

June 5, 2003

Mr. L. William Pearce
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. Pearce:

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, "Alternative Radiological 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 May 14, 2003, in preparation for a May 21, 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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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 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, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Plants," and Title 10 of the *Code of Federal Regulations*, Section 50.67.

1. Currently, as stated in the BVPS-2 Updated Final Safety Analysis Report , Table 9.4-4, the licensee takes credit for the operation of the bottled compressed air system in response to a toxic gas release or a smoke from plant fire (items 3 and 4 in table). Please state how the control room (CR) operator and CR ventilation/isolation system would respond with the compressed air system (bottled air system) removed and justify the removal of the control room emergency building air pressurization system for these events. The consequences of an unfiltered inleakage of 300 cfm or operation of control room emergency ventilation (CREV) fans if applicable should be considered in the response.
2. Currently, the BVPS-1 Technical Specification (TS) 3.7.7.1 has a Limiting Condition for Operation (LCO) that requires two out of three of the emergency ventilation subsystems and associated components be OPERABLE. Assuming one BVPS-2 CREV subsystem is NOT OPERABLE, control room habitability would be maintained by the activation of the bottled air system for the first 60 minutes, the automatic initiation (at time of 60 minutes) of the operational BVPS-2 CREV subsystem second and lastly, the manual start of the CREV of BVPS-1 if the BVPS-2 subsystem failed to start. With the proposed change, the bottle air system will be deleted. CR habitability would be maintained by the automatic initiation of the operational BVPS-2 CREV subsystem and if necessary, the manual start of the BVPS-1 CREV subsystem. However, the BVPS-1 CREV subsystem is different from the BVPS-2 CREV subsystem by requiring manual rather than automatic start and requiring manual actions to open dampers. Even though credit was not taken for automatic start of the CREV and 30 minutes was assumed for manual start, some assessment of the human factors interface for the manual actions which would occur during the first 30 minutes of the postulated accident needs to be assessed. Please provide the steps necessary to start the manual CREV subsystem in the event of failure of a BVPS-2 subsystem and justification of the acceptability of manual operator actions.
3. In order to declare the BVPS-1 CREV subsystem OPERABLE, is it required that the manual dampers be open and the fan start be placed in and automatic mode?

ENCLOSURE

4. With respect to the Modes of operation for LCO applicability and required actions, should it be specified that if either unit is in one of these Modes of operation, the applicability of the LCO's and Actions apply?
5. In the reviews of the BVPS-1 and 2 TSs, the NRC staff noticed several inconsistencies that appear to ignore the fact that there is a common control room envelope for the two control rooms:
 - a. The BVPS-1 TSs have an ACTION that "with an emergency ventilation subsystem inlet isolation damper open and not capable of being closed, the requirements of 3.0.3 are applicable." This ACTION does not appear in the BVPS-2 TSs. Since the CR is a common area between both units, should not this ACTION, if required, apply to both units and be reflected in both units' TSs?
 - b. The BVPS-1 TSs have a requirement on TS temperature being less than 88° F. ACTION items require shutdown in certain time frames if temperature is not returned to normal. Are there similar requirements for BVPS-2 or would it be permissible for BVPS-2 to continue operating with temperatures above the limits set for BVPS-1?
 - c. Are the ACTION items that are in BVPS-1 TSs (b.,b.1, c., and c.1) applicable to BVPS-2 and would they require a BVPS-2 shutdown?
 - d. Is the surveillance listed in TS 4.7.7.1.2 d. 2. applicable to each of the 3 CREV subsystems separately, or is it only necessary to show that one of the BVPS-2 subsystems starts automatically and not necessary to test either the other BVPS-2 subsystem or the BVPS-1 subsystem? Are each of the three subsystems tested to assure they can meet the requirement in TS 4.7.7.1.2.d.4.?

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