

DRAFT SUPPORTING STATEMENT
FOR
INFORMATION COLLECTIONS CONTAINED IN
AMERICAN SOCIETY OF
MECHANICAL ENGINEERS CODE CASES AND INSERVICE TESTING AND INSERVICE
INSPECTION PROGRAM UPDATE FREQUENCY
PROPOSED RULE

10 CFR PART 50

(RIN-3150-AJ94)

Description of the Information Collection

The U.S. Nuclear Regulatory Commission (NRC) regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a, “Codes and standards,” incorporate by reference the American Society of Mechanical Engineers (ASME) codes for nuclear power plants. In the proposed rule associated with this supporting statement, the NRC is proposing to amend its regulations in 10 CFR 50.55a to incorporate by reference the latest revisions of three NRC regulatory guides (RGs) approving new, revised, and reaffirmed code cases published by the ASME. Two of these code cases would allow a licensee to change their current ASME-required 10-year intervals within their inservice testing (IST) and inservice inspection (ISI) programs to become 12-year intervals. Furthermore, the proposed rule would revise the NRC regulations to extend from the current 10-year cyclic timeframe requirement for nuclear power plant licensees to update their ASME codes of record to a cycle based on the length of two inservice testing (IST) or inservice inspection (ISI) intervals. To be eligible for either extension, a licensee must have implemented the 2020 Edition, or later editions, of the ASME Operation and Maintenance (OM) of Nuclear Power Plants, Division 1, OM Code: Section IST (OM Code) and the 2019 Edition, or later editions, of the ASME Boiler and Pressure Vessel (BPV) Code, Section XI, as incorporated by reference in § 50.55a. This rule proposes changes to promote clarity and consistency, including adding definitions of important terms to 10 CFR 50.55a(y) and revising the reference to the 10-year service period in 10 CFR part 50, appendix J, “Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors.”

This proposed regulatory action would allow nuclear power plant licensees and applicants for construction permits, operating licenses, combined licenses, standard design certifications, standard design approvals, and manufacturing licenses to voluntarily use the ASME Code Cases newly listed in these RGs as alternatives to ASME BPV Code and ASME OM Code engineering requirements for the design, construction, inservice inspection, and inservice testing of nuclear power plant components. In general, the use of NRC-approved ASME Code Cases averts the need for some licensees to submit licensing actions (e.g., alternative requests, exemptions) for the use of voluntary alternatives to the ASME code requirements.

The NRC’s regulations in 10 CFR 50.55a incorporate by reference Division 1 rules of Section III, “Rules for Construction of Nuclear Power Plant Components,” and Section XI, “Rules for Inservice Inspection of Nuclear Power Plant Components,” of the ASME BPV Code; and the rules of the ASME OM Code. These rules of the ASME BPV and OM Codes state the requirements to which nuclear power plant components are constructed, tested, repaired, and

inspected. This proposed rule contains requirements that would result in collections of information that represent a recordkeeping and reporting burden for licensees.

Affected Entities

This proposed rule would affect all light-water nuclear power plants. Currently, there are 54 plant sites containing one or more operating U.S. light-water nuclear power reactor units, for a total of 92 currently operating reactors. (61 pressurized water reactor and 31 boiling water reactors). In addition, there are two light-water nuclear power reactors that received their 10 CFR Part 52 operating license on February 10, 2012 and are scheduled to begin operation by the end of 2023.

However, the NRC estimates that only the two newly licensed light-water nuclear power reactors would submit an alternative request during this clearance period as the result of this proposed rule. The proposed rule would require that light-water nuclear power reactors licensed after January 2012, submit an alternative request in order to use Code Case N-716-3. Any impact on burden due to the change in the ISI/IST update portion of this rulemaking is not expected for approximately 10 years after this rule is effective and will be reflected in the triennial renewal of this clearance.

In response to BPV and OM Code user requests, the ASME develops code cases that provide voluntary alternatives to ASME BPV and OM Code requirements under certain circumstances. The NRC reviews ASME BPV and OM Code Cases, determines the acceptability of each code case, and publishes its findings in NRC RGs. The NRC revises the RGs periodically as the ASME publishes new code cases. In the proposed rule associated with this supporting statement, the NRC is proposing to amend its regulations in 10 CFR 50.55a to incorporate by reference the latest revisions of three NRC RGs approving 49 new, revised, and reaffirmed code cases published by the ASME (12 of which include proposed NRC conditions for use). The NRC proposes to incorporate by reference the following three RGs:

- (1) RG 1.84, "Design, Fabrication, and Materials Code Case Acceptability, ASME Section III," Revision 40 (Draft Regulatory Guide (DG) 1405)
- (2) RG 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," Revision 21 (DG 1406)
- (3) RG 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code," Revision 5 (DG-1407)

These revisions supersede the incorporation by reference of RG 1.84, Revision 39; RG 1.147, Revision 20; and RG 1.192, Revision 4 (all issued December 2021).

Of the 12 ASME code cases with proposed NRC conditions, the following three would impact the information collection burden:

- N-716-3: would require the light-water nuclear power reactors licensed after January 2012, to submit an alternative request in accordance with 10 CFR 50.55a(z) for review and approval before implementing the Code Case.
- N-921: would allow a licensee to adopt a 12-year ISI interval as an alternative to the 10-year ISI interval specified in Section XI, IWA-2400.
- OMN-31: would allow a licensee to adopt a 12-year IST interval as an alternative to the 10-year IST interval specified in ISTA-3120.

Code Cases N-921 and OMN-31 are not anticipated to have any impact on the existing information collections burden during the first 10 years after the final rule is effective. After the ten years, the information collection burden per response remains the same but the number of annual respondents may be reduced due to the extended timeframe before the required updating their ASME ISI/IST programs to the latest endorsed ASME code editions.

This proposed rule would also change the allowable maximum interval between updates to the ASME code of record in a licensee's ISI/IST program to 25 years from the current 10 years. Currently, licensees update their ISI programs under the ASME BPV Code, Section XI, and their IST programs under the ASME OM Code every 10 years. This interval coincides with the requirement to update the licensee's ASME code of record in these programs every 10 years to the latest editions and addenda of the ASME Codes incorporated by reference into 10 CFR 50.55a. The two ASME Code Cases, N-921 and OMN-31, that would be incorporated by reference in this rulemaking, change the allowable ISI and IST intervals to 12 years respectively. Changing the ISI/IST intervals would not change the existing code of record interval as that interval is codified in NRC regulations. Because these two ASME code cases would allow the ISI and IST intervals to go out of alignment with the existing code of record 10-year intervals, this could lead to potential confusion and administrative costs. Therefore, the staff is also proposing to eliminate the requirement to update the code of record every 10 years and replace it with a requirement to update the code of record every two ISI or IST intervals, respectively, with a maximum of every 25 years. The 25-year maximum code of record interval allows the same code of record to be used for two consecutive ISI or IST intervals, with each interval up to a maximum of 12 years, plus the one-time 1-year extension for the IST and ISI programs as specified in the ASME OM Code and ASME BPV Code, respectively.

Any potential burden changes due to the reduction of the required update frequency will not be realized until at least 10 years after this rule becomes effective before any reduction in burden takes effect. In necessary, any change in burden will be addressed in future renewals of this clearance.

A. JUSTIFICATION

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

The regulation at 10 CFR 50.55a(z) allows applicants to use alternatives to the requirements of 10 CFR 50.55a(b) through (h), when authorized by the NRC. Licensees voluntarily submit alternatives under 10 CFR 50.55a(z) and are estimated to spend 230 hours to prepare and submit them.

The proposed rule would incorporate by reference revised NRC RGs stating the

acceptability of certain ASME Code Cases. Code cases developed by the ASME are voluntary alternatives to requirements of the ASME BPV and OM Code and often reflect improvements in technology, new information, or improved procedures. Before the use of these code cases, developing alternative request applications and obtaining NRC approval were burdensome processes for the licensee.

The approval of ASME Code Cases in the latest revisions of three previously incorporated RGs could potentially result in a one-time burden for some licensees due to the need to submit an alternative request to take advantage of the Code Cases. Future clearance periods could see a reduction in burden due to the reduction in the number of required updates to a licensee's IST program, ISI program, and code of record required by 10 CFR 50.55a(f)(5), 10 CFR 50.55a(g)(5), and 10 CFR 50.55a(f)(4) and (g)(4), respectively.

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 the NRC is that appropriate records are available for auditing by NRC personnel to determine licensees' and applicants' use of the code cases listed in the RGs as voluntary alternatives to engineering standards for the construction, inservice inspection, and inservice testing of nuclear power plant components.

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.

The NRC has issued "[Guidance for Electronic Submissions to the NRC](#)," which provides directions for the electronic transmission and submittal of documents to the NRC. Electronic transmission and submittal of documents can be accomplished through the following avenues: the Electronic Information Exchange process, which is available from the NRC's "[Electronic Submittals](#)" [Web page](#), or by optical storage media (e.g., CD-ROM, DVD), facsimile, or e-mail. The agency estimates that approximately 90-percent of the 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.

5. Effort to Reduce Small Business Burden

This proposed rule affects no small businesses.

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

If the NRC did not periodically update and incorporate by reference the RGs listing acceptable, conditionally acceptable, or unacceptable new code cases, licensees would be obligated to use the alternative request process if they wanted to use new ASME-approved code cases. This process would be more burdensome for both the licensees and the NRC.

7. Circumstances that Justify Variation from Office of Management and Budget Guidelines

There are no variations from Office of Management and Budget (OMB) guidelines.

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements 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. Estimated Burden and Burden Hour Cost

Most of the potential burden changes due to this proposed rule would be realized at least 10 years after the effective date of the rule and will be incorporated in the triennial renewals of this clearance. The NRC estimates that there would be a one-time reporting burden increase for two currently licensed light-water reactors in the three years after the effective date of this rule. The additional burden is for the development and submission of a 10 CFR 50.55a(z) alternative request as part of the NRC's condition to adopt code case N-716-3. Each alternative request is expected to take 230 hours. Additionally, each respondent would incur an additional 10 hours of recordkeeping burden annually.

The increase in annual reporting burden for this one-time information collection would be 152 hours (1 respondent x 0.66 request per respondent x 230 hours per request) at a cost to the licensee of \$44,080 (152 hours x \$290/hour). Table 1 shows the reporting burden estimate. The annual recordkeeping burden for this one-time information collection would be an increase of 10 hours (1 recordkeepers x 10 hours per record keeper) at a cost of \$2,900 (10 hours x \$290/hour). Table 2 shows the recordkeeping burden estimate.

The \$290 hourly rate used in the burden estimates is based on the NRC's fee for hourly rates as noted in 10 CFR 170.20, "Average cost per professional staff-hour." For more information on the basis of this rate, see the Revision of Fee Schedules; Fee Recovery for Fiscal Year 2022 (87 FR 37197; June 22, 2022).

13. Estimate of Other Additional Costs

There are no additional costs.

14. Estimated Annualized Cost to the Federal Government

The staff has estimated the annualized costs to the Federal Government for the conduct of this collection of information. These estimates are based on staff experience and subject matter expertise and include the burden of reviewing, analyzing, and processing the collected information and any relevant operational expenses.

The NRC staff estimates that reviewing these requests takes an average of 115 hours per request. As a result, the NRC estimates that the incorporation by reference of new code cases and the code of record update interval amendment would result in a one-time cost of \$22,011 (115 hours/alternative request x 0.66 requests x \$290/hour). Table 3 shows the burden estimate.

The current annualized cost to the Federal Government for 10 CFR Part 50, "Domestic licensing of production and utilization facilities," is \$65,512,656. The total annualized cost to the Government for 10 CFR Part 50 will be $\$65,512,656 + \$22,011 = \$65,534,667$.

15. Reasons for Change in Burden or Cost

The proposed rule would increase the burden for 10 CFR Part 50 from 3,636,646 hours and 42,196 responses to 3,636,808 hours and 42,197 responses, a one-time per licensee increase of 162 hours and 1 response.

The burden increases reflect the development and submission of 10 CFR 50.55a(z) alternative requests as required by NRC's adoption condition Code Case N-716-3 and the accompanying recordkeeping requirements.

16. Publication for Statistical Use

Not applicable.

17. Reason for Not Displaying the Expiration Date

The recordkeeping and reporting requirements for this information collection are associated with regulations and are not submitted on instruments such as forms or surveys. For this reason, there are no data instruments on which to display an OMB expiration date. Further, amending the regulatory text of the CFR 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

Not applicable.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Not applicable.

TABLE 1 ANNUALIZED ONE-TIME REPORTING BURDEN

Information Collection Section	Number of Respondents	Number of Responses per Respondent	Number of Responses	Burden Hours per Response	Total Reporting Burden (hr)	Cost @ \$290/hr
10 CFR 50.55a(z) (As conditioned for Code Case N-716-3) Alternative requests submitted by operating power reactor plants	0.66	1	0.66	230	152	\$44,080

TABLE 2 ANNUALIZED RECORDKEEPING BURDEN

Information Collection Section	Number of Recordkeepers	Number of Records per Recordkeeper	Burden Hours per Record	Total Recordkeeping Burden (hr)	Cost @ \$290/hr
10 CFR 50.55a(z) Records for Code alternative request preparation and submission	1	1	10	10	\$2,900

Total Industry Burden Hours	162
Total Industry Burden Hour Cost	\$46,980
Annual Potential Respondents	1
Responses	1

