

**NEI 06-02 [REV 1]**

**LICENSE AMENDMENT  
REQUEST (LAR)  
GUIDELINES**

**July 2010**



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**Nuclear Energy Institute**

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## **ACKNOWLEDGEMENTS**

The NEI LAR Team acknowledges the comments and insights provided by industry reviewers and the Licensing Action Task Force (LATF) during preparation of this Guideline and the comments and suggestions provided by the staff of the Nuclear Regulatory Commission.

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## **ABSTRACT**

NEI 06-02, Revision 1, describes a standardized approach to the license amendment process used by commercial nuclear power plant licensees.<sup>1</sup>

This document describes:

1. Initiating the License Amendment Process  
There are a number of licensee activities that could necessitate the submittal of a License Amendment Request (LAR). The most common initiator is a desired change to the plant's Technical Specifications. There are also other industry-described and Nuclear Regulatory Commission (NRC) endorsed change mechanisms that may require an LAR.
2. The Use of Precedent in an LAR  
An application for amendment of the Operating License may include a discussion of relevant precedent-setting licensing actions to support NRC Staff review. A licensee's presentation of precedent must clearly indicate the relevance and applicability of prior regulatory decisions to the requested licensing action. In and of itself, the existence of applicable precedent does not provide justification for approval of a proposed licensing action.
3. A Standard Format for an LAR  
NEI 06-02, Revision 1, provides a standardized template for the format and content of an LAR.
4. LAR Submittal and Review  
For each LAR, a licensee communicates with the NRC Staff to facilitate its approval. This communication can be before the submittal in a pre-submittal meeting, the formal submittal of the LAR itself (either on paper or electronically), during the NRC's acceptance review process, and in response to Requests for Additional Information.
5. NRC Approval of the LAR and Licensee Implementation  
A license amendment may be approved or rejected by the NRC, or withdrawn by the licensee. Approved amendments are implemented within the allotted timeframe. Implementation may include licensee approval of corresponding changes to the Technical Specifications Bases.

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<sup>1</sup>*Disclaimer – Discussions of NRC activities in this document are based on industry understanding of NRC activities. The NRC Staff follows their internal guidance documents.*

The Appendices provide detailed information on specific subjects. They are:

- The Standard Format for License Amendment Requests from Operating Reactor Licensees
- LAR Example
- Exigent/Emergency LARs
- Plant-specific Adoption of TSTF Travelers
- License Amendment Requests with Risk-Informed Justification
- Glossary
- Acronyms
- References

The license amendment process may change as the NRC and the industry strive to improve safety, effectiveness, and efficiency. Users of this document are cautioned to confirm information against current sources in issues related to plant safety and legal requirements.



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## **LICENSE AMENDMENT REQUEST** **(LAR) GUIDELINES**

### **1 INITIATING THE LICENSE AMENDMENT PROCESS**

Commercial nuclear power plant licensees coordinate and manage daily activities by means of administrative procedures and programs. Activities that involve certain types of changes, such as a change to the Technical Specifications (TS), system modifications, or changes to operating procedures, may require Nuclear Regulatory Commission (NRC) approval. The following change management regulations contain criteria for determining when prior NRC review and approval is necessary:

- 10 CFR 50.90 specifies the change process for the Operating License (OL) and TS.
- 10 CFR 50.54(a) specifies the change process for the Quality Assurance Program.
- 10 CFR 50.54(p) specifies the change process for the Safeguards Contingency Plan, Security Plan, and the guard training and qualification plan.
- 10 CFR 50.54(q) specifies the change process for Emergency Plan.
- 10 CFR 50.55a specifies the processes for requesting alternatives to, or relief from, the in-service inspection and testing requirements of the American Society of Mechanical Engineers (ASME) Code.
- 10 CFR 50.59 specifies the change process for changes, tests, and experiments.

Licensees should be mindful of submitting sensitive unclassified security information (SUNSI) in a LAR, such as plant layout drawings. If such information is needed to support a LAR, it should be requested to be withheld from the public as described in SECY 04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors From Public Disclosure," under 10 CFR 2.390, "Public inspections, exemptions, requests for withholding." Sensitive information can be included in an enclosure to the LAR that is withheld from the public. The LAR should state that appropriate representatives of the state or other government bodies may have access to the information at the plant site, or through an arrangement with the licensee whereby the information is kept confidential.

When developing complex submittals, licensees should carefully consider whether it would be more beneficial to provide a single application that includes several linked review items or to submit separate submittals for each item. The considerations include the time for the NRC review, potential delay of the NRC approval of all the requested changes, and avoiding RAIs. Discussion on the most appropriate approach with the NRC PM is recommended.

In some circumstances, a license amendment request (LAR) may be needed for changes to the Emergency Plan or the Security Plan. The format and content for such license amendment requests should be structured to address the specific requirements in the relevant regulations (10 CFR 50.54(p) and (q)).

Change control processes are discussed in a number of licensee programs, industry guidelines, and NRR Office Instructions, such as:

- Technical Specification Bases Control Program – A licensee-controlled program for managing the content of the Bases section of the plant-specific TS. The Bases section gives the purpose of each specification.
- NEI 96-07, Revision 1, Guidelines for 10 CFR 50.59 Implementation. (Ref.<sup>1</sup>). Endorsed by NRC in Regulatory Guide 1.187 (Ref.<sup>2</sup>).
- NEI 97-04, Revision 1, Design Bases Program Guidelines (Ref.<sup>3</sup>). Endorsed by NRC in Regulatory Guide 1.186 (Ref.<sup>4</sup>).
- NEI 98-03, Revision 1, Guidelines for Updating Final Safety Analysis Reports (Ref.<sup>5</sup>). Endorsed by NRC in Regulatory Guide 1.181 (Ref.<sup>6</sup>).
- NEI 99-04, Guidelines for Managing NRC Commitment Changes (Ref.<sup>7</sup>). Endorsed by NRC in Regulatory Issue Summary (RIS) 2000-17 (Ref.<sup>8</sup>).
- NEI 01-01, Revision 1, Guideline on Licensing Digital Upgrades (EPRI TR-102348. (Ref.<sup>9</sup>). Endorsed by NRC in RIS 2002-22 (Ref.<sup>10</sup>).
- NRR Office Instruction LIC-100 (Ref.<sup>11</sup>) (NRC internal guidance on the terminology and documents associated with the licensing bases for an operating nuclear power plant)
- NRR Office Instruction LIC-101 (Ref.<sup>12</sup>) (NRC internal guidance on the license amendment review process)
- NRR Office Instruction LIC-109 (Ref.<sup>13</sup>). (NRC internal guidance on the initial acceptance review process for LARs)

If a proposed activity requires prior NRC approval of a change to the OL, the licensee must submit a LAR to the NRC in accordance with 10 CFR 50.90. Additional requirements pertaining to LARs are contained in 10 CFR 50.91 and 10 CFR 50.92.

Licensees should use caution when considering submittal of a license amendment affected by a generic issue of contention between the NRC and the industry. Early communication with the NRC PM is recommended, as well as discussion with the industry group involved in the issue such as the NEI LATF, the Owners Group TSTF, or the Owners Group licensing committee.

## **2 USE OF PRECEDENT**

By definition, a precedent is an act, decision, or case that serves as a guide or justification for subsequent actions. Effective evaluation and presentation of precedent-setting licensing actions can reduce LAR preparation efforts and improve the overall quality of the application, minimize NRC requests for additional information (RAIs), and improve the efficiency of the regulatory review process. Conversely, improper analysis of prior licensing actions or poor presentation of precedent in a LAR can result in additional NRC Staff review, RAIs and licensee costs.

An application for a licensing action must include a full analysis of the change, including a description of the proposed change, a determination of no significant hazards consideration, and a safety analysis/justification for proposed change. Because these elements must be provided "in sufficient detail to enable the NRC Staff to make an independent assessment regarding the acceptability of the proposal," precedent, by itself, does not demonstrate the acceptability of a proposed amendment. It provides licensee and NRC Staff with information about how the agency has treated similar changes in the past. The citation of precedent by a licensee in a LAR is voluntary, and it should be used only to the extent that it supports the review.

It is important to distinguish licensing precedent from other regulatory or technical considerations relevant to the requested licensing action. For example, a vendor topical report may constitute a significant portion of the technical justification for the licensee's request. Such a document, even when evaluated and approved by the NRC Staff by Safety Evaluation (SE), is technically not a licensing action, and should not be identified as precedent. Similarly, Technical Specification Task Force (TSTF) Travelers and model Safety Evaluations published in the Federal Register under the Consolidated Line Item Improvement Program (CLIIP) do not constitute licensing precedent. Treatment of these items as part of the technical justification and safety evaluation for a proposed licensing action is addressed elsewhere in this document.

For licensees, the effective application of precedent to requests for licensing actions can be broken down into three distinct phases:

1. Identification of applicable precedent licensing actions
2. Licensee evaluation of the plant-specific applicability of proposed precedents
3. Presentation of relevant precedent in licensee communications with NRC Staff

NRC Staff requirements for the consideration and use of precedent in LAR evaluation are addressed in NRR Office Instruction LIC-101, License Amendment Review Procedures.

## **2.1 IDENTIFICATION OF PRECEDENT**

Precedent, in order to be considered in the development of LARs, must involve a conscious licensing decision or action by the NRC in the evaluation of a prior similar or related licensing action. Formal licensing precedent includes:

- Prior applicant experience with similar amendments or licensing actions.
- Experience with similar licensing actions at plants with a similar design and licensing basis.

Appropriate sources of information on these actions include the Agencywide Documents Access and Management System (ADAMS), the NRC Public Document Room, and the Federal Register.

Additional licensee experience with licensing actions, however, may not be formally documented. NRC Staff considerations communicated to licensees through less formal processes (e.g. teleconferences, e-mails, meetings) can strongly influence licensee decisions on potential licensing actions. Such experience, although not appropriate as docketed regulatory precedent, is extremely helpful in decisions and strategy for potential LARs. Reliable, accessible sources of such industry experience include the following:

- Ad hoc communication among licensees
- Pre-submittal discussions with NRC
- BWR and PWR Owners Groups
- Regional utility groups
- NEI, INPO, and EPRI
- NSSS Vendors
- Commercial information sources and professional services

## **2.2 LICENSEE EVALUATION OF PRECEDENT**

There are several considerations in evaluating the use of precedent in LARs. The licensee must determine the extent to which potential precedent is relevant to the proposed action. Any difference between the precedent and proposed actions must be evaluated to determine the effect on the applicability of the precedent to the proposed change. The NRC staff uses precedent to make reviews more efficient but is not controlled by precedent when reviewing a LAR. For example, a change may require greater justification than a precedent action if the regulatory or design margins are smaller or the uncertainties are larger than the precedent action, or if the NRC staff has questions on the use of engineering judgment.

The determination of relevance to the proposed action includes a comparison of the actual content of the proposal and precedent with respect to the OL and additional design or licensing basis documents. In other words, differences in wording, grammar, punctuation and structure, especially when changes to TS are involved, should be eliminated or closely evaluated to ensure that any editorial differences do not also result in technical differences.

In evaluating the relevance of potential precedent to the proposed action, the preparer should also determine and understand similarities and differences in the design and operation of systems, structures, and components (SSCs). Design basis, licensing basis, and risk information should also be considered. If necessary, the licensee for the precedent plant can be contacted to assist in this verification.

Precedent documents should be evaluated to ensure that scope and depth of technical justification, safety analysis, regulatory analysis and determination of no significant hazards consideration support the proposed licensing action. Such documents include the original LAR, any supplements, RAIs and responses thereto, and the NRC SE. To the extent that considerations documented in the evaluation of precedent action are applicable to the proposed action, the citation of the precedent will support evaluation of the new proposal.

If differences are extensive, the citation of precedent in the application should be reconsidered. Citing a precedent that requires extensive justification of the differences will likely hinder the review.

The consideration of precedent industry experience to this point in the process should have already contributed to the development of a quality LAR submittal, in that understanding the applicant's and the NRC's considerations in previous licensing actions should help ensure that all necessary analysis is provided in sufficient scope and detail without the need for staff review of the precedent.

While all precedent considered may be useful in establishing the technical justification and regulatory analysis for the change, precedent actually cited in the LAR should be limited to that which clearly enhances the ability of the NRC Staff to evaluate the request and develop an SE. In determining whether to provide an actual citation of precedent in the application, the benefits and costs of citing specific precedent should be considered. Effective citation of precedent will:

- Improve the quality of the LAR.
- Be an aid, not a burden, to the regulatory review.
- Provide useful input to the NRC SE.
- Reduce the potential for RAIs.
- Improve consistency among similar licensing actions.

Additionally, although multiple precedent licensing actions may be cited; it should be recognized that all information provided in the application will be subject to NRC Staff review, may be cause for additional RAIs, and will contribute to the length and cost of the review.

Although not all precedent information will ultimately be directly cited in the LAR, opportunities exist for continued discussion of similar licensing experience with the NRC Staff either on or off the docket. If NRC Staff is considering precedent not cited in the application, the licensee will likely be contacted informally, through teleconference or e-mail. If the justification and analysis provided in the application adequately supports an SE, additional docketed discussion of precedent will likely not be necessary.

### **2.3 PRESENTATION OF PRECEDENT IN LICENSEE COMMUNICATIONS WITH NRC**

Citation of precedent licensing action, by itself, does not demonstrate the acceptability of a proposed amendment, but it does give the NRC Staff specific references to information about how similar changes have been treated in the past. When evaluated and presented effectively, it may simplify the NRC Staff's review.

Discussion of precedent is presented in the REGULATORY EVALUATION section of the Evaluation of the Proposed Change (see Appendices A and B). The precedent citation should identify the affected licensee, power plant and amendment number.

A brief discussion of how previous NRC considerations and decisions constitute precedent for the proposed licensing action should be included. Differences between the precedent licensing action and the proposed amendment should be identified. Additionally, relevant plant-specific differences, including those in plant design and licensing basis, should be described. The effect of any differences on the acceptability of the proposed amendment should be discussed both to describe the differences between the precedent and the proposed actions, and to point out any limitations on the relevance of the precedent action. References to related documents and ADAMS Accession Numbers., (e.g. LARs, LAR supplements, RAIs and responses), should be provided as necessary to support the above discussion.

### **2.4 NRC STAFF CONSIDERATION OF PRECEDENT**

NRC guidance on the review of LARs is contained in NRR Office Instruction LIC-101, which, in part, is intended to “enhance NRR’s efficiency in responding to the needs of both the licensees and the public.” Effective consideration of licensing precedent supports the following specific objectives of LIC-101:

- Promote consistency in processing of license amendments
- Increase technical consistency similar licensing actions

The NRC Staff reviews proposed precedent for applicability, accuracy, and completeness when compared with the incoming LAR and its associated plant-specific design details. The Staff verifies that the precedent is appropriate for use with the LAR and that it meets current NRC expectations with respect to format, content, guidance, and conclusions.

### **3 LAR STANDARD FORMAT**

Appendix A is a standardized format that operating plant licensees may use to prepare plant-specific LARs.

An exception to the use of this format is a plant-specific LAR to adopt a TSTF Traveler made available through a Federal Register Notice of Availability. In that case, the licensee should follow the format of the model application published in the Federal Register Notice.

The elements of the standard format are:

- Cover letter (required).
- Evaluation of the proposed change (required).
- List of regulatory commitments. (if needed)
- TS and/or OL page markups (required).
- Bases page markups. (optional; see discussion in Appendix A)
- Retyped TS and/or OL pages. (optional, see discussion in Appendix A)

Appendix A contains an explanation of the elements of an LAR.

Appendix B is an example LAR based on the standard format in Appendix A.

Appendix C contains guidance for modifying the standard format to accommodate exigent or emergency circumstances.

Appendix D contains guidance on LARs based on TSTF Travelers.

Appendix E contains guidance on LARs with risk-informed justification.

## **4 LAR SUBMITTAL AND NRC REVIEW**

The LAR process involves pre-submittal and post-submittal communications between the licensee's staff and the NRC Staff. Licensees are advised to document the results of all communications.

The NRC review process begins when the licensee formally docket the LAR (i.e., submits it to the NRC Document Control Desk). Licensees are advised to send a copy of each docketed LAR to the cognizant NRC Project Manager (PM) for information. At a minimum, the licensee should contact the NRC PM by telephone or e-mail to verify NRC receipt and docketing.

After docketing, the two main phases of the regulatory review of an LAR are the NRC acceptance review process and the NRC RAI process. Licensees or the NRC Staff may request post-submittal meetings at any point in the regulatory review to discuss progress or NRC Staff questions.

Power reactor licensees may communicate their experience with the LAR process to the NEI Licensing Action Task Force (LATF). The LATF Steering Group monitors the accumulated experience to identify potential process improvements.

### **4.1 PRE-SUBMITTAL MEETINGS**

Licensees may request a pre-submittal meeting or conference call to give the NRC Staff advance notification of plans to prepare and submit an LAR. These meetings should facilitate the submittal of an LAR acceptable for NRC review. Pre-submittal meetings are typically requested by the licensee to ensure agreement with the NRC Staff on applicable regulatory requirements, technical content, necessary level of detail, use of precedent, and schedule. Such meetings can be especially helpful in "first of a kind" (FOAK) LARs.

Licensees should be clear in their goals and expectations from the meeting. Although pre-submittal meetings are useful for determining reasonable and acceptable approaches to a planned license amendment request, licensees should take care to not ask questions that seek a determination from the NRC on an appropriate course of action. Clearly state the expectation for the meeting, such as guidance on level of detail, justification required for use of a new method, applicability of a precedent, feasibility of a desired schedule, etc.

The licensee should work with the NRC PM to ensure that all necessary Staff attends. The licensee should advise the NRC PM on what groups should be represented. The licensee should consider requesting the Branch Chief of the lead NRC technical organization(s) for the submittal to ensure continuity if there is a subsequent change in reviewer.

The licensee should work with the NRC PM to determine the timing for submission of materials to the NRC to be used at the pre-submittal meeting in order to allow for the information to be placed in the NRC's Agency wide Document Access and Management System (ADAMS). This allows the NRC staff and members of the public participating by teleconference to view the

materials. Ideally, handout materials should be provided prior to the preparation of the meeting announcement so that the NRC PM and technical staff have adequate time to prepare for a productive meeting.

In pre-submittal meetings, it's important to ask questions of the NRC Staff and to not assume that no questions mean NRC Staff agreement. In all cases, NRC Staff statements in a pre-submittal meeting should not be taken as Staff endorsement of an LAR. Generally, no regulatory decisions are made at pre-submittal meetings.

The NRC has indicated that it is helpful to identify the plant-specific licensing basis requirements related to the submittal and what finding must be made.

At the end of the meeting, have a thorough closing in which all parties concur with the results of the meeting. Clearly document the results of the meeting, including any outstanding issues. Work with the PM to issue a meeting summary. In the subsequent submittal, refer to the pre-submittal meeting and any documented meeting summary.

#### **4.2 ELECTRONIC SUBMITTAL OF LICENSE AMENDMENT REQUESTS**

The NRC allows the electronic submittal of many documents, including most LARs. Electronic submission normally allows the submittal to be available in ADAMS much more quickly than a normal submission through the regular mail. There are limitations on submittal content, file format, and file size but these are not typically limiting for an LAR. Use of electronic submittal over the Internet requires software and electronic keys on the submitter's computer which can be obtained at no charge from the NRC. Documents can also be submitted on Compact Disk (CD), but file format restrictions apply. For more information, see the NRC document, "Guidance for Electronic Submissions to the NRC" and the "Electronic Submittals" section of the NRC's website (<http://www.nrc.gov/site-help/e-submittals.html>).

#### **4.3 ACCEPTANCE REVIEW PROCESS**

The NRC Staff conducts an "acceptance review" of incoming LARs in accordance with NRR Office Instruction LIC-109. The acceptance review process is not limited to LARs, but applies to licensing action requests in general.

The main steps in the acceptance review process are:

1. The NRC receives the LAR (the receipt date is the date the LAR becomes publically available in ADAMS).
2. NRC establishes an internal acceptance review schedule and assigns Staff resources.
3. NRC reviews the LAR for administrative and technical sufficiency.
4. The NRC documents the results of the acceptance review in a letter or e-mail to the licensee.

The NRR PM determines whether an LAR contains the scope and depth of regulatory information described in LIC-101. To facilitate the PM review, licensees are advised to observe the following:

1. Base the LAR on NRC-approved guidance. For example, do not base it on a topical report that has not been reviewed and approved by the NRC Staff.
2. Do not make submittals that depend on prior or parallel approval of other submittals that are under concurrent NRC Staff review (for example, an exemption request tied to a LAR). These are called "linked submittals."
3. Include all information relevant to the technical review process. Generally, NRC does not accept LARs for review based on commitments to provide information by a future date.
4. If the LAR is submitted pursuant to the CLIP, do not make any substantial deviations that are not technically justified and appropriately substantiated from the model SE. Formatting deviations are acceptable, but should be minimized.

The relevant NRR technical branches determine whether the LAR contains technical information of sufficient scope and depth. To facilitate the technical branch review, follow these guidelines:

1. Provide summaries of all calculations, analyses, and evaluations necessary to allow an independent assessment of the LAR's impact on the plant-specific licensing basis.
2. Identify and discuss conformance with applicable regulatory criteria. Describe and provide a technical basis for any alternatives, deviations, or compensatory measures.
3. Identify applicable codes, standards, and topical reports, and verify their use in accordance with any regulatory conditions and limitations.
4. Ensure that applicable precedent is identified, justified, and used appropriately.

If not all information is available when the LAR is submitted, LIC-109 states - "Promised Information: Determine whether the RLA commits to submit required information at a later date. Not all information associated with the RLA, such as calculations performed, needs to be submitted for complete review. However, if the licensee or applicant identifies a calculation or other information that is needed, but has yet to be performed or completed, the RLA is unlikely to be acceptable for review."

An acceptance review has three possible results:

- Acceptable for Review – In this case, the NRC PM notifies the contact identified in the submittal letter and initiates the technical review.
- Unacceptable with Opportunity to Supplement – In this case, the NRC PM contacts the applicant to arrange a telephone call to discuss shortcomings in the submittal. During the call, the participants discuss an appropriate course of action for supplementing the initial submittal. The information must be submitted within the agreed-upon time frame, or the NRC may issue a letter of non-acceptance.

- Unacceptable with No Opportunity to Supplement – In this case, the NRC Staff and management conclude the deficiencies are too significant to complete the acceptance review and decline to accept the submittal for review (Ref.<sup>14</sup>). The licensee may revise and resubmit the LAR.

#### **4.4 REQUEST FOR ADDITIONAL INFORMATION (RAI) PROCESS**

##### **4.4.1 Overview of RAI Process**

A quality LAR should contain sufficient information for the NRC to complete its review without requesting additional information. However, if the NRC determines that additional information is needed to support the review, it prepares an RAI for transmittal to the licensee.

The NRC uses the RAI process when information it believes is necessary to conduct an adequate review of the action requested in the LAR is not included in the initial submittal, is not contained in any other docketed correspondence, or cannot reasonably be inferred from other sources of information readily accessible by the NRC Staff. Frequent and early communication between the PM, technical staff, and the licensee can minimize the need for RAIs.

RAIs can be sent to licensees formally or informally:

- Transmitting an RAI informally (e.g., teleconferences or e-mail) is used to ensure that the RAI is clear to the licensee. In some cases, licensees volunteer to respond to an informally transmitted RAI. The licensee has the option to ask the NRC to send an RAI formally.
- RAIs are typically transmitted formally as the response will form part of the basis for the reviewer's conclusion in the SE. The information is exchanged through formal correspondence and incorporated into the licensee's docket file at the NRC Public Document Room and electronically in ADAMS.

The NRC may also initiate informal communication to allow the technical staff to discuss background information and clarify understanding. This information does not form part of the basis for approval, but must still be complete and accurate.

The following are some of the factors that can affect the RAI process:

- Submittal quality
- Submittal complexity
- First of a kind request
- New or updated technology or methodology
- Access to background information
- Mutual understanding of objectives and expectations

- Mutual agreement on submittal scope and level of detail
- Treatment of the current licensing basis (CLB)
- Depth of acceptance review
- Personnel changes
- Use of standardization
- Management oversight
- Use of precedent

In addition, the NRC reviewer may request additional information to evaluate:

- Input variables or assumptions
- Applicability or bounding nature of third-party analyses or data correlations
- Differences between the LAR and relevant NRC guidance documents (e.g., Standard Review Plan, Regulatory Guides)
- The licensee's No Significant Hazards Consideration (NSHC) determination
- Environmental considerations

#### **4.4.2 Steps in the RAI Process**

Typically the steps in the RAI process are:

1. NRC reviewers determine a need for additional information.
2. RAIs are drafted for NRC management review.
3. The cognizant NRC technical Branch Chief reviews the draft RAIs for technical content consistent with NRR Office Instruction LIC-101..
4. The cognizant NRC PM and the Branch Chief in the Division of Operating Reactor Licensing review the draft RAIs for regulatory information consistent with NRR Office Instruction LIC-101.
5. The NRC PM has the option to forward the draft RAIs to the licensee by e-mail. [NOTE: Depending on the nature and extent of communications between the licensee and the NRC PM, the licensee may be aware that the NRC is going to issue RAIs. The licensee can request that the draft RAIs be e-mailed to expedite the process.]
6. The NRC PM and the licensee schedule a teleconference to discuss the draft RAIs.
7. The licensee reviews the draft RAIs in preparation for the teleconference with the NRC.
8. The NRC and licensee hold a teleconference to discuss the RAIs. The teleconference is conducted to:
  - a. Ensure mutual understanding of what is being requested.

- b. Eliminate RAI questions for which information has already been provided by the licensee.
  - c. Eliminate RAI questions for which the NRC agrees the information is not needed to conduct the review.
  - d. Identify disputed questions for follow-up action.
  - e. Establish a timeframe for response to the RAIs.
9. The NRC may request a supplemental letter from the licensee to document certain information provided during the teleconference. The NRC PM and the licensee should agree on a target response date.
  10. Licensee submits the RAI response within the time frame determined with the NRC. Note that 10 CFR 2.108 states, "(a) The Director of Nuclear Reactor Regulation ... may deny an application if an applicant fails to respond to a request for additional information within thirty (30) days from the date of the request, or within such other time as may be specified."
  11. Follow-up teleconferences may be held between NRC and licensee as necessary to further clarify questions.

#### **4.4.3 Preparing the RAI Submittal**

The RAI submittal is prepared in the same manner as the original submittal (i.e., under oath and affirmation).

There should be a statement, usually in the cover letter, that the No Significant Hazards Consideration determination (NSHCD) provided in the original submittal is/is not altered by the additional information provided by the licensee. If the NSHCD is affected by the additional information, then a revised or new NSHCD is required as part of the submittal.

Use a clear format to respond to questions. A recommended format for the RAI response is to repeat each question from the NRC and then provide the answer.

Ensure that each question is addressed in its entirety. Often the NRC poses questions with several parts and/or subparts. Exercise caution to ensure each part of each question is answered.

If a question is eliminated during the teleconference with the NRC, but the question is docketed, be sure to provide an explanation, at the appropriate point in the submittal, that the question was withdrawn by the NRC (typically because the information was already provided in the original submittal or that the question was not relevant to the request).

If an RAI question results in a change to the LAR, the licensee should provide sufficient supplemental information to fully explain the nature, context, and basis for the change.

#### 4.5 ADDRESSING UNRESOLVED ISSUES

If open issues generated during the LAR process cannot be resolved through routine communications between the licensee and the NRC Staff, the following steps may be considered:

Query other licensees to determine if they have experienced similar issues and how, or if, they were resolved.

Determine if an NRC Regional Office is involved. If so, the NRC position may derive from a Task Interface Agreement (TIA) between the Region and NRC Headquarters. NRR Office Instruction COM-106 (Ref.<sup>15</sup>) contains internal NRC guidance on the use of TIAs to gather information about plant-specific licensing bases, regulatory requirements, technical positions, plant configurations, or operating practices in support of NRC review of an issue, event, or inspection finding. Review of the TIA may provide sufficient information to allow resolution of the issue.

Initiate informal discussions with NRC (conference call, e-mail). If warranted, engage industry and NRC management in the regulatory dialogue. Consider the following options:

- Request a plant-specific meeting with NRC to discuss the issue.
- Request an interpretation by the NRC Office of the General Counsel (OGC). Official NRC interpretations are limited to those contained in documents reviewed by, or statements made by, OGC.
- Request an NRC regulatory analysis pursuant to NUREG/BR-0058 (Ref.<sup>16</sup>).
- File a backfit claim or appeal pursuant to 10 CFR 50.109. Internal NRC guidance on backfits are contained in NRR Operating Instructions LIC-202 (Ref.<sup>17</sup>) (plant-specific backfits) and LIC-400 (Ref.<sup>18</sup>) (new and revised generic requirements).
- File a petition for rulemaking.
- Request a hearing pursuant to 10 CFR 2 (Ref.<sup>19</sup>)
- Seek judicial remedy through the courts.

If an issue is generic, the licensee may request participation by the NRC/NEI LATF or the Owners Group TSTF. The NEI LATF and TSTF meet with the NRC approximately quarterly. Absent an immediate plant-specific safety concern or non-compliance, a generic resolution process (rather than the plant-specific LAR process) may be a pathway to resolve issues that have multiple plant applicability.

In the context of NEI 06-02, a "generic RAI" is a question posed during the NRC review of a plant-specific LAR that refers to an agency position on an issue that affects multiple plants and, in the reviewer's opinion, should be incorporated into the review of the LAR. If a licensee receives what it believes is an inappropriate generic RAI, it should engage the NEI LATF or the Owners Group TSTF.

In NEI's opinion, NRC should not impose generic staff positions during review of plant-specific LARs unless such imposition is necessary in response to an immediate plant-specific safety or compliance concern. Absent an immediate concern, conformance with the plant's current licensing basis is a sufficient (and necessary) basis for NRC approval of the LAR.

## **5 NRC APPROVAL AND LICENSEE IMPLEMENTATION**

An LAR may be approved or rejected by NRC, or withdrawn by the licensee. Approved amendments are implemented by the licensee. Rejected amendments may be appealed by the licensee, or resubmitted in revised form. Withdrawn amendments may be tabled by the licensee, or resubmitted at some future time.

If, prior to NRC issuance of an approved amendment, the licensee determines that the implementation period should be different than the period requested in the LAR, the licensee should communicate with the NRC PM to ensure that a mutually acceptable time frame is reflected in the amendment. This is important because the implementation period becomes part of the amendment and cannot be changed without prior NRC approval (i.e., the issuance of a revised amendment). Amendments that are "immediately effective" must be implemented within the specified implementation period.

Upon receipt of an NRC-approved license amendment, the licensee should review the amendment, the SE, and the required implementation date. Plans should be established, if not already in place, for implementation consistent with the requirements of the approved amendment.

If incorrect or incomplete information is identified in the SE, the licensee should document the concerns and promptly inform the NRC PM. For errors that conflict with the amendment request, the licensee should request a revised SE from the NRC.

### **5.1 IMPLEMENTING CHANGES TO THE TECHNICAL SPECIFICATIONS BASES**

Except in the unusual case in which the Bases changes are the sole focus of the LAR (because the 10 CFR 50.59 review of the Bases changes determined they needed prior NRC approval AND there are no TS, OL, or UFSAR changes that need to be made in parallel), the NRC does not approve the Bases changes as part of their LAR approval. Even in such an unusual case, the NRC does not issue the Bases pages as part of the amendment; instead, the NRC approves the technical change and the revised Bases pages are issued by the licensee under the Technical Specification Bases Control Program as part of the implementation of the amendment.

If the information being included in the Bases is consistent with the information in the "Technical Evaluation" or the "Regulatory Evaluation" sections of the LAR to the extent that the Bases information can be considered to be "directly related" to the LAR once it is approved by the NRC, the implementation of the Bases change under the Technical Specification Bases Control Program is simplified. This is because, as noted in Section 4.1.1 of NEI 96-07, "Guidelines for 10 CFR 50.59 Implementation," only activities (such as the Bases change) that are not "directly related" to the required TS change are subject to 10 CFR 50.59. This is justifiable because activities that are directly related to the amendment are encompassed in the NRC review that has already been completed, and the purpose of 10 CFR 50.59 is to determine if an activity needs to be reviewed by the NRC.

Therefore, if the Bases changes are directly related to the license amendment, they are simply a follow-on activity and can be implemented without the need for a 10 CFR 50.59 review. Conversely, if there are aspects of the proposed Bases changes that are not directly related to the approved license amendment, then those aspects are subject to review under 10 CFR 50.59 prior to implementation.



## **APPENDIX A STANDARD FORMAT FOR LICENSE AMENDMENT REQUESTS FROM OPERATING REACTOR LICENSEES**

This Appendix outlines a standardized format that licensees may use on a voluntary basis to prepare a proposed plant-specific request for an amendment to the Operating License for a commercial reactor. Information in brackets represents amendment-specific information to be inserted by the licensee. Footnotes are used to explain certain concepts. Thus, they are part of this guideline, not part of the LAR format.

The standard package includes the following:

- Cover Letter
- Enclosure to the Cover Letter – Evaluation of the Proposed Change (technical and regulatory evaluation of the proposed amendment)
- Attachments to the Enclosure:
  - List of Regulatory Commitments (If Needed)
  - Technical Specification Page Markups and/or Operating License Page Markups (required)
  - Bases Page Markups (optional, see discussion in Appendix A).
  - Retyped Technical Specification Pages (optional, see discussion in Appendix A)

**NOTE:** Licensees are encouraged to follow the guidance in this Appendix, including order, titles, and level of detail. However, document formatting, such as title location, pagination, use of emphasis (e.g., bold, underline, etc.), are left to the licensees preference.

**COVER LETTER**  
**[Licensee's letterhead]**

[Date]

10 CFR 50.90

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

[Plant / Unit Name(s)]  
[Docket No(s) [50- \_\_\_, 50- \_\_\_]]

Subject: [Title of the proposed license amendment request]<sup>2</sup>

Pursuant to 10 CFR 50.90, [license holder] hereby requests [include a brief summary of the proposed amendment and the results of the corresponding "no significant hazards consideration determination." If the proposed amendment is consistent with a Technical Specification Task Force (TSTF) change to the Standard Technical Specifications (STS), include a statement to that effect, and provide a reference to the applicable TSTF Traveler number (TSTF-xxx) and title.].

Approval of the proposed amendment is requested by [date + justification]<sup>3</sup>. Once approved, the amendment shall be implemented within [ ] days.<sup>4</sup>

[If regulatory commitments are made in the submittal, include here (or in an attachment to the Enclosure) a listing of the formal licensee commitments that would apply when NRC approves the amendment. If no regulatory commitments are made, include a statement to that effect in the cover letter.]

In accordance with 10 CFR 50.91, [name of licensee] is notifying the State of [name of state] of this LAR by transmitting a copy of this letter and enclosure to the designated State Official.

If there are any questions or if additional information is needed, please contact [licensee's point of contact for the NRC Office of Nuclear Reactor Regulation] at [telephone number and/or e-mail address].

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<sup>2</sup> [The title used by many licensees is "License Amendment Request (LAR)." Other licensees use "Proposed License Amendment (PLA)." These and other equivalent terms are acceptable titles.]

<sup>3</sup> [Provide justification in the cover letter for the "need date." For example, if approval by a certain date is necessary to prepare for startup after a refueling outage.]

<sup>4</sup> [A 60-120 day implementation period is typical. If additional implementation time is needed, provide justification in the cover letter, e.g., if significant procedure changes are necessary to support implementation, or if significant plant modifications require a refueling outage for installation.]

[In accordance with 10 CFR 50.30(b), a license amendment request must be executed in a signed original under oath or affirmation. This can be accomplished by including a notarized affidavit confirming the signature authority of the signatory, or by including the following statement in the cover letter: "I declare under penalty of perjury that the foregoing is true and correct. Executed on (date)." The alternative statement is pursuant to 28 USC 1746. It does not require notarization, but must be quoted verbatim as written here.]

Sincerely, [this closing is optional if the preceding 28 USC 1746 statement is used].

[Signature]

[Name]

[Title, if not already included in the letterhead]

Enclosure: Evaluation of the Proposed Change

cc: [NRC Region \_] [required by 10 CFR 50.4]  
[NRC Project Manager] [optional, but recommended]  
[NRC Resident Inspector(s)] [required by 10 CFR 50.4]  
[State of \_\_\_\_\_] [required by 10 CFR 50.4]

**ENCLOSURE**  
**Evaluation of the Proposed Change**

Subject: [Brief title. Identify which Operating License or Technical Specification section(s) will be changed.]

1. SUMMARY DESCRIPTION
2. DETAILED DESCRIPTION
3. TECHNICAL EVALUATION
4. REGULATORY EVALUATION
  - 4.1 Applicable Regulatory Requirements/Criteria
  - 4.2 Precedent [optional]
  - 4.3 No Significant Hazards Consideration Determination
  - 4.4 Conclusions
5. ENVIRONMENTAL CONSIDERATION
6. REFERENCES

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ATTACHMENTS:<sup>5</sup>

1. List of Regulatory Commitments [If Needed]
2. Technical Specification (and/or Operating License) Page Markups [required]
3. Bases Page Markups [optional, see discussion in Appendix A]
4. Retyped Technical Specification (and/or Operating License) Pages [optional, see discussion in Appendix A]<sup>6</sup>

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<sup>5</sup> [Number the attachments based on which optional attachments are included with the Enclosure.]

<sup>6</sup> [Retyped or "camera ready" must be provided to support the license amendment request. The pages may be included in the original submittal or provided at the end of the review process to accommodate revisions derived from responses to NRC Requests for Additional Information or other sources. See discussion in Enclosure Attachment 4.]

## **A.1 SUMMARY DESCRIPTION**

This evaluation supports a request to amend Operating License(s) [license number(s)] for [plant/unit name(s)].

The proposed change(s) would revise the Operating License(s) to [describe briefly the proposed amendment, the reason for the amendment, and the proposed schedule. Reserve the details for Section 2.0.<sup>7</sup> If the proposed change is based on a TSTF Traveler, identify the Traveler number. If there are differences between the proposed change and the Traveler, note that the differences are discussed in Sections 2.0 and 3.0.]

## **A.2 DETAILED DESCRIPTION**

[Include:

A detailed description of the proposed amendment.

A discussion of conditions that the proposed amendment is intended to resolve.

An explanation of the circumstances that establish a need for the proposed amendments(s), for example, historical information, prior communication or correspondence with NRC staff, relevant reference documents, etc.]

## **A.3 TECHNICAL EVALUATION**

[Include:

- System description(s)
- A description of the current licensing basis and current licensing basis acceptance criteria
- A demonstration of adequate level of safety for the change, including analytical methods, input parameters, same method as the current licensing basis or NRC approved method, provide results, and describe the safety impact evaluation for administrative changes
- Applicable UFSAR text and figures (references are an acceptable alternative, although NRC reviewers may not have direct access to plant-specific documentation)
- Technical details in support of safety arguments
- The impact on UFSAR accident analyses
- A discussion of the technical aspects of relevant precedents, including reference to the discussion of precedent in Section 4.2, if used

Briefly summarize the preceding arguments at the end of this section.]

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<sup>7</sup> [In some cases, the amendment will affect only the Operating License. In most cases, the amendment also will affect one or more Technical Specifications.]

[Ensure that all changes in the LAR are evaluated, including administrative or editorial corrections, such as elimination of expired one-time allowances.]

[If the proposed amendment is risk-informed, include information in accordance with the Regulatory Guide series 1.174 - 1.178 on "risk-informed decision-making." These five Regulatory Guides address plant-specific changes to the licensing basis, inservice testing, graded Quality Assurance, Technical Specifications, and inservice inspection, respectively). See the guidance in Appendix D.]

[In most cases when a LAR is being submitted for NRC review, the item under review is either a TS change, a change to the OL itself, or is a UFSAR change that was determined to need prior NRC review. In such instances, if the Bases also need to be revised to remain consistent with the TS/OL/UFSAR LAR, the Bases may be marked as "For Information Only" or "Information Only" and included in Attachment 3 (separate from the Attachment 2 pages that are actually under NRC review). To ease subsequent processing under the Technical Specifications Bases Control Program, the information to be included in the Bases may be discussed in the "Technical Evaluation" or the "Regulatory Evaluation" Sections of the LAR to the extent necessary to ensure that the Bases information will be considered to be "directly related" to the LAR once it is approved by the NRC. This eases processing under the Technical Specifications Bases Control Program because as noted in Section 4.1.1 of NEI 96-07, "Guidelines for 10 CFR 50.59 Implementation," only activities (such as the Bases changes) that are not "directly related" to the required TS change are subject to 10 CFR 50.59.]

[The Technical Evaluation section should be written such that excerpts may be extracted for use in the NRC Staff's SE.]

## **A.4 REGULATORY EVALUATION**

### **A.4.1 Applicable Regulatory Requirements/Criteria**

[This section describes in detail how the licensee's technical analysis, which may or may not include risk information, satisfies all applicable regulatory requirements and criteria. Any formal commitments to administrative controls needed to ensure compliance should be included in this section. The Regulatory Analysis provides a basis that the NRC Staff may use to find the proposed amendment acceptable. It should be written such that excerpts may be used in the NRC staff's SE.]

[To assist the NRC Staff, the licensee may choose to include an optional table of applicable regulatory requirements/criteria.]

#### A.4.2 Precedent [Optional]

[If precedent can be identified, the licensee should reference the affected power plant(s) and amendment number(s), and briefly discuss how the precedent applies to the specific circumstances of the proposed amendment. If there are any differences between identified precedent and the proposed amendment, the licensee should explain the differences and describe their impact on the acceptability of the proposed amendment. Precedent, by itself, does not demonstrate the acceptability of a proposed amendment, but it does give the NRC Staff information about how similar changes have been treated in the past. This may simplify the NRC Staff's review.]

#### A.4.3 No Significant Hazards Consideration Determination<sup>8</sup>

[Provide a paragraph containing a few descriptive sentences suitable for use by NRC in the Federal Register notice that will be published to seek public comment on the proposed amendment. Avoid slang words or undefined abbreviations or acronyms. This summary may duplicate wording in the licensee's cover letter and should bound the detailed changes being proposed. Ensure that the No Significant Hazards Consideration Determination (NSHCD) addresses all changes in the LAR, including administrative or editorial changes or corrections.]

[Licensee name] has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

- 1) Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

[For guidance on preparing a basis for this response, see the First Standard from RIS 2001-22 (Ref.<sup>20</sup>: "Consider the effect of the change on structures, systems, and components (SSCs) of the plant to determine how the proposed change affects plant operations, any design function or an analysis that verifies the capability of an SSC to perform a design function. Determine if the proposed amendment would change any of the previously evaluated accidents in the UFSAR. The word 'accidents' refers to anticipated (or abnormal) operational transients and postulated design basis accidents, including the events with which the plant must be able to cope (e.g., earthquake, flooding, turbine missiles, and fire) as described in the UFSAR. Determine if SSCs, operating procedures, and administrative controls that are affected have the function of preventing or mitigating any of these accidents. If the proposed change increases the likelihood of the malfunction of an SSC, the potential impact on analyzed accidents should be considered (e.g., an increased likelihood of an SSC malfunction

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<sup>8</sup> [General guidance is contained in NRC Regulatory Issue Summary 2001-22, "Attributes of a Proposed No Significant Hazards Consideration."]

may increase the probability or consequences of an accident). If there is no impact on previously evaluated accidents, explain why.”

“Discuss the differences in the probability and consequences of these accidents (or the bounding scenario) before and after the change and whether the differences are significant. If the change is not considered significant, explain why. Whether an increase is significant should be assessed case-by-case. A qualitative judgment may need to be made. Values of probability or consequence that continue to meet the licensing basis or applicable guidelines in the Standard Review Plan are generally not considered significant changes. If the probability of occurrence remains within the ranges already presented in the UFSAR for initiating events, then the increase is not considered significant. An increase beyond any of these values that is not deemed significant should be justified. The significance determination should include a comparison of the value before the change to that after the change. A large increase might not be considered significant in one situation, but a relatively small increase might be significant in another situation. The licensee should adequately justify the proposed determination.”]

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

- 2) Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

[For guidance on preparing a basis for this response, see the Second Standard from RIS 2001-22: “Determine whether the proposed amendment will change the design function or operation of the SSCs involved, or whether interim processes (e.g., process of installing a new system component or construction of a new facility, performance of testing or maintenance) will affect the SSCs’ operation or its ability to perform its design function. Then determine whether the proposed change will create the possibility of a new or different kind of accident due to credible new failure mechanisms, malfunctions, or accident initiators not considered in the design and licensing bases. This new accident would have been considered a design basis accident in the UFSAR had it been previously identified. A new initiator of the same accident is not a different type of accident. Finally, the accident must be credible within the range of assumptions previously applied (e.g., random single failure, loss of off-site power, no reliance on non-safety-grade equipment).”]

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

- 3) Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

[For guidance on preparing a basis for this response, see the Third Standard from RIS 2001-22: "Safety margins are applied at many levels to the design and licensing basis functions and to the controlling values of parameters to account for various uncertainties and to avoid exceeding regulatory or licensing limits. The specific values that define margin are established in each plant's licensing basis. Licensees should identify the safety margins that may be affected by the proposed change and review the conservatism in the evaluation and analysis methods that are used to demonstrate compliance with regulatory and licensing requirements."

"The safety margin before the change should be compared to the margin after the proposed change to determine if the amendment will reduce the margin, and if the change is significant. If a change does not exceed or alter a design basis or safety limit (i.e., the controlling numerical value for a parameter established in the UFSAR or the license) it does not significantly reduce the margin of safety. In other cases, the assessment of significance for this standard should be made on the same basis as discussed in the guidance for the first standard. Uncertainties and errors need to be considered in calculating the margin."]

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, [licensee name] concludes that the proposed amendment(s) does (do) not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92©, and, accordingly, a finding of "no significant hazards consideration" is justified.

#### A.4.4 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

#### **A.5 ENVIRONMENTAL CONSIDERATION**

[The identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review is the subject of 10 CFR 51.22 (Ref.<sup>21</sup>). The categories of actions deemed "categorical exclusions" are specified by 10 CFR 51.22(c). The licensee's consideration of environmental factors should include sufficient detail to support a finding of categorical exclusion. For the majority of changes, it is clear that the environment will

not be affected (e.g., extending a surveillance interval). Therefore, a simple statement (see below) is sufficient. If appropriate, the licensee can provide more detailed information to strengthen the justification of categorical exclusion. However, for the minority of instances where a proposed amendment does not qualify for a categorical exclusion (e.g., if special circumstances exist, or if the action does not meet applicable criteria in 10 CFR 51.22(c)), the NRC staff will prepare an environmental assessment and may require the licensee to submit information in accordance with 10 CFR 51.41.]

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

[and/or]

The proposed amendment is confined to (i) changes to surety, insurance, and/or indemnity requirements, or (ii) changes to recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(10). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

## **A.6 REFERENCES**

[Identify and number all references used to prepare the proposed amendment. Each reference should be cited at least once in this Enclosure (Evaluation of the Proposed Change). If a reference is needed to understand, review, or approve the proposed amendment, it should be considered for inclusion as an attachment and identified with a suitable attachment number or letter.]

**ENCLOSURE**

**Attachment 1 [If Needed]**

**List of Regulatory Commitments**

[Include this attachment if regulatory commitments are made in the submittal. If no regulatory commitments are made, include a statement to that effect in the cover letter.]

The following table identifies the regulatory commitments in this document. Any other statements in this submittal represent intended or planned actions. They are provided for information purposes and are not considered to be regulatory commitments.

COMMITMENT	TYPE		SCHEDULED COMPLETION DATE (if applicable)
	One-Time	Continuing Compliance	
[1. Duplicate the commitment wording from the body of the LAR. Guidance on controlling regulatory commitments is contained in NEI 99-04 and NRR Office Instruction LIC-105 (Ref. <sup>22</sup> )]			
[2.]			
[3.]			
[4.]			

**ENCLOSURE**

**Attachment 2**

**[Operating License and/or Technical Specification] Page Markups**

[Mark up affected Operating License and/or Technical Specification pages by either of the following methods:

- Word-processor mark-ups using the program's "redline/strikeout" feature
- Hand-written mark-ups of copies of the affected pages

For plants with Improved Technical Specifications, the changes to the Technical Specifications should be consistent with TSTF-GG-05-01, "Writer's Guide for Plant-Specific Improved Technical Specifications," (Ref.<sup>23</sup>).]

## **ENCLOSURE**

### **Attachment 3 [OPTIONAL]**

#### **Bases Page Markups**

[The NRC encourages licensees to include revised Bases pages with the license amendment request. For most license amendments, it is recommended that Bases changes be included to provide additional explanation to the NRC staff on how the licensee interprets and plans to implement the proposed change. The NRC has stated that providing the Bases pages contributes to the goal of increasing the quality of LARs and may reduce confusion and the need for requests for RAIs.

Mark up affected Technical Specification Bases pages by either of the following methods:

- Word-processor mark-ups using the program's "redline/strikeout" feature
- Hand-written mark-ups of copies of the affected pages

For plants with Improved Technical Specifications, the changes to the Bases should be consistent with TSTF-GG-05-01, "Writer's Guide for Plant-Specific Improved Technical Specifications."

Bases markups should be included for information in the LAR when the information in the Bases changes would substantially contribute to the NRC's understanding of the implementation of the proposed Technical Specification requirements. For example, Bases descriptions of what constitutes Operability of a system or Bases descriptions that provide details regarding how to perform risk assessments, Surveillance Requirements, or mitigating actions, would substantially contribute to the NRC's understanding of the proposed Technical Specifications and should be included for information in the LAR. Such pages should clearly be designated as "For Information Only" in the submittal, both in the cover letter and in the Discussion Section of the Enclosure.

With one exception (as described above in Attachment 2), Bases changes may be submitted to NRC "for information only" as part of a LAR. The changes are "for information only" because NRC does not approve the Bases changes as part of the LAR approval. Instead, changes to the Bases are made by the licensee under the Technical Specifications Bases Control Program, subsequent to NRC approval of the LAR as described in Section 5.1.]

## **ENCLOSURE**

### **Attachment 4 [OPTIONAL]**

#### **Retyped [Operating License and/or Technical Specification] Pages**

[Retyped or 'camera ready' pages must be provided to support the license amendment request. The pages may be included in the original submittal or provided at the end of the review process to accommodate revisions derived from responses to NRC Requests for Additional Information or other sources.

Providing retyped pages with the submittal should be considered for complex submittals to assist the NRC staff with their review and to potentially avoid RAIs. Complex marked up pages can be confusing as the NRC staff attempts to follow the bubbles, arrows, strikeouts, and inserts.

Retyped pages should have revision bars indicating the affected sections. The page footer should have previous Amendment numbers removed (or clearly marked with a "strikethrough") and a "placeholder" for the new Amendment number inserted.

For plants with Improved Technical Specifications, the changes to the Technical Specifications should be consistent with TSTF-GG-05-01, "Writer's Guide for Plant-Specific Improved Technical Specifications."]

## **APPENDIX B LAR EXAMPLE**

This Appendix provides an example LAR, including:

- A cover letter
- Enclosure to the Cover Letter that evaluates the proposed change
- Four Attachments to the Enclosure

**NOTE:** Licensees are encouraged to follow the guidance in this Appendix, including order, titles, and level of detail. However, document formatting, such as title location, pagination, use of emphasis (e.g., bold, underline, etc.), are left to the licensees preference.

## COVER LETTER

December 1, 2006

10 CFR 50.90

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

My-Plant Units 1 & 2  
Docket Nos. 50-001 & 50-002

Subject: Administrative Control of Containment Penetrations during Refueling

Pursuant to 10 CFR 50.90, My Power & Light hereby requests a license amendment to revise the Unit 1 and 2 Technical Specifications (TS) for Limiting Condition for Operation (LCO) 3.9.4, "Containment Penetrations." The amendment will allow containment penetrations that provide direct access from the containment atmosphere to the outside atmosphere to be open during refueling activities if appropriate administrative controls are established. The proposed changes are consistent with NRC-approved Technical Specification Task Force (TSTF) Traveler TSTF-312, Revision 1, "Administratively Control Containment Penetrations."

The Enclosure provides a technical and regulatory evaluation of the changes, and one formal regulatory commitment. Proposed TS and Bases page markups are included as attachments to the Enclosure. These markup Bases pages are being provided for information only. Approval of the proposed amendment is requested by February 1, 2008 to support the spring refueling outage for Unit 1. My Power & Light will implement the amendment within 90 days of the NRC approval date.

In accordance with 10 CFR 50.91, My-Plant is notifying the State of [name of state] of this LAR by transmitting a copy of this letter and enclosure to the designated State Official.

If there are any questions or if additional information is needed, please contact Mr. I. M. Licensing at 000-111-2222 or [iml@mpl.com](mailto:iml@mpl.com).

I declare under penalty of perjury that the foregoing is true and correct. Executed on December 1, 2006.

I. R. Boss  
Vice President

Enclosure: Evaluation of the Proposed Change

cc: NRC Region 0  
NRC Project Manager  
NRC Resident Inspector  
State of [ ]

## ENCLOSURE

### Evaluation of the Proposed Change

Subject: Application for License Amendment to Revise TS 3.9.4, "Containment Penetrations," to Allow Open Penetrations during Refueling Operations if Appropriate Administrative Controls are Established

1. SUMMARY DESCRIPTION
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## **B.1 SUMMARY DESCRIPTION**

This evaluation supports a request to revise OL-1 and OL-2 for My Plant Units 1 & 2 to allow reactor containment building penetrations that provide direct access from the containment atmosphere to the outside atmosphere to be open during refueling activities if appropriate administrative controls are established. The penetrations in question are the equipment hatch, the personnel airlock, the emergency airlock, and system penetrations. Currently, Technical Specification (TS) Limiting Condition for Operation (LCO) 3.9.4 requires that containment penetrations be closed during core alterations or movement of irradiated fuel inside containment in Modes 5 (cold shutdown) or 6 (refueling) to mitigate the consequences of a fuel handling accident (FHA).

The proposed change will revise TS LCO 3.9.4, "Containment Penetrations," and is consistent with NRC-approved TSTF-312, Revision 1, "Administratively Control Containment Penetrations" (Reference 1). A revised FHA for My Plant Units 1 & 2 shows acceptable dose consequences.

Revising TS LCO 3.9.4 to permit open penetrations during core alterations or fuel movement has the following benefits:

- Easier access to and from containment for equipment, personnel, laundry, and trash
- Faster personnel evacuation from containment in the event of a FHA
- Easier delivery of equipment to critical path activities inside containment
- More flexibility in scheduling activities not on the critical path
- Increased reliability of hatch doors due to reduced wear
- Reduced traffic through the personnel airlock
- Cleaner working environment
- Fewer situations requiring a fire watch
- Reduced occupational exposure

In summary, the dose consequences of a FHA inside containment, with the containment equipment hatch, airlocks, and other specified penetrations open for the duration of the accident release, are well within the radiological dose guidelines of 10 CFR 100 (Reference 2). We request that NRC approve the proposed amendment based on the operational benefits, additional administrative controls, and acceptable dose consequences.

## **B.2 DETAILED DESCRIPTION**

TS LCO 3.9.4 currently precludes opening containment penetrations during operations involving core alterations or fuel movement inside containment. Penetrations that provide direct access from the containment atmosphere to the outside atmosphere must be (1) closed by an automatic isolation valve, a manual isolation valve, a blind flange, or equivalent, or (2) capable of being

closed by an operable containment purge and isolation system. Plant procedures establish specific closure controls for containment penetrations.

The proposed change will allow any containment penetration flow path that provides direct access from the containment atmosphere to the outside atmosphere to be open during operations involving core alterations or fuel movement inside containment if appropriate administrative controls are established and maintained. Specifically, the proposed change revises TS LCO 3.9.4(c) by adding a NOTE to permit un-isolating containment penetration flow path(s) under administrative controls during operations involving core alterations or fuel movement inside containment.

The proposed change is consistent with Revision 1 of TSTF-312, "Administratively Control Containment Penetrations." TSTF 312 was approved based on (1) acceptable radiological consequences from a FHA, and (2) the implementation of administrative procedures to ensure that open containment penetrations can and will be promptly closed in the event of a FHA. The My-Plant Units 1 and 2 dose calculations document the allowable time to close the penetrations.

The containment is a barrier to the release to the environment of fission products that breach the fuel cladding and reactor coolant pressure boundary during a core-damaging accident. The containment barrier, including penetrations, is designed to limit the release of fission products such that offsite radiation exposure is well below the limits of 10 CFR 100.

During Modes 5 and 6, plant procedures require the capability to close containment within one hour of the loss of shutdown cooling. The closure scope includes the equipment hatch, the personnel airlock, the emergency airlock, and electrical and piping penetrations. Closure controls include guidance to personnel assigned containment closure duties, a list of equipment and materials that must be maintained to assist with containment closure activities, and a list of ongoing activities that affect the capability to close a containment penetration. Penetrations that provide direct access from the containment atmosphere to the outside atmosphere must be (1) closed by an automatic isolation valve, a manual isolation valve, a blind flange, or equivalent, or (2) capable of being closed by an operable containment purge and isolation system. Plant procedures establish specific closure controls for containment penetrations.

#### B.2.1 Equipment Hatch

The door to the equipment hatch is a welded steel assembly bolted to a double-gasket flange. The hatch is 14 feet in diameter and provides a means for moving large equipment and components into and out of containment during refueling outages. Currently, TS LCO 3.9.4 requires that the door be closed and secured by a minimum of four (of 16) bolts during core alterations or movement of irradiated fuel inside containment.

In 1989, a closure test was conducted as part of an initiative to address Generic Letter 88-17 (Reference 3). The test simulated conditions normally found during an outage. The total time required to close the equipment hatch was less than 15 minutes.

Prior to their use during the next refueling outage, applicable plant procedures will be revised to require a capability for prompt closure whenever the equipment hatch door is open during core alterations or fuel movement inside containment. A designated individual will be assigned to monitor the door to ensure that items that could obstruct closure of the door can quickly be disconnected or otherwise removed.

### B.2.2 Airlocks

Personnel transit between the containment interior and the Auxiliary Building through a personnel airlock. Personnel can exit the containment to the outside atmosphere through a smaller emergency airlock. There is a pressure-seating door at each end of each airlock. Currently, TS LCO 3.9.4 requires a minimum of one closed door in each airlock during core alterations or movement of irradiated fuel inside containment.

### B.2.3 Other Penetrations

Various plant systems and vent/drain piping have containment penetrations equipped with isolation valves. These penetrations are subject to periodic testing in accordance with the Local Leak Rate Testing (LLRT) program. Currently, TS LCO 3.9.4 requires that these penetrations be closed during core alterations or movement of irradiated fuel within the containment. Therefore, the approximately 40% of containment penetrations that are subject to Type C testing cannot be tested during fuel movement because Type C testing requires an open drain line. The proposed change removes this restriction and significantly improves the logistics for implementing the LLRT program by permitting open penetrations during fuel movement if they can be isolated quickly by an automatic isolation valve, a manual valve, or a blind flange.

### B.2.4 Fuel Handling Accident

The FHA analysis in the Updated Final Safety Analysis Report (UFSAR) (Reference 4) assumes that a single irradiated fuel assembly (or other heavy load) is dropped onto other irradiated fuel assemblies. The FHA acceptance criteria in Standard Review Plan (SRP) Section 15.7.4 (Reference 5) specify that the resulting offsite radiation exposure must be well within the limits of 10 CFR 100. The standard interpretation of "well within" is no greater than 25% of the 10 CFR 100 limits, which translates to 75 REM to the thyroid and 6.25 REM to the whole body.

My Power & Light has reanalyzed the FHA in support of this LAR. The new analysis is described in detail in Section 3 (Technical Evaluation). It assumes that containment penetrations are initially open, and that the limiting pathway (equipment hatch) can be closed within 30 minutes. The resulting offsite exposures remain less than 25% of 10 CFR 100 limits.

## **B.3 TECHNICAL EVALUATION**

Compliance with TS LCO 3.9.4 (Containment Penetrations) ensures that the consequences of a postulated FHA inside containment during core alterations or fuel handling remain within acceptable limits. The TSLCO requires that at least one integral barrier to the release of radioactive material be operable. TS LCO 3.9.4 requires a closed and bolted equipment hatch, a

minimum of one closed door in each airlock, and flanged or valved containment penetrations. Penetrations with automatic isolation valves must be capable of being closed by an isolation signal. As discussed in the TS Bases, isolation methods must be approved and may include the use of temporary barriers during fuel movement.

The changes proposed by this license amendment request are consistent with TSTF-312, Revision 1. They are also consistent with administrative controls in My Plant Units 1 & 2 TS that permit penetration flow paths to be un-isolated under administrative controls in Modes 1 through 4. The controls include continuous communication between the control room and an individual who can isolate the flow path in the event of an accident. Modes 1 through 4 are more limiting than Mode 6 (refueling operations) due to greater stored energy in the RCS and the greater motive force available to disperse radionuclides following a design basis accident.

Similar controls are acceptable for penetrations that are open during core alterations or fuel movement inside containment because the potential for a FHA resulting in containment pressurization is negligible when the reactor is shutdown. Therefore, un-isolated flow path(s) that establish direct access between the containment atmosphere and the outside atmosphere during refueling operations are acceptable provided appropriate administrative controls are in place. The proposed controls include operator awareness of the open penetration and the designation of one or more individuals capable of closing open penetrations in the event of a FHA inside containment.

The My Plant Units 1 & 2 design basis FHA described in the UFSAR assumes that a single irradiated fuel assembly is dropped in either the fuel building or the containment. The analyses assume the rupture of the cladding on all fuel rods in the dropped assembly. Conservative assumptions are postulated for safety system design purposes even though administrative controls and physical limitations are imposed during fuel handling operations. Section 15.7.4 of the UFSAR (Reference 6) discusses the consequences of a postulated FHA inside containment. The results from the current FHA analysis indicate a thyroid dose of 64.1 REM and a whole body dose of 0.177 REM at the exclusion area boundary. These results are well within the 10 CFR 100 offsite dose limits of 300 REM to the thyroid and 25 REM to the whole body, and they are less than the corresponding guideline values of 75 REM and 6.25 REM in Standard Review Plan, Section 15.7.4, Revision 1.

Section 15.7.4 of the My Plant Units 1 & 2 UFSAR describes system design features and plant procedures for mitigating the radiological consequences of postulated FHAs. It assumes no credit for iodine removal by the atmosphere filtration system filters. All radioactivity released to the containment is assumed to be released to the environment at ground level over a two-hour period.

The limiting event is the FHA inside containment with the personnel airlock doors remaining open. For this event, radionuclides are unlikely to reach the outside atmosphere because there is no pressure differential to drive the dispersion of radioactive material. Administrative controls for prompt closure of the containment penetration flow paths minimize the potential for spreading radioactive isotopes from the containment to the outside atmosphere. Therefore, following a FHA inside containment, the lack of containment pressurization allows sufficient

time to manually isolate the penetration flow paths to minimize dose consequences. The consequences of a FHA inside containment with open penetration flow paths are bounded by the current analysis described in the UFSAR. This ensures that the postulated offsite dose is well below 10 CFR 100 regulatory limits and less than the guideline values in Standard Review Plan, Section 15.7.4, Revision 1.

Amendment No. 95 (Reference 7) approved leaving the containment air lock open during fuel movement and core alteration. In that application, My Power & Light recalculated the doses and revised the design basis for the FHA analysis to be consistent with Regulatory Guide 1.25 (Reference 8). In that re-analysis, credit was not taken for the containment building barriers. The analysis calculated the doses at the exclusion area boundary during the first two hours of the event. The calculated doses were within the Standard Review Plan criteria of 75 REM to the thyroid and 6.25 REM to the whole body. As discussed in Amendment No. 107 (Reference 9), the potential dose consequences from a simultaneous release of gaseous effluents through either an un-isolated penetration flow path or an open personnel airlock door is the same. That is because the analysis assumes that all radioactive material from the FHA is released to the environment within a two-hour period. Therefore, allowing penetration flow paths to be un-isolated during core alterations or movement of irradiated fuel does not invalidate the conclusion that the potential dose consequences from a FHA are well below 10 CFR 100 limits.

Historically, the NRC has required containment closure during core alterations and fuel handling as a defense-in-depth measure to limit releases. However, this has been relaxed on a case-by-case basis to permit both personnel airlock doors or selected containment penetrations to be open during core alterations and fuel handling if controls are in place to quickly close one door or isolate the penetration. The procedural controls for the airlock and selected containment penetrations will include:

- Appropriate personnel to maintain an awareness of the open status of the penetration flow path during core alterations and movement of irradiated fuel assemblies within containment, and
- Individuals designated and readily available to promptly isolate open penetration flow paths in the event of a FHA inside containment.

Based on the technical analysis performed by My Power & Light and the administrative controls specified for the proposed allowance to un-isolate containment penetration flow paths, the proposed changes are acceptable. The technical analysis demonstrates that the dose consequences at the exclusion area and low population zone boundaries are well within the limits of 10 CFR 100. The proposed changes comply with the General Design Criteria (16, 19, 54, 56, and 61) (Reference 11), Regulatory Guide 1.25, NUREG/CR-5009 (Reference 10), and Section 15.7.4 of the SRP (NUREG-0800), as demonstrated in Section 4.1 below. The proposed administrative controls provide assurance that offsite dose levels associated with a FHA inside containment will be maintained well within applicable regulatory limits.

## **B.4 REGULATORY EVALUATION**

### **B.4.1 Applicable Regulatory Requirements/Criteria**

Regulatory criteria and guidance are contained in Regulatory Guide 1.25, Section 15.7.4 of NUREG-0800, and NUREG/CR-5009.

The following table lists the regulatory requirements and plant-specific design bases related to the proposed change.

#### 1) Regulatory Requirements

The regulatory basis for TS LCO 3.9.4, "Containment Penetrations," is to ensure that the primary containment is capable of containing fission product radioactivity that may be released from the reactor core following a FHA inside containment. This ensures that offsite radiation exposures are maintained well within the requirements of 10 CFR 100. The FHA analysis demonstrates that the offsite radiation exposures will be maintained well within the requirements of 10 CFR 100 should an accident occur with the containment penetrations open as allowed by the proposed change.

10 CFR Part 50, Appendix A, General Design Criterion (GDC) 16, "Design," requires that reactor containment and associated systems be provided to establish an essentially leak-tight barrier against the uncontrolled release of radioactivity to the environment and to assure that the containment design conditions important to safety are not exceeded for as long as the postulated accident conditions require. The proposed administrative controls require the containment to be closed following evacuation of personnel should an FHA occur. This will provide establish an essentially leak-tight barrier against the uncontrolled release of radioactivity to the environment and to assure that the containment design conditions important to safety are not exceeded.

GDC 19, "Control Room," requires that adequate radiation protection be provided to permit access and occupancy under accident conditions without personnel receiving radiation exposure in excess of 5 REM whole body, or its equivalent to any part of the body for the duration of the accident. The FHA analysis demonstrates that the personnel in the control room will not receive a radiation dose in excess of 5 REM whole body, or its equivalent to any part of the body for the duration of the accident.

GDC 54, "Piping Systems Penetrating Containment," requires that piping systems penetrating primary reactor containment be provided with leak detection, isolation, and containment capabilities having redundancy, reliability, and performance capabilities which reflect the importance to safety of isolating these piping systems. Such piping systems shall be designed with a capability to test periodically the operability of the isolation valves and associated apparatus and to determine if valve leakage is within acceptable limits. The proposed change does not affect the design of the piping systems penetrating containment and the piping systems will continue to be capable of being isolated.

GDC 56, "Primary Containment Isolation," describes the isolation provisions that must be provided for lines that connect directly to the containment atmosphere and which penetrate primary reactor containment unless it can be demonstrated that the isolation provisions for a specific class of lines are acceptable on some other defined basis. The proposed change does not affect the design of the primary containment and the primary containment is required to be isolated should an FHA occur following evacuation of personnel in the primary containment.

GDC 61, "Fuel Storage and Handling and Radioactivity Control," requires that the fuel storage and handling, radioactive waste, and other systems which may contain radioactivity be designed to assure adequate safety under normal and postulated accident conditions. The proposed change does not affect the design of the fuel storage, fuel handling, and radioactivity control systems.

The parameters of concern and the acceptance criteria applied are based on the requirements of 10 CFR 100 with respect to the calculated radiological consequences of a FHA and GDC 61 with respect to appropriate containment, confinement, and filtering systems. The FHA analysis demonstrates that the requirements of 10 CFR 100 continue to be met under the proposed change and that appropriate containment, confinement, and filtering systems are available to respond to an FHA.

## 2) Regulatory Guidance

UFSAR Section 15.7.4 – The My Plant Units 1 & 2 design basis FHA is defined as the dropping of a spent fuel assembly onto the spent fuel pool fuel storage area or inside containment. Both analyses assume the rupture of the cladding of all the fuel rods in the assembly. Section 15.7.4 of the UFSAR discusses the consequences of a postulated FHA inside containment.

Regulatory Guide 1.25, "Assumptions Used for Evaluating the Potential Radiological Consequences of a Fuel Handling Accident in the Fuel Handling and Storage Facility for Boiling and Pressurized Water Reactors," describes the methodology used by My Plant Units 1 & 2 to evaluate the potential radiological consequences of a FHA.

My Plant Units 1 & 2 uses NUREG-0800 (Reference 12), Standard Review Plan, Section 15.7.4, to evaluate system design features and plant procedures that mitigate the radiological consequences of postulated fuel handling accidents.

### B.4.2 Precedent

The proposed change is consistent with NRC-approved TSTF-312, Revision 1, and is similar to license amendments issued to Good Power & Light on January 1, 1995 (Amendment Numbers 100/100), and January 1, 2000 (Amendment Numbers 125/125), for Good Units 1 & 2. The 1995 amendments permitted the personnel and emergency airlocks to be open during core alterations, subject to administrative controls. The 2000 amendments permitted the equipment hatch to be open during core alterations or movement of irradiated fuel, subject to administrative

controls. *[NOTE: This section should include a point-by-point comparison between the current LAR and the proposed precedent. All differences should be described and dispositioned as acceptable or not applicable.]*

#### B.4.3 No Significant Hazards Consideration Determination

The proposed amendment would permit direct access from the containment atmosphere to the outside atmosphere during core alterations or fuel movement inside containment if appropriate administrative controls are established and maintained.

My Power & Light has evaluated whether or not a significant hazards consideration is involved with the proposed changes by focusing on the three standards set forth in 10 CFR50.92© as discussed below:

- 1) Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

The proposed change would allow the containment equipment hatch door, personnel airlock doors, emergency airlock doors, and other specified penetrations to remain open during fuel movement and core alterations. These penetrations are normally closed during this time period in order to prevent the release of radioactive material in the event of a FHA inside containment. These penetrations are not initiators of any accident. The probability of a FHA is unaffected by the operational status of these penetrations.

The new FHA analysis with an open containment demonstrates that maximum offsite dose is well within the acceptance limits specified in SRP 15.7.4. The FHA analysis results in maximum offsite doses of 51 REM to the thyroid and 0.18 REM to the whole body. The calculated control room dose is also well within the acceptance criteria specified in GDC 19. The analysis results in thyroid and whole body doses to the control room operator of 0.93 REM and 0.02 REM, respectively. The calculated doses are well within the acceptance limits and, therefore, do not represent a significant increase in consequences of a FHA.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

- 2) Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed change does not involve the addition or modification of any plant equipment. Also, the proposed change will not alter the design, configuration, or method of operation of the plant beyond the standard functional capabilities of the equipment.

The proposed change involves a TS change that will allow the equipment hatch door, the airlock doors, and other selected penetrations to be open during core alterations and fuel movement inside containment. Open doors and penetrations do not create the possibility of a new accident. Administrative controls will be implemented to ensure the capability to close the containment in the event of a FHA.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3) Does the proposed amendment involve a significant reduction in a margin of safety?

The proposed change has the potential to increase the post-FHA dose at the site boundary and in the control room. However, a revised FHA analysis demonstrates that the dose consequences at both locations remain within regulatory acceptance limits and the margin of safety as defined by Revision 1 of SRP 15.7.4 has not been significantly reduced. To ensure a bounding calculation, the revised FHA was performed with conservative assumptions. For example, it assumes the instantaneous release to the outside atmosphere of all airborne activity reaching the containment. Additional margin will be established through administrative procedures to require that the equipment hatch and at least one door in each airlock be closed following an evacuation of containment.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, My Power & Light concludes that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92©, and, accordingly, a finding of “no significant hazards consideration” is justified.

#### B.4.4 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission’s regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

### **B.5 ENVIRONMENTAL CONSIDERATION**

My Power & Light has determined that the proposed amendment would change requirements with respect to the installation or use of a facility component located within the restricted area, as defined in 10 CFR 20 (Reference 13), or would change an inspection or surveillance requirement. My Power & Light has evaluated the proposed change and has determined that the change does not involve, (i) a significant hazards consideration, (ii) a significant change in the types of or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. As discussed above, the proposed changes do not involve a significant hazards consideration and the

analysis demonstrates that the consequences from a FHA are well within the 10 CFR 100 limits. The implementation of administrative controls precludes a significant increase in occupational radiation exposure. Accordingly, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51 (Reference 14), specifically 10 CFR 51.22(c)(9). Therefore, pursuant 10 CFR 51.22(b), an environmental assessment of the proposed change is not required.

## **B.6 REFERENCES**

1. Technical Specification Task Force, TSTF-312, Revision 1, "Administratively Control Containment Penetrations," July 17, 1999.
2. U.S. Code of Federal Regulations, 10 CFR 100, "Reactor Site Criteria."
3. U.S. NRC, Generic Letter 88-17, "Loss of Decay Heat Removal," October 17, 1988.
4. My Power & Light, Updated Final Safety Analysis Report (UFSAR).
5. U.S. NRC, Standard Review Plan, Section 15.7.4, Revision 1, "Radiological Consequences of Fuel Handling Accidents."
6. My Power & Light, UFSAR, Section 15.7.4, "Radiological Consequences of Fuel Handling Accidents."
7. My Power & Light, Operating License Amendment 95.
8. U.S. NRC, Regulatory Guide 1.25, "Assumptions Used for Evaluating the Potential Radiological Consequences of a Fuel handling Accident in the Fuel Handling and Storage Facility for Boiling and Pressurized Water Reactors (Safety Guide 25)," March 1972.
9. My Power & Light, Operating License Amendment 107.
10. U.S. NRC, NUREG/CR-5009, "Assessment of the Use of Extended Burnup Fuel in Light Water Power Reactors."
11. U.S. Code of Federal Regulations, 10 CFR 50, Appendix A, "General Design Criteria for Nuclear Power Plants."
12. U.S. NRC, NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants."
13. U.S. Code of Federal Regulations, 10CFR20, "Standards for Protection Against Radiation."
14. U.S. Code of Federal Regulations, 10 CFR 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions."

**ENCLOSURE**

**Attachment 1**

**List of Regulatory Commitments**

The following table identifies the regulatory commitments in this document. Any other statements in this submittal represent intended or planned actions, are provided for information purposes, and are not considered to be regulatory commitments.

COMMITMENT	TYPE		SCHEDULED COMPLETION DATE (if applicable)
	One-time	Continuing Compliance	
Revise the applicable plant procedures to require that: an individual be designated to monitor the equipment hatch door, if left open during core alterations or movement of irradiated fuel assemblies inside containment, to ensure that items that could obstruct closure of the door can quickly be disconnected or otherwise removed, appropriate personnel maintain an awareness of the open status of airlock and penetration flow paths during core alternations or movement of irradiated fuel assemblies inside containment, and individuals are designated and readily available to isolate open airlock and penetration flow paths in the event of a FHA inside containment.	x		March 1, 2008

**ENCLOSURE**

**Attachment 2**

**TS Page Markups**

Add TS Insert 1 to Page 3.9-6

**TS Insert 1**

-----NOTE-----

Penetration flow path(s) providing direct access from the containment atmosphere to the outside atmosphere may be unisolated under administrative controls.

Containment Penetrations

3.9.4

3.9 REFUELING OPERATIONS

3.9.4 Containment Penetrations

LCO 3.9.4 The containment penetrations shall be in the following status:

- 1) The equipment is hatch closed and held in place by four bolts,
- 2) One door in each air lock is closed, and
- 3) Each penetration providing direct access from the containment atmosphere to the outside atmosphere is either:
  - a. Closed by a manual or automatic isolation valve, blind flange, or equivalent
  - b. Capable of being closed by an OPERABLE Containment Purge and Exhaust Isolation System

**TS Insert 1**



APPLICABILITY: During movement of [recently] irradiated fuel assemblies within containment

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more containment penetrations not in required status.	A.1 Suspend movement of [recently] irradiated fuel assemblies within containment.	Immediately

**ENCLOSURE**

**Attachment 3**

**Changes to TS Bases**

Add Bases Insert 1 to Page B3.9-14

**Bases Insert 1**

The LCO is modified by a Note allowing penetration flow paths with direct access from the containment atmosphere to the outside atmosphere to be unisolated under administrative controls. Administrative controls ensure that (1) appropriate personnel are aware of the open status of the penetration flow path during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment, and (2) specified individuals are designated and readily available to isolate the flow path in the event of a fuel handling accident.

Containment Penetrations  
B 3.9.4

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BASES

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LCO (continued)

**Bases Insert 1**



Closure times specified in the FSAR can be achieved and, therefore, meet the assumptions used in the safety analysis to ensure that releases through the valves are terminated, such that radiological doses are within the acceptance limit.

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APPLICABILITY

The containment penetration requirements are applicable during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment because this is when there is a potential for a fuel handling accident. In MODES 1, 2, 3, and 4, containment penetration requirements are addressed by LCO 3.6.1. In MODES 5 and 6, when CORE ALTERATIONS or movement of irradiated fuel assemblies within containment are not being conducted, the potential for a fuel handling accident does not exist. Therefore, under these conditions no requirements are placed on containment penetration status.

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ACTIONS

A.1

If the containment equipment hatch, air locks, or any containment penetration that provides direct access from the containment atmosphere to the outside atmosphere is not in the required status, including the Containment Purge and Exhaust Isolation System not capable of automatic actuation when the purge and exhaust valves are open, The unit must be placed in a condition where the isolation function is not needed. This is accomplished by immediately suspending CORE ALTERATIONS and movement of irradiated fuel assemblies within containment. Performance of these actions shall not preclude completion of movement of a component to a safe position.

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SURVEILLANCE  
REQUIREMENTS

SR 3.9.4.1

This Surveillance demonstrates that each of the containment penetrations required to be in its closed position is in that position. The Surveillance on the open purge and exhaust valves will demonstrate that the valves are not blocked from closing. Also the Surveillance will demonstrate that each valve operator has

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**ENCLOSURE**  
**Attachment 4**

**Retyped Technical Specification Pages**

Page  
3.9-6

Containment Penetrations

3.9.4

3.9 REFUELING OPERATIONS

3.9.4 Containment Penetrations

LCO 3.9.4 The containment penetrations shall be in the following status:

- 1) The equipment is hatch closed and held in place by [four] bolts,
- 2) One door in each air lock is [capable of being] closed, and
- 3) Each penetration providing direct access from the containment atmosphere to the outside atmosphere is either:
  - a. Closed by a manual or automatic isolation valve, blind flange, or equivalent
  - b. Capable of being closed by an OPERABLE Containment Purge and Exhaust Isolation System

-----NOTE-----  
 Penetration flow path(s) providing direct access from the containment atmosphere to the outside atmosphere may be unisolated under administrative controls.  
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APPLICABILITY: During movement of [recently] irradiated fuel assemblies within containment.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
1. One or more containment penetrations not in required status.	A.1 Suspend movement of [recently] irradiated fuel assemblies within containment.	Immediately

## **APPENDIX C EXIGENT/EMERGENCY LARS**

### **C.1 BACKGROUND**

When a licensee submits a LAR, the NRC is required by 10 CFR 50.91 to publish a "notice of opportunity for hearing" in the Federal Register at least 30 days before it issues the amendment. However, circumstances can occur where an amendment is warranted to preclude an unnecessary plant transient, test, inspection, system realignment, shutdown, or delayed startup. If this is the case, a licensee may request an "exigent" amendment or an "emergency" amendment.

Exigent circumstances exist if the NRC must act quickly and time does not permit the normal 30-day public comment period. Emergency circumstances exist if NRC must act immediately and public comment must be postponed until after the amendment is issued. Licensees should be prepared to explain the need for expedited approval, why it could not be avoided, and why the need for a routine amendment could not be foreseen in advance.

The exigent amendment is the preferred alternative because it provides for a reduced (typically 14-day) public comment period prior to issuance of the amendment. If issuance is necessary in less than 14 days, the NRC may publish a notice in local media in the area of the plant.

Typically, the need for an exigent or emergency amendment occurs when an unforeseen situation prevents the licensee from satisfying a TS LCO and the plant must be shut down if conformance with the LCO cannot be reestablished within a specified time limit (the Completion Time). The process for either alternative is time limited and highly variable. A request for an exigent or emergency amendment is feasible if supporting information is available and the proposed amendment can be prepared and approved by the NRC before the Completion Time expires. The longer it takes to compile and submit the necessary information, the lower the probability of obtaining NRC approval in time.

### **C.2 REGULATORY CRITERIA**

#### **C.2.1 10 CFR 50.91(a)(5)**

“Where the Commission finds that an emergency situation exists, in that failure to act in a timely way would result in derating or shutdown of a nuclear power plant, or in prevention of either resumption of operation or of increase in power output up to the plant’s licensed power level, it may issue a license amendment involving no significant hazards consideration without prior notice and opportunity for a hearing or for public comment. In such a situation, the Commission will not publish a notice of proposed determination on no significant hazards consideration, but will publish a notice of issuance under § 2.106 of this chapter, providing for opportunity for a hearing and for public comment after issuance. The Commission expects its licensees to apply for license amendments in timely fashion. It will decline to dispense with notice and comment on the determination of no significant hazards consideration if it determines that the licensee has

abused the emergency provision by failing to make timely application for the amendment and thus itself creating the emergency. Whenever an emergency situation exists, a licensee requesting an amendment must explain why this emergency situation occurred and why it could not avoid this situation, and the Commission will assess the licensee's reasons for failing to file an application sufficiently in advance of that event."

C.2.2 10 CFR 50.91(a)(6)

"Where the Commission finds that exigent circumstances exist, in that a licensee and the Commission must act quickly and that time does not permit the Commission to publish a Federal Register notice allowing 30 days for prior public comment, and it also determines that the amendment involves no significant hazards considerations, it:

(i)(A) Will either issue a Federal Register notice providing notice of an opportunity for hearing and allowing at least two weeks from the date of the notice for prior public comment; or

(B) Will use local media to provide reasonable notice to the public in the area surrounding a licensee's facility of the licensee's amendment and of its proposed determination as described in paragraph (a)(2) of this section, consulting with the licensee on the proposed media release and on the geographical area of its coverage;

(ii) Will provide for a reasonable opportunity for the public to comment, using its best efforts to make available to the public whatever means of communication it can for the public to respond quickly, and, in the case of telephone comments, have these comments recorded or transcribed, as necessary and appropriate;

(iii) When it has issued a local media release, may inform the licensee of the public's comments, as necessary and appropriate;

(iv) Will publish a notice of issuance under § 2.106;

(v) Will provide a hearing after issuance, if one has been requested by a person who satisfies the provisions for intervention specified in § 2.309 of this chapter;

(vi) Will require the licensee to explain the exigency and why the licensee cannot avoid it, and use its normal public notice and comment procedures in paragraph (a)(2) of this section if it determines that the licensee has failed to use its best efforts to make a timely application for the amendment in order to create the exigency and to take advantage of this procedure."

### **C.3 GUIDANCE TO LICENSEES**

#### **C.3.1 Overview**

Once the decision is made to pursue an emergency or exigent TS Amendment, a call should be conducted with the NRC to alert them to the situation and to confirm that the emergency or exigent LAR process is the appropriate regulatory process. Typically, this call is initiated by the licensee contacting the NRC PM, though a courtesy notification of the NRC resident staff is also prudent.

The call opens a communication channel with the NRC that must be maintained throughout the process. The licensee should inform the NRC of key information, such as the applicable Technical Specification or design bases changes, descriptions/drawings of the associated systems, a brief timeline of the event, discussion of the apparent cause, activities underway, contingencies in place should the amendment not be approved, etc. Any security considerations should also be included, and whether the changes affect the emergency or security plans, or the fire protection plan.

Preparation and approval of an emergency TS Amendment requires many critical path activities which are performed by several different groups (see Table C.1). For that reason, teamwork and open and timely communication must be maintained throughout the preparation and approval process.

During this process, early and frequent communication with the NRC (NRC PM and NRC Senior Resident Inspector) is important to completion of the process due to the time constraints involved. Early communication allows the NRC PM to align the appropriate resources in NRR to support review of the proposed amendment and discuss with the licensee schedule and contacts.

#### **C.3.2 Timing**

The guidance in Table C.1 is based on a "best estimate" of the most likely completion times for each step in the process of preparing an exigent or emergency LAR. If the steps cannot be completed in accordance with this schedule, the licensee should revisit the decision to pursue the exigent or emergency amendment.

In addition, the following factors affect the feasibility of, or need for, an exigent/emergency LAR:

- The time available to complete the LAR before the Completion Time expires
- The likelihood of meeting the LCO before the Completion Time expires
- The availability of PRA calculations that provide an appropriate risk justification
  - Note: the NRC will assess the quality of PRA against Regulatory Guide 1.200 (Ref.<sup>24</sup>)

- The likelihood and timing of approvals by the onsite and offsite review boards
- The feasibility of an LAR as an alternative to an Notice of Enforcement Discretion (NOED), though LARs are viewed by the NRC as preferable whenever possible
- The status of shutdown preparations
- NRC feedback.

**TABLE C-1**  
**Estimated Time to Prepare an Exigent or Emergency License Amendment Request**

<b>Activity</b>	<b>Description</b>	<b>Estimated Time (hours)</b>
A	Assess the likelihood that the TS LCO will be met before the Completion Time expires. This activity is highly variable and should receive increased management attention.	8
B	Select and initiate the appropriate regulatory process.	1/3
C	Contact PRA specialists and prepare documentation	2
D	Complete PRA documentation in support of PRA calculations (e.g., equipment out of service at the time of the event, available station equipment, a detailed time line for the event, event causal factors, and extent of condition). This activity is highly variable and should receive management attention.	8
E	Prepare PRA calculations. This activity requires site-specific information and a checked/approved calculation.	10
F	Incorporate PRA data into the PRA calculation.	4
G	Incorporate PRA calculation into the LAR.	4
H	Prepare the LAR package.	12
I	Obtain review by the onsite and offsite review committees as required by plant programs and procedures.	2
J	Obtain NRC review of the LAR.	12 (Minimum)

C.3.3 Exigent/Emergency LAR Template

The following information specific to exigent or emergency amendments should be used in addition to the guidance given in Appendix A.

COVER LETTER

"Approval of the proposed amendment is requested by [date + justification] *and will remain in effect for [time period]*." [Application should clearly denote whether the requested change is "one time only" or is a permanent change to the OL/TS. "One time only" requests should justify the duration.]

"Attachment 2 is a placeholder for the reprinted TS pages reflecting the proposed changes. The reprinted TS changes will be provided to the NRC Project Manager pending the completion of NRC review of this request."

"In accordance with the licensee administrative procedures and the Quality Assurance Program Manual, this proposed amendment has been previously reviewed and approved by the Plant Operations Review Committee and the Nuclear Safety Review Board."

### C.3.3.1 (Enclosure) Technical and Regulatory Analysis

**NOTE:** In general, the emergency LAR should be complete and concise. It should only include information needed for the NRC to grant approval. Expository content is neither necessary nor beneficial. Content requirements for each section are provided below:

#### DETAILED DESCRIPTION

Discuss the conditions that the proposed amendment is intended to resolve.

Explain the circumstances that establish a need for the proposed amendment, including why the situation occurred and why it could not be avoided (as required by 10 CFR 50.91(a)(5)).

#### TECHNICAL EVALUATION

Discuss the following:

- What SSCs will be protected during the extended period?
- What can impact grid stability and what actions have been taken to preserve grid stability?
- What is the cause of failure?
- What is the timeline for the repair?
- Evidence that the repair plan will be successful.
- Clarification that no activities either in progress or planned will affect any of the conditions assumed by PRA to justify their conclusions. This is related to protected equipment which preserves the risk assumed for the duration of the extension.
- The impact on UFSAR accident analysis
- A discussion of the technical aspects of relevant precedents, including reference to the discussion of precedent in 4.2

Note: Consider adding compensatory measures put in place to support request.

Briefly summarize the preceding arguments at the end of this section.

It is important to note that the amendment must stand on its own merit; despite the collapsed review time, all of the same standards apply for the NRC safety review.

If precedent can be identified, then reference the affected power plant(s) and amendment number(s), and briefly discuss how the precedent applies to the specific circumstances of the proposed amendment.

**NOTE:** Determine the critical path activities. All activities must be completed before the limiting TS Completion Time expires. Activity descriptions are high-level and may involve multiple tasks. For example, Activity B involves contacting NRC and onsite/offsite review boards to alert them of the situation.



## **APPENDIX D PLANT-SPECIFIC ADOPTION OF TSTF TRAVELERS**

### **D.1 INTRODUCTION**

The TSTF, a jointly sponsored activity of the PWR and BWR Owners Groups, develops generic changes to the Improved Standard Technical Specifications (ISTS). The changes are called "Travelers." Travelers are submitted to the NRC for review. After a Traveler is approved by NRC, it is given an "A" postscript (e.g., TSTF-445-A) and posted on the TSTF web site (<http://www.excelservices.com>).

Most Travelers submitted since 2000 are made available for plant-specific adoption in accordance with the Consolidated Line Item Improvement Process (CLIIP). NRR Office Instruction LIC-600, "Review of Technical Specifications Task Force (TSTF) Travelers and Creation of "CLIIP" Model Applications," (Ref.<sup>25</sup>) describes the overall NRC process for review and approval of Travelers. This includes the budgeting and scheduling of NRC resources for Traveler reviews, the coordination of NRC technical staff review and concurrence, and the drafting of a Model SE for each Traveler.

In 2008, the NRC revised their use of the CLIIP. When the NRC approves a Traveler, a model application, model SE, and NSHCD are published (sometimes by reference to a document in ADAMS) in the Federal Register (first as a Notice for Comment and then as a Notice of Availability). This process is referred to "Model Application Published in the Federal Register" or MAPFR. All Travelers will have a MAPFR. Those Travelers, which are technically straightforward and well defined, and subsequent plant-specific adoption will not require review by the NRC technical staff (i.e., only need to be reviewed by the NRC Technical Specification Branch) and which are expected to be issued within 6 months, are processed under the CLIIP. Not all Travelers are offered under the CLIIP. Those that are available under the CLIIP are described as such in the Federal Register notices. Note that the 6 month CLIIP review goal is not an NRC requirement.

NRR Office Instruction LIC-101 describes the overall NRC process for managing LAR reviews, including LARs based on Travelers. The adoption of TSTF Travelers promotes consistency among plant-specific TS. The Traveler process has led to several hundred approved changes to the ISTS, most of which have been adopted by individual licensees by means of plant-specific LARs. The process utilizes a standardized format, content, and level of detail that has the following potential advantages:

- Avoidance of LARs that are overly detailed
- Lower preparation and review costs
- Easier comparison of a plant-specific LAR with the draft NRC safety evaluation of the Traveler
- Fewer RAIs

- Shorter NRC review time

The options for plant-specific adoption of Travelers are:

- Adoption of a single Traveler available under the CLIIP
- Adoption of a single Traveler that has a model application and SE published in the Federal Register
- Adoption of a single Traveler that does not have a model application and SE published in the Federal Register
- Adoption of multiple Travelers that do not have model applications and SEs published in the Federal Register.
- Lead plant submittal of a "T" Traveler (See "Lead Plant Approach" below)

## **D.2 ADOPTION OF A SINGLE TRAVELER AVAILABLE UNDER THE CLIIP**

The adoption of Travelers made available under the CLIIP is straightforward. The Notice of Availability published in the Federal Register contains a model application, a model NSHCD, and SE. Use the model application to prepare the plant-specific LAR. Review the model Safety Evaluation and NSHCD and verify they are appropriate for your application. However, if the model is not applicable, then submit the change following the directions for adoption of a single Traveler not offered under CLIIP.

Consider the following points:

- Follow the model application and the TS changes in the approved Traveler as closely as possible. Do not add additional changes or create technical differences except as absolutely necessary to accurately adopt the change.
- For any deviation from the approved Traveler and the model application, explain how the SE and NSHCD continue to be sufficient and consistent with the requested amendment.
- If the NRC determines that a plant-specific adoption varies significantly from the Traveler offered under the CLIIP, they may remove the amendment request from the CLIIP and process it as a normal amendment. This will typically require more review time and will increase review costs.

## **D.3 ADOPTION OF A SINGLE TRAVELER AVAILABLE WITH A MODEL APPLICATION AND SE T PUBLISHED IN THE FEDERAL REGISTER**

The adoption of Travelers with a model application and SE is very similar to adopting a change made available under the CLIIP. Use the model application to prepare the plant-specific LAR. Review the model SE and NSHCD and verify they are appropriate for your application.

It is likely that the model application will require the inclusion of plant-specific information. Follow the guidance in the model application and SE. If more guidance is needed, determine if other licensees have adopted the same change. Review their submittal and any RAIs to determine the required information.

Approval of the amendment will be on the NRC's normal amendment schedule.

#### **D.4 ADOPTION OF A SINGLE TRAVELER THAT DOES NOT HAVE A MODEL APPLICATION AND SE PUBLISHED IN THE FEDERAL REGISTER**

Format single-Traveler LARs that do not have a model application consistent with the “standard” LAR in Appendix A. Provide a level of detail consistent with the following points:

- Minimize the number and extent of differences between the LAR and the NRC-approved Traveler. If there are differences, they must be fully explained and justified to facilitate NRC review.
- Maximize the use of cross-references to previously published information presented in the Traveler and NRC approval documentation to minimize the repetition of information. This includes referencing the approved NSHCD in the Traveler. Repetition can be confusing because the NRC reviewer must compare the information restated in the LAR with the information in the Traveler and NRC documentation to ensure there are no differences.
- The NRC typically did not prepare SE for approved Travelers numbered less than 400. For most of these Travelers, the NRC provided a letter stating the Traveler was approved, but some of them were approved during public meetings without a letter being written. LARs that reference TSTFs below TSTF-400 should provide the NRC approval date and, if available, an example of a representative plant that has adopted the Traveler, including the approval date and amendment number. The LAR should also discuss any significant differences from the referenced plant-specific LAR.
- In general, it is preferable to summarize the justification for an NRC-approved Traveler in the LAR instead of completely restating it. The exceptions are the older Travelers for which NRC approval documentation is limited and for which there may not be any adoption precedent. The first adoption of such a Traveler should provide a justification for the change that supplements and is consistent with the justification provided in the Traveler.

The LAR adopting an NRC-approved Traveler should contain the following minimum information:

- Traveler number, approved revision, and title
- A brief discussion of the change to the plant-specific TS and its relationship to the Traveler
- Description of differences between the affected plant-specific TS and the ISTS marked up in the Traveler

- Description of differences between the Traveler justification and the plant-specific justification
- Description of differences between the relevant plant-specific design and the design assumed in the ISTS model plant
- Detailed description of all commitments

#### **D.5 ADOPTION OF MULTIPLE TRAVELERS THAT DO NOT HAVE A MODEL APPLICATION AND SE PUBLISHED IN THE FEDERAL REGISTER**

Format multiple-traveler LARs consistent with the format of a LAR adopting a single Traveler. Provide a level of detail consistent with the following points:

- The guidance on the level of detail for single-traveler adoptions applies to multiple adoption travelers
- Discuss all referenced Travelers in an Appendix to the LAR. Begin the discussion of each Traveler on a new page.
- Provide tables (or lists) of cross-references of TS page to TSTF and vice versa.
- The LAR may provide markups of plant-specific TS pages on a Traveler-by-Traveler basis, or it may provide all markups in a single location. A single location is preferred if more than one of the referenced Travelers affect the same TS page(s). If the pages are in a single location, each change should be annotated in the right-hand margin with the corresponding Traveler number.
- The LAR may provide a separate NSHCD for each referenced Traveler, a single NSHC for all referenced Travelers, or multiple generic NSHCs for each separate type of change (i.e., administrative, less restrictive, more restrictive, or relocation). This is similar to the format used for ISTS Conversions (Ref.<sup>26</sup>). The approach selected should depend on the number of Travelers being adopted and the complexity of the proposed changes.

A LAR that proposes to adopt a large number of Travelers may use an approach similar to an ISTS conversion. During conversions, each change is identified as "administrative," "less-restrictive," "more-restrictive," or "relocation." A "discussion-of-change" section is written for each change. If a TS markup is the same as the ISTS, the discussion-of-change section may reference the relevant Traveler. If not, a more detailed discussion is necessary. A single NSHCD is written for administrative, more-restrictive, and relocated items. Individual NSHCDs are written for each type of less-restrictive change.

## **D.6 LEAD PLANT APPROACH USING T-TRAVLERS**

Some Travelers, called T-Travelers, were determined to be insufficiently cost-beneficial to justify Owners Group funding of NRC review fees and were not submitted to the NRC for review and approval. However, the Travelers were sufficiently cost-beneficial to develop and post to the TSTF web site for use as templates for plant-specific LARs. The "T" stands for "template," e.g., TSTF-445-T. The industry Traveler review process ensures that T-Travelers meet the same ISTS format and usage rules as Travelers that are submitted for generic approval by NRC.

Licensees that submit LARs based on a T-Traveler are encouraged to volunteer as a "Lead Plant" to sponsor a generic review by NRC that will result not only in a plant-specific license amendment for the Lead Plant, but will also convert the T-Traveler to an A-Traveler approved by the NRC. Under the Lead Plant approach, the NRC's plant-specific SE will be sufficiently generic to serve as the generic approval of the Traveler.

The basic steps in the Lead Plant approach are described below:

- State in the LAR cover letter that it is a Lead Plant submittal for a T-Traveler that has been approved by the Owners Groups and the TSTF. Cite the Traveler number, title, and revision. It is recommended that a copy of the T-Traveler be included as an attachment to the submittal. Highlight and justify all differences between the LAR and the Traveler. Forward a copy of the LAR to the TSTF.
- Licensees should recognize that NRC review fees for a generic Lead Plant review will likely be greater than the review fees for a corresponding plant-specific review. If a licensee decides to withdraw from the Lead Plant process after submittal, the NRC review becomes a plant-specific review only, and the NRC will not review the generic aspects of the Traveler.
- RAI correspondence that affects the generic nature of the Traveler should be coordinated with the TSTF to ensure that any resulting changes continue to follow the ISTS format and usage guidelines for all applicable plant designs. The TSTF will revise the Traveler as necessary to reflect changes.
- The NRC SE should state that it constitutes regulatory approval of both the plant-specific request and the generic Traveler. A copy of the NRC approval documentation should be forwarded to the TSTF.
- After NRC approval, the TSTF will change the Traveler from a "T" Traveler to an "A" Traveler. The approved Traveler, the Lead Plant submittal, RAI correspondence, the NRC SE, and the NRC transmittal letter are posted on the TSTF web site for use by other licensees.



## **APPENDIX E**

### **LICENSE AMENDMENT REQUESTS WITH RISK-INFORMED JUSTIFICATION**

#### **E.1 INTRODUCTION**

All LARs must address the deterministic aspects of a license amendment, such as the effect of the proposed change on the design and licensing basis for the plant. In addition, LARs that use a risk-informed justification must provide the information described in RG 1.177, "An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications," and meet the risk metrics described in RG 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis." In addition, RG 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," provides technical standards for the PRA model used to support development of risk-informed LARs. RIS 2007-06, "Regulatory Guide 1.200 Implementation," (ADAMS Reference ML070650428), states that the NRC will use Regulatory Guide 1.200 to assess technical adequacy of all risk-informed LARs submitted after December 2007.

#### **E.2 RECOMMENDED CONTENT**

The basic elements of an LAR, as described in Appendix A of this document, are required for all LARs, including those that are supported with a risk-informed justification. In addition, risk-informed LARs require the following additional elements to be discussed in Section 3.0, "Technical Evaluation," and summarized in Section 4.1, "Applicable Regulatory Requirements/Criteria":

- 1) RG 1.177, "An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications" establishes five principles which must be met for a risk-informed LAR. The supporting basis for meeting each of these elements must be described within the LAR.
  - a. The proposed change meets the current regulations unless it is explicitly related to a requested exemption.
  - b. The proposed change is consistent with the defense-in-depth philosophy.
  - c. The proposed change maintains sufficient safety margins.
  - d. When proposed changes result in an increase in core damage frequency or risk, the increases should be small and consistent with the intent of the Commission's Safety Goal Policy Statement, as discussed in RG 1.174 below.
  - e. The impact of the proposed change should be monitored using performance measurement strategies.

- 2) RG 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," provides additional guidance. The content and level of detail of the LAR must be sufficient to support the development of the key elements of the NRC's SE:
  - a. Technical adequacy of the baseline PRA model and the cause/effect relation supporting the LAR meets the published standards in RG 1.200;
  - b. All applicable risk sources are addressed (e.g., fire, seismic, other external, shutdown);
  - c. Risk metrics in RG 1.174 and RG 1.177 are satisfied:
    - i. The Incremental Conditional Core Damage Probability (ICCDP) and the Incremental Conditional Large Early Release Probability (ICLERP) must be small (Note that for changes in Completion Time, the metrics must consider the full Completion Time, not the change in Completion Time);
    - ii. The change in Core Damage Frequency (CDF) – delta CDF and change in Large Early Release Frequency (LERF) – delta LERF are small;
    - iii. The total CDF and LERF (if required) are below the Commission's Safety Goal;
  - d. Truncation, uncertainty, common cause effects are addressed;
  - e. Tier 2 evaluations to identify risk significant configurations are performed;
  - f. Tier 3 (Configuration Risk Management Program) is addressed;
  - g. Regulatory compliance, safety margins and defense-in-depth; and
  - h. Implementation monitoring and feedback are identified (typically the program in place to meet the Maintenance Rule, 10 CFR 50.65 (a)(4), is adequate).
  
- 3) RG 1.200 provides additional submittal documentation guidance in Section 4.2. The following recommendations are provided regarding application of RG 1.200 to a risk-informed LAR:
  - a. Identify the parts of the PRA used to support the LAR and the applicable requirements from the standards referenced in the RG.
  - b. Verify the requirements from the standards are met or disposition any requirements applicable to the LAR that are not met, such as open findings and observations (F&Os), or capability category assessment deficiencies.
  - c. Assess relevant PRA assumptions/approximations using sensitivity studies.
  - d. Submit documentation as described in RG 1.200, Section 4.2, including:
    - i. Description and disposition of plant changes not incorporated in the PRA model
    - ii. Disposition of relevant unmet or lower capability category of applicable technical requirements
    - iii. A summary of the risk assessment methodology that was used
    - iv. Description of relevant key assumptions and approximations
    - v. Discussion of resolution of relevant peer review/self assessment findings and observations

Information regarding the technical adequacy of other PRA models used based on their conformance to the high level technical characteristics/attributes in RG 1.200, Table 3.

### **E.3 AVOID COMMON DEFICIENCIES**

The following discussion is taken from a presentation entitled, "NRC Perspectives on Risk-Informed Licensing Actions," presented at the NEI Licensing Forum on October 6, 2008. The NRC has identified the following common deficiencies in risk-informed submittals and care should be taken to ensure these areas are adequately addressed:

- 1) Missing or incomplete description of how cause/effect was modeled.
  - a. Completion Time extension where PRA assumed repair of out-of-service component;
  - b. The use of "zero-maintenance" assumption of other equipment is not stated;
  - c. For systems/components not modeled in the PRA, "negligible risk" is stated but not supported; and,
  - d. Submittals should provide detailed information on Structure, System, or Component (SSC) modeling, data, assumptions, plant-specific performance, etc., to justify the model is adequate.
- 2) No discussion of common cause impacts (for Technical Specification changes applicable to unplanned emergent failures).
  - a. RG 1.177 Section 2.3.3 and Appendix A not addressed in risk calculations
  - b. No identification or justification of truncation level used
- 3) Key assumptions and sources of uncertainty not identified or properly addressed.
  - a. Assumption stated without any further basis to validity;
  - b. Stated that assumption "believed" to be reasonable; or
  - c. Unrealistic basis stated
  - d. Submittal should state assumption, provide a basis for why it is valid and reasonable, and explore potential risk impact with sensitivity studies.
- 4) Justification of open findings and observations inadequate.
  - a. Unsupported statements are made, such as "judged not to impact the risk calculations," "no impact."
  - b. A justification of "documentation only" is not acceptable.
- 5) Risk metrics not properly calculated.
  - a. ICCDP and ICLERP for TS CT extensions are to be based on the proposed full CT, not the extension, and should include nominal maintenance probabilities of other equipment.
  - b.  $\Delta$ CDF and  $\Delta$ LERF are to be based on reasonable or bounding assumptions on frequency of use of proposed change.

- c. Consider that the metrics in the RG assume full scope assessments.
- 6) Failure to address external events (especially fires) adequately.
- a. Commission policy since 2003 has been that significant sources of risk (which could substantially affect the regulatory decision) should be quantified (COMNJD-03-0002).
  - b. The disposition of out-of-scope initiators as "insignificant" must be convincing, and may require additional PRA analyses (RG 1.174).
  - c. If the LAR deals with a plant SSC which mitigates fires, a quantitative treatment of fire risk will be required.
    - This may be a bounding evaluation (using IPEEE methods).
    - The lack of cable route information or other deficiencies is not a justification to ignore the risk source.
    - The sole use of fire watches and other compensatory measures without quantitative characterization of risk is not acceptable.

## **APPENDIX F GLOSSARY**

### ACCEPTANCE REVIEW

When the holder of a Part 50 license to operate a commercial nuclear power plant submits a REQUEST FOR LICENSING ACTION (RLA), the NRC Staff conducts an ACCEPTANCE REVIEW in accordance with NRR Office Instruction LIC-109. The ACCEPTANCE REVIEW is the Staff's initial determination of whether the RLA reasonably appears to contain sufficient technical information, both in scope and depth, for the Staff to complete a detailed technical review and render, in an appropriate time frame for the associated action, an independent assessment of the proposed action with regard to applicable regulatory requirements and the protection of public health, safety, and security. An RLA that was rejected during the acceptance review may be resubmitted if it is supplemented to address the reasons for the NRC Staff's rejection. If an RLA is rejected, the NRC does not issue a No Significant Hazards Consideration Determination (NSHCD) and there are no subsequent hearing rights.

### ADEQUATE PROTECTION

The Atomic Energy Act (Ref.<sup>27</sup>) delegates to NRC the responsibility to interpret what is necessary to meet the ADEQUATE PROTECTION standard. NRC establishes what is meant by ADEQUATE PROTECTION through rulemaking and the adjudicatory process. In general, ADEQUATE PROTECTION is presumptively assured by compliance with NRC requirements. The NRC Staff evaluates situations of noncompliance to determine the degree of risk and whether immediate action is necessary. If the NRC determines that non-compliance itself is of such safety significance that ADEQUATE PROTECTION is no longer provided, or that it was caused by a deficiency so significant it questions a licensee's ability to ensure ADEQUATE PROTECTION, the NRC may demand immediate action, up to and including shutdown or cessation of licensed activities.

### APPLICABLE STAFF POSITION

An APPLICABLE STAFF POSITION (ASP) (Ref.<sup>28</sup>) is a formal NRC Staff position documented in writing in the SRP, a Branch Technical Position (BTP), a RG, or an NRC staff SE to which the Staff or a licensee/applicant has previously committed or relied upon as documented in the CURRENT LICENSING BASIS. This includes Staff positions taken in response to a TOPICAL REPORT from an Owners Group, NEI, EPRI, or NSSS vendor. For a given issue, the most recent ASP is the appropriate baseline for use in subsequent plant-specific licensing actions pertaining to the regulatory issue or requirement in question.

## BACKFIT

The Commission recognized the importance of BACKFIT controls in 1988 when it approved a change to 10 CFR 50.109 to establish administrative standards for NRC imposition of new regulations or new interpretations of existing regulations. The rule defines a BACKFIT as "the modification of or addition to systems, structures, components, or design of a facility; or the design approval or manufacturing license for a facility; or the procedures or organization required to design, construct or operate a facility; any of which may result from a new or amended provision in the Commission's regulations or the imposition of a regulatory staff position interpreting the Commission's regulations that is either new or different from a previously applicable staff position ..." (Ref.<sup>29</sup>).

## COMMITMENT

See Regulatory Commitment.

## CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS (CLIIP)

The consolidated line item improvement process (CLIIP) is an NRC review process designed to facilitate plant-specific adoption of TSTF Travelers. The Travelers are written as changes to the ISTS (NUREG series 1430 – 1434) (Ref.<sup>30</sup>). The process is based on the NRC Staff's preparation of a generic MODEL SAFETY EVALUATION (MSE) that is subject to formal public notice and comment. The initial impetus for an MSE is normally a request from the industry's TSTF, but may also come from other industry or public groups or from within the NRC Staff. An MSE defines the technical and administrative boundary conditions that a licensee must satisfy in order to adopt a particular change. Licensees can request to adopt the CLIIP by demonstrating conformance with the boundary conditions rather than repeating the entire technical analysis that provided the basis for the MSE.

The purpose of the CLIIP is to streamline the license amendment review process involving TSTF changes applicable to multiple plants. By using a standardized process such as the CLIIP, the burden on an individual licensee would be reduced by saving resources in preparing LARs and, at the same time, the NRC Staff review process would become more efficient. The main participants in the process are the TSTF, the NRC Staff, and licensees eligible to implement approved CLIIPs. In addition, all NRC stakeholders are provided an opportunity to comment on proposed CLIIPs before NRC acceptance and to participate in the licensing process for each subsequent LAR.

## CURRENT LICENSING BASIS

The term CURRENT LICENSING BASIS (CLB) is not defined in 10 CFR 50. However, the following is a practical definition of the CLB that is derived from 10 CFR 54. The CLB for an operating commercial reactor is comprised of:

The set of NRC regulations applicable to a specific plant that are docketed and in effect (e.g., 10 CFR Parts 2, 19, 20, 21, 26, 30, 40, 50, 51, 52, 54, 55, 70, 72, 73, 100 and appendices thereto).

The set of written licensee commitments for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design basis (including all modifications and additions to such commitments over the life of the license) that are docketed and in effect. This includes formal commitments contained in docketed licensing correspondence (e.g., licensee event reports and responses to NRC bulletins, generic letters, and enforcement actions) and NRC SEs. See OBLIGATION (Ref. 7).

The plant-specific design bases information defined in 10 CFR 50.2 and documented in the plant-specific Final Safety Analysis Report (FSAR) as updated in accordance with 10 CFR 50.71(e).

### COMPLIANCE

The term COMPLIANCE means that a SSC satisfies all requirements of applicable rules, regulations, orders, and licenses (including TS). COMPLIANCE is based on the intent of the requirement at the time of its promulgation. The NRC typically documents the intent of a requirement in a Federal Register Notice, and licensees typically incorporate implementing language into the CLB by updating the FSAR or other licensee-controlled document. NRC regulations (10 CFR 50.59 and 10 CFR 50.109), supplemented by NRC and licensee procedures, control the imposition of new or different interpretations.

### DENIAL

DENIAL of an LAR can occur after it has been accepted by NRC for review. In accordance with 10 CFR 2.108, NRC may deny an LAR if the applicant fails to respond to a RAI within thirty (30) days from the date of the request, or within such other time as may be specified. Notices of LAR DENIAL are posted in the Federal Register. LARs that have been denied cannot be resubmitted without substantial revision to address the reason(s) for DENIAL. Also, a hearing may be requested because a No Significant Hazards Consideration Determination will have been published by the NRC following initial acceptance of the LAR for staff review.

### DESIGN BASIS

The plant-specific DESIGN BASIS, per 10 CFR 50.2, is the set of information that identifies the specific functions to be performed by a facility's SSCs, and the specific values or ranges of values chosen for controlling parameters as reference bounds for design. These values may be (1) restraints derived from generally accepted state-of-the-art practices for achieving functional goals, or (2) requirements derived from analysis (based on calculation and/or experiments) of the effects of a postulated accident for which a SSC must meet its functional goals. DESIGN BASIS program guidelines are discussed in NEI 97-04 (Ref. 3) which is endorsed by Regulatory Guide 1.186 (Ref. 4).

## DETERMINISTIC

The term DETERMINISTIC is used to differentiate prescriptive requirements from those that are "risk informed." The NRC initially developed many of its regulations without considering numerical estimates of risk. They are "deterministic" in the sense that they set strict limits or prescribe discrete outcomes. DETERMINISTIC requirements are established based on experience, test results, and expert judgment considering factors such as design margin, defense-in-depth, and accident prevention or mitigation. Compare with PROBABILISTIC.

## DURABLE GUIDANCE

The term DURABLE GUIDANCE refers to the type of regulatory document that is used to disseminate an APPLICABLE STAFF POSITION. A regulatory guidance document is "durable" if changes to the document are controlled by an administrative approval process that includes an opportunity for the public to comment on proposed changes. For example, RGs, the SRP, NRC SEs, and the Statements of Consideration that accompany Final Rules are DURABLE GUIDANCE documents.

## EMERGENCY LICENSE AMENDMENT

The term EMERGENCY LICENSE AMENDMENT (Ref.<sup>31</sup>) applies to situations where the Commission finds that failure to act in a timely way would result in de-rating or shutdown of a nuclear power plant, or in prevention of either resumption of operation or of increase in power output up to the plant's licensed power level. In such cases the NRC may issue a license amendment involving a NSHCD without prior notice and opportunity for hearing or for public comment.

## EXIGENT LICENSE AMENDMENT

The term EXIGENT LICENSE AMENDMENT (Ref. 31) applies to situations where an LAR is submitted with a need date of more than seven days but less than four or five weeks from submittal. The preferred exigent process is to use a shortened public notice period in the Federal Register. Local media may be used to notice LARs that require disposition in less time than needed for a 2-week comment period in the Federal Register.

## FINDING

See REGULATORY FINDING.

## FIRST OF A KIND (FOAK) LICENSE AMENDMENT

The term FIRST OF A KIND (FOAK) applies to LARs that involve new or more complex technology, a greater scope of applicability, or a greater organizational complexity than previously reviewed by the NRC Staff. There is no close existing analogue or body of precedent that Staff can use to aid the regulatory review of an FOAK LAR. Consequently, the NRC review

fees for processing such an application can be quite high and pre-submittal meetings are important for the ACCEPTANCE REVIEW.

### FLEET LAR

The term FLEET LAR refers to an LAR that is submitted by an operating company on behalf of several nuclear units (i.e., more than one Docket). The NRC recommends that separate FLEET LAR submittals should be provided for ITS and non-ITS plants.

### GENERIC

The term GENERIC refers to all members of a genus, class, group, or kind (Ref.<sup>32</sup>). In the context of nuclear power, it pertains to all of power plants or organizations that have common characteristics, such as the set of BWRs, the set of PWRs, the set of reactors designed by a particular NSSS vendor, etc.

### GENERIC ISSUE

In its broadest sense, a GENERIC ISSUE is a well defined, discrete issue with the following attributes:

- The issue could affect public health and safety, the common defense and security, or the environment
- The issue applies to two or more facilities, licensees, certificate holders, or holders of other regulatory approvals
- The issue is not being addressed by an existing program or process
- The issue cannot be readily addressed by existing regulations, policies, guidance, or voluntary industry initiatives
- The issue cannot be readily addressed by other regulatory programs or processes
- The risk or safety significance of the issue can be adequately determined

A GENERIC ISSUE may lead to regulatory changes that either enhance safety, or reduce unnecessary regulatory burden.

### GENERIC SAFETY ISSUE

A regulatory issue is a GENERIC SAFETY ISSUE if it falls into one of five groups defined in NUREG-0933, "A Prioritization of Generic Safety Issues:" (Ref.<sup>33</sup>)

- TMI Action Plan items (NUREG-0660 (Ref.<sup>34</sup>) and NUREG-0737 (Ref.<sup>35</sup>))
- Task Action Plan items (NUREG-0371, (Ref.<sup>36</sup>) NUREG-0471, (Ref.<sup>37</sup>) and subsequent unresolved safety issues)
- New generic issues identified from various sources

- Human factors issues (NUREG-0985 (Ref.<sup>38</sup>))
- Chernobyl issues (NUREG-1251(Ref.<sup>39</sup>))

### LICENSE AMENDMENT REQUEST

A LICENSE AMENDMENT REQUEST (LAR) is a formal request from a licensee to amend a Part 50 facility operating license pursuant to 10 CFR 50.90 (application for amendment of license, construction permit, or early site permit), 50.91 (notice for public comment; state consultation), and 50.92 (issuance of amendment). A licensee submits an LAR whenever it determines that a proposed activity (e.g., plant modification, procedure change) requires modification of the plant OL or TS.

### LINKED SUBMITTAL

A LAR that relies upon another LAR which is under review by NRC and not yet approved.

### MODEL SAFETY EVALUATION

A MODEL SAFETY EVALUATION is prepared by the NRC staff pursuant to the CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS. NRC publishes proposed CLIIPs in the Federal Register for public comment. If public comments are satisfactorily resolved, NRC publishes a final MODEL SAFETY EVALUATION in the Federal Register for licensees to reference as the basis for plant-specific LARs.

### OBLIGATION

An OBLIGATION is any condition or action that is a legally binding requirement imposed on licensees through applicable rules, regulations, orders and licenses (including TS and license conditions). These conditions (also referred to as regulatory requirements) generally require formal NRC approval as part of the change-control process. Also included in the category of OBLIGATIONS are those regulations and license conditions that define change-control processes and reporting requirements for licensing basis documents such as the Updated FSAR, Quality Assurance Program, Emergency Plan, Security Plan, and Fire Protection Program.

### PILOT PLANT (for TOPICAL REPORTS or FOAK LARs)

A PILOT PLANT (as distinguished from a Lead Plant) is a licensee that submits an LAR for a review by NRC that will result in a plant-specific license amendment for the pilot plant, and also lead the way for additional plants to submit similar LARs. The NRC will consider accepting a PILOT PLANT LAR if it will assist the Staff in identifying enhancements to the NRC's generic regulatory program by identifying process improvements and lessons learned for review of a future LAR.

### PRECEDENT

The term PRECEDENT refers to prior NRC licensing actions and decisions which may provide additional clarification for the acceptability of a proposed licensing action. In and of itself, PRECEDENT action does not provide justification for approval of a proposed license amendment; however, effective discussion of PRECEDENT can assist in the regulatory review by presenting technical and regulatory considerations applied to prior similar licensing actions. The effective use of PRECEDENT depends to a large extent on the level of detail provided in the applicant's LAR with respect to similarities and differences between the PRECEDENT and the proposed licensing action.

### PROBABILISTIC

The term PROBABILISTIC is associated with a systematic analysis for addressing risk as it relates to the performance of complex systems to understand likely outcomes, sensitivities, areas of importance, system interactions, and areas of uncertainty (Ref.<sup>40</sup>). Compare with DETERMINISTIC.

### REGULATORY ANALYSIS

The NRC has prepared and published guidance on the performance of a REGULATORY ANALYSIS to ensure sound decisions regarding actions needed to protect the health and safety of the public or the common defense and security. Regulatory analyses are required for all regulatory actions that involve BACKFITTING.

### REGULATORY COMMITMENT

A REGULATORY COMMITMENT (Refs. 7 and 8) is an explicit statement to take a specific action agreed to, or volunteered by, a licensee and submitted to NRC in writing on the licensee's docket.

### REGULATORY FINDING

The term REGULATORY FINDING refers to the NRC Staff's explanation and bases, documented in a written SAFETY EVALUATION in response to a REQUEST FOR LICENSING ACTION, for concluding that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

### REGULATORY MARGIN

REGULATORY MARGIN is a subjective concept analogous to equity, or good will. It represents a licensee's intangible reputation based on past performance. Some observers perceive that strong licensee performance (e.g., a good record of compliance, a good reputation

for quality submittals, fewer operational problems, cordial professional relationships among peers, etc.) leads to greater REGULATORY MARGIN.

### REQUEST FOR ADDITIONAL INFORMATION (RAI)

An NRC REQUEST FOR INFORMATION (RAI) is either a formal or an informal request for information needed by the NRC Staff to document the basis for the Staff's conclusions in the SE of a REQUEST FOR LICENSING ACTION.

### REQUEST FOR LICENSING ACTION

A REQUEST FOR LICENSING ACTION (RLA) is a formal request from a licensee/applicant that requires prior NRC approval before it can be implemented. A LICENSE AMENDMENT REQUEST (LAR) is a special case of an RLA.

### REQUIREMENT

The term REQUIREMENT is a legally binding statute, regulation, license condition, TS, or order. See OBLIGATION.

### RISK-INFORMED

An LAR is RISK-INFORMED (Ref.<sup>41</sup>) if it applies quantitative or qualitative risk insights and techniques in accordance with applicable regulatory guidance. Since 1975, the NRC and its licensees have advanced their knowledge of (and experience with) Probabilistic Risk Assessment (PRA). PRA considers nuclear safety in a comprehensive way by examining the likelihood of a broad spectrum of initiating events.

### SAFETY EVALUATION

The results of the NRC Staff's evaluation of an RLA are documented in a SAFETY EVALUATION (SE). The SE describes the Staff's technical and regulatory evaluation with respect to the impact on public health and safety of operation in the manner proposed in the RLA.

### SUBMITTAL QUALITY

SUBMITTAL QUALITY depends on the extent to which the submitter understands a set of objective and subjective expectations (e.g., format, content, scope, level of detail, etc.), and the degree to which the submitter can conclude that that a submittal meets these expectations. High-quality submittals optimize the presentation of relevant information (e.g., system descriptions, results of calculations, bases that support compliance with applicable requirements, bases that support conformance with applicable NRC and industry guidance, comparisons with precedent, references, definitions, procedures, commitments, implementation plans and schedules, etc.).

### TASK INTERFACE AGREEMENT (TIA)

The term TASK INTERFACE AGREEMENT (Ref. 15) (TIA) refers to an internal process used by NRR to respond to requests for technical assistance from an NRC Region or another NRC office. A TIA contains questions on subjects involving regulatory or policy interpretations, specific plant events, or inspection findings within the scope of NRR's mission and responsibilities. The requesting organization may use a TIA to obtain information on specific plant licensing basis, applicable Staff positions for an issue, regulatory requirements, NRR technical positions, or the safety or risk significance of particular plant configurations or operating practices. The TIA process is designed to ensure that concerns from the regions and other NRC offices are resolved in a timely manner and that the NRR responses are appropriately communicated. The process includes a provision to interact with licensees to ensure clear and accurate information.

### TECHNICAL SPECIFICATION TASK FORCE (TSTF) TRAVELER

The TSTF, in support of the PWR and BWR Owners Groups, develops generic changes to the ISTS. The documentation in support of the change is called a TSTF Traveler. Following approval by the NRC, the Traveler number is given an "-A" suffix to indicate that it is approved. Travelers that are approved by the TSTF for industry use as a template and not submitted to the NRC for review are given a "-T" suffix.

### TOPICAL REPORT

The term TOPICAL REPORT (TR) refers to a wide variety of stand-alone reports that are submitted for NRC review. Normally these reports contain technical information about a nuclear power plant safety issue, although they can address policy and process issues also. TRs improve the efficiency of the licensing process by establishing generic methodologies, designs, procedures, or other guidance that multiple licensees can reference in plant-specific RLAs. Internal NRC guidance for reviewing TRs is contained in LIC-500 (Ref.<sup>42</sup>)

### WITHDRAWAL

The term WITHDRAWAL applies at any point after an LAR is submitted, but before the NRC Staff has completed its regulatory review. A licensee may withdraw an LAR without prejudice (i.e., it can be resubmitted at a later date).



## **APPENDIX G ACRONYMS**

ADAMS	Agency Documents Access and Management System
ASME	American Society of Mechanical Engineers
BWR	Boiling Water Reactor
BWROG	Boiling Water Reactors Owners' Group
CFR	Code of Federal Regulations
CLB	Current Licensing Basis
CLIP	Consolidated Line Item Improvement Process
EPRI	Electric Power Research Institute
FOAK	First of a Kind
FSAR	Final Safety Analysis Report
GDC	General Design Criteria
INPO	Institute of Nuclear Plant Operations
ISTS	Improved Standard Technical Specifications
LAR	License Amendment Request
LATF	Licensing Action Task Force
LCO	Limiting Condition for Operation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulation
NSSS	Nuclear Steam System Supplier
OGC	Office of the General Counsel
OL	Operating License
PM	(NRC) Project Manager
PWR	Pressurized Water Reactor
PWROG	Pressurized Water Reactor Owners Group
RAI	Request for Additional Information
RIRP	Regulatory Issue Resolution Protocol
RLA	Request for Licensing Activity
RIS	Regulatory Issue Summary
SE	Safety Evaluation

SOC	Statements of Consideration
SRP	Standard Review Plan
SSC	Structure, System, or Component
TIA	Task Interface Agreement
TS	Technical Specification
TSTF	Technical Specification Task Force
UFSAR	Updated Final Safety Analysis Report
USC	U.S. Code

## **APPENDIX H REFERENCES**

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1. NEI 96-07, Revision 1, "Guidelines for 10 CFR 50.59 Implementation," (November 2000).
  2. NRC Regulatory Guide 1.187, "Guidance for Implementation of 10 CFR 50.59; Changes, Tests, and Experiments," (November 2000).
  3. NEI 97-04, Revision 1, "Design Bases Program Guidelines," (February 2001).
  4. NRC Regulatory Guide 1.186, "Guidance and Examples for Identifying 10 CFR 50.2 Design Bases," (December 2000).
  5. NEI 98-03, Revision 1, "Guidelines for Updating Final Safety Analysis Reports," (June 1999).
  6. NRC Regulatory Guide 1.181, "Content of the Updated Final Safety Analysis Report in Accordance with 10 CFR 50.71(e)," (September 1999).
  7. NEI 99-04, "Guidelines for Managing NRC Commitment Changes," (July 1999).
  8. NRC Regulatory Issue Summary 2000-17, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff," (September 21, 2000).
  9. NEI 01-01, Revision 1 (co-numbered EPRI TR-102348, revision 1), "Guideline on Licensing Digital Upgrades," (March 2002).
  10. NRC Regulatory Issue Summary 2002-22, "Use of EPRI/NEI Joint Task Force Report, 'Guideline on Licensing Digital Upgrades: EPRI TR-102348, Revision 1, NEI 01-01: a Revision of EPRI TR-102348 to Reflect Changes to the 10 CFR 50.59 Rule'," (November 25, 2002).
  11. NRR Office Instruction LIC-100, "Control of Licensing Bases for Operating Reactors."
  12. NRR Office Instruction LIC-101, "License Amendment Review Procedures."
  13. NRR Office Instruction LIC-109, "Acceptance Review Procedures."
  14. 10 CFR 2.101, "Filing of application."
  15. NRR Office Instruction COM-106, "Control of Task Interface Agreements."
  16. NRC NUREG/BR-0058, Revision 4, "Regulatory Analysis Guidelines of the U.S. Nuclear Regulatory Commission," (September 2004).
  17. NRR Office Instruction LIC-202, "Procedures for Managing Plant-Specific Backfits and 50.54(f) Information Requests."

18. NRR Office Instruction LIC-400, "Procedures for Controlling the Development of New and Revised Generic Requirements for Power Reactor Licensees."
19. 10 CFR 2, "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders."
20. NRC Regulatory Issue Summary 2001-22, "Attributes of a Proposed No Significant Hazards Consideration."
21. 10 CFR 51.22, "Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review."
22. NRR Office Instruction LIC-105, "Managing Regulatory Commitments Made By Licensees to the NRC"
23. TSTF-GG-05-01, "Writer's Guide for Plant-Specific Improved Technical Specifications," June 2005.
24. NRC Regulatory Issue Summary 2007-06, "Regulatory Guide 1.200 Implementation," (March 2007).
25. NRR Office Instruction LIC-600, "Changing the Standard Technical Specifications by means of Technical Specifications Task Force (TSTF) Travelers."
26. NEI 96-06, "Improved Technical Specification Conversion Guidance," (August 1996).
27. U.S. Code, Atomic Energy Act of 1954 (as amended), Section 182, "License Applications."
28. NRC Management Directive MD 8.4, "NRC Program for Management of Plant-Specific Backfitting of Nuclear Power Plants."
29. 10 CFR 50.109(a)(1), "Backfitting" (definition).
30. NRC NUREG 1430-1434 series, Standard Technical Specifications.
31. 10 CFR 50.91, "Notice for public comment; State consultation."
32. Dictionary.com (<http://dictionary.reference.com/browse/generic>).
33. NUREG-0933, "A Prioritization of Generic Safety Issues."
34. NRC NUREG-0660, Revision 1, "TMI-2 Action Plan," (August 1980).
35. NRC NUREG-0737, "Clarification of TMI Action Plan Requirements," (November 1980).
36. NRC NUREG-0371, "Task Action Plans for Generic Activities (Category A)," (November 1978).
37. NRC NUREG-0471, "Generic Task Problem Descriptions (Categories B, C, and D)," (June 1978).
38. NRC NUREG-0985, Revision 1, "Human Factors Program Plan," (April 1986).

39. NRC NUREG-1251, "Implications of the Accident at Chernobyl for Safety Regulation of Commercial Nuclear Power Plants in the United States," (April 1989).
40. NRC Glossary (<http://www.nrc.gov/reading-rm/basic-ref/glossary/probabilistic-risk-analysis.html>).
41. NRC Regulatory Guide 1.174, Revision 1, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," (November 2002).
42. NRR Office Instruction LIC-500, "Topical Report Process."