect a need for any corrective actions different from or in addition to the requirements of this Confirmatory Order.

7. The Licensee shall maintain the interim corrective actions, discussed, in part, in Section II of this Order and implemented as a result of the events leading up to the issuance of the NRC's May 14, 2007, DFI, until the procedural changes described in paragraphs 3 and 4 of Section IV of this Confirmatory Order are implemented.

The Director, Office of Enforcement, may, in writing, relax or rescind any of the above conditions upon demonstration by the Licensee of good cause.

V.

Any person adversely affected by this Confirmatory Order, other than the Licensee, may request a hearing within 20 days of its issuance. Where good cause is shown, consideration will be given to extending the time to request a hearing. A request for extension of time in which to

request a hearing must be made in writing to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC, 20555, and must include a statement of good cause for the extension. Any request for a hearing shall be submitted to the Secretary, U.S. Nuclear Regulatory commission, ATTN: Chief, Rulemakings and Adjudications Staff, Washington, DC, 20555. Copies of the hearing request shall also be sent to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC, 20555, to the Assistant General Counsel for Materials Litigation and Enforcement at the same address, to the Regional Administrator for NRC Region III, 801 Warrenville Road, Lisle, IL, 60532-4351, to the Regional Administrator for NRC Region I, 475 Allendale Road, King of Prussia, PA, 19406-1415, and to the Licensee. It is requested that requests for hearing be transmitted to the Secretary of the Commission either by means of facsimile transmission to 301-415-1101 or by e-mail to hearingdocket@nrc.gov and also to the Office of the General Counsel either by means of facsimile transmission to 301-415-3725 or by e-mail to OGCMailCenter@nrc.gov. If a person other than the licensee requests a hearing, that person shall set forth with particularity the manner in which his interest is adversely affected by this Order and shall address the criteria set forth in 10 CFR 2.309(d) and (f).

If a hearing is requested by a person whose interest is adversely affected, the Commission will issue an Order designating the time and place of any hearing. If a hearing is held, the issue to be considered at such hearing shall be whether this Confirmatory Order should be sustained.

In the absence of any request for hearing, or written approval of an extension of time in which to request a hearing, the provisions specified in Section IV above shall be final 20 days from the date of this Order without further order or proceedings. If an extension of time for requesting a

hearing has been approved, the provisions specified in Section IV shall be final when the extension expires if a hearing request has not been received. A REQUEST FOR HEARING SHALL NOT STAY THE IMMEDIATE EFFECTIVENESS OF THIS ORDER.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Cynthia A. Carpenter, Director
Office of Enforcement

Dated this 15th day of August 2007