



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

July 11, 2013

Mr. Eric A. Larson, 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 REGARDING 2012 STEAM GENERATOR  
TUBE INSPECTION REPORTS (TAC NOS. MF0592 AND MF1499)

Dear Mr. Larson:

By letters dated January 24, 2013 (Agencywide Documents Access and Management System (ADAMS) Package Accession Number ML130280632), and April 23, 2013 (ADAMS Accession Number ML13114A050), FirstEnergy Nuclear Operating Company, Inc. submitted information summarizing the results of the 2012 steam generator tube inspections at Beaver Valley Power Station, Unit 2. In addition, the Nuclear Regulatory Commission (NRC) staff summarized discussions about the 2012 inspections in a letter dated November 13, 2012 (ADAMS Accession Number ML12310A066).

The NRC staff has been reviewing the submittals dated January 24, 2013, and April 23, 2013, and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). The questions were sent via electronic transmission on June 27, 2013, to Mr. Phil Lashley, of your staff. The draft questions were sent to ensure that the questions were understandable, the regulatory basis was clear, and to determine if the information was previously docketed. The draft questions were discussed in a teleconference with your staff on July 9, 2013. It was agreed that a response to this RAI would be submitted by August 16, 2013.

Please contact me at 301-415-2833, if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Peter Bamford".

Peter Bamford, Project Manager  
Plant Licensing Branch I-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-412

Enclosure:  
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION  
REGARDING 2012 STEAM GENERATOR TUBE INSPECTION REPORTS  
FIRSTENERGY NUCLEAR OPERATING COMPANY  
BEAVER VALLEY POWER STATION, UNIT 2  
DOCKET NO. 50-412

By letters dated January 24, 2013 (Agencywide Documents Access and Management System (ADAMS) Package Accession Number ML130280632), and April 23, 2013 (ADAMS Accession Number ML13114A050), FirstEnergy Nuclear Operating Company, Inc. submitted information summarizing the results of the 2012 steam generator (SG) tube inspections at Beaver Valley Power Station, Unit 2. These inspections were performed during the sixteenth refueling outage (2R16). In addition, the U.S. Nuclear Regulatory Commission (NRC) staff summarized discussions about the 2012 inspections in a letter dated November 13, 2012 (ADAMS Accession Number ML12310A066). The NRC staff is currently reviewing the submittals and has determined that the additional information requested below is needed to complete its review.

Regarding the letter dated January 24, 2013:

Enclosure A: Voltage-Based Repair Criteria 90-Day Report

1. Some plants that have implemented the voltage-based repair criteria have had instances of extreme voltage growth. This has led to additional rotating probe inspections and repair of some tubes based on the nature of the indications at the tube support elevation (e.g., one dominant crack versus a network of cracks). Please discuss whether this operating experience was included in your assessment of the flaws at the tube support elevations.
2. On page 2-1 it was indicated that no circumferential or axial indication extending outside the "top support plate" (TSP) were identified by +Point inspection at the TSP distorted signal indication locations. Please clarify. Was it the intent of this sentence to indicate "tube support plates"?

Enclosure B: Steam Generator F\* (F Star) Report

3. In your assessment of accident induced leakage in the F\* report, you compare the leakage from the sleeves to the acceptance limit. Please confirm that you combined all sources of accident induced leakage (from sleeves, plugs, and other degradation mechanisms) and then compared the total leakage to the accident induced leakage limit.
4. The F\* report does not appear to report the cumulative number of indications detected in the tubesheet region as a function of elevation within the tubesheet, as required by TS 5.6.6.2.4.(b). Please discuss.

Regarding the letter dated April 23, 2013:

5. Regarding Note 4 of Table 2RCS-SG21A, please confirm that the 6 tubes being referred to only have indications at the tube support plate elevations and that one other tube with an axial outside diameter stress-corrosion cracking indication also had a circumferential primary water stress-corrosion crack.
6. In the section related to the reporting requirements of TS 5.6.6.2.1.a (scope of inspections performed on each SG) a visual inspection of the SG A steam drum region is described. In the paragraph titled "SG A Feedwater Header," the report states that "no anomalies were reported." Please clarify or expand upon what is meant by "no anomalies".
7. In the section related to the reporting requirements of TS 5.6.6.2.1.a (scope of inspections performed on each SG) a divider plate weld (steam generator channel head) inspection is mentioned. Please provide the results of this inspection.

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**SUBJECT: BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2 - REQUEST FOR ADDITIONAL INFORMATION REGARDING 2012 STEAM GENERATOR TUBE INSPECTION REPORTS (TAC NOS. MF0592 AND MF1499)**

Dear Mr. Larson:

By letters dated January 24, 2013 (Agencywide Documents Access and Management System (ADAMS) Package Accession Number ML130280632), and April 23, 2013 (ADAMS Accession Number ML13114A050), FirstEnergy Nuclear Operating Company, Inc. submitted information summarizing the results of the 2012 steam generator tube inspections at Beaver Valley Power Station, Unit 2. In addition, the NRC staff summarized discussions about the 2012 inspections in a letter dated November 13, 2012 (ADAMS Accession Number ML12310A066).

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*/ra/*

Peter Bamford, Project Manager  
Plant Licensing Branch I-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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ADAMS Accession Number: ML13179A336

\*via memo

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