

April 1, 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 NO. 1 - REQUEST FOR
ADDITIONAL INFORMATION (RAI) - REQUEST FOR RELAXATION OF
ORDER EA-03-009 (TAC NO. MB8174)

Dear Mr. Bezilla:

By letter dated March 27, 2003, FirstEnergy Nuclear Operating Company submitted an request for relaxation of requirements contained in Nuclear Regulatory Commission (NRC) Order EA-003-009, "Issuance of Order Establishing Interim Inspection Requirements for Reactor Pressure Vessel [RPV] Heads at Pressurized Water Reactors [PWRs]," dated February 11, 2003. The subject Order established interim inspection requirements involving nondestructive examination (ultrasonic, eddy current, and dye penetrant testing) of the PRV head penetration nozzles below the J-groove weld that attaches the nozzles to the RPV head. The NRC staff has determined that the information contained in the enclosed Request for Additional Information (RAI) will be needed for the staff to complete its review. These questions were previously faxed to your staff on March 28, 2003.

As discussed with your staff, because of your request for expedited treatment of this request, we request your response no later than April 1, 2003. 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 No. 50-334

Enclosure: RAI

cc w/encl: See next page

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| NAME | MO'Brien | TColburn | TChan | RLaufer |
| DATE | 3/31/03 | 3/31/03 | 3/31/03 | 4/1/03 |

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REQUEST FOR ADDITIONAL INFORMATION (RAI)

BEAVER VALLEY POWER STATION, UNIT NO. 1

REQUEST FOR RELAXATION OF REQUIREMENTS

NUCLEAR REGULATORY COMMISSION (NRC) ORDER EA-03-009

DOCKET NO. 50-334

The NRC staff is reviewing FirstEnergy Nuclear Operating Company's (FENOC's) March 27, 2003, request for relaxation of the nondestructive examination (NDE) requirements of NRC Order EA-03-009, issued February 11, 2003. The NRC staff has identified the following questions related to the request:

1. What is the minimum distance from the bottom of the weld to the point where data will not be acquired in the lower portion of the nozzle in accordance with the relaxation request?
2. The request stated that "[t]he magnitude of the stresses in these portions of the nozzles is low based on information from other plants of similar design and construction..." Discuss how this information is applicable to your plant. Provide tabular listings of the maximum stress in the cross-section from the top of the J-groove weld region to the area covered by the relaxation request.
3. The request also stated that, "...there are no concerns with the structural integrity of the vessel head penetration nozzles from the unexamined bottom portions of the nozzles addressed in this request." Provide the technical basis, such as an analysis or an evaluation, to show that cracks initiated from the unexamined area will not propagate into the pressure boundary and exceed the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, allowables within one operating cycle, based on a conservative crack growth rate from the industry operating experience.
4. You indicated that contact was lost at the bottom of the nozzle due to using a probe arrangement for circumferential cracking detection. Since licensees and NDE vendors have qualified their ultrasonic testing systems to find both circumferential and axial cracking with one scan and either probe arrangement, please discuss why an axial probe arrangement is not being attempted for the bottom portion of the nozzle.

Enclosure

Beaver Valley Power Station, Units 1 and 2

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