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UNITED STATES NUCLEAR REGULATORY COMMISSION

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**NRC Liaison Report & Updates
Summer SNUG Meeting 2016
Louisville, KY**

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July 25-27, 2016

Disclaimer

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Topic for Discussion

- Title 10 of the Code of Federal Regulations (10 CFR) Section 50.55a Rulemaking Updates
- Regulatory Guide (RG) Update – OM Code Case Acceptability
- Snubber Program per 10 CFR 50.55a
- Snubber Program
- Scope of the Snubber Program
- Generic Communication
- Event Notice
- Conclusion

10 CFR 50.55a Rulemaking Updates

- Last ASME Code Rulemaking issued on June 21, 2011 (Federal Register, Vol. 76, No. 119, page 36232-36279, dated June 21, 2011).
- Rulemaking incorporates by Reference the 2004 Edition with 2005 and 2006 Addenda of the American Society of Mechanical Engineers (ASME) Operation and Maintenance (OM) Code , and the 2005 Addenda through 2008a Edition of ASME Boiler and Pressure Vessel (B&PV) Code Section XI.

10 CFR 50.55a Rulemaking Updates (cont.)

- The NRC has issued the proposed ASME Code rulemaking to incorporate the 2009 Edition through 2012 Edition of the ASME OM Code and the 2009 Addenda through 2013 Edition of ASME Code Section III and XI with conditions into 10 CFR 50.55a. This proposed rulemaking was issued for public comments on September 18, 2015 and comment period ended on December 2, 2015, and the final rule is tentatively to be issued in the Fall of 2016.
- The NRC has completed the scope for the ASME Code rulemaking to incorporate by reference the 2015 Editions of the ASME OM Code and ASME Code Section III and XI with conditions into 10 CFR 50.55a.

10 CFR 50.55a Rulemaking Updates (cont.)

- Specific items of interest in the proposed rulemaking related to the OM Code being considered:
 - To add NRC IST Plan submittal and reporting requirements consistent with current Edition of the ASME OM Code.
 - Revise 10 CFR 50.55a(f)(4)(i) and (ii) and (g)(4)(i) and (ii) to relax the time scheduled for complying with the latest Edition and Addenda of the ASME OM or BP&V Codes for IST and ISI Programs, respectively, from 12 months to 18 months before the applicable milestones in these paragraphs.
- This proposed rulemaking is currently scheduled to be published for public comments in the Fall of 2016.

10 CFR 50.55a Rulemaking Updates – OM Code Case Applicability

- Final Reg. Guide Rulemaking & Reg. Guides 1.192, Rev. 1 “O&M Code Case Acceptability, ASME OM Code” and RG 1.147, Rev. 17, “Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1” are issued and published in Federal Register in November 2014 (Federal Register, Vol. 76, No. 214, Pages 65776-65814, dated November 5, 2014). Effective date is December 5, 2014.
- Revision 1 of RG 1.192, and Revision 17 of RG 1.147 address the acceptability of the Code Cases published in the 2003 Addenda through 2006 addenda of the ASME OM Code and the Section XI Code Cases listed in Supplement 1 through 10 to the 2007 Edition of the ASME B&PV Code. The current regulations in 10 CFR 50.55a incorporate by reference these specific revisions to RGs.

10 CFR 50.55a Rulemaking Updates – OM Code Case Applicability (cont.)

- The NRC staff has completed a review of the new and revised Code Cases published in the 2009 Edition, 2012 Edition of the ASME OM Code. The proposed rulemaking and RGs for these Code Cases was published for public comments in the Federal Register (81 FR 10780) on March 2, 2016.
- The public comment period closed on May 16, 2016 and NRC received 7 comments. Each Code Case in RG 1.192 will be identified by the number assigned by the OM Code and the applicable Edition and Addendum of the OM Code with which it is first published.

Snubber Program per 10 CFR 50.55a

- 10 CFR 50.55a(g)(4) requires that, throughout the service life of a BWR & PWR nuclear power facility, ASME Code Class 1, 2, and 3 components (including supports) meet the inservice inspection and testing requirements of ASME Section XI or ASME OM Code as incorporated by reference in 10 CFR 50.55a(a)(1).
- 10 CFR 50.55a(g)(4)(ii) requires licensees to revise their inservice inspection programs every 120 months to reflect the latest edition and addenda to Section XI of the ASME B&PV Code incorporated by reference into 10 CFR 50.55a(a)(1)(ii) that is in effect 12 months before the start of the new 120-month ISI interval. This Code edition and addenda is considered to be the “Code of Record” for the inspection interval.

Snubber Program per 10 CFR 50.55a (cont.)

- 10 CFR 50.55a(g)(4)(iv) notes that ISI of components (including supports) may meet the requirements set forth in subsequent editions and addenda to the “Code of Record” and addenda that are incorporated by reference in 10 CFR 50.55a(a)(1), subject to conditions listed in 10 CFR 50.55a(b) and subject to Commission approval. (also see RG 2004-12)
- Licensees have the option of using ASME B&PV Code, Section XI, or ASME OM Code for snubber inservice examination and testing, if their applicable “Code of Record” is 2005 Addendum and earlier Editions and Addenda of Section XI of the ASME B&PV Code as specified in 10 CFR 50.55a(b)(3)(v).

Snubber Program per 10 CFR 50.55a (cont.)

- In the current published 10 CFR 50.55a ASME Code rulemaking, the only applicable ASME Code requirements for snubber inservice examination and testing are in the ASME OM Code, because these have been deleted from the 2006 Addenda and later Editions of Section XI.
- In future ISI or IST program updates the ASME OM Code, Subsection ISTD along with the applicable ISTA, will be the only Code requirements governing snubber examination and testing.

Snubber Program

- Snubber Programs are required to be submitted to NRC as required by the applicable “Code of Record,” ASME Section XI, IWA-1400 (c) and ASME OM Code, ISTA-3200(c). See Section 2.4 of the Appendix-A of NUREG-1482, Revision 2.
- NRC would like to see following items in the Snubber Program:
 - “Code of Record,” used for Snubber Program.
 - ASME Section XI or ASME OM Code used to develop Snubber Program
 - Start and End dates of the applicable 10-year ISI or IST interval for which Snubber Program is developed.
 - Snubber Program details should be included, if snubber program is part of the submitted 10-year IST or IST interval.

Snubber Program (cont.)

- NRC would like to see following items in the Snubber Program (cont.)
 - Snubber Program is based on the applicable ASME Code not to the plant's Technical Specification (TS) or Technical Requirement Manual (TRM).
 - Snubber Program contains (1) Visual Examination; (2) Functional Testing; and (3) Service Life Monitoring.
 - Snubber Program Scope
 - Location of Snubber List, if not included in the Snubber Program
- A template snubber program would be helpful to achieve the consistency across the industry.

Scope of the Snubber Program

- Licensees have the responsibility to demonstrate the continued operability of all snubbers within the scope of their snubber inservice examination and testing program.
- NRC provided a presentation “Scope of the Snubber Program,” during Winter SNUG 2016 meeting (ADAMS Accession No. ML16020A007).

Generic Communication

- NRC issued Information Notice (IN) 2015-09 related to mechanical dynamic restraints (snubbers) lubricant (grease) degradation not identified due to insufficient service life monitoring.

Event Notice

- Event Notice 51788 dated March 14, 2016 related to 10 CFR Part 21- Hydraulic Snubber Seal Material Deviation Report (ADAMS No. ML16076A262):
 - During a routine refueling outage activities in October 2015 at Peach Bottom Power Station, it was discovered that 9 out of 14 hydraulic snubbers had no fluid in their reservoirs.
 - Peach Bottom installed these new hydraulic snubbers during recent Extended Power Uprates (EPU) on the modified Main Steam System piping.
 - Cause of the hydraulic fluid leak was determined as premature aging of the reservoir piston seal due to vibration induced friction heat.

Event Notice (cont.)

- Event Notice 51788 (cont.)
 - Licensee performed laboratory testing of the seal material which revealed that a material substitution of different grade of Ethylene Propylene (EP) was used instead of previously vendor approved EP.
 - Snubbers' vendor confirmed that a seal material substitute was made by the seal vendor.
 - Vendor performed additional qualification testing of substitute seal material and found acceptable.

Conclusions

- Licensees who believe that some of the items discussed are applicable to their facilities may wish to review their current snubber program and modify their program as appropriate.
- Use of guidelines provided for snubber program in NUREG-1482, Revision 2, Appendix A, “Guidelines for Inservice Examination and Testing Program for Snubbers at Nuclear Power Plants,” would be helpful.
- A template snubber program would achieve the consistency across the industry just like pumps and valves IST programs.
- Use of RG 1.20, “Comprehensive Vibration Assessment Program for Reactor Internals During Preoperational and Initial Startup Testing,” may be of value during plants EPU.



Questions?

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