

**STATUS OF NRC ACTIVITIES OF POTENTIAL INTEREST
TO OM MAIN COMMITTEE**

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**ASME OM Code Committee Meeting on July 19-21
At Silver Spring, MD**

10 CFR 50.55a Rulemaking

Title 10 of the *Code of Federal Regulations* (10 CFR) in Section 50.55a, “Codes and standards,” currently incorporates by reference the 2005 and 2006 Addenda of the American Society of Mechanical Engineers (ASME) *Code for Operation and Maintenance of Nuclear Power Plants* (OM Code), the 2005 Addenda through 2008 Addenda of ASME *Boiler and Pressure Vessel Code* (BPV Code), Section XI, and 2005 Addenda through 2008 Addenda of the ASME BPV Code, Section III, with conditions. Section 50.55a also incorporates by reference selected previous editions and addenda of the ASME OM and BPV Codes, with conditions.

In a proposed rulemaking issued on September 18, 2015, in the *Federal Register* (80 FR 56820), the U.S. Nuclear Regulatory Commission (NRC) proposed to amend 10 CFR 50.55a to incorporate by reference:

The 2009 Addenda, 2010 Edition, 2011 Addenda, and 2013 Edition to the ASME BPV Code, Section III, Division 1, and Section XI, Division 1, with conditions.

The 2009 Edition, the 2011 Addenda, and the 2012 Edition to Division 1 of the ASME OM Code, with conditions.

ASME Standard NQA-1, “Quality Assurance Requirements for Nuclear Facility Applications,” including the 1983 Edition through the 1994 Edition, the 2008 Edition, and the 2009-1a Addenda to the 2008 Edition of ASME NQA-1, with conditions.

ASME BPV Code Case N-729-4, “Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds Section XI, Division 1,” with conditions.

ASME BPV Code Case N-770-2, “Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated with UNS N06082 or UNS W86182 Weld Filler Material With or Without Application of Listed Mitigation Activities, Section XI, Division 1,” with conditions.

ASME BPV Code Case N-824, "Ultrasonic Examination of Cast Austenitic Piping Welds From the Outside Surface Section XI, Division 1."

ASME OM Code Case OMN-20, "Inservice Test Frequency."

In the *Federal Register* notice, the NRC staff stated that the public comment period would end on December 2, 2015. The NRC staff reviewed public comments received on the proposed rulemaking beyond the specified public comment end date. A public webinar was held on March 2, 2016, to discuss the NRC staff's responses to certain public comments. Based on public comments, the NRC staff is considering adjustments to the rule language to improve the efficiency and effectiveness of the final rule. The NRC staff is in the process of preparing a final rulemaking package, which is scheduled to be published by July 2017.

Specific items of interest in this ongoing rulemaking related to the OM Code include:

1. Incorporation by reference of the ASME NQA-1 Standard.
2. Conditions on the use of Appendix III, "Preservice and Inservice Testing of Active Electric Motor Operated Valve [MOV] Assemblies in Light-Water Reactor Power Plants," including MOV initial diagnostic test intervals, testing interval impact on risk, allowable categorization methods, and verification during exercising that stroke time of MOVs identified in plant technical specifications satisfies plant safety analyses.
3. New reactor conditions, including power-operated valve (POV) periodic verification, check valve bidirectional testing, flow-induced vibration monitoring, and operational readiness of pumps, valves, and dynamic restraints in high risk non-safety systems.
4. Clarification of check valve monitoring provisions with adjustments based on public comments.
5. Condition requiring proposed implementation of Subsection ISTE, "Risk-Informed Inservice Testing of Components in Light-Water Reactor Nuclear Power Plants," to be submitted for NRC staff review as an alternative pursuant to 10 CFR 50.55a(z).
6. Condition requiring implementation of Appendix V, "Pump Periodic Verification Test Program," when applying Subsection ISTF, "Inservice Testing of Pumps in Light-Water Reactor Nuclear Power Plants - Post-2000 Plants."
7. Incorporation by reference of ASME OM Code Case OMN-20.
8. Condition supplementing ISTC-3700, "Position Verification Testing," for valve position indication beginning with the 2012 OM Code edition.
9. Clarification that pumps and valves that are within the scope of the ASME OM Code must meet the IST requirements set forth in the ASME OM Code to the extent practical with allowable use of augmented IST programs for non-Code Class safety-related pumps and valves.

The scope of the next proposed rulemaking to amend 10 CFR 50.55a is currently planned to include:

The 2015 Edition to the ASME BPV Code, Section III, Division 1, and Section XI, Division 1, with conditions.

The 2015 Edition to Division 1 of the ASME OM Code, with conditions.

The 2017 Edition to Division 1 of the ASME OM Code, with conditions.

Specific items of interest in the proposed rulemaking related to the OM Code being considered include:

1. Add NRC IST Plan submittal and reporting requirements consistent with current edition of OM Code.
2. Revise 10 CFR 50.55a(f)(4)(i) and (ii) and (g)(4)(i) and (ii) to relax the time schedule for complying with the latest edition and addenda of the ASME OM or BPV 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 comment in late 2017, with a 75 day public comment period. The final rulemaking package is currently scheduled to be published in late 2018.

Regulatory Guide (RG) Update – OM Code Case Acceptability

Revision 1 of RG 1.192, Revision 36 of RG 1.84, and Revision 17 of RG 1.147 address the acceptability of code cases published in the 2003 Addenda through the 2006 Addenda of the ASME OM Code and the Sections III and XI code cases listed in Supplements 1 through 10 to the 2007 Edition of the ASME BPV Code. The current regulations in 10 CFR 50.55a incorporate by reference these specific revisions to RGs 1.192, 1.84, and 1.147.

The NRC staff has completed a review of the new and revised code cases published in the 2009 Edition, 2011 Addenda, and 2012 Edition of the ASME OM Code. The proposed rulemaking and RGs for these code cases was published for public comment in the *Federal Register* (81 FR 10780) on March 2, 2016. The public comment period closed on May 16, 2016. Each code case in RG 1.192 will be identified by the number assigned by the OM Code and the applicable edition or addendum of the OM Code with which it is first published.

The NRC staff has completed the review of public comments on the proposed RG rulemaking and is preparing the final rule for issuance. The final RG rulemaking is currently scheduled to be published in the third quarter of 2017.

Valve Stem-Disc Connection Issues

On June 15, 2017, the NRC issued Information Notice (IN) 2017-03, "Anchor/Darling Double Disc Gate Valve Wedge Pin and Stem-Disc Separation Failures," to inform licensees and applicants of operating experience regarding Anchor/Darling (a subsidiary of Flowserve) double disc gate valve (DDGV) failures. IN 2017-03 provides a discussion of a recent LaSalle County

Station Unit 2 Anchor/Darling DDGV failure, events at Browns Ferry that led to Part 21 reporting, and other operating experience that resulted in stem-disc separations. The IN contains information available to NRC staff as of May 2017. The LaSalle licensee and NRC staff are continuing their evaluation of this issue.

Service Life of Nuclear Power Plant Components

Operating experience has identified failures of safety-related equipment at nuclear power plants caused by age-related degradation. The NRC documented its review of component age-related failures in “IOEB Analysis Team Study on Component Aging-Insights from Inspection Findings and Reportable Events” (ADAMS Accession No. [ML13044A469](#)). A key observation from the IOEB study is the increasing trend of safety-related structures, systems, and components (SSCs) in service beyond their documented service life without proper engineering evaluations. The NRC staff is continuing its review of operating experience related to component service life.

Dedication of Commercial-Grade Items for Use in Nuclear Power Plants

The NRC has issued Regulatory Guide 1.164, Revision 0, “Dedication of Commercial-Grade Items for Use in Nuclear Power Plants,” to address dedication of commercial-grade items for use in nuclear power plants. The intent of the regulatory guide is to provide the NRC staff position on guidance developed by the Electric Power Research Institute (EPRI) for the commercial-grade dedication of parts for use in nuclear power plants.

Thirteenth ASME/NRC Pump & Valve Symposium

The ASME and the NRC are jointly sponsoring the thirteenth Pump & Valve Symposium July 17-18, 2017, in Silver Spring, Maryland, at the DoubleTree by Hilton Hotel Washington DC – Silver Spring.

Changes at the NRC

In response to the forecasted growth of the nuclear industry, the NRC has initiated Project Aim 2020 with the goal to right size the agency, streamline processes, improve timeliness in regulation decision making, and improve the operating reactor licensing process. One change is the consolidation of the White Flint Campus. Regional offices are also being reviewed for consolidation. The NRC plans to merge the Office of New Reactors (NRO) with the Office of Nuclear Reactor Regulation (NRR). A new Cost Activity Center Database Application has been activated to track and trend progress on license amendment requests and/or relief requests, provide better feedback to licensee cost estimates on requested NRC work, and establish metrics to monitor work progress so that work load can be evaluated allowing quick adjustment if needed.

ASME-Related Generic Communications

ASME-related generic communications issued by (or in the process of being issued by) NRR and NRO since the last report (December 2016) to the OM Standards Committee are listed below:

Bulletins (BLs)

None

Generic Letters (GLs)

None

Information Notices (INs)

IN 2017-03 (6/15/2017) Anchor/Darling Double Disc Gate Valve Wedge Pin and Stem-Disc Separation Failures

Regulatory Issue Summaries (RISs)

None

The full text of any of these NRC generic communications can be accessed by visiting the NRC's public website at <http://www.nrc.gov/reading-rm/doc-collections/gen-comm/index.html>.