

May 31, 2006

Mr. James H. Lash  
Vice President  
FirstEnergy Nuclear Operating Company  
Beaver Valley Power Station  
P.O. Box 4  
Shippingport, PA 15077

SUBJECT: BULLETIN 2004-01, "INSPECTION OF ALLOY 82/182/600 MATERIALS USED IN THE FABRICATION OF PRESSURIZER PENETRATIONS AND STEAM SPACE PIPING CONNECTIONS AT PRESSURIZED-WATER REACTORS," RESPONSE FOR BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2 (BVPS-1 AND 2) (TAC NOS. MC3459 AND MC3460)

Dear Mr. Lash:

On May 28, 2004, the U.S. Nuclear Regulatory Commission (NRC) issued Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors," to the industry. This bulletin informed addressees that current methods of inspecting the pressurizer penetrations and steam space piping connections fabricated from Alloy 82/182/600 materials may need to be supplemented with additional measures (e.g., bare-metal visual inspections) to detect pressurizer penetration and steam space piping connection flaws or leakage. The bulletin requested that addressees provide the NRC with information related to the materials of construction, the inspections that have been performed, and the inspections which will be performed to verify the integrity of the pressurizer penetrations and steam space piping connections.

By letter dated July 27, 2004, as supplemented by letters dated September 29, and December 29, 2004, and May 19, 2005 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML042100514, ML042780378, ML050040270, and ML051440434, respectively), FirstEnergy Nuclear Operating Company (FENOC) provided its responses to items 1a, 1b, 1c, and 1d of Bulletin 2004-01 for BVPS-1 and 2. FENOC's responses described its materials of fabrication and past, current and future pressurizer penetrations and steam space piping inspection programs at BVPS-1 and 2.

FENOC's response to item 1a reported that some of the materials used in the fabrication of the pressurizer penetrations and steam space piping connections were Alloy 82/182/600 materials. This reply required you to provide further responses to the remaining items in the bulletin.

In response to item 1b, FENOC described prior inspections and inspection results of pressurizer penetrations and steam space piping connections which had been performed at BVPS-1 and 2. FENOC's response included the basis for concluding that BVPS-1 and 2 satisfies the applicable regulatory requirements related to the integrity of pressurizer penetrations and steam space piping connections.

In response to item 1c in the bulletin, FENOC provided a description of the Alloy 82/182/600 pressurizer penetration and steam space piping connection inspection program that will be implemented at BVPS-1 and 2 during the next and subsequent refueling outages. The description included the items to be inspected; the percent coverage that would be performed at each location; the inspection methods to be used; the qualification standards for the inspection methods and personnel; the process used to resolve any inspection indications; the inspection documentation to be generated; and the basis for concluding that your plant will satisfy the applicable regulatory requirements related to the structural and leakage integrity of pressurizer penetrations and steam space piping connections. If leaking pressurizer penetrations or steam space piping connections are found, FENOC indicated that follow-up nondestructive examination (NDE) will be performed to characterize flaws in the leaking penetrations. FENOC provided its plans for expansion of the scope of NDE to be performed if circumferential flaws are found in any portion of the leaking pressurizer penetrations or steam space piping connections.

In response to item 1d in the bulletin, FENOC explained why the inspection program identified in the response to item 1c in the bulletin is adequate for the purpose of maintaining the integrity of the BVPS-1 and 2 reactor coolant pressure boundary and for meeting all applicable regulatory requirements which pertain to your facilities.

By letters dated December 29, 2004, and May 19, 2005, FENOC provided a response to item 2a in Bulletin 2004-01. These letters provided a statement to the NRC indicating that the inspections described in the response to item 1c of the bulletin were completed during the most recent BVPS-1 and 2 refueling outages and a description of the as-found condition of the locations inspected was provided. FENOC also described any findings of relevant indications of through-wall leakage and follow-up NDE performed to characterize flaws in leaking penetrations or steam space piping connections. A summary of all relevant indications found by NDE, a summary of the disposition of any findings of boric acid, and a description of any corrective actions taken and/or repairs made as a result of the indications found was also provided in this letter.

The NRC staff has completed its activities associated with the review of FENOC's responses to Bulletin 2004-01 and finds FENOC's response to be acceptable. It should be noted that industry commitments or staff regulatory actions may result in the need for you to modify FENOC's plans for the inspection and repair of items discussed in Bulletin 2004-01. It is the staff's expectation that FENOC will revise its plan for the inspection and repair of items discussed in Bulletin 2004-01 consistent with other industry commitments or staff regulatory actions.

J. Lash

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This completes the NRC staff's review with regard to the Bulletin 2004-01 response for BVPS-1 and 2. Please contact me at (301) 415-1402 if you have any questions on this issue.

Sincerely,

*/RA/*

Timothy G. Colburn, Senior Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-334 and 50-412

cc: See next page

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