

October 5, 2015

MEMORANDUM TO: Anthony J. Mendiola, Chief  
Licensing Processes Branch  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

FROM: Lydiana Alvarado, Project Manager */RA J. Rowley for/*  
Licensing Processes Branch  
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Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE MAY 27, 2015, PUBLIC MEETING BETWEEN  
THE U.S. NUCLEAR REGULATORY COMMISSION STAFF AND THE  
BWR VESSEL AND INTERNALS PROJECT ON THE REVIEW OF  
TOPICAL REPORT BWRVIP-18, REVISION 2, "BWR CORE SPRAY  
INTERNALS INSPECTION AND FLAW EVALUATION GUIDELINES"

The U.S. Nuclear Regulatory Commission (NRC) staff and the Boiling-Water Reactor (BWR) Vessel and Internals Project (BWRVIP) representatives met on May 27, 2015 to discuss the NRC staff's draft safety evaluation (SE) of BWRVIP-18, Revision 2, "Core Spray Internals Inspection and Flaw Evaluation Guidelines," dated April 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15138A282). BWRVIP-18, Revision 2, was submitted for NRC staff review by letter dated May 9, 2012 (ADAMS Accession No. ML12139A153). Information related to the meeting can be found in the ADAMS Accession package No. ML15168A215. A list of attendees is enclosed.

In its opening remarks, the NRC staff said its goal was to hear the BWRVIP concerns with the SE. The NRC staff emphasized that the SE was provided for comment on its accuracy and to identify any proprietary information that could have been included in the SE that needed to be redacted. Furthermore, the NRC staff reported that, although it did not negotiate the contents of SE, it would consider the information presented and determine if changes to the SE were warranted.

The BWRVIP representatives said in their opening remarks that the plant-specific action items (PSAIs) included in the SE were unexpected. Also, the BWRVIP representatives said that having such PSAIs within the SE removed the benefit of the topical report.

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These remarks were followed by a proprietary presentation that covered the following:

- meeting objectives
- BWRVIP perspective on use of topical reports
- optimization of BWRVIP inspection and flaw evaluation guidelines
- history and status of core spray internals inspection and flaw evaluation guidance (BWRVIP-18)
- general concerns about the SE for BWRVIP-18, Revision 2
- specific concerns about nonacceptance of piping weld inspection guidance.

A copy of the proprietary and nonproprietary versions of the presentation can be found in the ADAMS package referenced earlier.

Because the slides were revised after original submission, the BWRVIP representatives agreed to provide the final slides with the proprietary version. Copies of those final slides are also available in the ADAMS package.

BWRVIP representatives presented their concerns with the draft SE for BWRVIP-18, Revision 2. The three basic concerns were as follows:

- 1) The regulatory basis of the draft SE (Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," Appendix K, "ECCS Evaluation Models," for the draft did not align with the 10 CFR Part 50 Appendix A, "General Design Criteria for Nuclear Power Plants," as applied for previous SEs on BWRVIP-18)
- 2) The NRC staff did not accept the guidance for creviced welds.
- 3) The draft placed burdensome conditions on the use of the guidance for uncreviced welds.

The NRC staff said that the leakage assessment requirements in BWRVIP-18, Revision 2, do not specifically state that leakage from all sources (e.g., shroud cracking and shroud openings or gaps in shroud repair hardware areas) is to be addressed in leakage assessments. The BWRVIP representatives said they were willing to revise the leakage assessment requirements in BWRVIP-18, Revision 2, to clarify that leakage from all sources is to be included in leakage assessments (similar to how it is addressed in the low pressure core injection BWRVIP guidelines, BWRVIP-42, Revision 1). This could address some of the NRC staff's leakage concerns.

During the presentation, the NRC staff expressed a different understanding of the safety function of the core spray system, other than being only an emergency core cooling system required after a loss-of-coolant accident, as stated by the BWRVIP. The NRC staff agreed to get clarification from the reactor systems organization on the core spray system.

The BWRVIP representatives said that it was unclear what the NRC staff meant by "...undetected embedded flaws could still exist in the welds ..." in item 4.2.2(g)(3) of the draft SE. The BWRVIP representatives believe the NRC staff meant "subsurface flaws" rather than "embedded flaws." The NRC staff agreed to check the terminology and clarify it.

The NRC staff agreed to review the information provided by the BWRVIP representatives at the meeting. Additionally, the NRC staff agreed that for future BWRVIP topical report reviews it would contact the BWRVIP earlier in the review process to note PSAIs so BWRVIP representatives are aware of the items.

### Action Items

The meeting identified the following action items:

1. The BWRVIP representatives agreed to provide proprietary and nonproprietary versions of the updated presentation materials (in their native PowerPoint format) to the NRC.
2. The NRC staff will confirm the safety basis for the core spray system with the systems organization.
3. The NRC staff will clarify what is meant by "undetected embedded flaws could still exist in the welds ..." in item 4.2.2(g)(3) of the draft SE. The BWRVIP representatives believe the NRC staff meant "subsurface flaws" rather than "embedded flaws."
4. The NRC staff will contact the BWRVIP for further clarification of any of the materials presented by the BWRVIP representatives.
5. The NRC staff agreed to consider the additional information provided by the BWRVIP representatives and, if appropriate, revise the SE.

Project No. 704

Enclosure:  
List of Attendees

The following action items were identified.

1. The BWRVIP representatives agreed to provide proprietary and non-proprietary versions of the updated presentation materials (in their native PowerPoint format) to the NRC.
2. The NRC staff will confirm the safety basis for the core spray system with the systems organization.
3. The NRC staff will clarify what is meant by “undetected embedded flaws could still exist in the welds ...” in item 4.2.2(g)(3) of the draft SE. The BWRVIP representatives believe the NRC staff meant “subsurface flaws” rather than “embedded flaws.”
4. The NRC staff will contact the BWRVIP for further clarification of any of the materials presented by the BWRVIP representatives.
5. The NRC staff agreed to consider the additional information provided by the BWRVIP representatives, and, if appropriate, revise the SE.

Project No. 704

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List of Attendees

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ADAMS Accession No: ML15127A200 (Notice); ML15168A207 (Summary); ML15168A215 (Slides)

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NAME	LAlvarado		AMendiola	JRowley
DATE	9/21/15	9/24/15	10/5/15	10/5/15



**Nuclear Regulatory Commission Public Meeting Regarding  
the Review of Topical Report BWRVIP-18, Revision 2  
May 27, 2015**

<b>Name</b>	<b>Organization</b>
Lydiana Alvarado	U.S. Nuclear Regulatory Commission (NRC)
Joseph Holonich	NRC
Gary Stevens	NRC
Allen Hiser	NRC
Simon Sheng	NRC
John J. McHale	NRC
Charles Wirtz	Electric Power Research Institute (EPRI)
Robin Dyle	EPRI
Robert Carter	EPRI
Andy McGehee	EPRI
Drew Odell	Exelon
Randy Schmidt	Exelon

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