

NRR-DMPSPeM Resource

From: Goetz, Sujata
Sent: Friday, January 19, 2018 11:44 AM
To: Jason R Haas
Subject: Request for Additional Information Regarding Fermi RR-A37
Attachments: RAI 2.docx

Mr. Haas,

In a letter dated September 26, 2017, (Agencywide Documents Access and Management System Accession No. ML17270A036), the DTE Electric Company submitted relief request number A-37.

The relief request is regarding the implementation of ASME Code Case N-702, "Alternative Requirements for Boiling Water Reactor Nozzle Inner Radius and Nozzle-to-Shell Welds, Section XI, Division 1," and Boiling Water Reactor Vessel Inspection Program-241, "Probabilistic Fracture Mechanics Evaluation for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii."

The Nuclear Regulatory Commission staff has reviewed your submittal and has determined that additional information, as stated in the attachment to this email, is needed to complete its review.

Please let me know if you would like to schedule a clarification call. Your response to the NRC is due by February 19, 2018.

Sujata Goetz
Project Manager, Fermi, Unit 2

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Hearing Identifier: NRR_DMPS
Email Number: 109

Mail Envelope Properties (BN6PR09MB2274E384DD8EDC5A4BFE3D6A80EF0)

Subject: Request for Additional Information Regarding Fermi RR-A37
Sent Date: 1/19/2018 11:44:07 AM
Received Date: 1/19/2018 11:44:08 AM
From: Goetz, Sujata

Created By: Sujata.Goetz@nrc.gov

Recipients:
"Jason R Haas" <jason.haas@dteenergy.com>
Tracking Status: None

Post Office: BN6PR09MB2274.namprd09.prod.outlook.com

| Files | Size | Date & Time |
|--------------|-------------|------------------------|
| MESSAGE | 1212 | 1/19/2018 11:44:08 AM |
| RAI 2.docx | 19075 | |

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

REQUEST FOR ADDITIONAL INFORMATION
REQUEST FOR RELIEF – RR-A37, REVISION 1
FERMI 2
DOCKET NO. 50-341

Electric Power Research Institute, Technical Report 1003557, “BWRVIP [Boiling Water reactor Vessel and Internal Project] -108, “Technical Basis for the Reduction of Inspection Requirements for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Inner Radii” and Topical Report BWRVIP-241, “Probabilistic Fracture Mechanics [PFM] Evaluation for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii” contain PFM analysis results supporting Code Case N-702. BWRVIP-241 contains additional PFM results supporting revision of the evaluation criteria under “Conditions and Limitations” in the safety evaluation (SE) for BWRVIP-108. Section 3 of BWRVIP-108 states that CRD nozzles are eliminated from consideration since they are not full penetration welds. The staff’s SE for BWRVIP-108, dated December 19, 2007 (ADAMS Accession No. ML073600374) states the report considered nozzles which are joined with full penetration welds and as a result, the CRD nozzles, which use partial penetration welds, are outside the scope of the report. Furthermore, ASME Code Case N-702 states, in part, that it excludes the control rod drive return line nozzles.

In Attachment 2 of the licensee’s letter dated September 26, 2017, in the table “Applicable Components,” the licensee included the N10 nozzle, ID# 15-315 IRS, “CRD Nozzle Inside Radius Section” and N10 Nozzle, ID# 15-315, “CRD Nozzle-to-Vessel Weld in its list of components affected.” Based on the staff’s review of the licensee’s application, the inclusion of the N10 nozzle from the CRD System is inconsistent with ASME Code Case N-702, BWRVIP-108 and BWRVIP-241 criteria. In order to expand the scope of BWRVIP-108 and BWRVIP-241 to include the CRD nozzles in the submittal, the licensee would need submit an analysis similar to the one provided in BWRVIP-108 and considers all stresses, including the reduced thermal fatigue stresses and use assumptions relevant to the CRD nozzles.

Please justify the inclusion of the N10 nozzle from the CRD System in this Relief Request for the use of the proposed alternative in Code Case N-702. Alternatively, remove N10 nozzle from the list of applicable components from your application.