May 2, 2003

Mr. Mark B. Bezilla
Vice President
FirstEnergy Nuclear Operating Company
Beaver Valley Power Station
Post Office Box 4
Shippingport, PA 15077

SUBJECT: BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2 (BVPS-1 AND 2) - REQUEST FOR ADDITIONAL INFORMATION (RAI) - CONVERSION FROM SUBATMOSPHERIC TO ATMOSPHERIC CONTAINMENT (TAC NOS. MB5303 AND MB5304)

Dear Mr. Bezilla:

By letter dated June 5, 2002, as supplemented August 19 and December 2, 2002, and January 30, February 14, and March 19, 2003, FirstEnergy Nuclear Operating Company submitted a request for conversion of the BVPS-1 and 2 containments from subatmospheric to atmospheric operation. As part of that request, approval was sought for selective implementation of an alternate source term in accordance with Regulatory Guide 1.183, "Alternate Source Terms for Evaluating Design Basis Accidents at Nuclear Power Plants," and Title 10 of the *Code of Federal Regulations*, Section 50.67. The Nuclear Regulatory Commission staff has determined that the information contained in the enclosed RAI will be needed for the staff to complete its review. These questions were previously faxed to your staff on April 23, 2003, in preparation for an April 28, 2003, conference call.

As discussed with your staff, we request your response within 30 days of receipt of this letter. If you have any questions, please contact me at 301-415-1402.

Sincerely,

/RA/

Timothy G. Colburn, Senior Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-334 and 50-412

Enclosure: RAI

cc w/encl: See next page

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Enclosure: RAI

cc w/encl: See next page
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REQUEST FOR ADDITIONAL INFORMATION (RAI)

BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2 (BVPS-1 AND 2)

SUBATMOSPHERIC TO ATMOSPHERIC CONTAINMENT CONVERSION

DOCKET NOS. 50–334 AND 50-412

The Nuclear Regulatory Commission (NRC) staff has determined that the information below will be needed for the staff to complete its review of the licensee's request for amendment to allow conversion of the BVPS-1 and 2 containments from subatmospheric to atmospheric operation. As part of that request, the licensee requested selective implementation of an alternate source term in accordance with Regulatory Guide 1.183, "Alternate Source Terms for Evaluating Design Basis Accidents at Nuclear Power Plants," and Title 10 of the *Code of Federal Regulations*, Section 50.67.

1. Table 5.3.6-1 of the June 5, 2002, submittal tabulates the unflitered emergency mode inleakage as 30 cfm. However, Table 2.0.11-1 in the RAI response dated January 30, 2003, utilized an unfiltered intake rate of only 10 cfm. Please explain why 30 cfm was not used in establishing the main steamline break (MSLB) analysis scaling factors.

2. NRC staff question 2.0.6 (NRC letter dated November 22, 2002) requested the licensee to provide a tabulation of assumptions used in the MSLB and locked rotor accident analyses. In its response, the licensee directed the NRC staff to earlier license amendments that had been approved by the NRC. The licensee's March 28, 2001, submittal (supporting Amendment No. 244 issued September 28, 2001, for BVPS-1) included BVPS-1 calculation ERS-SFL-95-008, revision 7. Assumption 2.14 of that calculation listed an X/Q value of 2.43E-3 sec/m3. An adjacent note stated that this was the value for the turbine building and that it was conservative. The NRC staff compared this value to the newly calculated X/Q values tabulated in Table 5.3.4-2 of the June 5, 2002, submittal. The value of 2.43E-3 sec/m^3 exceeded the newly calculated values tabulated for the main steam (MS) relief valves. Thus, the earlier conclusion that the value was conservative is still true. The situation for BVPS-2 is not as clear. The May 12, 2000, submittal (supporting Amendment Nos. 237 and 119 for BVPS-1 and 2, respectively, issued March 22, 2001) included marked-up pages for the BVPS-2 Updated Final Safety Analysis Report (UFSAR). The BVPS-2 UFSAR Table 15.0-14 shows the turbine building 0-8 hour X/Q as 2.72E-4 sec/m^3. Table 5.3.4-3 of the June 5, 2002, submittal, which tabulates newly determined X/Q values, shows the BVPS-2 MS relief valves to BVPS-2 control room intake dispersion to be more limiting with a value of 5.01E-4 sec/m^3. The NRC staff did not have a comparable calculation for BVPS-2. However, the NRC staff's confirmatory

Enclosure

calculation performed for the current amendment shows a control room dose greater than that documented in the May 12, 2000, submittal with a magnitude comparable to the difference in X/Q values. Please review the BVPS-2 calculation and confirm that the most conservative X/Q value was used in the BVPS-2 MSLB analysis.

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