



**U.S.NRC**

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# **Air-Operated Valve Regulatory Activities**

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## **NRC Regulatory Activities applicable to AOVs**

- Current 10 CFR 50.55a Regulatory Requirements
- ASME OM Code, 2022 Edition, 10 CFR 50.55a Rulemaking
- ASME OM Code Case Rulemaking including Regulatory Guide (RG) 1.192 update
- Results of Power-Operated Valve (POV) Inspections
- ASME OM-2 Code Effort
- ASME QME-1-2023 and Reformatted QME-1
- EPA Ban on DecaBDE material



## **Current 10 CFR 50.55a Regulatory Requirements**

- Earlier editions of ASME OM Code streamlined
- Incorporates by reference 2020 Edition of ASME OM Code with conditions, such as:
  - 50.55a(b)(3)(viii) – 2020 Edition of Subsection ISTE is acceptable to implement without conditions or an alternative request
  - 50.55a(b)(3)(xi) - supplements ISTC-3700 to require licensees to verify that valve operation is accurately indicated by supplementing valve position indicating lights with other indications. Modified for valves not susceptible to stem-disk separation
- 50.55a(f)(7) – NRC IST Plan submittal requirements, as removed from 2020 Edition



## **Current 10 CFR 50.55a Regulatory Requirements**

- 10 CFR 50.55a currently incorporates by reference Revision 4 to RG 1.192
- RG 1.192, Revision 4, lists OM Code Cases that are acceptable with or without conditions
- RG 1.192, Revision 4, accepts new ASME OM Code Cases OMN-22 through OMN-27 without conditions.



## 10 CFR 50.55a Code Edition Proposed Rule

- Proposed rule issued 8/8/23 (88 FR 53384) to incorporate by reference the 2021 Edition of ASME BPV Code and 2022 Edition of OM Code
- IST proposed changes:
  - Remove conditions (b)(3)(ii)(A), (B), and (C) for 2022 Edition because incorporated in that edition
  - Remove condition (b)(3)(iii)(B) for check valve bidirectional testing for new reactors because required in recent code editions used by new reactors
  - Remove condition (b)(3)(iii)(C) for flow-induced vibration monitoring for new reactors because required by other regulations
  - New condition (b)(3)(vii) to clarify use of snubber code cases
  - New condition (b)(3)(x) to clarify sample expansion of Class 1 pressure relief valve testing based on setpoint testing
- NRC staff reviewing public comments
- Final rule scheduled to be issued on 1/10/25



# 10 CFR 50.55a Code Case Rulemaking (Revision 40)

- Proposed rule issued 3/6/23 (88 FR 13717)
- Proposed rule incorporates by reference RG 1.192, Revision 5, accepting ASME OM Code Cases OMN-28 through OMN-30 without conditions, and OMN-31 with conditions
- Proposed rule also extends the IST Code of Record update requirement from 10 years to 20 or 24 years for licensees that have updated their IST programs to at least the 2020 Edition of the ASME OM Code as incorporated by reference in 10 CFR 50.55a
- NRC staff reviewing public comments.
- Final rule scheduled to be issued 10/29/2024



# NUREG-1482 Update

- NRC staff is considering an update to NUREG-1482 to provide additional information on the proposed new Code of Record update requirements and other recent developments.



# Results of Power-Operated Valve (POV) Inspections

- Inspections completed at the end of 2022.
- Assessed the reliability, functional capability, and design basis of risk-important POVs as required by 10 CFR 50.55a and applicable 10 CFR Part 50, Appendix A and Appendix B, requirements.
- Information Notice IN 2021-01 (May 2021) and Supplement 1 (July 2023) discuss lessons learned
- Supplement 1 is available at [ML23129A014](#)



# Items of Interest from IN-2021-01, Supplement 1

- Proper Scoping
- Operating Requirements and Capability
- Testing and Qualification
- Valve Position Verification
- Valve Packing and Backseating
- Computer Software
- Corrective Action
- IST Program and Technical Specifications



# Proposed ASME OM-2 Code

- ASME has prepared a proposed IST Code for pumps, valves, and dynamic restraints (or components that perform similar functions) in new and advanced reactors.
- The new IST Code is referred to as the OM-2 Code.
- ASME has distributed the proposed OM-2 Code for review by ASME OM Code committee members.
- ASME plans to issue the OM-2 Code in 2024.
- NRC staff is considering a new Regulatory Guide (RG) for acceptance of the OM-2 Code with applicable conditions.

# **ASME QME-1-2023 and reformatted QME-1**

- QME-1 updated in 2023
- ASME is preparing a reformatted QME-1 standard to be more applicable for new and advanced reactors that might not use water-cooled systems
- NRC staff plans to revise RG 1.100 to accept QME-1-2023 and reformatted QME-1 with conditions when available

# EPA DecaBDE Update

- NRC IST staff learned of EPA ban at MUG 2023
- NRC staff alerted EPA to potential impact on safe operation of nuclear power plants if EPA ban caused licensees to be unable to repair and replace components with safety functions
- EPA provided guidance on its ban to minimize immediate impact on nuclear power plant safety on EPA website at <https://www.epa.gov/chemicals-under-tsca/epa-plans-extend-compliance-date-regulation-decabde-ensure-continuity-nuclear>.
- EPA issued proposed DecaBDE rule on 11-24-2023 (88 FR 82287)
- See NRC Vendor Presentation at public ML23158A084.

# Conclusion

- Licensees should review current 10 CFR 50.55a and ongoing rulemakings with respect to AOV testing activities.
- NRC staff remains engaged in topics of interest to the AOV user community

# QUESTIONS?

**Future Questions**

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