

NRR-PMDAPem Resource

From: Kuntz, Robert
Sent: Tuesday, April 19, 2016 8:54 AM
To: Loeffler, Richard A.
Subject: DRAFT Request for Additional Information RE: Monticello, RR-010, Relief Request to Implement BWRVIP (CAC MF7111)

Mr. Loeffler,

By application dated November 20, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15324A305), Northern States Power Company – Minnesota (NSPM or the licensee) submitted Request for Alternative RR-010 for its Monticello Nuclear Generating Plant (MNGP). The RR-010 proposes to use various Boiling Water Reactor (BWR) Vessel and Internals Project (BWRVIP) guidelines as an alternative to certain requirements of Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) for inservice inspection (ISI) of reactor vessel internal (RVI) components.

The Nuclear Regulatory Commission (NRC) staff is reviewing the submittal and has determined that the additional information below is needed to complete its review. If Xcel would require clarification on the following additional information request please let me know and we can set up a teleconference for the staff to provide any need clarification.

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REQUEST FOR ADDITIONAL INFORMATION

REQUEST FOR ALTERNATIVE TO USE BWRVIP GUIDELINES

MONTICELLO NUCLEAR GENERATING PLANT

NORTHERN STATES POWER COMPANY - MINNESOTA

DOCKET NO. 50-263

RAI-1

Table 1 of RR-010 compares the current ASME Code, Section XI examination category requirements with the current BWRVIP guideline requirements, as applicable to the MNGP. However, the acceptance standards of the two were not compared in the table. For ASME Item No. B13.20, the required VT-1 examination method could detect crack-like surface flaws on the RVI components, and the ASME Code requires, as one of the options, an analytical evaluation be performed for these components if the detected surface crack exceeds the allowable linear flaw standards of IWB-3510. Regarding disposition of detected flaws:

1. identify the major differences in the flaw acceptance standard between the ASME Code and the applicable BWRVIP documents; and

2. discuss how RR-010 will change the disposition of detected flaws (using the B13.20 components as an example).

RAI-2

1. The application references the BWR Vessel and Internals Inspection Summaries for Spring 2013 Outages dated April 11, 2014 (ADAMS Accession No. ML14125A303). The NRC staff reviewed this report and noted that although Table 1 of RR-010 showed both the ASME examination requirements and the alternative BWRVIP examination requirements for the ASME Code Item B13.10, "Reactor Vessel Interior," the April 11, 2014, report showed no inspection record for this item. Given that the most recent outage report did not contain these inspection results, describe if or how RR-010 will change the recording and reporting of RVI inspection results.
2. The April 11, 2014, inspection summaries indicate that flaws were detected in the core shroud, shroud support, core spray piping, and jet pump assembly. For the NRC staff to determine the adequacy of applying the BWRVIP for these detected flaws:
 - (a) provide a brief discussion of evaluation of the worst detected flaw (the one with the least margin) in each of the four components.
 - (b) identify whether any of the flawed components are ASME Code components but were inspected and evaluated in accordance with the BWRVIP reports. If such components exist and the BWRVIP report inspection and evaluation methodologies for them are more relaxed than the corresponding ASME Code, Section XI methodologies, confirm whether requests for alternative were submitted for prior ISI intervals.
 - (c) confirm that a plant-specific leakage assessment was performed, as required by BWRVIP-18 (core spray), BWRVIP-41 (jet pump assembly), and BWRVIP-76 (core shroud) or the ASME Code, Section XI for operability. If confirmed, provide a discussion of the margin between the calculated leakage and the allowable leakage based on adequate core cooling to maintain peak clad temperature within allowed limits during postulated loss of coolant accidents. If not confirmed, provide justification for not performing the required leakage assessment.

RAI-3

RR-010 states under Section E, Footnote 4, "The inspection guidance of BWRVIP-25: BWR Core Plate Inspection and Flaw Evaluation Guidelines, is not applicable since in Reference 2, NUREG-1865 (Safety Evaluation Report for the MNGP license renewal), Section 4.8, "Stress Relaxation of Rim Holddown Bolts," an analysis was approved for MNGP. However, BWRVIP-25 is included for potential, future applicability."

Contrary to the information in Footnote 4, the approval of the MNGP plant-specific analysis for the rim holddown bolts in NUREG-1865 has simply resolved a major action item in the September 6, 2000, SE for BWRVIP-25 and, because of this, NSPM can apply BWRVIP-25 to MNGP. To not perform the required inspections on the core plate under ASME Section XI, Examination Category B-N-2, "Integrally Welded Core Support Structures," MNGP needs to apply BWRVIP-25 in the 5th ISI interval as an alternative, regardless of which option in BWRVIP-25 NSPM chooses to follow. Because the use of the analysis described in NUREG-1865 would require the application of BWRVIP-25, clarify if the subject components are covered by the requested relief or would be subject to the requirements of the ASME Code if the request relief were granted.

RAI-4

Regarding BWRVIP-41, Revision 3 and BWRVIP-47-A, RR-010 states under Section E, Footnote 5, "However, none of the components are B-N-1 or B-N-2 components as defined by ASME Section XI and are outside of the scope of this 10 CFR 50.55a(z)(1) request for an alternative." Consistent with your approach of not listing

irrelevant BWRVIP reports (such as BWRVIP-42, Revision 1 and BWRVIP-139-A) in the list of Section E.1 of RR-010, please explain the inclusion of BWRVIP-41, Revision 3 and BWRVIP-47-A or consider deletion from the list to avoid confusion.

Further, Section 8 of BWRVIP-183 has a footnote, indicating that the examinations recommended by the guidelines in BWRVIP-183 do not supersede the requirements of the ASME Code. Please confirm that NSPM's inspections of top guide beams in the future do not supersede the ASME Code requirements. As such, please explain the inclusion of BWRVIP-183 in the list of Section E.1 of RR-010 or consider deletion from the list. Ensure the footnotes related to the list of Section E.1 of RR-010 are updated as necessary.

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