

1DRAFT SUPPORTING STATEMENT
FOR
PROPOSED RULE TO INCORPORATE BY REFERENCE AMERICAN SOCIETY OF
MECHANICAL ENGINEERS CODES AND CODE CASES
3150-0011
REVISION

Description of the Information Collection

The U.S. Nuclear Regulatory Commission (NRC) regulations incorporate by reference American Society of Mechanical Engineers (ASME) codes for nuclear power plants. The ASME periodically revises and updates its codes for nuclear power plants. The proposed NRC rule which is the subject of this supporting statement is the latest in a series of rulemakings to amend the NRC's regulations to incorporate by reference revised and updated ASME codes for nuclear power plants. This action is intended to maintain the safety of nuclear power plants and to make NRC activities more effective and efficient.

The NRC's regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a incorporate by reference Division 1 of Section III, "Rules for Construction of Nuclear Facility Components," and Division 1 of Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components" of the ASME Boiler and Pressure Vessel Code (BPV Code). The NRC's regulations also incorporate by reference the ASME "Operation and Maintenance of Nuclear Power Plants" (OM Code). These rules of the ASME BPV and OM Codes set forth the requirements to which nuclear power plant components are designed, constructed, tested, repaired, and inspected. In developing this proposed rule, the NRC staff reviewed revisions to the codes and determined the acceptability of each change. The NRC proposes to publish its findings in this proposed rule which incorporates the codes by reference and states which portions of the codes are mandatory, acceptable, or conditionally acceptable.

The information collection requirements imposed by 10 CFR 50.55a through incorporation by reference of the ASME Codes apply to activities associated with the construction and operation of nuclear power plants. In general, the records prepared are not collected by the NRC, but are retained by the licensee to be made available to the NRC, if requested, at the time of an NRC audit. This rule would apply after the effective date of the final rule for current and future nuclear power plant licensees.

The following discussion describes the changes to the information collection burden associated with this proposed rule.

Inservice inspection and inservice testing program updates

Licensees of nuclear power plants are required to update their inservice inspection and inservice testing programs every 10 years in accordance with the requirements of the latest edition and addenda of the ASME Code that have been incorporated by reference into 10 CFR 50.55a as of 12 months prior to the start of the next inspection and testing intervals.

This proposed rule incorporates by reference ASME BPV Code editions and addenda from 2009 to 2013 and ASME OM Code editions and addenda from 2009 to 2012. Licensees will be required to use these editions and addenda for inservice inspection and inservice testing

program updates starting 12 months after the effective date of the final rule. The NRC does not anticipate that there will be a change in the information collection burden associated with the inservice inspection and inservice testing program updates as a result of this proposed rule.

Voluntary use of later codes

Paragraphs 10 CFR 50.55a(f)(4)(iv) and (g)(4)(iv) require that inservice tests of pumps and valves, inservice examinations of components, and system pressure tests may meet the requirements set forth in subsequent editions and addenda that are incorporated by reference in 10 CFR 50.55a subject to the limitations and modifications listed in 10 CFR 50.55a(b) and subject to Commission approval.

This proposed rule incorporates by reference editions and addenda from 2009 to 2013. Licensees may use the later editions and addenda if the code of record at their plant is the earlier editions and addenda of the ASME Code. However, licensees are required to request Commission approval via a letter to use these subsequent editions and addenda as discussed in NRC Regulatory Issue Summaries 2004-12 and 2004-16. As discussed in NRC Regulatory Issue Summary 2004-12, the amount of written documentation needed for a request to use a later Code edition and addenda that has been incorporated by reference into 10 CFR 50.55a is significantly less than for a relief request or a request to use an alternative requirement, so the information collection burden associated with a request to use a subsequent edition and addenda is less than the burden associated with an alternative request under 10 CFR 50.55a(z) or a relief request under 10 CFR 50.55a(f)(5)(iii) or (g)(5)(iii).

Alternative requests

Paragraph (z) of 10 CFR 50.55a allows applicants to use alternatives to the requirements of 10 CFR 50.55a paragraphs (b), (c), (d), (e), (f), (g), and (h) when authorized by the NRC. The NRC does not anticipate that there will be a change in the number of alternative requests under 10 CFR 50.55a(z) as a result of this proposed rule. However, the NRC has increased its estimate of the burden associated with developing alternative requests. A review of alternative requests submitted to the NRC over the last 5 years identified that these submittals ranged from a few pages to several hundred pages with an average of approximately 32 pages with average technical complexity. Therefore, the NRC estimates that an alternative request requires an average of 300 hours of effort to develop the technical justification and an additional 80 hours to perform research, review, approve, process, and submit the document to the NRC for use of alternatives under 10 CFR 50.55a(z). Therefore, the revised total estimated burden is 380 hours per alternative.

Relief requests

The NRC does not anticipate that there will be a change in the number of relief requests under 10 CFR 50.55a(f)(5)(iii) or (g)(5)(iii) as a result of this proposed rule.

Substantive provisions in the proposed rule

The NRC does not anticipate any significant change in information collection burden associated with the substantive provisions in the proposed rule briefly described below:

- Maintenance of Quality Assurance Program Description. The proposed 10 CFR 50.55a rule that incorporates by reference the 2008 Edition and the 2009-1a Addenda of NQA-1

is optional for licensees to implement. The existing 10 CFR 50.54(a)(3) regulations allow licensees to make changes to a previously accepted quality assurance program description (QAPD) included or referenced in the Safety Analysis Report without prior NRC approval, provided the change does not reduce the commitments in the program description as accepted by the NRC. Regulations in 10 CFR 50.54(a)(4) state that the licensees who make changes to the QAPD that reduce the commitments, must submit these changes to the NRC for review and approval prior to implementation. Therefore, the implementation of this proposed rule does not incur additional information collection burden because it is already required under existing 50.54(a)(4) requirements.

- Concrete Containment Examinations. The NRC proposes to add paragraph (b)(2)(viii) (H) to specify the information that must be provided in the ISI Summary Report required by IWA-6000, when inaccessible concrete surfaces are evaluated under the new code provision IWL-2512. This new condition would replace the existing condition (b)(2)(viii) (E) when using the 2007 Edition with the 2009 Addenda through the 2013 Edition of Subsection IWL. Because licensees already perform equivalent actions under existing condition (b)(2)(viii)(E) when using the 2007 Edition this change has negligible impact. The proposed condition in 10 CFR 50.55a(b)(2)(viii)(I) imposes a condition on the technical evaluation requirements in the new article IWL-2512(b), for consistency with NUREG-1801, Revision 2, “Generic Aging Lessons Learned (GALL) Report” with regard to aging management of below-grade concrete. This condition applies only to holders of renewed licenses under 10 CFR 54 during the period of extended operation (i.e., beyond the expiry date of the original 40-year license) of a renewed license when using IWL-2512(b) of the 2007 Edition with 2009 Addenda through the 2013 Edition of Subsection IWL. There is no significant recordkeeping or reporting burden associated with this requirement.
- Nondestructive Examination Personnel Certification. The proposed condition in 10 CFR 50.55a(b)(2)(xviii)(D) prohibits applicants and licensees from using the ultrasonic examination nondestructive examination (NDE) personnel certification requirements in Section XI, Appendix VII and subarticle VIII-2200 of the 2011 Addenda and 2013 Edition of the ASME BPV Code and prohibits the use of an accelerated Appendix VII training process for certification of ultrasonic examination personnel based on training and prior experience. Instead, the NRC requires applicants and licensees to use Table VII-4110-1 in the 2010 Edition, and VIII-2200, Appendix VIII prerequisites for ultrasonic examination personnel requirements in the 2010 Edition. There is no significant recordkeeping or reporting burden associated with this requirement.
- Steam Generator Preservice Examinations. The proposed condition in 10 CFR 50.55a(b)(2)(xxx) clarifies the current requirement in IWB 2200(c) pertaining to steam generator tube preservice inspections (PSI). Preservice requirements for ASME Class 1 components are provided in IWB-2200, and IWB-2200(c) currently states, “Steam generator tube examination shall be governed by the plant Technical Specifications (TS).” However, there are no preservice examination requirements for steam generators defined in plant TS. Preservice examination requirements for steam generators are not within any of the categories described in 50.36 for the content of TS. Because IWB-2200(c) requires the steam generator tube examinations be performed in accordance with plant TS, and TS contain no rules for PSI of steam generator tubing, the NRC is clarifying the preservice inspection requirements for steam generator tubes. The proposed clarification is consistent with industry guidelines and the staff position outlined in Standard Review Plan Section 5.4.2.2, “Steam Generator Program.” The proposed

requirement is in lieu of the requirements of IWB-2200(c) and requires that a full-length examination of 100 percent of the tubing in each steam generator be performed prior to plant startup with a newly installed steam generator. There is no significant recordkeeping or reporting burden associated with this requirement.

- Control the Use of Mechanical Clamping Devices. The proposed condition in § 50.55a(b)(2)(xxxi) prohibits the use of mechanical clamping devices on Class 1 piping and portions of piping systems that form the containment boundary. In the 2010 Edition of the ASME BPV Code, a change was made to include mechanical clamping devices under the small items exclusion rules of IWA-4131. Currently in the 2007 Edition/2008 Addenda of Section XI under IWA-4133, “Mechanical Clamping Devices Used as Piping Pressure Boundary,” mechanical clamping devices may be used only if they meet the requirements of Mandatory Appendix IX of Section XI of the ASME BPV Code. There is no significant recordkeeping or reporting burden associated with this requirement.
- Summary Report Preparation and Submittal. The proposed condition in 10 CFR 50.55a(b)(2)(xxxii) requires licensees using the 2010 Edition and later editions and addenda of Section XI to continue to submit Summary Reports as required in IWA-6240 of the 2009 Addenda, which is consistent with current timeframes. There is no significant recordkeeping or reporting burden associated with this requirement.
- Prohibit Use of Risk-Informed Allowable Pressure Methodology. The proposed condition in 10 CFR 50.55a(b)(2)(xxxiii) prohibits the use of Appendix G, Paragraph G-2216 in ASME BPV Code, Section XI, which was included for the first time in the 2011 Addenda of the ASME BPV Code, and requires the continued use of the deterministic methodology of Section XI, Appendix G to generate P-T limits. There is no significant recordkeeping or reporting burden associated with this requirement.
- Disposition of Flaws in Class 3 Components. The proposed condition in 10 CFR 50.55a(b)(2)(xxxiv) requires that when using the 2013 Edition of the ASME BPV Code, Section XI, the licensee shall use the acceptance standards of IWD-3510 for the disposition of flaws in Category D-A components (i.e., welded attachments for vessels, piping, pumps, and valves) to correct an apparent discrepancy between the provisions in IWD-3410 and IWD-3510. This clarification provides necessary consistency in requirements between IWD-3410 and IWD-3510 and does not result in any significant recordkeeping or reporting burdens.
- Procedure Revision to Specify Use of Reference Temperature (RT) in the K_{Ia} and K_{Ic} Equations. The proposed condition in 10 CFR 50.55a(b)(2)(xxxv) specifies that when licensees use the 2013 Edition of the ASME BPV Code, Section XI, Appendix A, paragraph A-4200, if T_0 is available, then RT_{T_0} may be used in place of RT_{NDT} for applications using the K_{Ic} equation and the associated K_{Ic} curve, but not for applications using the K_{Ia} equation and the associated K_{Ia} curve. This proposed insertion is consistent with Code Case N-629, “Use of Fracture Toughness Test Data to Establish Reference Temperature for Pressure Retaining Materials,” which was accepted by the NRC without conditions. There is no significant recordkeeping or reporting burden associated with this requirement.
- Fracture Toughness of Irradiated Material Requirements. The proposed condition in 10 CFR 50.55a(b)(2)(xxxvi) requires licensees using ASME BPV Code, Section XI, 2013 Edition, Appendix A, paragraph A-4400, to obtain NRC approval prior to using irradiated

T_0 and the associated RT_{T_0} in establishing fracture toughness of irradiated materials. There is no significant recordkeeping or reporting burden associated with this requirement.

- Ultrasonic Examination Using Code Case N-824 Techniques. The proposed condition in 10 CFR 50.55a(b)(2)(xxxvii) allows licensees to use the provisions of ASME Code Case N-824, "Ultrasonic Examination of Cast Austenitic Piping Welds From the Outside Surface Section XI, Division 1," as conditioned, when implementing inservice examinations in accordance with the ASME BPV Code, Section XI requirements. The current regulatory requirements for the examination of CASS, provided in 10 CFR 50.55a, do not provide sufficient guidance to assure that the CASS components are being inspected adequately. For this reason, over the past several decades, licensees have been unable to perform effective inspections of welds joining CASS components. To allow for continued operation of their plants, licensees have submitted hundreds of requests for relief from the ASME Code requirements for inservice inspection of CASS components to the NRC, resulting in a significant regulatory burden. Based on the improvements in ultrasonic inspection technology and techniques for CASS components, the ASME approved Code Case N-824 (N-824) on October 16, 2012, which describes how to develop a procedure capable of meaningfully inspecting welds in CASS components. Using this technology and techniques, CASS materials less than 1.6 inches thick can be reliably inspected for flaws 10 percent through-wall or deeper if encoded phased-array examinations are performed using proper ultrasonic frequencies, inspection angles, and inspection unit probe sizes. Additionally, for thicker welds, flaws greater than 30 percent through-wall in depth can be detected using low frequency encoded phased array ultrasonic inspections. There is no significant recordkeeping or reporting burden associated with this requirement.
- Mandatory Appendix III Inservice Testing of Motor-Operated Valves. The proposed condition in 10 CFR 50.55a(b)(3)(ii) imposes three supplemental requirements on the use of Mandatory Appendix III, "Preservice and Inservice Testing of Active Electric Motor Operated Valve Assemblies in Light-Water Reactor Power Plants," in the 2009 Edition of the ASME OM Code. Mandatory Appendix III represents the incorporation of ASME OM Code Case OMN-1, "Alternative Rules for Preservice and Inservice Testing of Active Electric Motor Operated Valve Assemblies in Light-Water Reactor Power Plants," and Code Case OMN 11, "Risk-Informed Testing for Motor-Operated Valves," into the OM Code. The three supplemental requirements proposed in 10 CFR 50.55a(b)(3)(ii) are (A) MOV diagnostic test interval, (B) MOV testing impact on risk, and (C) MOV risk categorization. There are no significant recordkeeping or reporting burden associated with these requirements.
- ASME OM Code Supplemental Requirements Testing for New Reactors. The proposed condition in 10 CFR 50.55a(b)(3)(iii) imposes four supplemental requirements on the use of the provisions in the ASME OM Code for new reactors. These requirements involve (A) periodic verification of the design-basis capability of power-operated valves (POVs) other than MOVs already addressed in Appendix III to the ASME OM Code, (B) bi-directional testing of check valves, (C) monitoring flow-induced vibration from hydrodynamic loads and acoustic resonance to identify potential adverse flow effects, and (D) assessment of the operational readiness of pumps, valves, and dynamic restraints within the scope of regulatory treatment of non-safety systems (RTNSS) for applicable reactor designs. There are no significant recordkeeping or reporting burden associated with these requirements.

- ASME OM Code Requirements for Squib Valve Surveillance for New Reactors. Subsection ISTC in the 2012 Edition of the ASME OM Code supplements the preservice and inservice surveillance requirements in the previous editions and addenda of the ASME OM Code for squib valves in new reactors. The combined licenses for Vogtle Units 3 and 4 and V.C. Summer Units 2 and 3 include conditions for preservice and surveillance requirements for their squib valves. The supplemental provisions for squib valves in new reactors in Subsection ISTC in the 2012 Edition of the ASME OM Code are consistent with the license conditions currently imposed on Vogtle Units 3 and 4 and V.C. Summer Units 2 and 3. Therefore, the incorporation by reference of the supplemental squib valve provisions in 2012 Edition of the ASME OM Code into 10 CFR 50.55a will not result in new technical requirements for those reactors. There is no significant recordkeeping or reporting burden associated with this requirement.
- Subsection ISTB (2011 Edition) Testing. The proposed condition in 10 CFR 50.55a(b)(3)(vii) prohibits the use of Subsection ISTB in the 2011 Addenda of the OM code because the addenda expanded the acceptable range of a pump comprehensive test but did not require a pump periodic verification program as specified in Mandatory Appendix V in the 2012 Edition of the OM Code. There is no significant recordkeeping or reporting burden associated with this requirement because licensees may use Subsection ISTB in the 2012 Edition of the OM Code.
- Mandatory Appendix V on Pump Periodic Verification Tests. The 2012 Edition of the ASME OM Code specifies the use of Mandatory Appendix V, "Pump Periodic Verification Test Program." Mandatory Appendix V establishes the requirements for implementing a pump periodic verification test. The test verifies that pumps that are in a licensee's inservice testing program can meet the required (differential or discharge) pressure as applicable, at its highest design basis accident flow rate. The test, if required, must be performed once every two years. If a pump does not have a specific design basis accident flow rate in the licensee's credited safety analysis, or if a pump's comprehensive test flow rate and (differential or discharge) pressure bound the pump's design basis accident flow rate and (differential or discharge) pressure, a pump periodic verification test is not required. There is no significant recordkeeping or reporting burden associated with this requirement.
- Subsection ISTE (2012 Edition) for Risk-Informed Inservice Testing of Pumps and Valves. The proposed condition in 10 CFR 50.55a(b)(3)(viii) requires that licensees may not implement the risk-informed approach for inservice testing of pumps and valves specified in Subsection ISTE, "Risk-Informed Inservice Testing of Components in Light-Water Reactor Nuclear Power Plants," in the ASME OM Code, without first obtaining NRC authorization to use Subsection ISTE as an alternative to the applicable IST requirements in the ASME OM Code pursuant to 10 CFR 50.55a. There is no significant recordkeeping or reporting burden associated with this requirement.
- Subsection ISTF, OM Code Pump Testing for New Reactors. Subsection ISTF, "Inservice Testing of Pumps in Light-Water Reactor Nuclear Power Plants – Post 2000 Plants," OM Code, 2011 Addenda specifies IST requirements for pumps within the scope of the ASME OM Code for post-2000 plants. The term "post-2000 plants" refers to nuclear power plants that were issued (or will be issued) a construction permit, or combined license for construction and operation, on or following January 1, 2000. Subsection ISTF provides essentially the same IST requirements as existing Subsection

ISTB for pumps in current operating nuclear power plants with one exception. In particular, pumps in new reactors will undergo an inservice test every quarter rather than Group A or B tests every quarter and comprehensive tests every 2 years as performed at current operating plants. There is no significant recordkeeping or reporting burden associated with this requirement.

- Code Case OMN-20 Time Period Extension. The proposed condition allows the use of Code Case OMN-20 prior to incorporation into the next update of Regulatory Guide 1.192, and incorporation by reference into 10 CFR 50.55a. The Code Case is an optional provision that allows time periods fewer than two years to be extended by up to 25 percent for any given pump or valve inservice test. Time periods greater than or equal to two years may be extended by up to six months for any given pump or valve inservice test. Currently a licensee must submit one relief request for every ten-year inservice test interval in order to use Code Case OMN-20 for the pumps and valves in their program. Providing this time period extension is a benefit because the OM Code does not have extension provisions for pump or valve inservice tests that align to plant Technical Specification extension provisions. There is no significant recordkeeping or reporting burden associated with this requirement.
- Subsection ISTC, OM Code Inservice Testing of Valves in Light-Water Reactors. The proposed condition clarifies the requirements to specify that when implementing paragraph ISTC-3700, "Position Verification Testing," licensees shall supplement the ASME OM Code provisions as necessary to verify that valve operation is accurately indicated. This proposed revision clarifies the current requirements, and is considered to be consistent with the meaning and intent of the current requirements, and therefore is not considered to result in a change in requirements. There is no significant recordkeeping or reporting burden associated with this requirement.
- Program Revision to Inservice Testing Requirements. The proposed change to revise 10 CFR 50.55a(f)(3)(iii)(A) and (B) for Class 1 pumps and valves, 10 CFR 50.55a(f)(3)(iv)(A) and (B) for Class 2 and 3 pumps and valves, and 10 CFR 50.55a(f)(4) for inservice testing standards requirement for operating plants is to align the scope of pumps and valves for inservice testing with the scope defined in the ASME OM Code and in NRC Standard Review Plan (SRP) Section 3.9.6, "Functional Design, Qualification, and Inservice Testing Programs for Pumps, Valves, and Dynamic Restraints." This clarification provides necessary consistency in scope of pumps and valves defined in the inservice testing program, in the ASME OM Code, and in SRP Section 3.9.6. There is no significant recordkeeping or reporting burden associated with this requirement.
- Cast Austenitic Stainless Steel Material Examination Requirements. This proposed condition adds 10 CFR 50.55a(g)(6)(ii)(F)(11) to address examination requirements through cast stainless steel materials and to establish a deadline of January 1, 2019, for requiring the use of Appendix VIII qualifications to meet the inspection requirements of paragraph -2500(a) of ASME Code Case N-770-2. The requirements for volumetric examination of butt welds through cast stainless steel materials are currently being developed as Supplement 9 to the ASME BPV Code, Section XI, Appendix VIII. In accordance with Appendix VIII for supplements that have not been developed, the requirements of Appendix III apply. Appendix III requirements are not equivalent to Appendix VIII requirements. For the volumetric examination of ASME Class 1 welds, the NRC proposes to require the use of an Appendix VIII qualified procedure to meet the

examination requirements of paragraph -2500(a) of ASME Code Case N-770-2 for examinations of ASME Code Class 1 piping and vessel nozzle butt welds through cast stainless steel materials. There is no significant recordkeeping or reporting burden associated with this requirement.

- Examination Coverage Requirements for Butt Welds Joining Cast Stainless Steel Material. This proposed condition adds 10 CFR 50.55a(g)(6)(ii)(F)(12) to clarify the examination coverage requirements allowed under Appendix I of ASME Code Case N-770-2 for butt welds joining cast stainless steel material. Under current ASME BPV Code, Section XI, Appendix VIII requirements, the volumetric examination of butt welds through cast stainless steel materials is under Supplement 9. The ASME BPV Code Committee is still developing Supplement 9 rules. Therefore, it is currently impossible to meet the requirement of Paragraph I.5.1 for butt welds joining cast stainless steel material. The material of concern is the weld material susceptible to PWSCC adjoining the cast stainless steel material for Class 1 PWR Piping and Vessel Nozzle Butt Welds. Appendix VIII qualified procedures are available to perform the inspection of the susceptible weld material, but they are not qualified to inspect the cast stainless steel materials. Therefore, this provision would allow licensees to implement a stress-improvement mitigation technique for butt welds joining cast stainless steel material with use of an examination volume that is qualified by Appendix VIII procedures to the maximum extent practical; including 100 percent of the susceptible material volume. This technique would remain applicable until an Appendix VIII qualified procedure for the inspection through cast stainless steel materials is available in accordance with condition § 50.55a(g)(6)(ii)(F)(11). There is no significant recordkeeping or reporting burden associated with this requirement.
- Encoding of Ultrasonic Volumetric Examinations. This proposed condition adds 10 CFR 50.55a(g)(6)(ii)(F)(13) to address the encoding of specific ultrasonic volumetric examinations at PWRs. This proposed condition addresses a human performance gap in which inspections using a conventional non-encoded examination missed flaws in ASME Class 1 dissimilar metal welds and in weld overlays. The recent examinations that failed to identify significant flaws can be avoided by the use of encoded ultrasonic examinations. Encoded ultrasonic examinations electronically store both the positional and ultrasonic information from the inspections. Encoded examinations allow the inspector to evaluate the data and search for indications outside of a time-limiting environment to assure that the inspection was conducted properly and to allow sufficient time to analyze the data. Additionally, the encoded examination would allow for an independent review of the data by other inspectors or an independent third party. This proposed condition would require that all ultrasonic volumetric examinations of non-mitigated or cracked mitigated dissimilar metal butt welds in the reactor coolant pressure boundary, within the scope of ASME Code Case N-770-2, have encoded examinations. There is no significant recordkeeping or reporting burden associated with this requirement.

Number of nuclear power plants

As of 2014, there are 100 nuclear power plants that are licensed to operate, 4 nuclear power plants under construction under the 10 CFR Part 52 process, and 1 nuclear power plant that is under construction under the 10 CFR Part 50 process. The NRC assumes that Vermont Yankee Nuclear Power Station will close in 2014 based on Entergy's announcement and Oyster Creek Nuclear Generating Station will close in 2019 based on Exelon Corporation's

announcement. The nuclear power plants under construction include: Watts Bar Nuclear Power Plant, Unit 2, assumed to begin operations in 2015; Vogtle Electric Generating Plant, Units 3 and 4, assumed to begin operations in 2017; and Virgil C. Summer Nuclear Station, Units 2 and 3, assumed to begin operations in 2017 and 2019, respectively. The 4 units under construction at Vogtle Electric Generating Plant and Virgil C. Summer Nuclear Station have been issued combined operating licenses under Part 52. Watts Bar Nuclear Power Plant, Unit 2, is being licensed under Part 50. Table 1 below summarizes the number of nuclear power plants affected by this rule during the expected clearance period of 2016 – 2018.

TABLE 1
NUMBER OF NUCLEAR POWER PLANTS

Year	Number of Operating Reactors	Number of Combined Operating Licenses
2016	100	4
2017	100	4
2018	100	4

A. JUSTIFICATION

1. Need For and Practical Utility of the Collection of Information

The ASME BPV and OM Codes provide listings of information required and specific forms to assist in documenting required information. In general, Section III records are needed to provide documentation that construction procedures have been properly implemented. ASME BPV Code, Section XI, and ASME OM Code records are needed to document the plans for and results of inservice inspection and inservice testing programs. The information is generally not collected, but is retained by the licensee to be made available to the NRC in the event of an NRC inspection or audit. ASME BPV and OM Code requirements are incorporated in 10 CFR 50 to avoid the need for writing equivalent NRC requirements.

2. Agency Use of Information

The records are generally historical in nature and provide data on which future activities can be based. The practical utility of the information collection for NRC is that appropriate records are available for auditing by NRC personnel to determine if ASME BPV and OM Code provisions for construction, inservice inspection, repairs, and inservice testing are being properly implemented in accordance with 10 CFR 50.55a of the NRC regulations, or whether specific enforcement actions are necessary.

3. Reduction of Burden Through Information Technology

There are no legal obstacles to reducing the burden associated with this information collection. The NRC encourages respondents to use information technology when it would be beneficial to them. NRC issued a regulation on October 10, 2003 (68 FR 58792), consistent with the Government Paperwork Elimination Act, which allows its licensees, vendors, applicants, and members of the public the option to make submissions electronically via CD-ROM, e-mail, special Web-based interface, or other means. It is estimated that approximately 15% of the potential responses

are filed electronically.

4. Effort to Identify Duplication and Use Similar Information

No sources of similar information are available. There is no duplication of requirements. NRC has in place an ongoing program to examine all information collections with the goal of eliminating all duplication and/or unnecessary information collections.

5. Effort to Reduce Small Business Burden

Not applicable.

6. Consequences to Federal Program or Policy Activities if the Collection Is Not Conducted or Is Conducted Less Frequently

The information generally is not collected but is retained by the licensee to be made available to the NRC in the event of an NRC audit.

7. Circumstances Which Justify Variation from OMB Guidelines

ASME BPV Code, Section XI, and ASME OM Code requirements for ISI and IST programs, and 10 CFR 50.55a specify that records and reports must be maintained for the service lifetime of the component or system. Such lifetime retention of the records is necessary to ensure adequate historical information of the design, examination, and testing of components and systems to provide a basis for evaluating degradation of these components and systems at any time during their service lifetime.

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements for this clearance package has been published in the *Federal Register*.

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of Information

Confidential and proprietary information is protected in accordance with NRC regulations at 10 CFR 9.17(a) and 10 CFR 2.390(b). However, no information normally considered confidential or proprietary is requested.

11. Justification for Sensitive Questions

Not applicable.

12. Estimate of Annualized Burden and Burden Hour Cost

Due to the change in the number of nuclear power plants and the NRC's revised

estimate of the burden associated with developing alternative requests, the reporting burden for 10 CFR 50.55a has changed. The estimated burden to prepare and submit an alternative request to the NRC for authorization has changed from 80 to 380 hours.

The NRC estimates that each operating plant will submit an average of three alternatives per year (two for ASME Section XI and one for the OM Code), for an annual reporting burden of 114,000 hours (3 requests for alternatives per plant × 380 hours per request × 100 plants = 114,000 hours).

The NRC estimates that all four of the plants for which a combined operating license (COL) was issued under Part 52 will choose to request alternatives to the requirements in 10 CFR 50.55a. The NRC estimates that each COL plant will submit an average of five alternatives per year (three for ASME BPV Section III, one for Section XI, and one for OM Code), for an annual reporting burden of 7,600 hours (5 requests for alternatives per COL plant × 380 hours per request × 4 COL plants = 7,600 hours).

The overall number of respondents is 104 (100 operating plants plus 4 COL plants = 104 plants).

13. Estimate of Other Additional Costs

There are no additional costs.

14. Estimated Annualized Cost to the Federal Government

The NRC does not anticipate that there will be a change in the cost to the Federal government as a result of this proposed rule.

15. Reasons for Change in Burden or Cost

The change in burden is due to a decrease in the number of operating nuclear power plants from 104 to 100 plants now and 4 COL plants during the expected clearance period of 2016 – 2018 for an overall of 104 plants and an increase in the estimated burden associated with developing alternative requests from 80 hours to 380 hours.

The number of operating plants decreased recently from 104 to 100 because Kewaunee Power Station, Crystal River Unit 3, and San Onofre Nuclear Generating Station Units 2 and 3 transitioned to decommissioning status.

A review of Code alternate requests submitted to the NRC over the last 5 years identified that these submittals ranged from a few pages to several hundred pages with an average of approximately 32 pages with average technical complexity. Therefore, the NRC estimates that a Code Case submittal requires an average of 300 hours of effort to develop the technical justification and an additional 80 hours to perform research, review, approve, process, and submit the document to the NRC for use of alternatives under 10 CFR 50.55a(z). Therefore, the revised total estimated burden is 380 hours per alternative.

16. Publication for Statistical Use

This information will not be published for statistical use.

17. Reason for Not Displaying the Expiration Date

The requirements are contained in a regulation. Amending the *Code of Federal Regulations* to display information that, in an annual publication, could become obsolete would be unduly burdensome and too difficult to keep current.

18. Exceptions to the Certification Statement

None.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Not applicable.

TABLE 2
ANNUALIZED REPORTING BURDEN

Section	No. of Respondents	Responses per Respondent	Total No. of Responses	Burden Hours per Response	Total Annual Reporting Burden (Hrs)
50.55a(z): Alternatives submitted by power reactors	100	3	300	380	114,000
50.55a(z): Alternatives submitted by COLs	4	5	20	380	7,600
TOTAL	104		320		121,600

TOTAL BURDEN HOURS: 121,600 hours (reporting)
 TOTAL BURDEN HOUR COST: \$33,926,400 (121,600 hrs × \$279/hr)
 ANNUAL RESPONDENTS: 104 respondents (100 operating plants + 4 COL plants)
 RESPONSES: 320 responses