

OFFICE OF NUCLEAR REACTOR REGULATION

LIC-102, Revision 3	“Review of Relief Requests, Proposed Alternatives, and Requests to Use Later Code Editions and Addenda”	
Volume 100	Licensing Processes	
Approved By:	Robert M. Taylor	
Date Approved:	April 6, 2020	
Effective Date:	April 10, 2020	
Certification Date:	April 10, 2025	
Responsible Organization:	DORL	
Primary Contacts:	Michael Orenak Michael.Orenak@nrc.gov 301-415-3229	Seung Min Seung.Min@nrc.gov 301-415-2045
Summary: This version (1) changes the references to applicable 10 CFR 50.55a paragraphs consistent with the reorganization of 10 CFR 50.55a in the November 5, 2014, rulemaking (79 FR 65776); (2) adds language applicable to IEEE Standards; (3) adds standard language on risk-informed decision-making; (4) removes obsolete information from Revision 2; (5) replaces the phrase “relief requests” with “relief requests and proposed alternatives” as applicable; (6) clarifies the response to relief request and proposed alternative submittal timeliness issues, and (7) revises the title to reflect the scope of reviews.		
Training:	None. NRR staff will review procedure at the time of use.	
ADAMS Accession Number: ML18351A218		

TABLE OF CONTENTS

1.	POLICY	2
2.	OBJECTIVES	2
3.	BACKGROUND	2
4.	BASIC REQUIREMENTS	3
5.	RESPONSIBILITIES AND AUTHORITY	8
6.	PERFORMANCE MEASURES	10
7.	PRIMARY AND SECONDARY CONTACTS	10
8.	RESPONSIBLE ORGANIZATION.....	11
9.	EFFECTIVE DATE	11
10.	CERTIFICATION DATE	11
11.	REFERENCES.....	11

Office Instruction: LIC 102, Revision 3, "Review of Relief Requests, Proposed Alternatives, and Requests to Use Later Code Editions and Addenda" Dated: April 6, 2020

ADAMS Accession No: ML18351A218

*** by email**

OFFICE	NRR/DORL/LPL2-1/PM	NRR/DMLR/MPHB	NRR/DORL/LSPB/LA	NRR/DMLR/D(A)*
NAME	DGalvin	SMin	JBurkhardt	JDonoghue
DATE	8/12/19	8/13/19	7/25/19	8/26/19
OFFICE	NRR/DE/D(A)*	NRO/DESR/D(A)*	NRO/DLSE/D*	NRR/DORL/D*
NAME	BWittick for BSmith	KCoyne	ABradford for RTaylor	CErlanger
DATE	8/30/19	8/23/19	8/29/19	8/30/19
OFFICE	OGC (NLO)*	NRR/DRMA/DD	NRR/DD	
NAME	KGamin*	TGorham	RTaylor	
DATE	9/3/19	09/18/19	04/06/2020	

OFFICIAL RECORD COPY

1. **POLICY**

The Office of Nuclear Reactor Regulation (NRR) can grant relief from, authorize alternatives to, or approve the use of later editions and addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code requirements and ASME Operation and Maintenance of Nuclear Power Plants (OM) Code requirements incorporated by reference in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a, "Codes and standards." NRR can also authorize alternatives to the requirements of paragraph 10 CFR 50.55a(h) regarding the Institute for Electrical and Electronics Engineers (IEEE) standards. However, both licensees and NRR staff must follow specific provisions in the regulations.

2. **OBJECTIVES**

The objective of this office instruction is to provide guidance for (1) handling licensees' relief requests, proposed alternatives, and requests to use later editions and addenda of ASME BPV and OM Codes and (2) handling licensees' proposed alternatives to IEEE standards submitted in accordance with 10 CFR 50.55a.

3. **BACKGROUND**

When a licensee finds that it cannot meet the applicable ASME BPV Code or ASME OM Code requirements, it can request relief or propose an alternative. The most common type of relief requested concerns inservice inspection (ISI) requirements of Section XI of the ASME BPV Code and inservice testing (IST) requirements of the ASME OM Code. There are other types of relief, however, which may be sought. Relief requests and proposed alternatives do not involve license amendments. If the request is approved, the staff issues a letter with a safety evaluation (SE) to authorize the licensee's proposed alternative or to grant relief from an ASME BPV Code or ASME OM Code requirement. For IEEE standards, a licensee can propose an alternative; however, there are no provisions to grant relief from the requirements of paragraph 10 CFR 50.55a(h) regarding IEEE standards.

To improve the effectiveness and efficiency of the relief request process, the staff and the Nuclear Energy Institute (NEI) standardized the format for licensees' relief requests. NEI has developed a white paper, "Standard Format for Requests from Commercial Reactor Licensees Pursuant to 10 CFR 50.55a," Revision 1, dated June 7, 2004 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML070100400). The guidance provided to the licensees is voluntary. The staff has developed a template for relief request transmittal letters and SEs in Enclosure 2.

Note that although the term "relief request" is commonly used to address all licensee requests relative to 10 CFR 50.55a, requests for relief related to IST are made under 10 CFR 50.55a(f)(5)(iii) and approved under 10 CFR 50.55a(f)(6)(i), while requests for relief related to ISI are made under 10 CFR 50.55a(g)(5)(iii) and approved under 10 CFR 50.55a(g)(6)(i). Requests for relief are addressed in Section 4.3 below. Requests made under 10 CFR 50.55a(z) are "proposed alternatives" and are subject to different requirements specified in Section 4.2 below.

As published in the *Federal Register* (FR) on November 5, 2014 (79 FR 65776), 10 CFR 50.55a was restructured to align with the Office of the Federal Register's

guidelines for incorporating documents by reference. SEs issued prior to December 5, 2014, the effective date of the final rule, reflect the previous paragraph numbers of the regulations as described in LIC-102, Revision 2.¹

Application of Risk-Informed Decision-Making

Because the Standard Review Plan (SRP), NUREG-0800, is written to apply to a broad array of license amendment requests for operating reactors and applications for new reactors, the staff needs to be judicious in determining the particular aspects of the SRP to utilize for a particular review. The SRP states that, "Because the staff's review constitutes an independent audit of the applicant's analysis, the staff may emphasize or de-emphasize particular aspects of an SRP section, as appropriate, for the application being reviewed." The SRP also states that, "Risk-insights can also be used in determining the depth of review." As each application presents new and unique issues, the scope and depth of NRC's review should also be customized to reflect the specifics as appropriate. It would not be consistent with the clarity, reliability, and efficiency principles if the staff did an in-depth review of every aspect of the SRP for every application. The current SRP modernization effort plans to develop guidance to focus the SRP on the fundamentals of the regulatory requirement(s), the appropriate acceptance criteria, and the associated findings of reasonable assurance of adequate protection through considering risk informed, performance-based approaches; significantly moderating operating knowledge; removing prohibitive language; eliminating duplicative reviews; and clearly identifying acceptance criteria.

NRR Office Instruction LIC-206, "Integrated Risk-Informed Decision-Making for Licensing Reviews," documents the guidance resulting from the Risk-Informed Decision-Making (RIDM) Action Plan. LIC-206 provides guidance on a graded approach for expanding the use of risk insights in licensing and other regulatory activities and better integrating complementary insights from traditional engineering and risk assessment approaches to foster a broadened understanding of the benefits that RIDM can bring to the overall regulatory approach. LIC-206, Appendix B, "Guide for Integrated Review Team," describes the Integrated Review Team (IRT) licensing review approach that increases collaboration between risk analysts and traditional deterministic engineering technical reviewers. Staff are expected to continue its efforts to enhance the integration of risk information into the organization's decision-making practices and processes to improve the technical basis for regulatory activities, increase efficiency, and improve effectiveness.

4. BASIC REQUIREMENTS

4.1 10 CFR 50.55a Subjects

Most relief requests and proposed alternatives pertain to ASME BPV Code, Section XI, ISI and ASME OM Code IST. The table below shows the various 10 CFR 50.55a(c)-(g) subjects for which the staff may provide relief for licensees to deviate from or authorize alternatives to the ASME BPV Code or ASME OM Code requirements. The table also includes the requirements of

¹ Cross-reference tables identifying the specific regulatory changes following the restructuring of 10 CFR 50.55a on November 5, 2014, are available at ADAMS Package Accession No. ML14211A050.

paragraph 10 CFR 50.55a(h) regarding IEEE standards for protection and safety systems, for which the staff can also authorize alternatives.

10 CFR 50.55a Subject Areas

Areas	10 CFR 50.55a Paragraph
Reactor Coolant Pressure Boundary	50.55a(c)
Quality Group B Components ²	50.55a(d)
Quality Group C Components ²	50.55a(e)
Inservice Testing	50.55a(f)
Inservice Inspection	50.55a(g)
Protection and Safety Systems	50.55a(h)

4.2 Methods to Give Licensees Permission to Deviate from Regulatory Requirements Pursuant to 10 CFR 50.55a(z)(1) or 10 CFR 50.55a(z)(2)

The licensee should submit the proposed alternatives to the U.S. Nuclear Regulatory Commission (NRC) and obtain NRC authorization prior to implementation of the alternatives. Submittals from licensees that do not comply with these requirements are not required by regulation to be accepted for review. If a licensee submits a proposed alternative for an interval that includes a past time period, an authorization would not be applicable retroactively but would be applicable for the remainder of the interval following SE issuance. If the NRC staff identifies that the licensee may have implemented a proposed alternative prior to NRC authorization, the cognizant project manager (PM) should inform the appropriate regional office, as described in Section 4.3.

The following methods may be used to give licensees permission to deviate from regulatory requirements related to codes and standards, and code cases:

- Authorize a licensee-proposed alternative in accordance with 10 CFR 50.55a(z)(1) if it is determined that the alternative provides an acceptable level of quality and safety.
- Authorize a licensee-proposed alternative in accordance with 10 CFR 50.55a(z)(2) if it is determined that complying with the specified requirement would result in hardship or unusual difficulty³ without a compensating increase in the level of quality and safety.

² If application for construction permit, combined license or manufacturing license under 10 CFR Part 52, or standard design approval or standard design certification is docketed after May 14, 1984.

³ Examples of hardship or unusual difficulty include, but are not limited to: having to enter multiple technical specification limiting conditions for operations, as low as is reasonably achievable (ALARA) concerns, and creating significant hazards to plant personnel.

Licensees commonly request to use ASME Code Cases, topical reports, or other documents as an alternative to the requirements in 10 CFR 50.55a. In such cases, licensees should identify specific versions of the documents that are used to support the request. The NRC staff cannot authorize the use of unspecified future revisions of these documents or future changes to an approved alternative without prior NRC approval. Licensees must submit a new alternative request if they want to revise an approved alternative and use the revision as another alternative.

4.3 Methods to Give Licensees Permission to Deviate from Regulatory Requirements Pursuant to 10 CFR 50.55a(f)(5)(iii), (f)(6)(i), (g)(5)(iii), or (g)(6)(i)

Requests for relief under 10 CFR 50.55a(g)(5)(iii) are not to be submitted to the NRC for evaluation prior to the licensee performing the ASME Code-required examination. A licensee's submittal that contains a relief request under 10 CFR 50.55a(g)(5)(iii) prior to an examination will not be evaluated by the NRC staff. Requests for relief under 10 CFR 50.55a(f)(5)(iii) related to IST may be submitted prior to a licensee performing the ASME Code required testing.

The following methods may be used to give licensees permission to deviate from regulatory requirements related to codes and standards:

- Grant relief and impose alternative requirements (if necessary) in accordance with 10 CFR 50.55a(f)(6)(i) for IST items if it is determined that the ASME BPV Code or ASME OM Code requirement is impractical.^{4, 5}
- Grant relief and impose alternative requirements (if necessary) in accordance with 10 CFR 50.55a(g)(6)(i) for ISI items if it is determined that the ASME BPV Code or ASME OM Code requirement is impractical.^{4, 5}

Requirements regarding the timeliness of licensee submittals under the provisions of 10 CFR 50.55a are provided in 10 CFR 50.55a(f)(5)(iv) and 10 CFR 50.55a(g)(5)(iv) for IST and ISI requirements, respectively. Submittals from licensees that do not comply with these requirements are not required by regulation to be accepted for review. When a licensee's submittal is determined to be out of compliance with the provisions mentioned above, the PM will notify the appropriate regional office so that the regional staff can disposition the issue of concern in accordance with the Reactor Oversight Process. The regional

⁴ Examples of impracticality are as follows:

- being inaccessible for IST or ISI due to design features
- requiring major plant or hardware modification
- having high potential to cause a reactor trip
- causing system or component damage
- replacing equipment or in-line components
- existing technology will not give meaningful results

⁵ If the staff cannot determine that the code requirement is impractical, the licensee's submittal can be evaluated to see if IST or ISI alternatives under 10 CFR 50.55a(z)(1) or (z)(2) can be authorized. On occasion, the staff may grant relief pursuant to 10 CFR 50.55a(g)(6)(i) when licensees perform temporary non-Code repair of ASME Code Class 1, 2, and 3 components following the guidance of Generic Letter (GL) 90-05, "Guidance for Performing Temporary Non-Code Repair of ASME Code Class 1, 2, and 3 Piping," dated June 15, 1990 (ADAMS Accession No. ML031140590).

office may request NRR technical and licensing support in identifying any safety concerns associated with the licensee's submittal.

4.4 Methods to Give Licensees Permission to Use Later Editions and Addenda of the ASME Code that are Incorporated by Reference in 10 CFR 50.55a Pursuant to 10 CFR 50.55a(f)(4)(iv) and 10 CFR 50.55a(g)(4)(iv)

- Approve using later ASME Code editions and addenda in accordance with 10 CFR 50.55a(f)(4)(iv) for IST items and 10 CFR 50.55a(g)(4)(iv) for ISI items subject to the conditions listed in 10 CFR 50.55a(b). Licensees may use portions of the ASME Code editions or addenda if all related requirements of the respective editions or addenda are met. Licensees should submit a request to use a later edition and addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(a)(1) to the NRC and obtain NRC approval prior to implementation of the later editions and addenda.
- Proposed alternatives to use later editions and addenda of the ASME Code not incorporated by reference in 10 CFR 50.55a(a)(1) must be submitted as an alternative in accordance with 10 CFR 50.55a(z). Likewise, proposed alternatives to use a later revision of the IEEE Standards included in 10 CFR 50.55a(h) must be submitted as an alternative in accordance with 10 CFR 50.55a(z).
- For more information, see Regulatory Issue Summary (RIS) 2004-12, "Clarification on Use of Later Editions and Addenda to the ASME OM Code and Section XI" (ADAMS Accession No. ML042090436), and RIS 2004-16, "Use of Later Editions and Addenda to the ASME Section XI for Repair/Replacement Activities" (ADAMS Accession No. ML042590067). Note that the discussion of the regulations in RIS 2004-12 and RIS 2004-16 does not reflect the reorganization of 10 CFR 50.55a in November 2014.

4.5 ASME Code Cases

Code Cases are previously developed alternatives to specific sections of the ASME Code. The regulations under 10 CFR 50.55a(a)(3)(i), (ii), and (iii) incorporate by reference the specific revisions of the following NRC regulatory guides (RGs) that describe the acceptability of ASME Code Cases:

- RG 1.84, "Design, Fabrication, and Materials Code Case Acceptability, ASME Section III"
- RG 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1"
- RG 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code"

ASME Code Cases not approved for use are now listed in RG 1.193, "ASME Code Cases Not Approved for Use."

Licensees may use the ASME Code Cases approved in RGs 1.84, 1.147, and 1.192 with the associated conditions (if applicable) as alternatives to the ASME Code without requesting NRC approval. Licensees may propose alternatives to an NRC-approved ASME Code Case, or the conditions imposed, in accordance with 10 CFR 50.55a(z). These alternatives must be submitted and authorized prior to implementation.

Use of ASME Code Cases not yet approved for use as listed in RGs 1.84, 1.147, or 1.192 may be authorized if a licensee so requests pursuant to 10 CFR 50.55a(z). The NRC staff authorization must be for a specific version (or draft) of the ASME Code Case. Authorization of a licensee to use a yet-to-be-approved ASME Code Case does not authorize any other licensee to use the ASME Code Case without submitting an alternative pursuant to 10 CFR 50.55a(z).

4.6 Verbal Authorization of Alternatives

On rare occasions, the NRC staff may verbally authorize alternatives under 10 CFR 50.55a(z) when, due to unforeseen circumstances, licensees need NRC authorization before the staff is able to issue its written SE.

Verbal authorization for an alternative under 10 CFR 50.55a(z) is subject to the following:

- The proposed alternative is in writing and all information that the staff requires to write the SE has been docketed.
- An identified need for the verbal authorization and circumstances leading to such need are clearly set forth in the proposed alternative.
- The NRC technical staff has completed its review and determined that the proposed alternative is technically justified and the circumstances supporting the need for verbal authorization are reasonable, but has not yet formally documented them in an SE.
- The technical branch and the Division of Operating Reactor Licensing (DORL) branch chiefs have agreed to the verbal authorization.

Verbal authorization is most likely conveyed in a telephone conversation between the NRC staff and the licensee. As such, appropriate personnel who are normally involved in concurrence and signing an authorization of an alternative (see NRR Office Instruction ADM-200, "Delegation of Signature Authority") should be present in the telephone conversation. At a minimum, the cognizant technical and licensing branch chiefs must be present for the verbal authorization. The PM should promptly (i.e., within 1 or 2 days of the verbal authorization) generate a record of the conversation, which will meet the definition of an Official Agency Record (OAR) and which must be entered into ADAMS and made publicly available.

The staff should issue the written SE within 150 calendar days after giving verbal authorization.

4.7 Contents of Safety Evaluations and Cover Letters

Enclosure 1 includes Tables 1 through 5 where guidance regarding contents of the SEs that satisfy various 10 CFR 50.55a paragraphs can be found.

Enclosure 2 is a template for the SE and cover letter transmitting the SE to the licensee.

<u>10 CFR 50.55a Paragraph</u>	<u>Table No.</u>
(z)(1)	1
(z)(2)	2
(f)(4)(iv) and (g)(4)(iv)	3
(f)(6)(i)	4
(g)(6)(i)	5

Note that a licensee might refer to several 10 CFR 50.55a paragraphs in its submittal. This is acceptable but not desirable. The technical staff picks the single most applicable 10 CFR 50.55a paragraph that will be used by the staff in the SE and cover letter. This need not be discussed with the licensee.

Note that the staff can, under 10 CFR 50.55a(f)(6)(i) and (g)(6)(i), impose alternative requirements without having the licensee first commit to them. For requests under 10 CFR 50.55a(z), the staff authorizes alternatives proposed by the licensee and cannot impose additional requirements.

As a result of unique wording in various paragraphs, the staff should note that it:

authorizes licensee-proposed alternatives in accordance with 10 CFR 50.55a(z)(1) or 10 CFR 50.55a(z)(2), or

grants relief and imposes alternative requirements (if required) in accordance with 10 CFR 50.55a(f)(6)(i) or 10 CFR 50.55a(g)(6)(i), or

approves the use of later code editions and addenda in accordance with 10 CFR 50.55a(f)(4)(iv) or 10 CFR 50.55a(g)(4)(iv).

For denied relief requests and proposed alternatives, the PM prepares a letter to the licensee stating that the relief request or proposed alternative is denied for the reasons specified in the attached SE.

5. RESPONSIBILITIES AND AUTHORITY

A relief request or proposed alternative review is a standard fee-bearing licensing action. As such, the responsibility and authority of various individuals are established by current practice and appropriate guidance documents, such as NRR Office Instruction ADM-200. Under current practice, the typical process for review of relief requests and proposed alternatives is illustrated in Enclosure 3.

Project Manager

The PM should be aware that Enclosure 3 only depicts a typical review process for relief requests and proposed alternatives. The PM manages the review of licensee relief requests and proposed alternatives “cradle-to-grave” according to the current practice used for all licensing actions.

The PM should perform and coordinate the acceptance review of the relief or proposed alternative in accordance with LIC-109, “Acceptance Review Procedures,” as appropriate. Verbal authorizations do not require an acceptance review.

The PM should process and transmit any request for additional information (RAI) in accordance with LIC-115, “Processing Requests for Additional Information.” While there is no regulatory basis for any particular response time, the PM should typically request the licensee to respond within 30 days solely to promote timely completion of the review.

The PM will ascertain that the SE generated by the review branch follows the SE template guidance provided in Enclosure 2.

Technical Branch

The technical branch chief assigns a reviewer(s), supervises activities of the assigned technical reviewer(s), and ensures that a quality SE, which meets 10 CFR 50.55a requirements and standards established by Enclosure 2, is transmitted to the PM at the end of the review. The technical reviewer(s) performs the review as assigned by and under the supervision of the technical branch chief.

Any technical branch RAI should be generated and transmitted in accordance with LIC-115. The SE input is typically transmitted by e-mail from the review branch chief to the licensing branch chief and PM, with the technical branch placing the SE input and transmittal into ADAMS.

Licensing Assistant

The licensing assistant performs duties consistent with those associated with other licensing actions, except that the licensing assistant does not review any RAIs related to relief requests or proposed alternatives.

Licensing Branch Chief

According to ADM-200, the licensing branch chief signs the cover letter transmitting the SE to the licensee, granting or denying the requested relief/alternative. The licensing branch chief ascertains that the relief/alternative package follows the template provided as Enclosure 2.

OGC

OGC legal review of reliefs/alternatives is not required. However, an NRR stakeholder may suggest, on the basis of perceived unique or special circumstances, that a relief/alternative be reviewed by OGC. When this happens, the determination of need

for OGC review should be jointly made by the technical branch chief, licensing branch chief, and subject matter expert for relief requests/proposed alternatives.

6. **PERFORMANCE MEASURES**

For operating reactors and plants transitioning to decommissioning, licensing actions (e.g., relief requests, proposed alternatives, and requests to use later code editions and addenda), the goal is for at least 95 percent to be less than 1 year old and for 100 percent to be less than 2 years old. When these metrics are not met, an explanation must be provided to Congress. These metrics are referred to as the CBJ metrics. However, the NRC is permitted to exclude certain licensing actions from the CBJ timeliness metrics as described in the annual Congressional Budget Justification (NUREG 1100). Guidance on the circumstances and the methods for excluding licensing actions from the timeliness metrics is available in ADAMS Accession No. ML19275F040. See ADAMS Accession No. ML15334A189 for an exclusion memorandum template.

For operating reactors, plants transitioning to decommissioning, non-power production and utilization facilities licensing actions that results in a safety evaluation (e.g., relief requests, proposed alternatives, and requests to use later code editions and addenda), an additional goal is for all actions to be completed within 2 years. For code reliefs performed under Part 52 at a site under construction, the relief request should be completed within 9 months. This metric is referred to as the NEIMA metric. Because it is required by legislation, there are no exclusions for the NEIMA metric.

Additionally, for operating reactors and plants transitioning to decommissioning, the level of effort and schedule communicated to licensee are monitored for accuracy. The following performance measure goals, which are QPR metrics, will be reported quarterly to Office of the Executive Director for Operations:

- Percentage of licensing actions completed within forecasted hours, plus 25 percent, shall be greater than or equal to 90 percent.
- Percentage of licensing actions completed within forecasted schedule, plus one month, shall be greater than or equal to 90 percent.

For verbal authorizations, a record of conversation should be documented in ADAMS within 2 days of the authorization. A final SE should be issued within 150 calendar days of authorization.

Acceptance reviews performed for reliefs/proposed alternatives are held to the same performance measures stated in LIC-109.

7. **PRIMARY CONTACTS**

Michael Orenak
301-415-3229
Michael.Orenak@nrc.gov

Seung Min
301-415-2045
Seung.Min@nrc.gov

8. **RESPONSIBLE ORGANIZATION**

DORL

9. **EFFECTIVE DATE**

April 10, 2020

10. **CERTIFICATION DATE**

April 10, 2025

11. **REFERENCES**

Title 10 of the *Code of Federal Regulations* 50.55a, "Codes and Standards."

Enclosures:

1. SE Content Tables
2. Cover Letter and SE Template
3. Flowchart for Typical Review of Relief Requests, Proposed Alternatives, and Requests to Use Later Code Editions and Addenda
4. Change History

Safety Evaluation Content Tables

Table 1 – Authorizing a Proposed Alternative in Accordance With 10 CFR 50.55a(z)(1)

Purpose	Authorize a licensee’s proposed alternative in accordance with 10 CFR 50.55a(z)(1).
NRC Determination	Determine if the licensee’s proposed alternative provides an acceptable level of quality and safety.
Guidance	State the applicable ASME Code edition and addenda and describe the ASME Code requirement, or state the applicable IEEE Standard and addenda and describe the IEEE requirement, in the SE.
	Describe the licensee’s proposed alternative in the SE.
	Give the basis for concluding that the licensee’s proposed alternative provides an acceptable level of quality and safety in the SE.
	For IST items: Conclude in the SE that the proposed alternative provides an acceptable level of quality and safety. All other ASME OM Code requirements for which an alternative was not specifically requested and approved remain applicable.
	For ISI items: Conclude in the SE that the proposed alternative provides an acceptable level of quality and safety. All other ASME Code, Section XI requirements for which an alternative was not specifically requested and approved remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.
	For IEEE Items: Conclude in the SE that the proposed alternative to the requirement provides an acceptable level of quality and safety. All other IEEE requirements for which an alternative was not specifically requested and approved remain applicable.
	Specify the duration of the authorized alternative in the SE conclusion. ¹
	Do not mention impracticality, burden, hardship, or unusual difficulty in the SE.

¹ The duration for which the staff authorizes alternatives or grant reliefs should be consistent with the regulations and with the duration the licensee requests. Under most circumstances, this duration is limited to one specific 10-year interval.

Table 2 - Authorizing a Proposed Alternative in Accordance With 10 CFR 50.55a(z)(2)

<p>Purpose</p>	<p>Authorize a licensee’s proposed alternative in accordance with 10 CFR 50.55a(z)(2).</p>
<p>NRC Determinations</p>	<p>Determine if complying with the specified requirement would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.</p>
<p>Guidance</p>	<p>State the applicable ASME Code edition and addenda and describe the ASME code requirement, or state the applicable IEEE Standard and addenda and describe the IEEE requirement, in the SE.</p> <p>Describe the hardship or unusual difficulty in the SE.</p> <p>Describe the licensee’s proposed alternative in the SE.</p> <p>Give the basis for concluding that complying with the specified requirement would result in hardship or unusual difficulty without increase in the level of quality and safety in the SE.</p> <p>Specify the duration of the authorized alternative in the SE conclusion (see Table 1, footnote 1).</p> <p>Do not mention impracticality in the SE.</p> <p>For IST items: Discuss in the SE why the proposed alternative provides reasonable assurance that the component or system is operationally ready.</p> <p>Conclude in the SE that the proposed alternative provides reasonable assurance that the component or system is operationally ready. All other ASME OM Code requirements for which an alternative was not specifically requested and approved remain applicable.</p> <p>For ISI items: Discuss in the SE why the proposed alternative provides reasonable assurance of structural integrity or leak tightness of the subject component(s).</p> <p>Conclude in the SE that the proposed alternative provides reasonable assurance of structural integrity or leak tightness of the subject component(s).</p> <p>Conclude in the SE that complying with the specified requirement would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. All other ASME Code, Section XI requirements for which an alternative was not specifically requested and approved remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.</p> <p>For IEEE Items: Discuss in the SE why the proposed alternative to the requirement provides reasonable assurance that the component or system will perform its intended protection or safety function.</p> <p>Conclude in the SE that complying with the specified requirement would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. All other IEEE requirements for which an alternative was not specifically requested and approved remain applicable.</p>

Table 3 – Approving Use of Later Code Editions and Addenda in Accordance With 10 CFR 50.55a(f)(4)(iv) or 10 CFR 50.55a(g)(4)(iv)

<p>Purpose</p>	<p>Approve the use of later ASME OM Code editions and addenda incorporated by reference in 10 CFR 50.55a in accordance with 10 CFR 50.55a(f)(4)(iv) for IST items or approve the use of later ASME BPV Code editions and addenda incorporated by reference in 10 CFR 50.55a in accordance with 10 CFR 50.55a(g)(4)(iv) for ISI items.</p>
<p>NRC Determination</p>	<p>Determine if the request to use later ASME Code editions and addenda addresses all related ASME Code requirements or if the request uses only portions of the later ASME Code editions and addenda.²</p>
<p>Guidance</p>	<p>State the applicable ASME Code edition and addenda and describe the ASME Code requirement in the SE.</p>
	<p>Identify the requested later ASME Code editions and addenda and whether only portions of editions or addenda are to be used in the SE.</p>
	<p>Verify that the proposed editions/addenda of the ASME Code is incorporated by reference in 10 CFR 50.55a(a).</p>
	<p>Discuss adopting any conditions addressed in 10 CFR 50.55a(b) in the SE.</p>
	<p>If only portions of an edition or addenda are to be used, verify that all related requirements of the respective edition or addenda are identified.</p>
	<p>Specify the interval the later editions or addenda is approved for in the conclusion (see Table 1, footnote 1) in the SE.</p>
	<p>Do not mention impracticality, burden, hardship or unusual difficulty in the SE.</p>

² Later code editions and addenda might relax one area and strengthen a related area. The licensee should identify all related requirements and address both areas in its submittal.

Table 4 – Inservice Testing – Granting Relief in Accordance With 10 CFR 50.55a(f)(6)(i)

Purpose	<p>Grant relief and impose alternative requirements (if necessary) in accordance with 10 CFR 50.55a(f)(6)(i) for IST items.</p> <p>Note: 10 CFR 50.55a(f)(6)(i) allows the imposition of additional requirements (if necessary) without having the licensee first commit to them.</p>
NRC Determinations	<p>Determine if the ASME Code requirement is impractical.</p> <p>Use the guidance below to determine if granting relief is authorized by law and will not endanger life or property or the common defense and security, and is otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.</p>
Guidance	<p>State the applicable ASME Code edition and addenda and describe the ASME Code requirement in the SE.</p> <p>Describe the licensee’s proposed testing (if any) in the SE.</p> <p>Describe in the SE why it is impractical for the licensee to comply with the requirement.</p> <p>Describe in the SE how imposing the requirement (e.g., making the licensee replace a component, redesign the system, or shut down the plant) would be a burden on the licensee.</p> <p>Discuss in the SE why the proposed testing provides reasonable assurance that the component is operationally ready.</p> <p>Discuss any additional requirements the staff will impose in the SE.</p> <p>Conclude in the SE that it is impractical for the licensee to comply with the specified requirement.</p> <p>Conclude in the SE that the proposed testing provides reasonable assurance that the component is operationally ready.</p> <p>Conclude in the SE that “granting relief pursuant to 10 CFR 50.55a(f)(6)(i) is authorized by law and will not endanger life or property or the common defense and security, and is otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.” All other ASME OM Code requirements for which relief was not specifically requested and approved in the subject requests for relief remain applicable.</p> <p>Specify the interval the relief is granted for in the SE conclusion (see Table 1, footnote 1).</p> <p>Do not mention hardship or unusual difficulty in the SE.</p>

Table 5 – Inservice Inspection – Granting Relief in Accordance With 10 CFR 50.55a(g)(6)(i)

<p>Purpose</p>	<p>Grant relief and impose alternative requirements (if necessary) in accordance with 10 CFR 50.55a(g)(6)(i) for ISI items.</p> <p>Note: 10 CFR 50.55a(g)(6)(i) allows the imposition of additional requirements (if necessary) without having the licensee first commit to them.</p> <p>Note: Granting of relief in accordance with 10 CFR 50.55a(g)(6)(i) cannot be applied to the requirements of 10 CFR 50.55a(g)(6)(ii). Deviations to 10 CFR 50.55a(g)(6)(ii) are evaluated pursuant to 10 CFR 50.55a(z).</p>
<p>NRC Determinations</p>	<p>Determine if the ASME Code requirement is impractical.</p> <p>Use the guidance below to determine if granting relief is authorized by law and will not endanger life or property or the common defense and security, and is otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.</p>
<p>Guidance</p>	<p>Refer to ASME Code Case N-513 for additional guidance on relief requests of this kind. (ASME Code Case N-513-3 has been accepted for general use by RG 1.147, with conditions.)</p> <p>State the applicable ASME Code edition and addenda and describe the ASME Code requirement in the SE.</p> <p>Describe the licensee’s proposed inspection (if any) in the SE.</p> <p>Describe in the SE why it is impractical for the licensee to comply with the specified requirement.</p> <p>Describe in the SE how imposing the requirement (e.g., making the licensee replace a component, redesign the system, or shut down the plant) would be a burden on the licensee. Do not use the phrase “significant burden.” A reviewer only needs to provide a case that an ASME Code requirement is a burden.</p> <p>Describe in the SE why the proposed inspection provides reasonable assurance of structural integrity or leak tightness of the subject component(s).</p> <p>Discuss any additional requirements that will be imposed in the SE.</p> <p>Conclude in the SE that it is impractical for the licensee to comply with the requirement.</p> <p>Conclude in the SE that the proposed inspection provides reasonable assurance of structural integrity or leak tightness of the subject component(s).</p> <p>Conclude in the SE that “granting relief pursuant to 10 CFR 50.55a(g)(6)(i) is authorized by law and will not endanger life or property or the common defense and security, and is otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.” All other ASME Code, Section XI requirements for which relief was not specifically requested and approved in the subject request for relief remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.</p> <p>Specify the interval the relief is granted for in the SE conclusion (see Table 1, footnote 1).</p> <p>Do not mention hardship or unusual difficulty in the SE.</p>

For up-to-date template language and sample concurrence and distribution, see the NRR/DORL template for a relief request/proposed alternative/use of later code editions and addenda (ADAMS Accession No. [ML120300005](#)).

Template for Cover Letter and Safety Evaluation

[Addressee]

SUBJECT: _____ [PLANT NAME, UNIT NO(S).] – [RELIEF FROM]
[PROPOSED ALTERNATIVE TO] [USE OF LATER CODE EDITIONS AND
ADDENDA TO] THE REQUIREMENTS OF THE ASME CODE
(EPID _____)

Dear _____:

By letter dated _____, as supplemented by letters dated _____, [licensee name] (the licensee) submitted a request to the Nuclear Regulatory Commission (NRC) for [relief from] [the use of an alternative to] [the use of later code editions and addenda to] certain American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (BPV Code), Section XI [or ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code), or the use of an alternative to Institute of Electrical and Electronic Engineers (IEEE) Standard (Std.)] requirements at _____ [Plant Name, Unit No(s)].

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) [Using one of the sample text below, briefly describe what the licensee requested]:

- 50.55a(z)(1), the licensee requested to use the proposed alternative on the basis that the alternative provides an acceptable level of quality and safety.
- 50.55a(z)(2), the licensee requested to use an alternative on the basis that complying with the specified requirement would result in hardship or unusual difficulty [see footnote 3 of LIC-102, Revision 3, for examples]
- 50.55a(f)(5)(iii), the licensee requested relief and to use alternative requirements (if necessary) for inservice testing items on the basis that the code requirement is impractical.
- 50.55a(g)(5)(iii), the licensee requested relief and to use alternative requirements (if necessary) for inservice inspection items on the basis that the code requirement is impractical.
- 50.55a(f)(4)(iv), the licensee requested to use later code editions and addenda for inservice testing items subject to the conditions specified in 10 CFR 50.55a(b).
- 50.55a(g)(4)(iv), the licensee requested to use later code editions and addenda for inservice inspection items subject to the conditions specified in 10 CFR 50.55a(b).

[This paragraph below should be essentially identical to Section 4.0, “Conclusion,” of the SE.] The NRC staff has reviewed the subject request and concludes, as set forth in the

Enclosure

enclosed safety evaluation, that _____ **[licensee name]** has adequately addressed all of the regulatory requirements set forth in _____.

[For Inservice Testing relief requests, add this paragraph.] All other ASME BPV Code or ASME OM Code requirements for which relief was not specifically requested and approved remain applicable.

[For Inservice Inspection relief requests, add this paragraph.] All other ASME BPV Code, Section XI, requirements for which relief was not specifically requested and approved remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

[For IEEE Std. proposed alternatives, add this paragraph.] All other IEEE requirements for which an alternative was not specifically requested and approved remain applicable.

[Note: The paragraph referencing the Authorized Nuclear Inservice Inspector only applies to inservice inspection relief requests, not to inservice testing relief requests.]

If you have any questions, please contact the Project Manager _____.

Sincerely,

_____, Chief
Plant Licensing Branch X-X
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No(s). _____

Enclosure:
Safety Evaluation

cc: ListServ

SUBJECT: _____ **[PLANT NAME, UNIT NO(S).] – [RELIEF FROM]
 [PROPOSED ALTERNATIVE TO] [USE OF LATER CODE EDITIONS AND
 ADDENDA TO] THE REQUIREMENTS OF THE ASME CODE**
 (EPID _____) DATED:

DISTRIBUTION:

- PUBLIC
- PM File Copy
- RidsACRS_MailCTR Resource
- RidsNrrDorlLplx-x Resource
- RidsNrr[TechBranch] Resource
- RidsNrrLA[LAName] Resource
- RidsNrrPM[PlantName] Resource
- RidsRgnXMailCenter Resource
- _____, EDO Rx
- [Reviewer(s)]

ADAMS Accession No. ML

OFFICE	NRR/DORL/LPLx-x/PM	NRR/DORL/LPLx-x/LA	TECH BRANCH/BC	NRR/DORL/LPLx-x/BC
NAME				
DATE				

OFFICIAL RECORD COPY

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION[RELIEF REQUEST] [PROPOSED ALTERNATIVE] [USE OF LATER CODE EDITIONS ANDADDENDA] NO(S). _____ REGARDING_____ [COMPONENTS]_____ [LICENSEE NAME]_____ [PLANT NAME, UNIT NO(S).]_____ [DOCKET NO(S).]1.0 INTRODUCTION

By letter dated _____ (Agencywide Documents Access and Management System (ADAMS) Accession No. _____), as supplemented by letter(s) dated _____ (ADAMS Accession No(s). _____), **[licensee name]** (the licensee) requested **[relief from] [the use of an alternative to] [the use of later code editions and addenda to]** certain requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (BPV Code) **[or ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code, or the use of an alternative to Institute of Electrical and Electronic Engineers (IEEE) Standard (Std.)]** for **[brief description]**.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) **[Briefly describe the relief request/proposed alternative/proposed use of later code editions and addenda. Include appropriate text from below per LIC-102, Revision 3.]**

- 50.55a(z)(1), the licensee requested to use the proposed alternative on the basis that the alternative provides an acceptable level of quality and safety.
- 50.55a(z)(2), the licensee requested to use the proposed alternative on the basis that complying with the specified requirement would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.
- 50.55a(f)(5)(iii), the licensee requested relief and to use alternative requirements (if necessary) for inservice testing items on the basis that the code requirement is impractical.
- 50.55a(g)(5)(iii), the licensee requested relief and to use alternative requirements (if necessary) for inservice testing items on the basis that the code requirement is impractical.
- 50.55a(f)(4)(iv), the licensee requested to use later code editions and addenda for inservice testing items subject to the conditions specified in 10 CFR 50.55a(b).
- 50.55a(g)(4)(iv), the licensee requested to use later code editions and addenda for inservice inspection items subject to the conditions specified in 10 CFR 50.55a(b).

2.0 REGULATORY EVALUATION

[Summarize appropriate portions of regulation, guidance documents, and ASME Code or IEEE Std.]

3.0 TECHNICAL EVALUATION

3.1 The Licensee's Relief Request [or Proposed Alternative][or Proposed Use of Later Code Editions and Addenda]

[Summarize the licensee's proposed relief from/use of an alternative to/use of later code editions and addenda to the ASME Code, or the use of an alternative to IEEE Std. requirement(s), including but not limited to information on plant components involved, ASME Code or IEEE Std. requirement(s) affected, applicable interval for ASME Code related requests, the proposed alternative and basis, precedents, etc. Typically, this section is several sentences to several paragraphs long. Aim for clarity and readability. Avoid producing lengthy portions of the licensee's application. If text is cited verbatim from the licensee's application, say so.]

3.2 NRC Staff Evaluation

[One of Tables 1, 2, 3, 4, or 5 of LIC-102, Revision 3, must match the proposed relief/alternative/use of later code editions and addenda; the review branch must address each issue in the appropriate table.]

[Provide only the NRC staff's evaluation in this section. Do not reproduce verbatim lengthy portions of the licensee's application. Do not repeat what is already said in Section 3.1 above. Do not say the same thing more than one time. If applicable, include discussion on risk information considered.]

4.0 CONCLUSION

As set forth above, the NRC staff determines that **[use the wording for conclusion in LIC-102, Revision 3, Tables 1, 2, 3, 4, or 5]** _____. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a _____. Therefore, the NRC staff **[grants/authorizes/approves]** ____ at _____ **[plant name]** until _____ **[duration of relief/alternative, must be the same as that requested by the licensee]**.

[For Inservice Testing relief requests and proposed alternatives, add this paragraph.] All other ASME BPV Code or ASME OM Code requirements for which relief **[or an alternative]** was not specifically requested and approved remain applicable.

[For Inservice Inspection relief requests and proposed alternatives, add this paragraph.] All other ASME BPV Code, Section XI, requirements for which relief **[or an alternative]** was not specifically requested and approved remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

[For IEEE Std. proposed alternatives, add this paragraph.] All other IEEE requirements for which an alternative was not specifically requested and approved remain applicable.

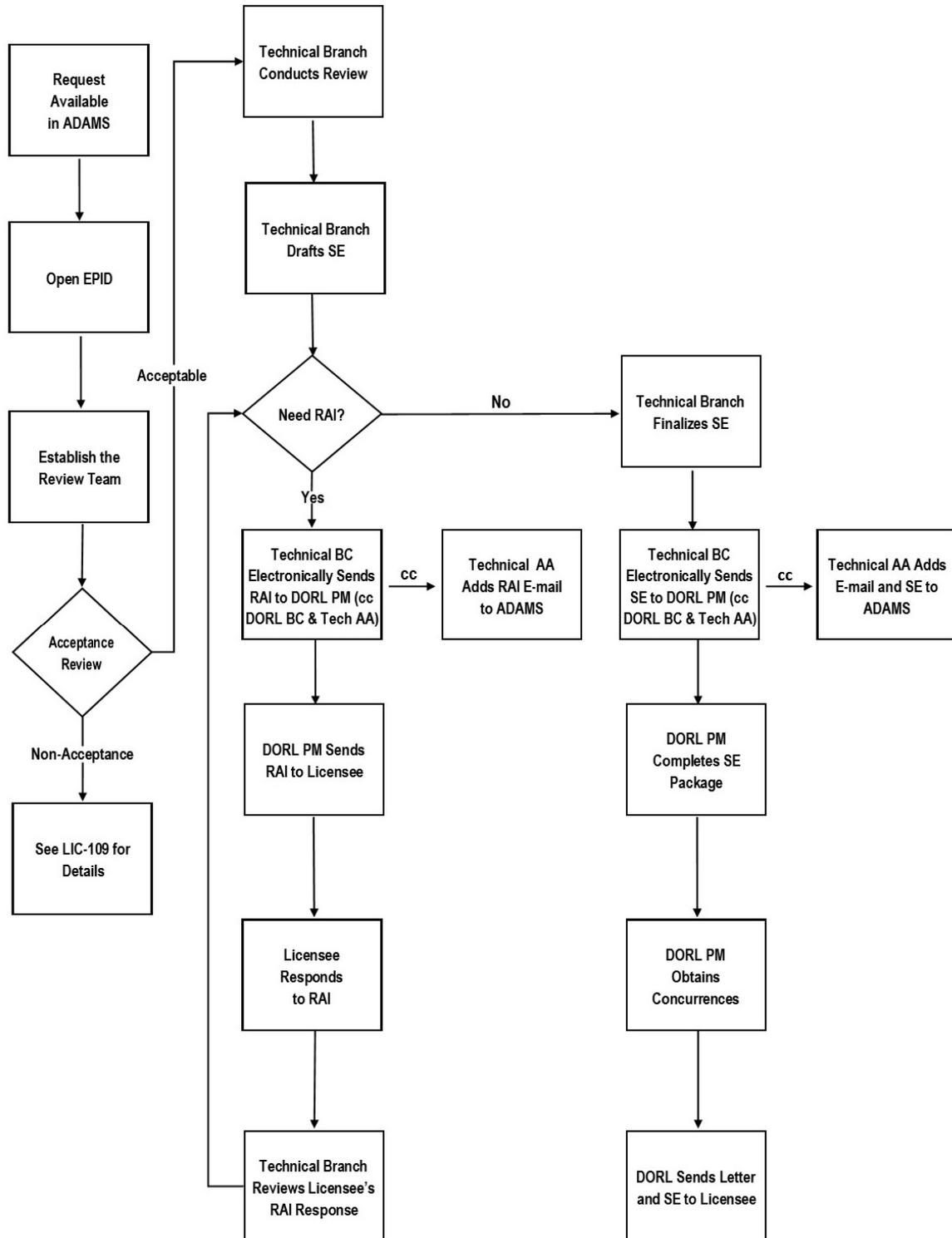
[Note: The reference to an Authorized Nuclear Inservice Inspector only applies to inservice inspection relief requests and proposed alternatives, not to inservice testing relief requests and proposed alternatives or IEEE Std. proposed alternatives.]

5.0 REFERENCES [if appropriate]

Principal Contributor(s):

Date:

Flowchart for Typical Review of Relief Requests, Proposed Alternatives, and Requests to Use Later Code Editions and Addenda (ADAMS Accession No. [ML17333A030](#))



Change History

Office Instruction LIC-102 Review of Relief Requests, Proposed Alternatives, and Requests to Use Later Code Editions and Addenda

LIC-102 Change History			
Revision Date	Description of Changes	Method Used to Announce & Distribute	Training
07/18/2002	Original Version converting OL 808 to Office Instruction LIC-102. This version includes new guidance on giving verbal relief, and gives examples of (1) impractical and (2) hardship or unusual difficulty.	E-mail to NRR staff	DLPM training on OL 808 completed FY 2000.
01/26/2005	This version includes changes to reflect an amendment to 10 CFR 50.55a(b) which incorporated by reference NRC Regulatory Guide (RGs) listing NRC approved ASME Code cases. Additionally, it provides guidance consistent with the staff's position and the industry white paper regarding use of alternatives for processing of relief requests related to reactor vessel shell welds. These changes are illustrated in redline/strikeout of this office instruction.	E-mail to NRR staff	None.
08/24/2009	This version includes changes resulting from the Lean Six Sigma Project. The three main changes are: (1) review for "no legal objection" by the Office of the General Counsel is not required except for unique circumstances; (2) a streamlined template for both the relief transmittal letter and safety evaluation; and (3) transmission of requests for additional information and safety evaluations are done solely by electronic means. Details of the Lean Six Sigma Project are provided in the Project Close Out form in ADAMS ML091040782.	E-mail to NRR staff	None
04/06/2020	This version (1) changes the references to applicable 10 CFR 50.55a paragraphs consistent with the reorganization of 10 CFR 50.55a in the November 5, 2014, rulemaking (79 FR 65776); (2) adds language applicable to IEEE Standards; (3) adds standard language on risk-informed decision-making; (4) removes obsolete information from Revision 2; (5) replaces the phrase "relief requests" with "relief requests and proposed alternatives" as applicable; (6) clarifies the response to relief request and proposed alternative submittal timeliness issues, and (7) revises the title to reflect the scope of reviews.	E-mail to NRR staff	None. NRR staff will review procedure at the time of use.