

NRR-DMPSPeM Resource

From: Venkataraman, Booma
Sent: Monday, December 18, 2017 4:19 PM
To: Lashley, Phil H.
Cc: Danna, James
Subject: REQUEST FOR ADDITIONAL INFORMATION: Beaver Valley Unit No. 1- Proposed Alternative Request, 1-TYP-4-BA-01 (EPID: L-2017-LLR-0131)
Attachments: RAI_Beaver Valley Unit 1_ Relief_ 1-TYP-4-BA-01.docx
Expires: Friday, February 16, 2018 12:00 AM

Mr. Lashley,

By letter dated October 24, 2017 (Agencywide Documents Access and Management System Accession No. ML17297A318), FirstEnergy Nuclear Operating Company (FENOC, the licensee), submitted a proposed alternative request, 1-TYP-4-BA-01, for Beaver Valley Power Station (Beaver Valley), Unit No. 1, in accordance with the provisions of 10 CFR 50.55a(z)(1). The licensee requested approval of a proposed alternative to certain requirements in the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME BPV Code), Section XI, to extend the inservice inspection interval from 10 to 20 years for certain reactor vessel welds at Beaver Valley, Unit No. 1.

A draft request for information (RAI) was sent to you on December 15, 2017. Per our conversation on December 18, 2017, you indicated that a clarification call is not required. The final RAI version with minor corrections to the draft RAI is attached to this e-mail. It was agreed that FENOC will respond to the attached RAI with a supplement by January 18, 2017.

Please treat this e-mail as transmittal of formal RAIs. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-2934 or via email at Booma.Venkataraman@nrc.gov.

Sincerely, Booma

Booma Venkataraman, P.E.

Project Manager, NRR/DORL/LPL1

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Hearing Identifier: NRR_DMPS
Email Number: 56

Mail Envelope Properties (Booma.Venkataraman@nrc.gov20171218161800)

Subject: REQUEST FOR ADDITIONAL INFORMATION: Beaver Valley Unit No. 1-
Proposed Alternative Request, 1-TYP-4-BA-01 (EPID: L-2017-LLR-0131)
Sent Date: 12/18/2017 4:18:52 PM
Received Date: 12/18/2017 4:18:00 PM
From: Venkataraman, Booma

Created By: Booma.Venkataraman@nrc.gov

Recipients:
"Danna, James" <James.Danna@nrc.gov>
Tracking Status: None
"Lashley, Phil H." <phlashley@firstenergycorp.com>
Tracking Status: None

Post Office:

Files	Size	Date & Time
MESSAGE	1475	12/18/2017 4:18:00 PM
RAI_Beaver Valley Unit 1_ Relief_ 1-TYP-4-BA-01.docx	38194	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date: 2/16/2018
Recipients Received:

REQUEST FOR ADDITIONAL INFORMATION
PROPOSED ALTERNATIVE REQUEST 1-TYP-4-BA-01 REGARDING
FOURTH TEN-YEAR INSERVICE INSPECTION PROGRAM INTERVAL
FIRSTENERGY NUCLEAR OPERATING COMPANY
BEAVER VALLEY POWER STATION, UNIT NO. 1
DOCKET NUMBER 50-334

By letter dated October 24, 2017 (Agencywide Documents Access and Management System Accession No. ML17297A318), FirstEnergy Nuclear Operating Company (FENOC, the licensee), submitted a proposed alternative Request, 1-TYP-4-BA-01, for Beaver Valley Power Station (Beaver Valley), Unit No. 1, in accordance with the provisions of 10 CFR 50.55a(z)(1). The licensee requested approval of a proposed alternative to certain requirements in the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME BPV Code), Section XI, to extend the inservice inspection interval from 10 to 20 years for certain reactor vessel welds at Beaver Valley, Unit No. 1.

RAI-1

Table 1A of Request 1-TYP-4-BA-01, reported significantly lower unirradiated dil-ductility transition reference temperature (RT_{NDT}) values for reactor pressure vessel beltline plates (B6607-1, B6607-2, B6903-1, and B7203-2) for Beaver Valley Power Station, Unit No.1 than the corresponding current-license-basis values in the license renewal application dated August 27, 2007(ADAMS Accession No. ML072470493). The NRC staff found that the Charpy test data supporting the proposed unirradiated RT_{NDT} values for these plates were reported in a separate October 6, 2017, submittal (ADAMS Accession No. ML17284A195). This separate submittal requests approval of modified pressurized thermal shock (PTS) reference temperature (RT_{PTS}) values and reactor vessel surveillance capsule withdrawal schedule. The NRC staff examined the Charpy test data in the October 6, 2017, submittal and found that they are not entirely consistent with the test data provided to the NRC in the July 8, 1992, response to Generic Letter (GL) 92-01, "Reactor Vessel Structural Integrity" (NRC Microfilm Address 62405: 317-358):

- The response to GL 92-01 reported no Charpy test data at 70 °F for Plates B6607-1, B6607-2, and B7203-2, while the October 6, 2017, submittal reported Charpy test data for them.
- The response to GL 92-01 reported that the Charpy energy values at 210 °F for Plate B6903-1 were 82 ft-lbs, 82.5 ft-lbs, and 83 ft-lbs, while the October 6, 2017, submittal reported 75 ft-lbs.

Please clarify.

RAI-2

In Section 5 of Request 1-TYP-4-BA-01, under "Proposed Alternative and Basis for Use," it was stated that the the projected number of reactor coolant system heatup/cooldown cycles for 60 years of operation is 175 transients, and the number of heatup and cooldown design occurrences are 139 as listed in UFSAR Table 4.1-10, "Summary of Reactor Coolant System Design Transients." (ADAMS Accession No.ML17117A442). The NRC staff found that the projected number of heatup and cooldown transients is 200 in the license renewal application dated August 27, 2007, and is different from the value of 175 in the licensee's submittal dated October 24, 2017. Please clarify the discrepancy. Please also clarify why the projected number of 175 or 200 is adequate, considering that the projected transient cycles will exceed the design occurrences of 139.