

July 26, 2006

Mr. James H. Lash  
Site Vice President  
FirstEnergy Nuclear Operating Company  
Beaver Valley Power Station  
Mail Stop A-BV-SEB1  
P.O. Box 4, Route 168  
Shippingport, PA 15077

SUBJECT: BEAVER VALLEY POWER STATION, UNIT NO. 2 - REQUEST FOR  
ADDITIONAL INFORMATION (RAI) - RELIEF REQUEST BV2-PZR-01,  
ALTERNATIVE TO REPAIR REQUIREMENTS (TAC NO. MD1206)

Dear Mr. Lash:

The Nuclear Regulatory Commission (NRC) staff has evaluated your March 31, 2006, subject request for relief from the requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, to perform an alternative weld overlay repair and approval to use the Electric Power Research Institute Performance Demonstration Initiative alternative. The NRC staff requires the additional information contained in the enclosed RAI in order to complete its review. As discussed with and agreed to by your staff, we request you respond within 2 weeks of the date of this letter, in order for the NRC staff to complete its review per your requested schedule.

If you have any questions, please contact me at 301-415-1402.

Sincerely,

**/RA/**

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

Docket No. 50-412

Enclosure:  
RAI

cc w/encl: See next page

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ACCESSION NO. ML062070010

\*Input received. No substantive changes made.

OFFICE	LPLI-1/PM	LPLI-1/LA	CFEB/BC	LPLI-1/BC
NAME	TColburn	SLittle	KGruss*	RLaufer
DATE	07/26/06	07/26/06	06/14/06	07/26/06

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OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST NO. BV2-PZR-01

BEAVER VALLEY POWER STATION, UNIT NO. 2

FIRSTENERGY NUCLEAR OPERATING COMPANY

DOCKET NO. 50-412

1. In the licensee's submittal dated March 31, 2006, the licensee states that a preemptive full structural weld overlay is proposed for each Alloy 82/182 nozzle-to-safe end weld. Please indicate what types of nondestructive examination (NDE) will be performed prior to the full structural weld overlay installation. If pre-welding NDE is not to be performed, please confirm that in all cases, a full structural overlay will be installed and discuss the justification for not performing the NDE prior to welding.
2. Please discuss the repair strategy as a result of NDE. That is, if a flaw is detected in the weld by the NDE prior to weld overlay, confirm that a full-structural weld overlay is applied, and confirm that the weld overlay thickness calculation is based on the worst case flaw.
3. Please discuss whether flaw evaluations and shrinkage stress effects analyses required under Code Case N-504-2(g), Items 1, 2, and 3, will be performed. If the evaluations are to be performed after startup, please provide technical justification why it is acceptable to place these welded components into service without completing the analyses.
4. On page 12 of your submittal, you indicate that "the weld overlay area may exceed 100 in<sup>2</sup> in some cases." The staff has not approved overlay areas exceeding 300 in<sup>2</sup> without a weld specific analysis. Since all the Beaver Valley Power Station design configurations are known, please provide your best estimate of the surface areas for all the full structural overlay configurations listed in your March 31, 2006, submittal. Part of your discussion should include similarities between your plant and those listed in your precedents section of the submittal and why the resultant overlay will not prevent the component from performing its design function.
5. Please verify that NDE will be performed after 48 hours from the time the welded component has achieved ambient temperature per Code Case -638-1.
6. On page 3 of your submittal, Figure 1: Generic Pressurizer Nozzle Configuration, provides a bounding representation of the configurations which you are going to be depositing a full structural overlay. Please discuss if the NDE requirement under 4.0(b)

Enclosure

of –638-1, ultrasonic examination of the 1.5T band on either side of the overlay, will be achieved. If this area requirement cannot be met, please discuss the achievable amount of area that will be successfully examined for each preemptive weld overlay weld design configuration you wish to apply. Secondly, clarify whether the ultrasonic test examination will be performed on the maximum extent achievable.

7. On page 9 of your submittal, you request that Code Case –416-2 be used as an alternative to the hydrostatic testing requirement under Code Case –504-2. Is Code Case –416-2 listed in your current Inservice Inspection Program Plan?

Beaver Valley Power Station, Unit Nos. 1 and 2

cc:

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Beaver Valley Power Station, Unit Nos. 1 and 2 (continued)

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