

## UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

January 10, 2011

Mr. Paul A. Harden 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 THE REVISED STEAM

GENERATOR INSPECTION SCOPE USING F\* METHODOLOGY LICENSE

AMENDMENT REQUEST (TAC NO. ME3498)

Dear Mr. Harden:

By letter dated February 26, 2010, as supplemented by letter dated November 30, 2010, FirstEnergy Nuclear Operating Company (the licensee) submitted a license amendment request to revise the Technical Specifications by expanding the scope of the steam generator (SG) tubesheet inspections using the F\* inspection methodology to the SG cold-leg tubesheet region at Beaver Valley Power Station, Unit No. 2.

The Nuclear Regulatory Commission (NRC) staff is reviewing the submittals 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 NRC staff is requesting a response to the RAI within 30 days of receipt.

The NRC staff considers that timely responses to RAIs help ensure sufficient time is available for NRC staff review and contribute toward the NRC goal of efficient and effective use of staff resources.

If you have any questions regarding this issue, please contact me at (301) 415-1016.

Sincerely,

Madiyah S. Morgan, Project Manager Plant Licensing Branch I-1 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket No. 50-412

Enclosure:

RAI

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## REQUEST FOR ADDITIONAL INFORMATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

## RELATED TO THE F\* INSPECTION METHODOLOGY LICENSE AMENDMENT REQUEST

FIRSTENERGY NUCLEAR OPERATING COMPANY

FIRSTENERGY NUCLEAR GENERATION CORP.

OHIO EDISON COMPANY

THE TOLEDO EDISON COMPANY

BEAVER VALLEY POWER STATION, UNIT NO. 2

**DOCKET NO. 50-412** 

By letter dated February 26, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML100630422), as supplemented by letter dated November 30, 2010 (ADAMS Accession No. ML103370240) FirstEnergy Nuclear Operating Company submitted a license amendment request (LAR) to revise the Technical Specifications (TSs) by expanding the scope of the steam generator (SG) tubesheet inspections using the F\* inspection methodology to the SG cold-leg tubesheet region at Beaver Valley Power Station, Unit No. 2 (BVPS-2). In order to complete the review, the Nuclear Regulatory Commission (NRC) staff needs the following additional information:

1. Proposed TS 5.5.5.2.d.6 indicates that the F\* methodology shall be implemented whenever an inspection of the cold-leg tubesheet is required. However, the inspection requirement of TS 5.5.5.2.d.2 already requires 100 percent inspection of the tubes in the cold-leg every 60 effective full-power months. Since inspections at these units are typically performed every outage, one could conclude that some inspections are performed in the cold-leg tubesheet region every outage and therefore, the F\* methodology must be implemented in all SGs every outage. If this was not the intent of this statement, please discuss your plans to revise it or remove it from your proposal.

Proposed TS 5.5.5.2.d.6 also indicates expansion of the initial sample within the cold-leg tubesheet shall be as defined in the degradation assessment. Since the methodology for performing the degradation assessment has not been reviewed and approved by the NRC staff, please (1) discuss your plans for submitting this methodology for NRC staff approval, so that the NRC staff can conclude that there is reasonable assurance that any sampling plan developed by this methodology will ensure tube integrity for any and all conditions that could be postulated to be discovered on the cold-leg side of the SGs or (2) remove this proposed requirement from the TSs, since it is already covered by other portions of your TSs.

2. In your response to the request for additional information #7, in the November 30, 2010, letter, you indicated that the tungsten inert gas (TIG) welded sleeve and the laser welded sleeve locates the lower end of the sleeve coincident with the primary face of the tube end; therefore, there is no parent tube extending beyond the sleeve end that would require inspection. You then concluded that F\* cannot be implemented with these designs. The basis for this conclusion is not evident. TS 5.5.5.2.c.5.b only requires that the tube be plugged upon detection of any flaw identified within 3.0 inches below the lower end of the lower sleeve joint and that any flaws located greater than 3.0 inches below the lower end of the lower sleeve joint may remain in service. Since there is no tubing below the lower end of the lower sleeve joint in this particular instance, it would appear that you would always satisfy this repair criterion. In addition, since no repair criteria apply, no inspections are required because the inspections are performed with the objective of satisfying the applicable tube repair criteria. In light of the above, please discuss your plans to modify your proposed TSs to not allow F\* to be applied to tubes sleeved with TIG or laser welded sleeves.

If you have any questions regarding this issue, please contact me at (301) 415-1016.

Sincerely,

/RA/

Nadiyah S. Morgan, Project Manager Plant Licensing Branch I-1 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

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