

April 20, 1998

SECY-98-087

FOR: The Commissioners

FROM: L. Joseph Callan /s/  
Executive Director for Operations

SUBJECT: PROPOSED GENERIC LETTER 98-XX: INTERIM GUIDANCE FOR UPDATED  
FINAL SAFETY ANALYSIS REPORTS IN ACCORDANCE WITH  
10 CFR 50.71(e)

PURPOSE:

To obtain the Commission's approval to issue the proposed generic letter for public comment.

SUMMARY:

The staff has developed a proposed generic letter that provides interim guidance for complying with 10 CFR 50.71(e), the "update rule." As requested by the Commission, the proposed generic letter (1) allows the removal of certain information from the updated final safety analysis report (updated FSAR), (2) is applicable to plants undergoing decommissioning, and (3) recommends a partial extension of the enforcement discretion period that will result in a risk-informed prioritization of information to be updated to make the updated FSAR complete. The proposed generic letter conforms to existing requirements, an approach that avoids the need to undertake rulemaking pertaining to updated FSARs at this time. Consistent with this approach, the staff considered but did not include in the proposed generic letter guidance on risk-informed content of the updated FSAR.

The staff will ultimately issue a regulatory guide as the long-term guidance for updated FSARs. The staff's preferred approach is for the Nuclear Energy Institute (NEI) to revise its draft guidance document, "Draft Industry Update Guidelines for Final Safety Analysis Reports," dated November 14, 1997 (NEI 98-03), to conform to the guidance in the proposed generic letter. The staff could then endorse NEI 98-03 in the regulatory guide.

Contact: Thomas Bergman, NRR  
301-415-1021

BACKGROUND:

Section 50.34 (10 CFR 50.34), "Contents of Applications; Technical Information," includes requirements for the contents of applications for construction permits and operating licenses for nuclear power reactors. An application for a construction permit must include a preliminary safety analysis report (PSAR) pursuant to §50.34(a). An application for an operating license must include an FSAR in accordance with §50.34(b). For holders of operating licenses, §50.71(e) requires updated FSARs to be developed and periodically updated.

Guidance for the organization and contents of PSARs and FSARs has existed since June 30, 1966, when the "Guide to the Organization and Contents of Safety Analysis Reports" was issued. The most recent guidance document is Regulatory Guide (RG) 1.70, Revision 3, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants, LWR Edition," dated November 1978. Guidance for the format and content of updated FSARs was previously provided in Generic Letter 80-110, "Periodic Updating of Final Safety Analysis Reports (FSARs)," dated December 15, 1980, but the guidance in that generic letter was limited.

As a result of lessons learned from the Millstone experience and of other initiatives related to updated FSARs, the NRC determined that additional guidance regarding compliance with §50.71(e) was necessary. The staff recommended specific actions in SECY-97-036, "Millstone Lessons Learned Report, Part 2: Policy Issues," dated February 12, 1997. In a staff requirements memorandum (SRM) dated May 20, 1997, the Commission directed the staff, in part, to issue guidance for complying with §50.71(e) to ensure that updated FSARs are updated to reflect changes to the design bases and to reflect the effects of other analyses performed since original licensing that should have been included under §50.71(e). The Commission suggested that this guidance include a risk-informed approach for prioritization and content of the updated FSAR, allow removal of certain information from the updated FSAR, and consider whether the period of enforcement discretion regarding updated FSARs should be extended. In the SRM of March 24, 1998, for SECY-97-205, "Integration and Evaluation of Results From Recent Lessons-Learned Reviews," dated September 10, 1997, the Commission reemphasized the need for guidance for updated FSARs and further requested that guidance be provided for plants undergoing decommissioning. This current paper responds, in part, to the SRMs of May 20, 1997, and March 24, 1998, by forwarding a proposed generic letter for the Commission's consideration. If the Commission approves, the generic letter will be issued for public comment for a period of 60 days.

DISCUSSION:

The primary purpose of this paper is to request Commission approval to issue the proposed generic letter for public comment. This paper also (1) provides the staff's basis for not recommending an approach that would result in risk-informed content of updated FSARs at this time, (2) includes the proposed schedule to issue and implement the proposed generic letter, and (3) describes the staff's approach that will result in long-term guidance for the updated FSAR in the form of a regulatory guide.

Proposed Generic Letter

Attachment 1 is the proposed generic letter, the purpose of which is to provide interim guidance for licensees pertaining to updating their FSARs in accordance with current requirements. As a result of a lack of prior definitive guidance concerning the requirements of the update rule and the absence of detailed staff reviews of the periodic updates, some staff positions regarding §50.71(e) were neither clearly articulated nor did industry uniformly implement the update rule. Although the staff positions in the proposed generic letter are consistent with the requirements of the update rule, for some plants they could be considered staff positions applicable to those plants, and therefore considered backfits. Because established regulatory requirements exist but are not being satisfied, these backfits are necessary to bring licensees into compliance with 10 CFR 50.71(e). Therefore, on the basis of 10 CFR 50.109(a)(4)(i), a full backfit analysis was not performed. In accordance with NRC procedures, an evaluation was performed, including a statement of the objectives and the reasons for the requested actions and the basis for invoking the compliance exception, which is provided in the proposed generic letter.

The proposed generic letter includes specific guidance on scope, level of detail, format, removal of information not associated with a change, drawings, historical information, frequency of the periodic updates, temporary modifications, treatment of nonconforming conditions between the facility and the updated FSAR, treatment of FSAR information related to removal of or retirement-in-place of systems structures or components (SSC), and exercise of enforcement discretion regarding complete and accurate updated FSARs. Each of the specific guidance sections are summarized below. Attachment 1 should be reviewed for a more detailed description.

*Scope:* Since the purpose of the updated FSAR was to keep the FSAR current, the staff views the scope of the FSAR as defined by two regulations: §50.71(e) and §50.34(b). Section 50.34(b) provides the requirements for the original FSAR. Section 50.71(e) specifies the current information in the updated FSAR that must be changed and the new information that must be added to the updated FSAR.

To determine what information needs to be incorporated into the updated FSAR, the licensee first establishes which changes and analyses meet the test of 10 CFR 50.71(e) to be considered for inclusion in the updated FSAR. The requirements of §50.34(b) are then used to determine whether and to what extent the changes and analyses include any of the four basic types of information required to be in the FSAR (and thus, the updated FSAR): (1) a description of the facility, (2) a presentation of the design bases, (3) the limits on the facility's

operation, and (4) a presentation of the safety analysis of the SSCs and of the facility as a whole. The effect of this approach is that only those analyses and changes that result in a

change to or creation of a new (1) description of the facility, (2) design basis, (3) operating limit, or (4) safety analysis need to be included in the updated FSAR.<sup>1</sup> The staff expects licensees to include new analyses and descriptions required by new Commission requirements or performed in response to Commission request. It is not expected that the updated FSAR summarize or refer to every change and analysis conducted by the licensee. Rather, licensees should only incorporate those analyses and changes that belong in a FSAR and, by extension, the updated FSAR; and only to the extent that the analysis or change modifies the existing or creates a new (1) description of the facility, (2) design basis, (3) operating limit, or (4) safety analysis.

*Level of Detail:* According to the Supplementary Information for the update rule, "The level of detail to be maintained in the updated FSAR should be at least the same as originally provided." Since the level of detail in the original FSARs varies significantly among plants (primarily as a function of the date of the operating license), the updated FSARs may also address similar issues at different levels of detail. The Supplementary Information provided specific guidance for the amount of information to be included for changes made pursuant to §50.59, which may result in the addition of information by some licensees to the updated FSAR that is more detailed than the information in the original FSAR.

*Format:* The format of the updated FSAR is at the option of the licensee, and licensees may change the format of the updated FSAR provided that the content of the updated FSAR continues to meet requirements.

*Removal of Information Not Associated With a Change:* If a licensee wishes to remove information from the UFSAR that is not associated with a change, or to relocate the information to other licensee-controlled documents, the licensee is encouraged to develop a process that (1) controls what and how information is removed or relocated, (2) ensures that the updated FSAR continues to contain the necessary information, (3) develops documentation that describes the information removed and the licensee's basis for removing the information from the updated FSARs, and (4) includes this documentation as part of the periodic updates submitted to the NRC. The staff believes that licensees that implement such a process can remove information from the UFSAR that is excessively detailed, less meaningful or redundant or relocate it to other licensee-controlled documents.

*Drawings:* In general, simplified drawings can be substituted for the reduced piping and instrumentation diagrams (P&IDs) currently in some updated FSARs. The resultant simplified drawings or text of the updated FSAR must contain all necessary information; however, some of the detail and minor components can be removed from the P&IDs. The effect of this guidance is to reduce the scope of §50.59 as changes to some minor components would no longer be required to be evaluated pursuant to §50.59 as they would no longer be "as described in the safety analysis report." Licensees can also substitute full-size P&IDs for the reduced P&IDs as a type of format change.

---

<sup>1</sup>The four types of information are a simplification of the requirements of §50.34(b) to aid discussion. As described in the "Discussion" section, §50.34(b) identifies nine specific categories of information. Licensees should ensure that they include all the information required by §50.34(b)

*Historical Information:* Certain historical information, for example, the initial training program and start-up test program, cannot be removed from the updated FSAR as it is required to be part of an FSAR by §50.34(b). Licensees can relocate the information to separate volumes or to appendices to the updated FSAR. The industry's argument for removing this type of historical information from the updated FSAR has been that maintaining this information is unnecessarily burdensome. However, if the information is, in fact, historical and thus not subject to change, there should be little or no burden associated with this information since neither §50.59 nor the update rule have an effect unless there is a change to the information in the updated FSAR.

*Frequency of the Periodic Updates:* Licensees are required to submit a periodic update annually or within 6 months after each refueling outage provided the interval between successive updates does not exceed 24 months. For multiple-unit sites with common updated FSARs, this measure requires an update after each unit's refueling outage. Some licensees of multiple-unit sites have obtained exemptions to this requirement such that they are permitted to issue an update for both units linked to a specific unit's outage.

The staff may have provided informal guidance to some licensees indicating exemptions were not necessary for multiple-unit sites with common updated FSARs. To ensure that licensees are on an equal compliance level, licensees for sites with multiple units and a common updated FSAR that currently do not have an exemption will not be subject to enforcement action for failure to meet 10 CFR 50.71(e)(4) if an exemption is issued for exemption requests submitted within 90 days of the issue date of the generic letter.

*Temporary Modifications:* Licensees should include in the periodic update those temporary modifications for which the licensee (1) has no established schedule to remove the temporary modification, (2) intends to keep the temporary modification in place until after the next periodic update, or (3) intends to eventually change the facility as currently described (i.e., when the temporary modification is removed, a design different from the current design will be installed).

*Treatment of Nonconforming Conditions Between the Facility and the Updated FSAR:* Licensees are reminded that guidance on resolution of nonconforming conditions between the facility and the updated FSAR is provided in Generic Letter 91-18, Revision 1, dated October 9, 1997, "Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions."

*Treatment of FSAR Information Related to Removal of or Retirement-in-Place of SSCs:* The guidance in the generic letter is applicable to and can be used by operating plants that remove or retire-in-place SSCs, or change an SSC's functions and by plants undergoing decommissioning. In general, when a system, structure, or component (SSC) is removed from the facility or retired-in-place, the information in the updated FSAR should be revised to remove the information or to clearly note that the SSC no longer performs the functions described in the updated FSAR. If the functions of the SSC are changed, the updated FSAR should reflect the functions the SSC performs.

*Exercise of Enforcement Discretion Regarding Complete and Accurate Updated FSARs:* Under certain conditions the enforcement policy currently allows the staff to grant enforcement discretion with respect to updated FSARs that are not complete and accurate. Licensee efforts

to date have been focused on accuracy of information in the updated FSAR as licensees were awaiting guidance from the staff on the content of the updated FSAR (the proposed generic letter). This enforcement discretion period ends October 18, 1998. The staff proposes that the current enforcement discretion be modified to account for the proximity of the expected issue date of the proposed generic letter to October 18, 1998. For all licensee efforts related to accuracy of information in the updated FSAR, the staff recommends that the enforcement discretion end as planned on October 18, 1998. Regarding completeness of the updated FSAR, the staff proposes a risk-informed update prioritization as requested by the May 20, 1997, and March 24, 1998, SRMs. To implement this risk-informed prioritization, licensees would use the categorization of SSCs performed as part of their program to comply with the maintenance rule, 10 CFR 50.65, using Regulatory Guide 1.160, Revision 2, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," dated March 1997.

For those sections of the updated FSAR containing information that pertains to structures or systems categorized as having high safety significance for purposes of the maintenance rule, licensees must have an updated FSAR that is also complete within six months of the date of issuance of the final generic letter. If only one or more components in a structure or system is considered to be of high safety significance, the licensee must treat the entire structure or system to which the component belongs as having high safety significance and ensure that all information in the updated FSAR pertaining to the system or structure is complete. For other information in the updated FSAR, licensees must have an updated FSAR that is also complete within 18 months of the date of issuance of the final generic letter.

This approach would build on licensees' efforts to categorize SSCs on the basis of safety significance as part of their implementation of the maintenance rule. The staff expects to complete the maintenance rule baseline inspections, including reviews of safety significance categorization, in July 1998. The staff believes that the suggested schedule for extending the enforcement discretion provides sufficient time for licensees to ensure that their updated FSARs are complete. As with the current enforcement discretion, the staff will not exercise discretion if the staff determines that a licensee is not making progress or does not have a program in place to identify and correct deficiencies in their updated FSARs by the end of the enforcement discretion period.

If the Commission approves issuing this proposed generic letter, the staff will propose a revision to the enforcement policy prior to the issue date of the generic letter to implement the enforcement discretion described herein.

#### Risk-Informed Content and Prioritization

In the SRMs of May 20, 1997, and March 24, 1998, the Commission requested that the staff provide guidance for a risk-informed content and prioritization approach for updated FSARs. As described above, the staff developed a risk-informed prioritization approach in the proposed generic letter; however, the staff has not incorporated guidance that would make the content of the updated FSAR risk-informed. The content of the updated FSAR is defined by current regulations and, therefore, reflects the deterministic approach of the current regulations. In order to change to a risk-informed content of the updated FSAR, rulemaking would be necessary, consistent with what was described for the risk-informed framework for Option 5 in SECY-97-205. At this time, such an undertaking for updated FSARs is not considered practical.

Schedule for the Interim Guidance

In addition to issuing the proposed generic letter, the staff will also need to revise the enforcement policy, develop inspection guidance for inspectors and other members of the staff, and provide training on the generic letter and inspection guidance. Assuming the Commission approves issuing the proposed generic letter for public comment, the staff proposes the following schedule:

	<b>Elapsed Time, Days</b>
<b>Activity</b>	
Commission approval of generic letter	0
Issue generic letter for public comment	30
Receive public comments	90
Complete draft inspection guidance	90
Make draft inspection guidance publicly available	90
Incorporate public comments	120
Public workshop	120
Incorporate workshop comments	150
Issue final generic letter	150
Issue revised enforcement policy	150
Issue final inspection guidance and begin inspector/staff training	180
Implementation date of generic letter	330
Complete inspector/staff training	330

Long-Term Guidance

The NEI has proposed that the draft NEI 98-03 be used as guidance for the updated FSAR. Although the staff cannot endorse the current NEI 98-03 in all respects without rulemaking, the staff may, in the future, endorse NEI 98-03 if it is modified to conform to the guidance in the proposed generic letter, or if rulemaking occurs such that certain provisions in NEI 98-03 can be endorsed, or some combination thereof. If rulemaking occurs, the staff believes that guidance for complying with existing requirements should be available in the interim (the proposed generic letter). If NEI 98-03 is modified to conform to the guidance in the proposed generic letter such that the staff can endorse NEI 98-03, the regulatory guide that endorses NEI 98-03 will become the guidance and will be consistent with the interim guidance in the proposed generic letter. If NEI 98-03 is not modified and rulemaking does not occur, the staff would

reissue the guidance in the proposed generic letter as long-term guidance in the form of a regulatory guide.

The current version of NEI 98-03 cannot be endorsed because it would allow (1) the removal of historical information required to be included in an updated FSAR, (2) the removal of “obsolete” and “less meaningful” information that may not be allowed by the regulations, and (3) the substitution of simplified schematics for P&IDs without ensuring that the updated FSAR continued to contain all required information. Without incorporating the staff positions in the proposed generic letter, the staff believes that rulemaking would be necessary to endorse the approach in NEI 98-03.

The staff does not believe that rulemaking solely to endorse NEI 98-03 is warranted. Although the guidance in the proposed generic letter would result in the retention of more information in the updated FSAR than NEI 98-03 (particularly regarding historical information), the proposed generic letter does provide licensees considerable flexibility regarding the content of the updated FSAR relative to past staff positions.

The staff does see an important role for NEI 98-03 and believes that it could become the long-term guidance for updated FSARs if it is expanded and modified to conform to the guidance in the proposed generic letter. (The guidance in the proposed generic letter on format, frequency of periodic update submittals, temporary modifications, treatment of nonconforming changes between the facility and the updated FSAR, and plants undergoing decommissioning has no comparable counterpart in NEI 98-03). The staff will encourage the NEI to revise NEI 98-03 such that it can become the detailed implementation guidance. The NRC could then endorse NEI 98-03 in a regulatory guide, similar to the approach taken for the maintenance rule, for which RG 1.160, “Monitoring the Effectiveness of Maintenance at Nuclear Power Plants,”

endorses NUMARC 93-01. NUMARC 93-01 provides the detailed guidance for licensees to use when developing their program to comply with the maintenance rule.

As an example, the proposed generic letter provides the attributes of an approach for removing information from the updated FSAR that is not associated with a change to the facility. NEI 98-03 could provide a specific process for utilities to use that has the attributes recommended in the proposed generic letter. Licensees that then implement NEI 98-03 would be in compliance with the applicable requirements.

If public comments on the proposed generic letter indicate that rulemaking to endorse the positions in NEI 98-03 is desirable, the staff would reconsider rulemaking to incorporate the



appropriate positions in NEI 98-03. If rulemaking is not undertaken to adopt all the provisions in NEI 98-03, and NEI chooses not to modify NEI 98-03 to conform to the guidance in the proposed generic letter, the staff will reissue the proposed generic letter as a regulatory guide. The regulatory guide would contain the same guidance as the generic letter, except the enforcement discretion section would be deleted as it would no longer be relevant (i.e., the enforcement discretion period would have expired by the time the long-term regulatory guide is issued).

#### CONCLUSIONS:

The staff has developed guidance for complying with 10 CFR 50.71(e) that is consistent with existing requirements. Although the proposed generic letter does not include guidance for risk-informed content of the updated FSAR as was requested in the SRMs of May 20, 1997, and March 24, 1998, the proposed generic letter does include a risk-informed update prioritization approach that provides sufficient time for licensees to develop complete and accurate updated FSARs, and will allow licensees to focus resources on the most safety-significant SSCs first. The proposed approach also avoids the need to undertake rulemaking pertaining to updated FSARs.

The staff will ultimately issue a regulatory guide as the long-term guidance for updated FSARs. If rulemaking does not occur, the guidance in that regulatory guide would be the same as in the proposed generic letter, with the exception of the discussion pertaining to enforcement discretion. The staff's preferred approach is for industry to revise NEI 98-03 to conform to the guidance in the proposed generic letter, and for the NRC to then endorse NEI 98-03 in the staff's regulatory guide.

#### RESOURCES:

No additional staff resources are needed beyond those identified in SECY-97-205 (i.e., 1.5-2.0 full time equivalent (FTE) positions) to issue the proposed generic letter, revise the enforcement policy, and develop associated inspection guidance. An estimated 1,000 staff members (Headquarters and Regional offices) will receive training on the proposed generic letter and associated guidance. With an average training of eight hours for each staff member, the training effort will require approximately 4.0 FTE, which will come from existing resources estimated for training.

#### COORDINATION:

The Office of the General Counsel has no legal objection to this paper and issuance of the proposed generic letter for public comment. The Office of the Chief Financial Officer has reviewed this Commission Paper for resource implications and has no objections.

The staff briefed the Advisory Committee on Reactor Safeguards (ACRS) on December 4, 1997, on an earlier draft of the generic letter. The ACRS requested that the staff provide another briefing after the staff has incorporated public comments on the proposed generic letter. The Committee to Review Generic Requirements (CRGR) has deferred its review until after the expiration of the public comment period on the proposed generic letter.

#### RECOMMENDATIONS:

The staff recommends that the Commission approve:

1. issuance of the proposed generic letter for public comment.
2. the release to the public of this Commission paper and its attachments within 5 business days of the date of this Commission paper.

L. Joseph Callan  
Executive Director  
for Operations

Attachments:

1. Proposed generic letter
2. Draft NEI guidance pertaining to updated FSARs dated November 14, 1997 (NEI 98-03)

COORDINATION:

The Office of the General Counsel has no legal objection to this paper and issuance of the proposed generic letter for public comment. The Office of the Chief Financial Officer has reviewed this Commission Paper for resource implications and has no objections.

The staff briefed the Advisory Committee on Reactor Safeguards (ACRS) on December 4, 1997, on an earlier draft of the generic letter. The ACRS requested that the staff provide another briefing after the staff has incorporated public comments on the proposed generic letter. The Committee to Review Generic Requirements (CRGR) has deferred its review until after the expiration of the public comment period on the proposed generic letter.

RECOMMENDATIONS:

The staff recommends that the Commission approve:

1. issuance of the proposed generic letter for public comment.
2. the release to the public of this Commission paper and its attachments within 5 business days of the date of this Commission paper.

L. Joseph Callan  
Executive Director  
for Operations

Attachments:

1. Proposed generic letter
2. Draft NEI guidance pertaining to updated FSARs dated November 14, 1997 (NEI 98-03)

File Name: G:\FSAR\fsarsecy.a07

\*See previous concurrence

Office	PGEB	SC:PGEB	(A)C:PGEB	(A)D:DRPM	OGC	OE
Name	TBergman*	FAkstulewicz*	TEssig*	JRoe		By Phone
Date	03/27/98	03/30/98	04/02/98	04/ /98	04/ /98	04/01/98

Office	(A)AD:ADT	(A)AD:ADP	D:NRR	NMSS	CFO	EDO
Name	BSheron	BBoger (By email)	SCollins		By email	LJCallan
Date	04/ /98	04/03/98	04/ /98	04/ /98	04/02/98	04/ /98

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION  
WASHINGTON, D.C. 20555-0001

NRC GENERIC LETTER 98-xx: INTERIM GUIDANCE FOR UPDATED FINAL SAFETY ANALYSIS REPORTS IN ACCORDANCE WITH 10 CFR 50.71(e)

**Addressees**

All holders of operating licenses for nuclear power reactors.

**Purpose**

The U.S. Nuclear Regulatory Commission (NRC) is issuing this generic letter to provide interim guidance on current requirements of Section 50.71(e) of Title 10 of the Code of Federal Regulations (10 CFR 50.71(e), “the update rule”) regarding the periodic updating of the plant-specific updated final safety analysis report (the “updated FSAR”). This generic letter supersedes the guidance in Generic Letter 80-110, “Periodic Updating of Final Safety Analysis Reports (FSARs),” dated December 15, 1980.

**Background**

Section 50.34, “Contents of Applications; Technical Information,” includes requirements for the contents of the applications for construction permits and operating licenses for nuclear power reactors. An application for a construction permit must include a preliminary safety analysis report (§50.34(a)). An application for an operating license must include a final safety analysis report (§50.34(b)). For holders of operating licenses, §50.71(e) requires updated FSARs to be developed and periodically updated.

Guidance for the organization and contents of PSARs and FSARs has existed since June 30, 1966, when “Guide to the Organization and Contents of Safety Analysis Reports” was issued. The most recent guidance document is Regulatory Guide (RG) 1.70, Revision 3, “Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants, LWR Edition.”<sup>2</sup> Guidance for the format and content of updated FSARs was previously provided in

---

<sup>2</sup>RG 1.70, Revision 3, and its predecessors are not requirements, and licensees do not have to comply with the guidance therein unless they have committed to do so.

Generic Letter 80-110, but the guidance was limited to questions and answers because the rule was considered “essentially self-explanatory.”<sup>3</sup>

As a result of lessons learned from the Millstone experience and of other initiatives related to updated FSARs, the NRC determined that additional guidance regarding compliance with §50.71(e) was necessary. The staff recommended specific actions in SECY-97-036, “Millstone Lessons Learned Report, Part 2: Policy Issues,” dated February 12, 1997. In a staff requirements memorandum dated May 20, 1997, the Commission directed the staff, in part, to issue guidance for complying with 10 CFR 50.71(e). This generic letter provides that guidance.

In developing this generic letter the staff conducted three public meetings in the fall of 1997 with the Nuclear Energy Institute (NEI) and attended a public workshop on licensing issues (including updated FSARs) sponsored by NEI in January 1998. One purpose of the staff’s participation in these meetings and workshop was to solicit public and industry input on what information needed to be in an updated FSAR. In addition, NEI developed draft guidance regarding compliance with §50.71(e), “Draft Industry Update Guidelines for Final Safety Analysis Reports.”<sup>4</sup> In a letter dated November 14, 1997, NEI provided the guidance (NEI 98-03) asking the NRC to consider eventually endorsing it. On the basis of a preliminary review, it was concluded that the staff cannot endorse NEI 98-03 in all respects without rulemaking. Therefore, the staff is issuing this generic letter as interim guidance for complying with §50.71(e).

## **Discussion**

The requirements for the contents of the PSAR are in §50.34(a). The PSAR must include the principal design criteria, derived from Part 50, Appendix A, “General Design Criteria for Nuclear Power Plants,” and the design bases and describe the relation of the design bases to the principal design criteria. Information is also required to show that the final design will conform to the design bases with adequate margin for safety. The purpose of the PSAR is to “provide early and adequate information ...[,] to expedite the processing of construction permit applications ...[, and to] minimize burdensome design changes at the operating license stage resulting from design deficiencies in relation to technical specification requirements.”<sup>5</sup> The PSAR is the principal document upon which the Commission bases a decision to issue a construction permit.

---

<sup>3</sup>Generic Letter 80-110 was not originally issued with a generic letter number, the number was later assigned for retrieval purposes. The generic letter is a letter from Darrell G. Eisenhut, Director, Division of Licensing, to All Operating Reactor Licensees, dated December 15, 1980, on the subject of “Periodic Updating of Final Safety Analysis Reports (FSARs).”

<sup>4</sup>At the time of the November 14, 1997, submittal, NEI had not assigned a document number to the draft guidance. NEI subsequently informed the staff that the guidance document would be NEI 98-03, which is how the draft guidance is referred to elsewhere in this generic letter.

<sup>5</sup>33 FR 18610, December 17, 1968, “Technical Specifications for Facility Licenses; Safety Analysis Reports.”

The requirements for the contents of the FSAR are in §50.34(b), which states:

Each application for a license to operate a facility shall include a final safety analysis report. The final safety analysis report shall include information that describes the facility, presents the design bases and the limits on its operation, and presents a safety analysis of the structures, systems, and components and of the facility as a whole, and shall include the following:

(1) All current information, such as the results of environmental and meteorological monitoring programs, which has been developed since issuance of the construction permit, relating to site evaluation factors identified in part 100 of this chapter.

(2) A description and analysis of the structures, systems, and components of the facility, with emphasis upon performance requirements, the bases, with technical justification therefor, upon which such requirements have been established, and the evaluations required to show that safety functions will be accomplished. The description shall be sufficient to permit understanding of the system designs and their relationship to safety evaluations.

(i) For nuclear reactors, such items as the reactor core, reactor coolant system, instrumentation and control systems, electrical systems, containment system, other engineered safety features, auxiliary and emergency systems, power conversion systems, radioactive waste handling systems, and fuel handling systems shall be discussed insofar as they are pertinent.

(ii) For facilities other than nuclear reactors, such items as the chemical, physical, metallurgical, or nuclear process to be performed, instrumentation and control systems, ventilation and filter systems, electrical systems, auxiliary and emergency systems, and radioactive waste handling systems shall be discussed insofar as they are pertinent.

(3) The kinds and quantities of radioactive materials expected to be produced in the operation and the means for controlling and limiting radioactive effluents and radiation exposures within the limits set forth in part 20 of this chapter.

(4) A final analysis and evaluation of the design and performance of structures, systems, and components with the objective stated in paragraph (a)(4) of this section and taking into account any pertinent information developed since the submittal of the preliminary safety analysis report. Analysis and evaluation of ECCS cooling performance following postulated loss-of-coolant accidents shall be performed in accordance with the requirements of §50.46 for facilities for which a license to operate may be issued after December 28, 1974.

(5) A description and evaluation of the results of the applicant's programs, including research and development, if any, to demonstrate that any safety questions identified at the construction permit stage have been resolved.

(6) The following information concerning facility operation:

(i) The applicant's organizational structure, allocations or responsibilities and authorities, and personnel qualifications requirements.

(ii) Managerial and administrative controls to be used to assure safe operation. Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," sets forth the requirements for such controls for nuclear power plants and fuel reprocessing plants. The information on the controls to be used for a nuclear power plant or a fuel reprocessing plant shall include a discussion of how the applicable requirements of appendix B will be satisfied.

(iii) Plans for preoperational testing and initial operations.

(iv) Plans for conduct of normal operations, including maintenance, surveillance, and periodic testing of structures, systems, and components.

(v) Plans for coping with emergencies, which shall include the items specified in Appendix E.

(vi) Proposed technical specifications prepared in accordance with the requirements of §50.36.

(vii) On or after February 5, 1979, applicants who apply for operating licenses for nuclear power plants to be operated on multiunit sites shall include an evaluation of the potential hazards to the structures, systems, and components important to safety of operating units resulting from construction activities, as well as a description of the managerial and administrative controls to be used to provide assurance that the limiting conditions for operation are not exceeded as a result of construction activities at the multiunit sites.

(7) The technical qualifications of the applicant to engage in the proposed activities in accordance with the regulations in this chapter.

(8) A description and plans for implementation of an operator requalification program. The operator requalification program must as a minimum, meet the requirements for those programs contained in §55.59 of part 55 of this chapter.

(9) A description of protection provided against pressurized thermal shock events, including projected values of the reference temperature for reactor vessel beltline materials as defined in §50.61 (b)(1) and (b)(2).

The principal purpose of the FSAR is to inform the Commission of the nature of the facility, the plans for its use, and the evaluations that have been performed to evaluate whether the facility

has been constructed and will operate without undue risk to the public health and safety.<sup>6</sup> The FSAR is the principal document upon which the Commission bases a decision to issue an operating license and is, as such, part of the licensing basis of the facility. It is also used by NRC inspectors to determine whether the facility has been constructed in accordance with and is operating within the license.

The requirements for the updated FSAR are in §50.71(e), which states:

Each person licensed to operate a nuclear power reactor pursuant to the provisions of §50.21 or §50.22 of this part shall update periodically, as provided in paragraphs (e)(3) and (4) of this section, the final safety analysis report (FSAR) originally submitted as part of the application for the operating license, to assure that the information included in the FSAR contains the latest material developed. This submittal shall contain all the changes necessary to reflect information and analyses submitted to the Commission by the licensee or prepared by the licensee pursuant to Commission requirement since the submission of the original FSAR or, as appropriate, the last updated FSAR. The updated FSAR shall be revised to include the effects of: all changes made in the facility or procedures as described in the FSAR; all safety evaluations performed by the licensee either in support of requested license amendments or in support of conclusions that changes did not involve an unreviewed safety question; and all analyses of new safety issues performed by or on behalf of the licensee at Commission request. The updated information shall be appropriately located within the FSAR.

(1) The licensee shall submit revisions containing updated information to the Commission, as specified in §50.4, on a replacement-page basis that is accompanied by a list which identifies the current pages of the FSAR following page replacement.

(2) The submittal shall include (i) a certification by a duly authorized officer of the licensee that either the information accurately presents changes made since the previous submittal, necessary to reflect information and analyses submitted to the Commission or prepared pursuant to Commission requirement, or that no such changes were made; and (ii) an identification of changes made under the provisions of §50.59 but not previously submitted to the Commission.

(3) (i) A revision of the original FSAR containing those original pages that are still applicable plus new replacement pages shall be filed within 24 months of either July 22, 1980, or the date of issuance of the operating license, whichever is later, and shall bring the FSAR up to date as of a maximum of 6 months prior to the date of filing the revision.

(ii) Not less than 15 days before §50.71(e) becomes effective, the Director of the Office of Nuclear Reactor Regulation shall notify by letter the licensees of those nuclear power plants initially subject to the NRC's

---

<sup>6</sup>RG 1.70, Revision 3, ii-iii.



systematic evaluation program that they need not comply with the provisions of this section while the program is being conducted at their plant. The Director of the Office of Nuclear Reactor Regulation will notify by letter the licensee of each nuclear power plant being evaluated when the systematic evaluation program has been completed. Within 24 months after receipt of this notification, the licensee shall file a complete FSAR which is up to date as of a maximum of 6 months prior to the date of filing the revision.

(4) Subsequent revisions must be filed annually or 6 months after each refueling outage provided the interval between successive updates does not exceed 24 months. The revisions must reflect all changes up to a maximum of 6 months prior to the date of filing. For nuclear power reactor facilities that have submitted the certifications required by §50.82(a)(1), subsequent revisions must be filed every 24 months.

(5) Each replacement page shall include both a change indicator for the area changed, e.g., a bold line vertically drawn in the margin adjacent to the portion actually changed, and a page change identification (date of change or change number or both).

(6) The updated FSAR shall be retained by the licensee until the Commission terminates their license.

The purpose of the updated FSAR is to “provide an updated reference document to be used in recurring safety analyses performed by the licensee, the Commission, and other interested parties.”<sup>7</sup> The Supplementary Information for the update rule further states:

The initial revision to be filed should contain those pages from the originally submitted FSAR that are still applicable plus new replacement pages that appropriately incorporate the effects of supplements, amendments and other changes that have been made. This will result in a single, complete document being filed that can then serve as the baseline for future changes.

Subsequent periodic updates are to ensure that the updated FSAR remains current and addresses the appropriate licensing issues.

Thus, there is a difference between the PSAR and FSAR, versus the updated FSAR. The content of the PSAR and FSAR are established by §50.34, which sets forth the information and analyses that the applicant must submit in support of its construction permit and license application. Therefore, the PSAR and FSAR are the principal technical bases for issuing the construction permit and operating license, respectively. By contrast, submission of updates to the FSAR under the update rule are not in furtherance of a specific licensing action, nor is the

---

<sup>7</sup>45 FR 30614, May 9, 1980, “Periodic Updating of Final Safety Analysis Reports.”

submission intended to be part of a periodic NRC re-review of the adequacy of the facility.<sup>8</sup> The licensee is not required by the update rule to perform any specific analysis.<sup>9</sup> Rather, the updated FSAR is intended to be a complete and accurate reference document describing the facility, its procedures, and the supporting bases thereof, in order to facilitate staff safety evaluations (including safety evaluations for requests for license amendments, reliefs and exemptions), staff inspections of the facility to determine whether the facility has been constructed and is being operated in accordance with Commission requirements, the facility's license, and applicable orders.<sup>10</sup>

## Guidance

A number of issues addressed in this generic letter were identified during the public meetings with NEI held in the fall of 1997, the January 1998 public workshop, and a review of the draft NEI 98-03. Specific guidance is provided on scope, level of detail, format, removal of information not associated with a change, drawings, historical information, frequency of the periodic update submittals, temporary modifications, treatment of nonconforming conditions between the facility and the updated FSAR, treatment of FSAR information related to removal of or retirement-in-place of systems, structures, or components (SSCs), and exercise of enforcement discretion regarding complete and accurate updated FSARs.

---

<sup>8</sup>The Supplementary Information states:

The rule is only a reporting requirement to insure that an updated FSAR will be available. Submittal of updated FSAR pages does not constitute a licensing action but is only intended to provide information. It is not intended for the purpose of re-reviewing plants ... Thus, for example, approvals of license amendments and technical specification changes are independent of the FSAR updating process and once approved would not be subject to further consideration simply because the FSAR is updated ... The material submitted may be reviewed by the NRC staff but will not be formally approved.

<sup>9</sup>This point is emphasized in the Supplementary Information:

No analyses other than those already prepared or submitted pursuant to NRC requirements (either originally with the application, or as part of the operating license review process, or as required by §50.59 or other NRC requirement, or to support license amendments) are required to be performed by the licensee because of this rule.

Therefore, the updated FSAR is only changed as a result of other activities by the licensee, such as new analyses performed on the licensee's initiative or in response to a Commission requirement or request.

<sup>10</sup>As the Supplementary Information states, keeping the updated FSAR up to date is important because: "The new pages will be accepted as representing the licensee's position at the time of submittal and will be utilized in any subsequent reviews or NRC staff activities concerning that facility."

## Scope

Section 50.71(e) provides specific requirements for the scope of issues to be addressed in the periodic updates. As described above, §50.71(e) requires that the updated FSAR contain the latest material developed concerning: (1) all the changes necessary to reflect information and analyses submitted to the Commission by the licensee or prepared by the licensee pursuant to Commission requirement; (2) the effects of all changes made in the facility or the procedures as described in the updated FSAR; (3) the effects of all safety evaluations performed by the licensee either in support of requested license amendments or in support of conclusions that changes did not involve unreviewed safety questions; and (4) the effects of all analyses of new safety issues performed by or on behalf of the licensee at the Commission's request. In summary, the periodic updates are to include changes to existing information and add the appropriate information for new issues such that the updated FSAR remains complete and accurate.<sup>11</sup>

Two rules define the content of the updated FSAR: §50.34(b), which provides the requirements for the original FSAR, and §50.71(e), which specifies the current information in the updated FSAR that must be changed and the new information that must be added to the updated FSAR. Section 50.34(b) is used as a screen to establish what portion of the information to be considered for incorporation into the updated FSAR pursuant to §50.71(e) is expected to appear in the updated FSAR (i.e., the updated FSAR should address the same issues that a current original FSAR would address).

To determine what information needs to be incorporated into the updated FSAR, the licensee first establishes which changes and analyses meet the test of 10 CFR 50.71(e) to be considered for inclusion in the updated FSAR. The requirements of §50.34(b) are then used to determine whether and to what extent the changes and analyses include any of the four basic types of information required to be in the FSAR (and thus, in the updated FSAR): (1) a description of the facility, (2) a presentation of the design bases, (3) the limits on the facility's operation, and (4) a presentation of the safety analysis of the SSCs and of the facility as a whole. The effect of this approach is that only those analyses and changes that result in a change to or creation of a new (1) description of the facility, (2) design basis, (3) operating limit, or (4) safety analysis need to be included in the updated FSAR.<sup>12</sup> The staff expects licensees to include new analyses and descriptions required by new Commission requirements or performed in response to Commission request. It is not expected that the updated FSAR summarize or refer to every change and analysis conducted by the licensee. Rather, licensees should only incorporate those analyses and changes that belong in a FSAR and, by extension, in the updated FSAR; and only to the extent that the analysis or change modifies

---

<sup>11</sup>"Complete" means that the updated FSAR includes *all* the issues that should have been included in the updated FSAR as required by the update rule since the original FSAR was issued. "Accurate" means that all the differences between the information in the current version of the updated FSAR and the facility, procedures and experiments have been corrected.

<sup>12</sup>The four types of information are a simplification of the requirements of §50.34(b) to aid discussion. As described in the "Discussion" section, §50.34(b) identifies nine specific categories of information. Licensees should ensure that they include all the information required by §50.34(b)

the existing or creates a new (1) description of the facility, (2) design basis, (3) operating limit, or (4) safety analysis.

In implementing §50.71(e), licensees should incorporate the latest information (description, design basis, etc.) developed pursuant to each of the specific requirements in the update rule.

1. *All the changes necessary to reflect information and analyses submitted to the Commission by the licensee or prepared by the licensee pursuant to Commission requirement.*

Where the licensee has submitted information and analyses (e.g., the periodic report required by §50.59(b)(2)) such that the information and analyses in the updated FSAR are no longer accurate, the licensee should correct the information and analyses to reflect the current condition. Where information and analyses in the updated FSAR have become inaccurate as a result of licensee actions pursuant to a Commission requirement,<sup>13</sup> the licensee should revise the updated FSAR to reflect the changes that have occurred. In addition, where the underlying Commission requirement has not changed, but the licensee has undertaken actions that has resulted in the information and analyses required to be in the updated FSAR being incomplete and/or inaccurate, the licensee should revise the updated FSAR to ensure that the updated FSAR is complete and accurate. As noted in the Supplementary Information for the update rule, changes should be incorporated into the updated FSAR after the changes have been approved for use (by the licensee, or by the NRC where required) and are in effect.

2. *The effects of all changes made in the facility or procedures as described in the updated FSAR.*

The update rule does not require licensees to review all the information in the updated FSAR for each periodic update; as noted in the “Discussion,” above, the update rule is a reporting requirement and does not require licensees to verify the accuracy of the content of the entire updated FSAR. This point is emphasized in the Supplementary Information:

*Analyses existing in the [updated] FSAR which are known to be inaccurate or in error as a result of new analyses performed by the licensee pursuant to NRC requirements, would have to be revised. Specialized studies provided in the FSAR, such as on volcanic hazards or quality assurance, should include the latest information developed that has been developed in response to NRC requirements ... Minor differences between actual and projected population figures or other such changes in the site environment need not be reported unless the conclusions of safety analyses relative to public health and safety are affected and the licensee has prepared new analyses as a result of NRC requirements [emphasis added].*

Therefore, the update rule does not require that licensees periodically verify the entire contents of the updated FSAR. Rather, licensees only update those portions that have been affected

---

<sup>13</sup>“Commission requirement” refers to regulations, license conditions, technical specifications, and orders.

as the result of licensee activities addressed by Commission regulations.<sup>14</sup> In practice, since the preponderance of information in the FSAR (and therefore the updated FSAR) was necessary to demonstrate compliance with requirements, most information in the updated FSAR will need to be maintained up to date.

3. *The effects of all safety evaluations performed by the licensee either in support of requested license amendments or in support of conclusions that changes did not involve an unreviewed safety question.*

The periodic update should incorporate changes and new information as a result of license amendments, or changes and new information made pursuant to §50.59.<sup>15</sup>

4. *The effects of all analyses of new safety issues performed by or on behalf of the licensee at Commission request.*

The periodic updates must include the effects of analyses of new safety issues performed by or on behalf of the licensee at Commission request. Analyses of new safety issues conducted at the request of the Commission can include issues discussed in plant-specific letters, generic letters, and bulletins.<sup>16</sup>

#### Level of Detail

The update rule does not identify a specific level of detail for the updated FSAR. The level of detail is discussed in the Supplementary Information. The Supplementary Information states that “The level of detail to be maintained in the updated FSAR should be at least the same as originally provided.” Since the level of detail in the original FSARs varies among plants (primarily as a function of the date of the operating license), the updated FSARs may also address similar issues at different levels of detail.

Section 50.34(b) provides the minimum level of detail required for the information in the FSAR (and thus the updated FSAR). For the SSCs of the facility, for example, §50.34(b)(2) requires

---

<sup>14</sup>Pursuant to §50.9(b), licensees are required to “notify the Commission of information identified by the applicant or licensee as having for the regulated activity a significant implication for public health and safety or common defense and security.” Information in the updated FSAR that becomes inaccurate as a result of such a discovery is required to be included in the periodic update.

<sup>15</sup>Some licensees may implement §50.59 in a broader context than required (i.e., some licensees evaluate changes other than those “as described in the [updated final] safety analysis report” as required by §50.59(a)). The effects of the safety evaluations conducted for changes that are outside of the required scope of §50.59 are not required to be included in the periodic update unless they make information in the updated FSAR inaccurate.

<sup>16</sup>In some cases generic letters and bulletins are issued under the authority of §50.54(f) or §2.204, or §182 of the Atomic Energy Act. For those cases the licensee’s analyses are performed in response to Commission requirement.

“[a] description and analysis of the [SSCs] of the facility, with emphasis upon performance requirements, the bases, with technical justification therefor, upon which such requirements have been established, and the evaluations required to show that safety functions will be accomplished. The description shall be sufficient to permit understanding of the system designs and their relationship to safety evaluations.”

Licensees must ensure that the updated FSAR contains at least the minimum level of detail required by §50.34(b).

One area where more specific guidance was provided in the Supplementary Information is changes to the updated FSAR as result of changes made in accordance with §50.59. Paragraph 50.59(b)(2) requires licensees to periodically submit a report that contains “a brief description of any changes, tests, and experiments, including a summary of the safety evaluation of each.” The Supplementary Information for the update rule states that “The §50.59(b) reporting may not be detailed sufficiently to be considered adequate to fulfill the [updated] FSAR updating requirement. The degree of detail required for updating the [updated] FSAR will be generally greater than a ‘brief description’ and a ‘summary of the safety evaluation.’” Therefore, the level of detail in the periodic updates for changes made pursuant to §50.59 should include a description of each change and, at a minimum, a discussion of the basis for the conclusion that the change does not constitute an unreviewed safety question (i.e., a simple negative restatement of the requirements of §50.59(a)(2) would be insufficient). For some licensees, this may result in adding information to the updated FSAR that is more detailed than the information in the original FSAR.

The most recent staff position on the content of the FSAR (and therefore the updated FSAR) is in RG 1.70, Revision 3. Licensees are not required to comply with the guidance in the regulatory guide; however, the regulatory guide may be used as a reference for an appropriate amount of information to be provided on specific issues.

### Format

Section 50.71(e) does not specify a format for the updated FSAR. The Supplementary Information states, “The format to be used for the [updated] FSAR revisions is the option of the licensee, but the Commission expects that the format will probably be the same as the format of the original FSAR.” Therefore, licensees have the option of changing the format provided the content of the updated FSAR continues to meet requirements.

### Removal of Information Not Associated With a Change

The update rule provides requirements for changing information in the updated FSAR as a result of new analyses or changes to the facility or procedures. Neither the update rule nor its Supplementary Information address the removal of information from the updated FSAR that is not associated with a new analysis, or a change to the facility or procedures.<sup>17</sup> While the

---

<sup>17</sup>If a new analysis or a change to the facility or procedures makes the content of the updated FSAR inaccurate, the inaccurate information should be removed. For example, if an SSC has  
(continued...)

removal of information from the updated FSAR that is not associated with a change is not recommended, the staff recognizes that some licensees have removed information from the updated FSAR. Although the regulations do not explicitly prohibit the removal of information not associated with a change, licensees do so at their own risk. If a licensee removes information from the updated FSAR that is not associated with a change, or relocates information to other licensee-controlled documents, the licensee is encouraged to adopt an approach that has the following attributes:

- The licensee has a process that controls what and how information is removed or relocated.
- The licensee is responsible for ensuring that the updated FSAR continues to contain the necessary information. In particular, the licensee must not remove any information required to demonstrate compliance with 50.34(b), or subsequently required to be added or modified in accordance with 50.71(e).
- As part of the periodic updates issued in accordance with 50.71(e), the licensee should submit, in addition to the changed pages and a list of effective pages currently required by 50.71(e), a description of the information removed, and the basis for the licensee's determination that such information may be removed from the updated FSAR.

The licensee removes information from the updated FSAR at its own risk. If, after removing information from the updated FSAR, a licensee makes a change to the facility that would have resulted in a determination that the change was an unreviewed safety question but did not (no 50.59 evaluation having been performed since the facility was no longer "as described" in the updated FSAR), the licensee would potentially be subject to enforcement. Under the current enforcement policy, such violations would be considered for categorization as a Severity Level III violation.

An example of information that may be removed that is not associated with a change is redundant information. Licensees may remove duplicate information from the updated FSAR provided appropriate references are made to the remaining location where the information is discussed in the updated FSAR. Another kind of information that may be considered for removal without an associated change is described below in "Drawings."

### Drawings

Updated FSARs typically contain either simplified schematics or reduced-size piping and instrumentation diagrams (P&IDs). Two issues have arisen concerning drawings: (1) substitution of full-size P&IDs for reduced-size P&IDs, and (2) substitution of simplified schematics for reduced-size P&IDs.

The substitution of full-size P&IDs for reduced P&IDs is an example of a change in format, which as stated above is at the option of the licensee. The licensee could further reformat the

---

(...continued)

been removed from the facility the updated FSAR should be modified to delete reference to that SSC or clearly indicate that the SSC has been removed.

updated FSAR by relocating the full-size P&IDs to an appendix or separate volume in the updated FSAR (with appropriate references).

The substitution of simplified schematics for P&IDs is more complicated because under certain circumstances this substitution would constitute a reduction in the level of detail. As noted above, the Supplementary Information states that the level of detail should be at least that of the original FSAR. In many cases, however, licensees may have incorporated P&IDs into the FSAR or updated FSAR as a matter of convenience rather than to provide required information.

In general, substitution of simplified schematics would be acceptable under either of the following conditions: (1) the original FSAR contained simplified schematics that the licensee had later replaced with P&IDs as a matter of convenience, or (2) the original FSAR included P&IDs but simplified schematics will be substituted such that they will not result in removal of information required to be in the updated FSAR.

In the first case, the substitution of simplified schematics would be acceptable because the update rule only requires that the level of detail of the updated FSAR be at least the same as that in the original FSAR. If simplified schematics were originally provided, returning simplified schematics to the updated FSAR would be consistent with this requirement.

In the second case, the licensee would need to ensure that no material descriptive information was lost and that the P&IDs do not contain any unique design basis, operating limits, or safety analysis information required to be in an updated FSAR. If the licensee determines that a P&ID does contain such information, the licensee should incorporate the information in the simplified schematic or relocate the information to the text of the updated FSAR so that the updated FSAR continues to contain all necessary information. When substituting simplified schematics for P&IDs as described in this paragraph, licensees should follow the guidance for "Removal of Information Not Associated With a Change."

#### Historical Information

Some licensees have asked whether information no longer applicable to an operating plant, e.g., the initial training program and start-up test program, can be removed from the updated FSAR. This question was previously addressed in Generic Letter 80-110, which stated, "Information pertaining to programs described in the original FSAR with amendments, such as the initial training program and the preoperational test program, should be submitted as part of the initial updated FSAR for completeness."

As described in "Scope," the updated FSAR is expected to contain the information required by §50.34(b), updated to reflect the current facility. Some programmatic information that would now be considered historical is explicitly required to be in an FSAR (such as the initial test program, which is explicitly required by §§50.34(b)(6)(iii)). Therefore, it is not permissible to remove "historical" information that is explicitly required to be included in an FSAR. Licensees may, however, reformat the updated FSAR to relocate this type of information to separate



volumes or appendices to the updated FSAR. The staff believes that the burden associated with the retention of required “historical” information to be minimal.<sup>18</sup>

#### Frequency of the Periodic Update Submittals

The update rule requires in §50.71(e)(4) that licensees submit periodic updates

annually or 6 months after each refueling outage provided the interval between successive updates does not exceed 24 months.<sup>[19]</sup> The revisions must reflect all changes up to a maximum of 6 months prior to the date of [filing]. For nuclear power reactor facilities that have submitted the certifications required by §50.82(a)(1), subsequent revisions must be filed every 24 months.

Some licensees of multiple-unit sites with common updated FSARs have asked whether they need to update the updated FSAR after each unit’s refueling outage or whether a combined periodic update can be submitted for all units with the common updated FSAR. The rule is clear that a periodic update must be submitted annually or within six months of *each* refueling outage. Therefore, unless the combined periodic update is submitted on an annual basis, or (due to refueling outage schedules) within six months of all the units’ outages, additional updates are required by the rule.

On the August 31, 1992, rulemaking to reduce regulatory burden that, in part, reduced the frequency of the periodic updates required by §50.71(e)(4), a public comment was received that requested that the update rule be modified to allow multiple-unit sites with common updated FSARs to submit combined periodic updates. In the Supplementary Information for the August 31, 1992, rulemaking, the NRC did not incorporate the requested change, but noted that “licensees will have maximum flexibility for scheduling updates on a case-by-case basis.” In this regard, the staff has granted a number of exemptions to this requirement of the update rule to allow multiple-unit sites with common updated FSARs to submit a combined periodic update at a reduced frequency similar to the frequency for single unit sites (typically by linking the submittal date to a specific unit).<sup>20</sup>

---

<sup>18</sup>The industry argument for removing historical programs has been that maintaining this information in the updated FSAR is unnecessarily burdensome. If the information is, in fact, historical and thus not subject to change, there should be little or no burden associated with this information since neither §50.59 nor §50.71(e) have an effect unless there is a change to the information.

<sup>19</sup>The original final update rule required the periodic updates to be submitted “no less frequently than annually.” The frequency of the periodic updates was amended in 1992. See 57 FR 39353, August 31, 1992, “Reducing the Regulatory Burden on Nuclear Licensees.”

<sup>20</sup>The staff may have provided informal guidance to licensees indicating exemptions were not necessary. To assure that licensees are on an equal compliance level, licensees for sites with multiple units and a common updated FSAR that presently do not have an exemption will not be subject to enforcement action for failure to meet 10 CFR 50.71(e)(4) if an exemption is issued for exemption requests submitted within 90 days of this generic letter.

The phrase “after each refueling outage” is not defined. The date is generally assumed to be that consistent with industry practice: the date the licensee closes the main generator output breakers to reconnect the plant to the grid. If a licensee traditionally uses another date to indicate the end of a refueling outage, the license may use the alternative date.

The rule states that the revisions must be filed *six months* after each refueling outage. This statement was not intended to mean *exactly* six months, but rather *within* six months.

### Temporary Modifications

Neither the update rule nor its Supplementary Information explicitly address whether temporary modifications need to be included in the periodic updates. Since the update rule does not distinguish between a change and a temporary modification, a conservative approach would be to include all temporary modifications installed at the time the periodic update submittal is developed so as to ensure that the updated FSAR contains the latest information. The staff believes that such an approach would impose an unnecessary burden on licensees to needlessly revise information in the updated FSAR that would shortly revert to its prior condition, and result in an updated FSAR that described temporary modifications that are no longer installed (and the updated FSAR would not reflect their removal until the next periodic update). Therefore, analogous to the guidance in Generic Letter 91-18, Revision 1, dated October 9, 1997, “Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions,” temporary modifications that are intended to be installed for only a limited period would not be deemed to be “changes” requiring inclusion in the periodic updates. However, consistent with the intent of the update rule, the licensee should include in the updated FSAR those temporary modifications for which the licensee (1) has no established schedule to remove the temporary modification, or (2) intends to keep the temporary modification until after the next periodic update, or (3) does not intend to restore the facility to its condition as described in the current version of the updated FSAR (i.e., a new design will replace the temporary modification).

### Treatment of Nonconforming Conditions Between the Facility and the Updated FSAR

If the licensee discovers a nonconforming condition between the facility and the description of the facility in the updated FSAR, the licensee needs to address the nonconforming condition in accordance with the guidance in Generic Letter 91-18, Revision 1.

### Treatment of FSAR Information Related to Removal of or Retirement-in-Place of SSCs

This approach is applicable to operating plants that have removed or retired-in-place SSCs, or changed the functions of SSCs and to plants undergoing decommissioning, i.e., those nuclear power reactors whose licensees have submitted certifications pursuant to 10 CFR §50.82(a)(1).

When a plant removes an SSC from the facility, the information concerning that SSC should be removed from the updated FSAR or the information should be clearly marked to note that the SSC has been removed. If an SSC is permanently removed from service or retired-in-place, or no longer performs its original functions (but may now provide new functions), the updated FSAR should be updated to indicate that the SSC has been removed from service or retired in place, and should include the functions that the SSC now performs (i.e., description, design basis, operating limits, and safety analysis) as appropriate. At a minimum, the updated

FSAR for an SSC permanently removed from service or retired-in-place should continue to provide a basic description of the physical components and layout of the SSC (including relevant drawings) such that it provides an understanding of the equipment that remains installed in the facility and demonstrates compliance with any applicable NRC requirements for that equipment. Licensees must ensure that the updated FSAR continues to provide all required information notwithstanding the status of SSCs in the facility.

#### Exercise of Enforcement Discretion Regarding Complete and Accurate Updated FSARs

Under certain conditions, the enforcement policy currently allows the staff to grant enforcement discretion with respect to updated FSARs that are not complete and accurate. As stated in the Policy Statement, dated October 18, 1996,<sup>21</sup>

Enforcement action would normally not be taken against a licensee if the licensee identifies violations up to and including Severity Level II associated with the [updated] FSAR by a voluntary initiative (including either a formal initiative or informal effort where issues are identified through a questioning attitude of an employee), provided the licensee takes comprehensive corrective action and appropriately expands the scope of the voluntary initiative to identify other failures with similar root causes ... [L]icensees should be designing and implementing their programs with goals to have these discrepancies identified in

the near term ... The two year period will provide a reasonable time period and incentive for licensees to plan and conduct appropriate reviews to ensure that their facilities meet the descriptions in the [updated] FSAR and take necessary corrective action.

This enforcement discretion currently ends on October 18, 1998. Due to the proximity of October 18, 1998, to the date of this generic letter, however, the Commission will be revising the enforcement policy to modify the enforcement discretion as follows. The NRC does not intend to continue its exercise of discretion for NRC-identified violations associated with the accuracy of the FSAR beyond October 18, 1998. After that time, the NRC expects FSARs to be accurate. Regarding completeness of the updated FSAR, in order to be granted discretion, licensees must use the categorization of SSCs performed as part of a licensee's program to comply with the maintenance rule, 10 CFR 50.65, using Regulatory Guide 1.160, Revision 2, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," dated March 1997. For those sections of the FSAR containing information that pertains to structures or systems<sup>22</sup> categorized as having high safety significance for purposes of the maintenance rule, licensees

---

<sup>21</sup>See 62 FR 54461. Also see SECY 96-154, "Proposed Revision to NRC Enforcement Policy, NUREG-1600, Enforcement Guidance for Departures From the FSAR in Violation of 10 CFR 50.59 and for Failures to Update FSAR in Violation of 10 CFR 50.71(e)," dated July 5, 1996.

<sup>22</sup>If only one or more components in a system or structure are categorized as being of high safety significance, licensees must treat the entire structure or system to which the component belongs as having high safety significance and ensure that all information in the updated FSAR pertaining to that system or structure is complete.

must ensure that the updated FSAR is also complete within six months of the issue date of this generic letter. For other information in the updated FSAR, licensees must have an updated FSAR that is also complete within 18 months of the issue date of this generic letter.

## **Backfit Discussion**

As previously discussed in the “Background” and “Discussion” sections, as a result of lessons learned from the Millstone experience and other initiatives related to updated FSARs, the NRC determined that additional guidance for complying with §50.71(e) was necessary. As a result of a lack of prior definitive guidance concerning the requirements of the update rule and the absence of detailed staff reviews of the periodic updates, staff positions were not clearly articulated nor did industry uniformly implement the update rule. Although the staff positions in this generic letter are consistent with the requirements of the update rule, for some plants they could be considered to be changes from previous staff positions applicable to those plants, and therefore considered backfits as defined in 10 CFR 50.109(a)(i). Because established regulatory requirements exist but are not being satisfied, these backfits are necessary to bring licensees into compliance with §50.71(e). Therefore, on the basis of 10 CFR 50.109(a)(4)(i), a full backfit analysis was not performed. An evaluation was performed in accordance with NRC procedures, including a statement of the objectives and reasons for the requested actions and the basis for invoking the compliance exception, the results of which follow.

The “Scope” section is derived from a clear reading of the rule, and, in general, is consistent with past staff practice in inspection and enforcement even though a definitive staff position had not been previously explicitly stated. Therefore, the “Scope” section is considered a compliance backfit in accordance with 10 CFR 50.109(a)(4)(i).

The “Level of Detail” section was derived from the Supplementary Information for the update rule, and is generally consistent with past practice by both industry and the staff. However, some licensees may not have been aware of the level of detail expected to be included in the updated FSAR for safety evaluations performed pursuant to §50.59 and, therefore, the guidance in the “Level of Detail” section may represent a changed staff position for some licensees. This changed staff position is a compliance backfit pursuant to 10 CFR 50.109(a)(4)(i).

The “Format” section imposes no new staff position, and simply notes that the format of the updated FSAR is at the option of the licensee. Since licensees need take no action in response to the guidance in this section it is not a backfit.

The “Removal of Information Not Associated With a Change” represents a relaxation of the previous staff position that information could not be removed from the updated FSAR in the absence of an explicitly codified process to do so. The request by the staff that licensees provide documentation for information removed from the updated FSAR or relocated to other licensee-controlled documents does represent a new staff position and could be considered a backfit. However, the staff is not imposing this guidance as a requirement, but merely encourages licensees to provide such documentation to ensure that licensee decisions can be understood. Therefore, the guidance in this section is not a backfit.

The staff has not had a uniform position regarding the type of drawings required to be in an updated FSAR. Therefore, the guidance in the “Drawings” section could represent a changed

staff position. The guidance in this section was developed to ensure that the updated FSAR would continue to contain information required to be in the updated FSAR and, therefore, the guidance in this section represents a compliance backfit pursuant to 10 CFR 50.109(a)(4)(i).

The “Historical Information” section is a type of format change which, as previously noted, is at the option of the licensee. However, the staff believes that some licensees may have removed some historical information that is required to be in an updated FSAR. If this information was removed with the knowledge and tacit approval of the NRC, the guidance in this section could represent a changed position. As the information in the “Historical Information” section is clearly required to be in an updated FSAR, the guidance in this section for such licensees represents a compliance backfit in accordance with 10 CFR 50.109(a)(4)(i).

The guidance in the “Frequency of the Periodic Update Submittals” is a restatement of a clear requirement of the update rule. However, the staff may in the past have provided informal guidance that was inconsistent with the requirements of the update rule and therefore, the guidance in this section may represent a changed staff position for some licensees. Since the reporting frequency requirement in §50.71(e)(4) is clear, the guidance in this section represents a compliance backfit pursuant to 10 CFR 50.109(a)(4)(i).

The guidance in the “Temporary Modifications” section represents a new staff position. This staff position is consistent with the requirements of the update rule (and may, in fact, be less inclusive than a literal reading of the rule) and, therefore, the guidance in this section represents a compliance backfit in accordance with 10 CFR 50.109(a)(4)(i).

The “Treatment of Nonconforming Conditions Between the Facility and the Updated FSAR” section provides no new guidance but merely refers licensees to Generic Letter 91-18, Revision 1, and thus this section does not represent a backfit.

The “Treatment of FSAR Information Related to Removal of or Retirement-in-Place of SSCs” section simply notes that the staff position applies to both operating and decommissioning plants. The staff position is not a new staff position, therefore, this section is not a backfit.

The “Exercise of Enforcement Discretion Regarding Complete and Accurate Updated FSARs” section imposes no requirements and, therefore, is not a backfit.

Although the guidance in this generic letter may, in some cases, be compliance backfits in accordance with 10 CFR 50.109(a)(4)(i) and, therefore, not require an evaluation pursuant to 10 CFR 50.109(c)(9), the staff will nevertheless explain here why it has identified the guidance in this generic letter as “interim.” As described in the “Background” discussion, NEI has developed a draft guidance document, NEI 98-03, concerning implementation of the update rule. Although the staff cannot endorse the current NEI 98-03 in all respects without rulemaking, the staff may in the future endorse NEI 98-03 if NEI 98-03 is modified to conform to the guidance in this generic letter, or if rulemaking occurs such that certain provisions in NEI 98-03 can be endorsed, or some combination of the preceding. If rulemaking occurs, the staff believes that it is important to have in place guidance for complying with existing requirements in the interim. If NEI 98-03 is modified to conform to the guidance in this generic letter such that the staff can endorse NEI 98-03, then the regulatory guide that endorses NEI 98-03 will become the long-term guidance, and will be consistent with the interim guidance in this generic letter. If NEI 98-03 is not modified and rulemaking does not occur, then the staff intends to reissue the guidance in this generic letter as long-term guidance in the form of a regulatory guide.

## Contacts

Questions concerning the information in this generic letter should be directed to one of the technical contacts listed below or the appropriate Office of Nuclear Reactor Regulation (NRR) project manager or Office of Nuclear Materials Safety and Safeguards (NMSS) project manager.

Jack W. Roe, Acting Director  
Division of Reactor Program Management  
Office of Nuclear Reactor Regulation

Technical contacts:

Thomas Bergman, NRR  
(301) 415-1021  
E-mail: tab@nrc.gov

Egan Wang, NRR  
(301) 415-1076  
E-mail: eyw@nrc.gov

Stewart Brown, NMSS  
(301) 415-1021  
E-mail: swb1@nrc.gov

