August 31, 2007

Mr. Mark B. Bezilla
Site Vice President
FirstEnergy Nuclear Operating Company
Davis-Besse Nuclear Power Station
Mail Stop A-DB-3080
5501 North State Route 2
Oak Harbor, OH 43449-9760

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1 - REQUEST FOR ADDITIONAL INFORMATION RELATED TO MEASUREMENT UNCERTAINTY RECAPTURE POWER UPRATE (TAC NO. MD5240)

Dear Mr. Bezilla:

By letter to the Nuclear Regulatory Commission (NRC) dated April 12, 2007, FirstEnergy Nuclear Operating Company submitted a request to make the operating license and technical specification changes necessary to allow an increase of approximately 1.63 percent in the rated thermal power output, for the Davis-Besse Nuclear Power Station, Unit No. 1.

The NRC staff is reviewing your submittal and has determined that additional information is required to complete the review. The specific information requested is addressed in the enclosure to this letter. During a discussion with your staff on August 28, 2007, it was agreed that you would provide a response within 30 days from the date of this letter.

The NRC staff considers that timely responses to requests for additional information help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and effective use of staff resources. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-4037.

Sincerely,

/RA/

Thomas J. Wengert, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosure:
Request for Additional Information

cc w/encl: See next page

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Site Vice President
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Mail Stop A-DB-3080
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August 31, 2007

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cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO.1

PROPOSED MEASUREMENT UNCERTAINTY RECAPTURE POWER UPRATE

DOCKET NO. 50-346

In reviewing the FirstEnergy Nuclear Operating Company's (FENOC's) submittal dated April 12, 2007, related to the license amendment request to increase the maximum power level from 2772 MWt to 2817 MWt, for the Davis-Besse Nuclear Power Station, Unit No. 1, the NRC staff has determined that the following information is needed in order to complete its review. Note that Questions 1 through 4 refer to Section VII of Regulatory Issue Summary (RIS) 2002-03, "Guidance on the Content of Measurement Uncertainty Recapture Power Uprate Applications."

1. Operator Actions (RIS 2002-03 Section VII.1)

    a. Identify which operator actions will require additional time to perform. Provide the time periods currently required to complete these operator actions and the times that will be required subsequent to the implementation of the proposed measurement uncertainty recapture (MUR) power uprate.

    b. Have any available time periods for significant operator actions been reduced for accident scenarios and events, such as anticipated transients without scram, due to the MUR power uprate? If so, describe how the new available times were validated.

2. Emergency and Abnormal Operating Procedures (RIS 2002-03 Section VII.2.A)

    a. Describe any changes to operator actions in the emergency operating procedures and abnormal operating procedures required as a result of the MUR power uprate and how these changes will be integrated into the operator training program.

3. Control Room Controls, Displays (Including the Safety Parameter Display System), and Alarms (RIS 2002-03 Section VII.2.B)

    a. Identify how much margin the operators will have to maintain the increased power production heat transfer within the prescribed parameters.

    b. Describe the changes that will be made to the in-core monitoring system (IMS). Describe how you have verified that the proposed software changes to the IMS will not have any adverse effects on the operators. Are there potential software changes that could introduce false indications in the control room indicators? Will the plant specific simulator require further modifications to account for the changes that will be made to the plant computer software?

    c. The submittal stated that the amount of time the operators must control the cooldown of the reactor coolant system will increase due to the increase of decay heat. Identify the increase in the amount of time that the operators will need to control the cooldown.

d. Describe how the operators will be notified of self-diagnosed errors with the Caldon leading edge flowmeter in the event that the new control room alarm is either inoperable or fails to alert the operators.

4. Control Room Plant Reference Simulator (RIS 2002-03 Section VII.2.C)

a. Describe how the plant simulator's fidelity will be verified after the MUR power uprate-related modifications are made.

5. Confirm that the correct calculated value of the flow measurement uncertainty includes uncertainty for the actual location of transducers within the housing as identified in Camaron Customer Information Bulletin 125, Revision 0, dated April 23, 2007.