

March 26, 2008

Mr. Peter P. Sena III  
Site Vice President  
FirstEnergy Nuclear Operating Company  
Mail Stop A-BV-SEB-1  
P.O. Box 4, Route 168  
Shippingport, PA 15077

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE  
BEAVER VALLEY POWER STATION, UNITS 1 AND 2, LICENSE RENEWAL  
APPLICATION (TAC NOS. MD6593 AND MD6594)

Dear Mr. Sena:

By letter dated August 27, 2007, FirstEnergy Nuclear Operating Company submitted an application pursuant to 10 CFR Part 54, to renew the operating licenses for Beaver Valley Power Station, Units 1 and 2, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review. Further requests for additional information may be issued in the future.

Items in the enclosure were discussed with Mr. Cliff Custer of your staff, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-2989 or by e-mail at [klh1@nrc.gov](mailto:klh1@nrc.gov).

Sincerely,

**/RA/**

Kent L. Howard, Sr., Project Manager  
Projects Branch 2  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket Nos. 50-334 and 50-412

Enclosure:  
As stated

cc w/encl: See next page

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**ADAMS Accession No.: ML080790744**

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DATE	3/24/08	3/24/08	3/25/08	3/26/08

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BEAVER VALLEY POWER STATION, UNITS 1 AND 2  
LICENSE RENEWAL APPLICATION  
REQUEST FOR ADDITIONAL INFORMATION (RAI)  
SECTIONS B.2.6, B.2.19, B.2.23

**Section B.2.6**

**RAI-B.2.6-1**

In the Beaver Valley Power Station license renewal application (LRA), the B.2.6 “Bolting Integrity Program” is stated to be consistent with the generic aging lessons learned (GALL) report with no exceptions or enhancements. It was found that there was in fact an exception taken to the GALL report program element “parameters monitored/inspected” in regards to the requirement that “high strength bolts (actual yield strength  $\geq 150$ ksi) used in NSSS component supports are monitored for cracking.” Please provide your technical basis for taking this exception.

**RAI-B.2.6-2**

In the BVPS LRA, the B.2.6 “Bolting Integrity Program” is not clear in how it satisfies the GALL report program element “monitoring and trending.” Specifically, the element requires bolting connections for pressure retaining components (not covered by ASME Section XI) to be “inspected daily. If the leak rate does not increase, the inspection frequency may be decreased to biweekly or weekly.” BVPS credits their corrective action program for meeting this inspection frequency. However, it was not readily apparent how this is achieved. Please provide detailed plans for inspection frequency which satisfy this GALL element.

**Section B.2.19**

**RAI-B.2.19-1**

In the BVPS LRA, the B.2.19 “Flux Thimble Tube Inspection Program” is not clear in how it arrived at the wear limit specifications required as part of the GALL report program elements “parameters monitored/inspected” and “detection of aging effects.” BVPS originally committed to a 45% wear limit when it responded to NRC Bulletin 88-09, however it now cites 70% as its flux thimble tube wear limit. Please provide the history of approvals and the technical basis for this change.

**RAI-B.2.19-2**

In the BVPS LRA, the B.2.19 “Flux Thimble Tube Inspection Program” describes an operating experience event which occurred in 2003, during refueling outage 1R15, where several flux thimble tubes which were replaced during 1R13 displayed elevated wall thinning. Of those with significant wall thinning, only two tubes were projected to exceed the BVPS 70% threshold for

ENCLOSURE

wall thinning. The BVPS staff stated in the aging management program (AMP) audit that this initial elevated wear was explained as an initial wear in period, after which wear rates would significantly slow down. Please provide the specific wall thicknesses measured and the technical basis to come to the conclusion that this was acceptable.

### **Section B.2.23**

#### **RAI-B.2.23-1**

In the BVPS LRA, the B.2.23 “Inspection of Overhead Heavy Load and Light Load (Related to Refueling) Handling Systems Program” program evaluation document credits their Maintenance Rule Program for meeting the GALL report program element “parameters monitored/inspected” to “evaluate the effectiveness of the maintenance monitoring program and the effects of past and future usage on the structural reliability of cranes.” However, careful inspection of this AMP program showed no direct reference to the Maintenance Rule Program. Please provide documentation of direct reference in the AMP to the Maintenance Rule Program.

#### **RAI-B.2.23-2**

In the BVPS LRA, the B.2.23 “Inspection of Overhead Heavy Load and Light Load (Related to Refueling) Handling Systems Program” describes an operating experience event which occurred in 2003, when deficiencies and degraded crane material conditions relating to the lift of a high integrity container in the waste handling building led to a stop work order for radiological lifts. No additional details were provided describing additional corrective actions or enhancements driven by this event. A lack of response by the BVPS monitoring program would bring into question their ability to meet the GALL report program element, “detection of aging effects.” Please provide additional details on this operating experience, as well as any additional actions, or program enhancements that resulted from this event.

Letter to P. Sena from K. Howard, dated, March 26, 2008

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Units 1 and 2

- 2 -

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