



DRAFT REGULATORY GUIDE

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DRAFT REGULATORY GUIDE DG-1237

GUIDANCE ON MAKING CHANGES TO EMERGENCY PLANS FOR NUCLEAR POWER REACTORS

A. INTRODUCTION

The U.S. Nuclear Regulatory Commission (NRC) objectives for Title 10, Section 50.54(q), of the *Code of Federal Regulations* (10 CFR 50.54(q)) are to ensure that licensees (1) follow and maintain the effectiveness of their approved emergency plans, (2) evaluate proposed changes to these plans for their impact on the effectiveness of the plans, and (3) obtain prior NRC approval for changes that would reduce the effectiveness of the plans. These actions are essential if these plans are to continue to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. The purpose of this draft guide is to provide guidance on the implementation of 10 CFR 50.54(q) with respect to making changes to emergency response plans.

The NRC issues regulatory guides to describe to the public methods that the staff considers acceptable for use in implementing specific parts of the agency's regulations, to explain techniques that the staff uses in evaluating specific problems or postulated accidents, and to provide guidance to applicants. Regulatory guides are not substitutes for regulations and compliance with them is not required.

This regulatory guide addresses information collections covered by the requirements of 10 CFR Part 50 that the Office of Management and Budget (OMB) approved under OMB control number 3150-0011. The NRC may neither conduct nor sponsor, and a person is not required to respond to, an information collection request or requirement unless the requesting document displays a currently valid OMB control number.

This regulatory guide is being issued in draft form to involve the public in the early stages of the development of a regulatory position in this area. It has not received final staff review or approval and does not represent an official NRC staff position.

Public comments are being solicited on this draft guide (including any implementation schedule) and its associated regulatory analysis or value/impact statement. Comments should be accompanied by appropriate supporting data. Written comments may be submitted to the Rulemaking, Directives, and Editing Branch, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; e-mailed to nrcprep.resource@nrc.gov; submitted through the NRC's interactive rulemaking Web page at <http://www.nrc.gov>; or faxed to (301) 492-3446. Copies of comments received may be examined at the NRC's Public Document Room, 11555 Rockville Pike, Rockville, MD. Comments will be most helpful if received by August 3, 2009.

Electronic copies of this draft regulatory guide are available through the NRC's interactive rulemaking Web page (see above); the NRC's public Web site under Draft Regulatory Guides in the Regulatory Guides document collection of the NRC's Electronic Reading Room at <http://www.nrc.gov/reading-rm/doc-collections/> and the NRC's Agencywide Documents Access and Management System (ADAMS) at <http://www.nrc.gov/reading-rm/adams.html>, under Accession No. ML090080534.

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B. DISCUSSION

Adopted in 1980 (45 *Federal Register* (FR) 55409, dated August 19, 1980), 10 CFR 50.54(q) requires that a licensee authorized to possess and operate a nuclear power reactor follow and maintain the effectiveness of emergency plans that meet the standards in 10 CFR 50.47(b) and the requirements in Appendix E, “Emergency Planning and Preparedness for Production and Utilization Facilities,” to 10 CFR Part 50, “Domestic Licensing of Production and Utilization Facilities.” This section also contains requirements for the process by which licensees may make changes to their facilities and procedures as described in the safety analysis report, without prior application to and approval by the Commission, provided that the changes do not reduce the effectiveness of the plans and that the plans, as changed, continue to meet the standards in 10 CFR 50.47(b) and the requirements in Appendix E to 10 CFR Part 50.

The objectives of the change process established in 10 CFR 50.54(q) are to ensure that holders of licenses under Part 50, or holders of combined licenses under Part 52 where the Commission has made the finding under 10 CFR 52.103(g), hereafter referred to as “licensees,” (1) evaluate proposed changes to their facilities for their impacts on the effectiveness of their emergency plans, (2) obtain prior NRC approval for changes that are deemed to reduce the effectiveness of the plans, and (3) document and report such changes and their evaluations.

As a result of lessons learned from operating experience, the NRC determined that additional action was necessary to provide clarity and consistency in implementation of the rule. The staff recommended amending 10 CFR 50.54(q) in SECY-06-0200, “Results of the Review of Emergency Preparedness Regulations and Guidance,” dated September 20, 2006 (Ref. 1). In a staff requirements memorandum dated January 8, 2007 (Ref. 2), the Commission directed the staff to initiate rulemaking to revise 10 CFR 50.54(q). The agency is publishing this draft regulatory guide concurrently with the proposed rule amendment to 10 CFR 50.54(q) (RIN 3150-A110) to make available to the public the NRC’s plans for implementing the proposed amendment and to solicit comments on the draft guidance. This draft guide has not received complete NRC staff review and does not represent an official NRC staff position. Following consideration and disposition of public comments, the NRC expects to issue the final rule and final regulatory guide in 2010.

The proposed amendment to 10 CFR 50.54(q) differs significantly from the current rule. Among the significant changes and clarifications are the following:

- The proposed rule would replace the phrase “decrease in effectiveness” with the phrase “reduction in effectiveness.” The rule would define the phrase and other terms used in the amended 10 CFR 50.54(q).
- The proposed rule would define “reduction in effectiveness” as a change in emergency plans that results in reducing the licensee’s capability to perform an emergency planning function in the event of a radiological emergency. An “emergency planning function” would be defined as a capability or resource necessary to prepare for and respond to a radiological emergency, as set forth in the planning standards of 10 CFR 50.47(b) and the elements of Section IV of Appendix E to 10 CFR Part 50. This draft guide identifies the emergency planning functions associated with each planning standard.
- The proposed rule language specifies that the license amendment process of 10 CFR 50.90, “Application for Amendment of License, Construction Permit, or Early Site Permit,” would be used in applying for prior Commission approval of those changes determined to be a reduction in effectiveness.

The emergency planning functions were derived from the planning standard functions established by nuclear power industry and NRC subject matter experts during the development of the Emergency Preparedness (EP) Cornerstone of the Reactor Oversight Process (ROP). Section C.4 of this guide tabulates the emergency planning functions, supporting requirements in Appendix E to 10 CFR Part 50, and informing criteria of NUREG-0654/FEMA-REP-1, “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants” (Ref. 4), for each of the planning standards of 10 CFR 50.47(b), and provides examples of emergency plan changes that typically would require prior NRC approval through a license amendment and examples of changes that typically would not.

C. REGULATORY POSITION

1. GENERAL GUIDANCE

1.1 Relationship between 10 CFR 50.54(q) and the NRC’s Reasonable Assurance Finding

a. The NRC emergency preparedness regulations in 10 CFR 50.47(a) preclude issuance of an operating or combined license if the NRC cannot make a finding that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Once an operating license is issued, the licensee is required to maintain the effectiveness of its emergency plans (proposed 10 CFR 50.54(q)(2)). The EP Cornerstone of the ROP evaluates whether the licensee continues to be capable of implementing adequate protective measures. If, at any time after the license is issued, the NRC determines that the licensee’s state of emergency preparedness does not provide such assurance, and the deficiencies are not corrected within four months, the Commission will determine whether the plant will be shut down or whether other enforcement actions would be appropriate (10 CFR 50.54(s)(2)(ii)).

b. Some changes that a licensee may make to its approved emergency plans warrant prior NRC approval to ensure the changes would not have an adverse effect on the NRC’s reasonable assurance determination. However, other general types of changes may have such a minimal impact on this determination that prior NRC approval would not be warranted. The 10 CFR 50.54(q) change process enables licensees to make the latter changes without prior NRC approval, while requiring prior NRC approval for the former. For example, changes that reduce the number of personnel available to perform emergency response tasks or lengthen the time it takes to staff and activate emergency response facilities (ERFs) could impact the NRC’s reasonable assurance determination and require prior NRC staff approval. Minor administrative changes, such as updating a telephone number in a notification procedure, would not warrant prior NRC staff review. Between these extremes is a range of possible changes for which the licensee would need to perform a detailed objective evaluation.

c. The 10 CFR 50.54(q) change process does not establish whether a proposed change would impact reasonable assurance determinations; the change process establishes only whether the licensee has the authority to implement the proposed change without prior NRC approval. The proposed change process would use the characteristic “reduction in effectiveness” to exclude changes that are expected to have a minimal impact on the NRC’s reasonable assurance determination. If the licensee determines through appropriate analysis that the proposed change would reduce the effectiveness of the licensee’s plans, NRC evaluation of the impact of the change on the reasonable assurance determination is required. As described in Regulatory Position C.5.3, licensees would submit applications for prior NRC approval of a change that the licensee deems to be a reduction in effectiveness in the form of a license amendment under 10 CFR 50.90. As a result of its review, the NRC may conclude that there continues to be

reasonable assurance that adequate protective measures can and will be taken and that the proposed change is therefore acceptable.

1.2 Role of Conservatism in 10 CFR 50.54(q) Change Evaluations

a. Conservative decision making has always been expected for the operation of nuclear power reactors, and the NRC expects licensees to continue to make conservative decisions. Nonetheless, licensees need to remain alert to the possibility of unintended consequences and consider these outcomes in their decisions. An overly conservative decision during an emergency response could trigger actions that could place the public at unnecessary risk, thus resulting in a *non-conservative* situation. “More” is not always “better.”

b. For example, if the licensee’s procedures are revised to call for a default 5-mile 360-degree evacuation during a radiological emergency (rather than the NUREG-0654 (Ref. 4) keyhole evacuation), the public upwind of the plant could be unnecessarily exposed to evacuation risks without the benefits of a radiation dose avoidance, a potential non-conservative situation. Conservative decision making is prudent when the data input to the decision is highly uncertain. In the example above, it would be prudent to increase the size of the area to be evacuated if wind direction at the *time of the event* is observed to be widely fluctuating or if a weather report forecasts a large change in wind direction during the period of plume transit across the emergency planning zone (EPZ). However, to do so in advance of an emergency would generally not be acceptable. State and local governments have the authority to implement protective actions beyond that recommended by the licensee, however, the licensee’s recommendation should be technically correct.

1.3 Role of Probabilistic Risk Assessment Insights in 10 CFR 50.54(q) Change Evaluations

The NRC Policy Statement “Safety Goals for the Operation of Nuclear Power Plants” (Ref. 5) states that emergency preparedness is a *defense-in-depth measure*. Emergency preparedness is implemented as a matter of prudence rather than in response to a quantitative analysis of accident probabilities. The planning basis in NUREG-0654 provides that the objective of emergency planning is to provide dose savings for a *spectrum* of accidents that could produce offsite doses in excess of the U.S. Environmental Protection Agency (EPA) Protective Action Guides (Ref. 6). The basis goes on to state that no *single specific accident sequence* should be isolated as the one for which to plan because each accident could have different consequences both in nature and degree. The selected planning basis described in NUREG-0654 is independent of specific accident sequences. The probability of a reactor accident requiring implementation of a licensee’s emergency plans has no relevance in determining whether a particular change reduces the effectiveness of the emergency plans. Accordingly, licensees should not consider risk insights regarding specific accident initiation or progression in performing 10 CFR 50.54(q) evaluations.

1.4 Timeliness as an Evaluation Consideration

a. By its very nature, an emergency instills a sense of urgency and dictates the necessity for prompt action, a fundamental aspect of a licensee’s emergency plans. Consistent with this imperative, the NRC has specified timeliness criteria in regulation for three specific emergency response activities: emergency classification, emergency notifications, and public alerting. The NRC emergency planning guidance provides additional time-based criteria. Licensees commit to staff augmentation times for their ERFs as part of their compliance with planning standard 10 CFR 50.47(b)(2). Licensee initial emergency notifications are required to contain a protective action recommendation (PAR). Since the notification

must be made within 15 minutes of the emergency classification, it follows that the licensee must also deliver a PAR within 15 minutes. Proposed changes that have the effect of delaying emergency classifications, notifications, or PARs may reduce the effectiveness of the emergency plans in that subsequent emergency response actions may not be timely and emergency response personnel, facilities, and equipment may not be in position if it becomes necessary to implement measures to protect the public health and safety. Generally, any change that has the effect of delaying an activity, or relaxing a timeliness criterion for the activity, should be viewed as a potential reduction in effectiveness and evaluated accordingly. This would include any change that modifies how the timeliness criterion is evaluated (e.g., “when the clock starts and stops”). For example, an emergency response organization (ERO) augmentation has not met its timeliness requirement until the ERO is actively performing its function (e.g., providing support to the on-shift staff); a “clock stop” prior to this would be premature.

b. The capability to complete an activity within the specified timeframe depends on several factors including the availability of adequate qualified personnel to perform the activity; the number of multiple duties assigned to these personnel; augmentation time by off-shift personnel; and sufficient procedures, tools, instrumentation, equipment, and other material necessary to complete the activity. Proposed changes that affect these factors need to be evaluated for their impact on the timely completion of emergency planning functions during an emergency response.

1.5 Role of Inspection Procedure 7114.04 Findings

Inspection Procedure 7114.04, “Emergency Action Level and Emergency Plan Changes” (Ref. 7), provides direction to NRC inspection personnel for performing screening of emergency plan changes and a review of a sample of changes that could potentially reduce effectiveness. Inspection reports document the results of such screenings and reviews. These inspection reviews do not constitute NRC approval of the plan changes, and all such changes remain subject to future inspection and enforcement actions. The NRC documents approval of plan changes pursuant to 10 CFR 50.54(q) in its decisions granting license amendment requests

1.6 Role of Facility Licensing Basis

A proposed change to the emergency plans cannot be properly evaluated if the basis for the staff’s approval of the original plan or the basis for any subsequent change, whether approved by the staff or implemented under the authority of 10 CFR 50.54(q), has not been considered. For example, why was more on-shift ERO staff specified than called for in NUREG-0654? Was it a matter of exceeding the regulatory minimum as an operating philosophy? Or was it done to compensate for special circumstances that existed when the decision was made (e.g., lengthy ERO augmentation times because of the remoteness of the site)? A decrease in staffing in the first case might not be a reduction in effectiveness; a decrease in staffing in the second case would be, if the special circumstances still existed. The following are some licensing basis documents to consider in informing a 10 CFR 50.54(q) evaluation:

- a. *Regulatory Requirements* The Commission’s emergency preparedness regulations in Title 10, Chapter 1, of the Code of Federal Regulations are binding on the licensee unless explicitly exempted by the NRC.
- b. *License, License Conditions, and License Amendments:* The facility’s license may contain emergency preparedness commitments and requirements that are binding on the licensee.
- c. *Commission Orders:* Commission Orders may establish specific emergency plan requirements for a particular licensee. In 1980, the NRC issued Generic Letter 80-90, “Post-TMI Requirements”

(Ref. 8), which requires licensees to confirm their commitments regarding various requirements imposed after the Three Mile Island accident, including emergency preparedness items. The Commission issued Confirming Orders mandating compliance with the commitments. Other Commission orders may apply.

- d. *Final Safety Analysis Report (FSAR)*: In FSARs formatted in accordance with the standard format, Chapter 13 addresses emergency preparedness. However, this discussion may have been replaced with a cross-reference to the stand-alone plans. Similarly, Chapter 1 of many FSARs contains tabulations of how various regulatory guides (e.g., Regulatory Guide 1.101, “Emergency Planning and Preparedness for Nuclear Power Reactors,” issued June 2005 (Ref. 9), and Standard Review Plan Section 13.3, “Emergency Planning,” issued March 2007 (Ref. 10)) were implemented in the design of the plant and the development of its operating programs.
- e. *Upgraded Emergency Plans*: Following the Three Mile Island accident, regulations required licensees to upgrade their emergency plans and to submit those plans for NRC review. A special inspection program involving onsite evaluations of the upgraded plans and facilities augmented these reviews. These submitted plans, NRC requests for additional information (RAIs), commitments made in responses to the RAIs, NRC safety evaluations, NRC denials, and other correspondence between the licensee and NRC may be useful in informing a 10 CFR 50.54(q) evaluation.
- f. *Other Sources of Licensing information*: The following sources of licensing information may be useful in informing 10 CFR 50.54(q) evaluations:
 - a. *Hearing Dockets (Atomic Safety and Licensing Board, Atomic Safety and Licensing Appeal Board)*: Emergency preparedness contentions have been raised in numerous proceedings associated with licensing and license amendments. The resulting board decision may have been based in part on licensee (applicant) statements regarding its emergency plans made in testimony presented before the board. This testimony and that of the NRC staff witnesses and witnesses for the interveners and resulting board rulings may be useful in informing a 10 CFR 50.54(q) evaluation on a program element addressed in those hearings.
 - b. *NRC Inspection Findings*: Inspection findings, inspection reports, commitments made in licensee response letters, root cause analyses, and supplemental inspection results may be useful in informing a 10 CFR 50.54(q) evaluation of a program element addressed in those findings.
 - c. *Federal Emergency Management Agency (FEMA)-Approved Alert and Notification System (ANS) Design Report*: If the licensee has committed to install or maintain the ANS on behalf of State or local governments, changes to the licensee’s commitments regarding ANS design, testing, and maintenance identified within the site’s FEMA-approved final ANS design report, are evaluated against the criteria of 44 CFR 350.14, “Amendments to State Plans.” If warranted, the proposed changes are to be submitted to FEMA via the cognizant State official for review and approval.

1.7 Role of Emergency Preparedness Cornerstone Performance Indicators

Representatives of the nuclear power industry developed the EP Cornerstone performance indicators, and the NRC endorsed them. These performance indicators and the supporting guidance were developed to monitor licensee performance, and compliance with a performance indicator does not

necessarily demonstrate compliance with regulations. For example, opportunities for demonstrating the capability to notify offsite response organizations (OROs) are considered successful upon notification of the first offsite organization. However, the regulation requires the capability to notify all offsite organizations within 15 minutes. Accordingly, performance indicators and their guidance cannot be used as the sole basis for a conclusion regarding whether a proposed change would reduce the effectiveness of the emergency plans, but they may be useful in informing such determinations.

2. EMERGENCY PLAN CHANGES FOR WHICH PRIOR NRC REVIEW IS RECOMMENDED

The following emergency plan changes should be submitted to the NRC for prior review and approval under 10 CFR 50.4, regardless of any licensee evaluation pertaining to reduction in effectiveness. The staff has determined, based on experience in reviewing such changes, that the scope of these changes and the potential for the changes to affect the staff's reasonable assurance findings warrant prior staff review. Changes similar to those listed below that do not meet the specified thresholds (e.g., relocation of a technical support center to another location within the protected area) must still be evaluated pursuant to 10 CFR 50.54(q) and, if determined to be a reduction in effectiveness, submitted for prior staff review through a license amendment application:

- a. Changes to the emergency plans that increase the activation time of licensee ERFs, or a change in how the activation time is measured (e.g., when the activation period starts and when it ends), either of which results in a delay in those facilities' provision of meaningful support to the control room consistent with the facilities' assigned functions and responsibilities.
- b. Changes to the staffing of the ERO that eliminate a key position¹ or reduce the licensee's capability to staff those positions on a 24/7 basis consistent with fitness-for-duty requirements (see 10 CFR 26.4(a)(2) and (c)).
- c. Combining the plant-specific emergency plans for two or more non-contiguous plant sites into a common emergency plan.
- d. Relocation of an EOF to a location more than 25 miles from the plant site.
- e. Relocation of the technical support center (TSC) to a location outside of the protected area for the plant site.
- f. Updates to evacuation time estimates pursuant to 10 CFR 50.47(b)(10).

3. EMERGENCY PLAN CHANGE EVALUATION TERMINOLOGY

This section provides a definition and discussion of key terms used in evaluating changes in emergency plans. These definitions are ordered such that each definition builds on the preceding definitions.

¹ Key positions include (1) control room: shift manager (emergency director), shift communicator; (2) TSC: senior manager, operations support, radiological controls, TSC communicator, technical support; (3) EOF: senior manager, protective measures, EOF communicator; (4) operational support center (OSC): OSC operations manager.

3.1 Planning Standard

Planning standards mean the 16 standards delineated in 10 CFR 50.47(b) that onsite and offsite emergency plans are required to meet in order for the NRC to find reasonable assurance that adequate protective measures can and will be taken. Corresponding sections of Appendix E to 10 CFR Part 50 contain additional requirements applicable to licensees and associated with these planning standards.

The planning standards establish the minimum requirements that onsite and offsite emergency plans are required to meet. The language of the planning standards is intentionally broad since the planning standards are applicable to both the licensee for onsite emergency plans and the State and local authorities for offsite emergency plans. The broad language also provides flexibility to address plant-specific, EPZ-specific, and jurisdictional-specific planning considerations.

3.2 Emergency Planning Function

Emergency planning function means a capability or resource necessary to prepare for and respond to a radiological emergency, as set forth in the elements of Section IV of Appendix E to 10 CFR Part 50 and, for nuclear power reactors, the planning standards of 10 CFR 50.47(b). (Ref. proposed 10 CFR 50.54(q)(1)(iii))

During the development of the EP Cornerstone of the ROP, a group of emergency preparedness subject matter experts, including NRC staff and industry stakeholders, with input from the public, developed the EP Significance Determination Process (Ref. 3). During the development, the group determined that the planning standard language would not be sufficiently clear to be used as a basis for significance determination and, instead, developed a series of planning standard functions. These planning standard functions are paraphrases of the planning standards in terms of the significant functions that need to be accomplished, or the capabilities that need to be in place, to maintain the effectiveness of the emergency plans and the emergency response capability. Within the EP Cornerstone, the significance of findings depends on whether the planning standards can be accomplished (i.e., Loss of Planning Standard Function) or can be accomplished only in a degraded manner (i.e., Degraded Planning Standard Function), with greater significance accorded to findings associated with certain planning standards deemed to have greater public safety significance.² In developing the proposed 10 CFR 50.54(q), the staff determined that any degradation (or loss) of a planning standard function, renamed as an *Emergency Planning Function*, would constitute a *reduction in effectiveness* (defined below).

3.3 Program Element

Program element means the items that comprise the implementation aspects of an emergency planning function. These items correspond to the evaluation criteria in NUREG-0654 (or other alternative methods for which the licensee obtained approval) that identify specific acceptable methods for complying with an Emergency Planning Function.

- a. Regulatory Guide 1.101 identified NUREG-0654 as providing acceptable methods for demonstrating compliance with the Commission's emergency preparedness regulations. Section II of NUREG-0654 tabulates each of the 16 planning standards and, for each standard, a series of evaluation criteria. These evaluation criteria identify the minimum functions, resources, or capabilities that are

² These are 10 CFR 50.47(b)(4), classification; (5), notification; (9), dose assessment; and (10), protective actions.

required to demonstrate compliance with planning standards. As with all regulatory guidance, applicants and licensees can propose alternatives to the guidance identified in the guide. A licensee's emergency plan describes how the licensee will address these evaluation criteria in demonstrating compliance with the planning standards, including any approved alternatives.

b. In considering the impact of a change to one or more program elements, it is important to note that a change to a single program element may not always result in a reduction in effectiveness of the associated emergency planning function. This would need to be considered on a case-by-case basis. Also, a change to a program element under one planning standard may result in a reduction in effectiveness of a different planning standard. For example, a change to a training module for emergency classification could reduce the effectiveness of the emergency classification process if its content is inconsistent with the plans.

3.4 Regulatory Requirement

Regulatory requirement means any emergency-preparedness-related requirement, including the planning standards, Appendix E to 10 CFR Part 50, 10 CFR 50.54(q), and 10 CFR 50.54(t), commitments made in the emergency plans, Commission Orders, and commitments made with regard to compensatory actions pursuant to 10 CFR 50.47(c) or 10 CFR 50.54(s)(2)(ii).

a. Section IV.D.3 of Appendix E to 10 CFR Part 50 requires that a licensee demonstrate that the administrative and physical capability has been established to alert and provide prompt instructions to the public within the plume exposure pathway. Many licensees have taken on the responsibility for the maintenance of the ANS on behalf of the offsite authorities. In these cases, commitments made in the FEMA-approved ANS design report constitute regulatory requirements as defined above.³

b. Any licensee considering a change to its emergency plans should first review the licensing basis for those plans to ensure that an understanding exists for the basis of the existing program elements and why the elements were incorporated in the plan. In some cases, applicants for licenses may have committed to particular program elements in response to site-specific considerations. For example, a licensee may have increased its commitment for numbers of on-shift ERO personnel to compensate for long staff augmentation times because of the remoteness of a site from residential areas. A change to align the on-shift staffing with that of sister plants, without compensatory actions to address the long staff augmentation times, could result in a reduction in effectiveness.

3.5 Emergency Plans

Emergency Plans comprise the documents prepared and maintained by the licensee that identify and describe the licensee's methods for maintaining and performing emergency planning functions. An emergency plan includes the plans as originally approved by the NRC and all subsequent changes made by the licensee with, and without, prior NRC review and approval pursuant to 10 CFR 50.54(q). (Ref. proposed 10 CFR 50.54(q)(1)(ii))

a. This definition highlights that "emergency plans" include any document that describes the programmatic methods that the licensee uses to maintain and perform emergency planning functions.

³ Note, however, that 44 CFR 350.14 describes the process used to effect changes to the FEMA-approved ANS, or changes to testing and maintenance commitments made in the ANS design report.

These methods, or program elements, are the implementation aspects of the emergency planning functions and generally correspond to the evaluation criteria of NUREG-0654, or approved alternatives, that provide specific acceptable methods for complying with the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50. Such programmatic documents are subject to the 10 CFR 50.54(q) change process.

b. Ordinarily, sub-tier documents such as emergency plan implementing procedures (EPIPs) are not considered to be part of the emergency plans for the purpose of evaluating proposed changes. If a licensee relocates a program element description from the emergency plan to a sub-tier document, that program element description continues to be subject to the 10 CFR 50.54(q) change process. For example, licensees have relocated the details of emergency classification schemes from the emergency plan to an EPIP and/or to large wall charts maintained in the control room. Since the EPIP or wall chart now is the means to demonstrate compliance with planning standard 10 CFR 50.47(b)(4), these sub-tier documents are subject to 10 CFR 50.54(q). Repeating, as opposed to relocating, program element descriptions in sub-tier documents does not necessarily make the sub-tier documents subject to the 10 CFR 50.54(q) change process. (However, the descriptions in the various documents must remain consistent.)

c. As a simple test, a licensee can consider what programmatic document(s) it would provide during an inspection to demonstrate that an emergency plan meets the regulatory requirements, as informed by the evaluation criteria in NUREG-0654 or by approved alternatives. These documents would likely be subject to the 10 CFR 50.54(q) change process. Non-programmatic documents such as training rosters, equipment and maintenance test reports, lesson plans, and other documents that *document the performance* of the program elements, as opposed to *establishing* the program elements, are not included.

d. The definition also highlights the need to consider the NRC-approved plans, as well as the changes made subsequently in performing reviews against 10 CFR 50.54(q), to ensure that a series of incremental changes, each determined not to reduce effectiveness, do not result in such a reduction when compared to the NRC-approved plans.

3.6 Change

Change means an action that results in modification or addition to, or removal from, the licensee's emergency plans or the resources, capabilities, and methods identified in those plans that affect an emergency planning function. (Ref. proposed 10 CFR 50.54(q)(1)(i))

a. The definition highlights that a change to emergency plans is not limited to revisions of the provisions contained in the document titled "emergency plan" but also to those resources, capabilities, and methods identified in the plan and relied on to perform emergency planning functions. For example, the retirement of a seismic instrument that is cited in an earthquake emergency action level (EAL) threshold could reduce the effectiveness of the plan by eliminating the ability to classify a seismic event.

b. A change can be temporary or permanent. Generally, the 10 CFR 50.54(q) change process applies to both. If a temporary change would reduce the effectiveness of the emergency plan, the licensee should establish compensatory measures to maintain the effectiveness of the plan during the period that the temporary change is in effect. For example, in planning to refurbish TSC equipment, a licensee should prearrange an alternative facility that could compensate for the planned outage and allow the emergency planning functions to be accomplished in an emergency. The licensee should perform a 10 CFR 50.54(q) evaluation to show that the use of the compensatory measures do not reduce the effectiveness of the emergency plan. Short term outages of equipment relied on by the emergency plan

are generally not treated as changes subject to the 10 CFR 50.54(q) change process provided that necessary corrective actions are implemented in a timely manner consistent with the impact of the outage on the licensee's ability to accomplish emergency planning functions, with emphasis on those functions associated with the risk-significant planning standards (i.e., 10 CFR 50.47(b)(4), classification; 10 CFR 50.47(b)(5), notification; 10 CFR 50.47(b)(9), dose assessment; and 10 CFR 50.47(b)(10), protective actions).

c. *Resources* means personnel, procedures, equipment, communications, instrumentation, analytical equipment, transportation, supplies, and other items needed to implement the response actions identified in the emergency plans. *Capabilities* means the capacity to implement the response actions identified in the emergency plans (e.g., the ability to augment on-shift personnel in a timely manner, generate timely and accurate PARs, complete notifications within 15 minutes, and maintain a protracted response). *Methods* means the proceduralized means or manner of implementing the response actions identified in the emergency plans (e.g., emergency classification schemes, notification protocols, and EAL threshold value bases). These elements are generally interdependent. For example, capability is lost if needed resources are missing.

d. Typical emergency plans may rely on various systems, structures, and components identified in the FSAR and other plant configuration documents. Accordingly, a site's process for evaluating plant configuration changes needs to consider the impact of those changes on the effectiveness of the emergency plans.

3.7 Reduction in Effectiveness

Reduction in effectiveness means a change in emergency plans that results in reducing the licensee's capability to perform an emergency planning function in the event of an emergency. (Ref. proposed 10 CFR 50.54(q)(1)(iv))

a. *Reduction in effectiveness* is an evaluation concept that is used with 10 CFR 50.54(q) to differentiate between changes that a licensee is allowed to make without prior NRC approval and those that require prior NRC approval. (See Regulatory Position C.1.1.) As used here, *emergency* means any condition that would result in the declaration of any emergency classification level and the implementation of the licensee's emergency plans. *Emergency* is not based on a single accident sequence, but rather on the spectrum of accidents addressed in the planning basis described in NUREG-0654. As noted above, *capabilities* means the capacity to implement the response actions identified in the emergency plans in meeting the emergency planning functions (e.g., the ability to augment on-shift personnel in a timely manner, generate timely and accurate PARs, complete notifications within 15 minutes, and maintain a protracted response).

b. The linkage between a proposed change and a possible degradation in the licensee's capability may not always be obvious, and many such decisions would involve significant evaluation by the reviewer.

4. EMERGENCY PLANNING FUNCTIONS

a. Regulatory Position C.3.2 of this guide defines emergency planning functions. This Regulatory Position C.4 provides the individual emergency planning functions along with explanatory guidance. It offers and explains examples of changes that could require prior NRC approval. These examples should not be viewed as being all-inclusive or exclusive; rather, licensees should use them to inform decisions involving various changes being considered. It is also possible that site-specific situations may make a

particular example inapplicable to that site. Even if a particular example completely encompasses the change being considered, the licensee's 10 CFR 50.54(q) evaluation must explain why the site-specific implementation of the change would not be a reduction in effectiveness for that particular site. It is not sufficient for such an analysis to simply cross-reference an example in this guide.

b. In evaluating proposed plan changes, the licensee may need to consider the impact of the proposed changes on more than one emergency planning function. For example, an evaluation of a proposed change to the ERO that reduces the number of persons assigned to perform dose assessments needs to consider the potential effect on not only the emergency planning functions for planning standard 10 CFR 50.47(b)(2), but also on the functions for the accident assessment planning standard 10 CFR 50.47(b)(9). If responsibility for performing dose assessment is assigned as an additional responsibility to ERO personnel performing emergency notifications, the potential effect on the notification functions (10 CFR 50.47(b)(5)) also needs to be evaluated.

c. The remainder of this section is arranged in the order of the planning standards in 10 CFR 50.47(b).

4.1 10 CFR 50.47(b)(1), Assignment of Responsibility/Organizational Control

Primary responsibilities for emergency response by the nuclear facility licensee and by State and local organizations within the Emergency Planning Zones have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

a. Two emergency planning functions have been defined for this planning standard:

- (1) Responsibility for emergency response is assigned.
- (2) The response organization has the staff to respond and augment on a continuing basis (24/7 staffing).

b. Sections IV.A.1–IV.A.8 of Appendix E to 10 CFR Part 50, including proposed Sections IV.A.2 and IV.A.7, provide supporting requirements. Informing criteria appear in Section II.A of NUREG-0654 and the licensee's emergency plan. The following are examples of changes that could require prior NRC approval:

- (1) A change that would have the effect of reducing the authority and responsibility of persons filling key positions to perform their emergency assignments in accordance with the emergency plans.
- (2) A change that assigns major functional areas or major tasks to two or more onsite organizations simultaneously such that it would not be clear to ERO members and the OROs which organization has the authority and responsibility for the activity at any point in the response. An example would be a change that has dose projection functions being performed concurrently in the TSC and EOF without hierarchical responsibility assigned.
- (3) A change that would have the effect of reducing the licensee's capability to staff key ERO positions identified in the plans on a 24/7 basis in accordance with the licensee's fitness-for-duty requirements.

c. The following example would generally not require prior NRC approval: Proposed changes to emergency response organization names or titles that do not change the functional relationships, authorities, competencies, or responsibilities for key positions identified in the plans.

4.2 10 CFR 50.47(b)(2), Onsite Emergency Organization

On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified.

a. Two emergency planning functions have been defined for this planning standard:

- (1) Process ensures that on-shift emergency response responsibilities are staffed and assigned.
- (2) Process for timely augmentation of on-shift staff is established and maintained.

b. Sections IV.A.2.a, b, and c, IV.A.3, and proposed Section IV.C of Appendix E to 10 CFR Part 50 provide supporting requirements. Informing criteria appear in Section II.B of NUREG-0654 and the licensee's emergency plan. Changes to the ERO have the potential to affect the ERO's performance in the major functional areas and major tasks, and evaluations of the impact of such changes would necessarily involve other emergency planning functions. The following are examples of changes that could require prior NRC approval:

- (1) A change that would cause any of the major functional areas or major tasks identified in the emergency plans to be unassigned. An example of this would be a technical specification change eliminating on-shift radiation technician coverage without making an alternative arrangement for providing the requisite technical expertise in a timely manner.
- (2) A change that increases the ERO augmentation time, or a change in how the augmentation time is determined (e.g., when the augmentation period starts and when it ends), either of which would result in increased delay in providing meaningful support to the on-shift organization beyond the times currently established in the emergency plans. An example of this would be extending the committed augmentation time by 10 minutes to account for traffic delays, or to account for ERO notification, or relocating the EOF such that the augmentation times can no longer be met because of increased ERO travel distances.
- (3) A change that eliminates key positions identified in the plans and reassigns the responsibilities of the eliminated positions to other key positions (e.g., competing duties) if the change would result in an ERO member being assigned duties that could be expected to be performed concurrently rather than sequentially. An example of this would be assigning control room communicator responsibilities to a fire brigade member or assigning dose assessment responsibilities to a shift technical advisor.

- (4) A change that would have the effect of reducing the availability, or timeliness, of offsite corporate support resources relied on in the plans. An example of this would be a consolidation of corporate entities that relocates material, equipment, or personnel relied on in the plans and impedes their timely availability to the ERO.

c. The following example would generally not require prior NRC approval: A change to ERO staffing levels made possible by changes in circumstances or gains in efficiency that would have no impact on the timeliness and accuracy of the ERO performance of major functional areas or major tasks in accordance with the emergency plans. Examples of this would be the installation of digital display screens that eliminate the need for status board keepers, co-location of offsite personnel at the EOF that eliminates the need for liaison positions, and installation of messaging systems that reduce the needed number of communicators.

4.3 Proposed 10 CFR 50.47(b)(3), Emergency Response Support and Resources

Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate State and local staff at the licensee's Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.

a. Two emergency planning functions have been defined for this planning standard:

- (1) Arrangements for requesting and using offsite assistance have been made.
- (2) State and local staff can be accommodated at the EOF in accordance with the emergency plan (E-plan).

b. Sections IV.A.6 and proposed Section IV.A.7 of Appendix E to 10 CFR Part 50 provide supporting requirements. Informing criteria appear in Section II.C of NUREG-0654 and the licensee's emergency plan. The following are examples of changes that could require prior NRC approval:

- (1) A change to letters of agreement that would decrease the availability or scope of the services provided by local agencies (e.g., local law enforcement, firefighting) relied on in the onsite emergency plans. An example would be the closure of a local fire department.
- (2) A change that would impede site access for offsite assistance relied on in the plan without viable alternate arrangements being made. An example would be the closure or planned closure of a major river bridge in a case where the route via the nearest available crossing would incur a substantial increase in response time.
- (3) A change to site access procedures (e.g., health physics (HP), industrial safety, security) that would have the effect of delaying the in-processing of offsite assistance relied on in the emergency plans. For example, HP procedures restrict the access of a 17-year-old volunteer firefighter or, because of staffing changes, HP personnel are not available to provide radiological coverage to ambulance crews.
- (4) An offsite radiological laboratory relied on in the emergency plans has ceased operating, and viable alternate arrangements have not been made.

c. The following example would generally not require prior NRC approval: A change to the EOF structure, organization, or location that would impede the principal OROs from participating in the response at the EOF, but these organizations accept the availability of reliable telecommunications capabilities (e.g., videoconferencing, Web EOC™, digital display boards connected via data link) as viable alternatives.

4.4 10 CFR 50.47(b)(4), Emergency Classification System

A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

a. One emergency planning function has been defined for this planning standard:

- A standard scheme of emergency classification and action levels is in use.

b. Proposed Sections IV.B and IV.C of Appendix E to 10 CFR Part 50 provide supporting requirements. Informing criteria appear in Section II.D of NUREG-0654 and the licensee's emergency plan.

c. In considering proposed changes associated with EALs, it is necessary to consider the impact of the change on the accuracy of the classification and the timeliness of the classification. Section IV.C.2 of Appendix E to 10 CFR Part 50 requires that a licensee have the capability to promptly assess, classify, and declare an emergency condition within 15 minutes after the availability of indications that an EAL has been, or may be, exceeded, with a caveat that the 15-minute criterion not be construed as limiting response actions necessary for the protection of the public. Accurate classifications are also important so that under-classifications and over-classifications are avoided.

d. The following are examples of changes that could require prior NRC approval:

- (1) A change to facility procedures, systems, equipment, staffing, or staff training, that would reduce the licensee's capability to promptly assess, classify, and declare an emergency condition within 15 minutes of the availability of indications that an EAL has been, or may be, exceeded. Examples include the following:
 - (a) a change to the normal shift complement such that the expertise to read or interpret a seismic instrument reading cited in the EAL scheme would no longer be available on-shift resulting in delay in making the classification,
 - (b) a change to the EAL scheme that would eliminate all predetermined radiation monitor EAL thresholds and rely instead on manually initiated dose projections,
 - (c) a change to ERO staffing that would assign competing duties to the ERO positions assigned responsibility for performing emergency classifications such that timeliness of emergency classifications may be impacted, and
 - (d) a change to a facility procedure that directs that the 15-minute classification period starts only after the duration of the condition incorporated in the EAL (e.g., fire lasting for 10 minutes) has elapsed.
- (2) A change to facility procedures, systems, equipment, or staffing that would create a situation in which an accurate emergency classification would no longer occur as

required for an event. Examples include the following:

- (a) a seismic monitor relied on in the EAL scheme is to be retired without replacement,
 - (b) a radiation monitor relied on in the EAL scheme is to be upgraded and would have a different response than the monitor it replaced such that the associated EAL threshold value would no longer be valid, and
 - (c) a change to core physics results in a change in the minimum steam cooling reactor water level that is not reflected in a change to an EAL threshold derived from that value.
- (3) A change to a particular EAL that renders it ineffective such that an accurate and timely classification would not occur as required for an event. Examples include the following:
- (a) a change to mode applicability of the EAL that excludes an operating mode in which the EAL should be applicable,
 - (b) a change that re-expresses field monitor EALs in radiation units (e.g., total effective dose equivalent) that could not be measured directly in the field and for which monitoring procedures provide no conversion algorithm, and
 - (c) a change to the language of a particular EAL such that the classification logic would no longer be clear and could potentially result in an inaccurate classification (e.g., a Site Area Emergency EAL that reads “vandalism to safety-related equipment” without further qualification or quantification could be applied to events as diverse as someone putting graffiti on an inverter cabinet surface or someone taking a sledge hammer to a safety injection pump casing).

e. The following examples would generally not require prior NRC approval:

- (1) A change to an EAL numeric threshold to reflect an approved change in a technical specification provided that the basis of the approved EAL is unchanged (e.g., EAL basis refers to a particular technical specification but not a limiting condition for operation (LCO) value).
- (2) A change to an EAL numeric threshold to reflect a change in a plant design parameter, instrument response characteristics, or design calculation, provided that the basis of the approved EAL is unchanged.

4.5 10 CFR 50.47(b)(5), Emergency Notifications

Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and follow-up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.

a. Three emergency planning functions have been defined for this planning standard:

- (1) Procedures for notification of State and local governmental agencies are capable of initiating notification within 15 minutes after declaration of an emergency.

- (2) Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway.
- (3) The public alert and notification system meets the design requirements of FEMA-REP-10 or is compliant with the FEMA-approved ANS design report and supporting FEMA approval letter.

b. Sections IV.D.1 and proposed Section IV.D.3 of Appendix E to 10 CFR Part 50 provide supporting requirements. Informing criteria appear in Section II.E and Appendix 3 of NUREG-0654 and the FEMA-approved ANS Design Report.

c. Since the performance of an ANS is an offsite concern, FEMA has the primary responsibility and authority for evaluating the design of an ANS. If the licensee has assumed responsibility for the installation and maintenance of the ANS on behalf of the State or local governments, the licensee will have prepared a site-specific ANS design report. This report would be submitted to FEMA via the State for FEMA review. The ANS design report defines the design of the ANS, including the alerting system (e.g., sirens, tone alert radio, route alerting) and the notification system. The ANS design report identifies commitments for testing and maintenance. The NRC considers the approved ANS design report to be part of the facility's licensing basis as it establishes the basis of the NRC's determination that the licensee has complied with Section IV.D.3 of Appendix E. Changes to the licensee's commitments documented in the approved ANS design report are evaluated against the criteria of 44 CFR 350.14, "Amendments to State Plans." If warranted, the proposed changes are to be submitted to FEMA via the cognizant State official for review and approval as provided in 44 CFR 350.14.

d. The following are examples of changes that could require prior NRC approval:

- (1) A change to facility procedures, systems, equipment, staffing, or staff training that would reduce the licensee's capability to promptly make emergency notifications to responsible OROs within 15 minutes after declaring an emergency. Examples include the following:
 - (a) a change to notification forms, and their processing, that has the effect of reducing the accuracy or timeliness of emergency notifications,
 - (b) a change to communications hardware that would reduce the capability to initiate and complete required emergency notifications within 15 minutes of the emergency declaration,
 - (c) a planned outage of communication hardware that would reduce the capability to initiate and complete required emergency notifications within 15 minutes of the emergency declaration without a viable compensatory measure capable of achieving the timeliness criterion,
 - (d) a change to a facility procedure that directs the 15-minute criterion clock be restarted if the condition escalates before the notifications for the prior emergency level are made,
 - (e) a change to a facility procedure that eliminates one or more components of initial or follow-up notifications specified in Section II.E of NUREG-0654 or the licensee's approved emergency plan (e.g., omission of whether protective actions are necessary),
 - (f) a change to ERO staffing that assigns collateral duties to the ERO positions assigned responsibility for performing emergency notifications such that timeliness of emergency notifications may be affected, and

- (g) a change to the staffing of an ORO warning point (i.e., the point of contact for licensee notifications) that eliminates 24/7 coverage, such that the licensee can no longer demonstrate the capability of making required notifications promptly within 15 minutes of declaration.
 - (2) A planned outage of ANS hardware (e.g., sirens, activation means) without a viable compensatory measure, such that the licensee can no longer demonstrate the capability to essentially complete the initial notification of the public within the plume exposure pathway within about 15 minutes.
- e. The following examples would generally not require prior NRC approval:
- (1) A change to emergency notification forms to implement an EAL designation scheme that was coordinated with the OROs.
 - (2) A change to emergency notification protocols requested by a State to have a follow-up verbal discussion between the licensee and the State to discuss the licensee's PAR, provided that the initial notification, including PAR, continues to be made promptly within 15 minutes of the emergency declaration.

4.6 10 CFR 50.47(b)(6), Emergency Communications

Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

- a. Two emergency planning functions have been defined for this planning standard:
- (1) Systems are established for prompt communication among principal emergency response organizations.
 - (2) Systems are established for prompt communication to emergency response personnel.
- b. Section IV.E.9 of Appendix E to 10 CFR Part 50 provides supporting requirements. Informing criteria appear in Section II.F of NUREG-0654 and the licensee's emergency plan. The following are examples of changes that could require prior NRC approval:
- (1) A change that would reduce the availability and reliability of primary and backup communications systems used to (1) notify and activate State and local emergency response centers, or (2) to enable communications between the licensee's ERFs and with ORO and Federal emergency operating centers (EOCs), in accordance with the emergency plans (e.g., replacing dedicated private lines with public exchange service).
 - (2) A change to ERO callout procedures or hardware that would delay ERO notification such that the augmentation times in the emergency plans can no longer be achieved.
 - (3) A change in the frequency of communication testing or maintenance to a level not supported by the site's experience with system reliability. An example of this would be scheduled maintenance interval greater than the observed mean time between failures of the equipment or reduction in the availability of backup capabilities.

c. The following example would generally not require prior NRC approval: A change to replace phone-talker relay of inter-facility communications with digital data communication that is equivalent to, or better than, the current system with regard to timeliness, accuracy, and reliability. (The 10 CFR 50.54(q) evaluation should address the requisite equivalency.)

4.7 10 CFR 50.47(b)(7), Emergency Public Information

Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established.

a. Two emergency planning functions have been defined for this planning standard:

- (1) EP information is made available to the public on a periodic basis within the plume exposure pathway EPZ.
- (2) Coordinated dissemination of public information during emergencies is established.

b. Section IV.E.9 of Appendix E to 10 CFR Part 50 provides supporting requirements. Informing criteria appear in Section II.F of NUREG-0654 and the licensee's emergency plan. The following are examples of changes that could require prior NRC approval:

- (1) A change to facility procedures, systems, equipment, staffing, or staff training that would reduce the licensee's capability to disseminate information to the public in a timely and accurate manner during emergencies in accordance with the emergency plans. Examples include the following:
 - (a) media contact lists would not be kept up to date,
 - (b) proceduralized approval protocols cannot be implemented because of organizational changes,
 - (c) corporate spokespersons would be insufficiently familiar with a particular site and its reactors to be effective as credible spokespersons,
 - (d) insufficient staffing would be available to adequately perform assigned functions and tasks,
 - (e) news releases would not be released in a timely manner such that outdated information would be released after it has been superseded by subsequent events (e.g., a press release addressing declaration of an unusual event would be released after the ERO has already declared a site area emergency), and
 - (f) news releases and briefings would not be routinely coordinated with those provided by OROs.
- (2) A change to annually disseminated public emergency information material or postings such that they would not contain the minimum information identified in Section II.G of NUREG-0654 or an NRC-approved alternative.

- (3) A change in the means of distributing the annual information materials that would reduce the assurance that the permanent and transient adult population within the plume exposure EPZ has been given an adequate opportunity to become aware of the information.

c. The following example would generally not require prior NRC approval: A revision to the annual emergency information packet that changes the format from a brochure to a calendar but still includes all required information.

4.8 10 CFR 50.47(b)(8), Emergency Facilities and Equipment

Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

a. Two emergency planning functions have been defined for this planning standard:

- (1) Adequate facilities are maintained to support emergency response.
- (2) Adequate equipment is maintained to support emergency response.

b. Sections IV.E.1–4, proposed Section IV.E.8, and Section IV.G of Appendix E to 10 CFR Part 50 provide supporting requirements. Informing criteria appear in Section II.G of NUREG-0654; NUREG-0696, “Functional Criteria for Emergency Response Facilities” (Ref. 11), issued February 1981; and the licensee’s emergency plan. The following are examples of changes that could require prior NRC approval:

- (1) A change to facility procedures, systems, or equipment that would reduce the capability of the ERO in the TSC, EOF, or OSC to perform assigned functions and tasks in accordance with the emergency plans. Examples include the following:
 - (a) a reduction in the existing reliability or redundancy of data acquisition, display, and analysis equipment provided in the ERFs,
 - (b) a relocation of an EOF makes it infeasible for State and/or local ORO personnel to respond to and participate in the EOF as they currently do without adequate compensatory measures,
 - (c) a permanent substitution of personal protective equipment for installed engineered habitability features,
 - (d) site vehicles designated for field monitoring service no longer have power jacks needed for sampling equipment without a viable compensatory action,
 - (e) a planned outage of ERF systems without viable compensatory actions such that a key ERO position could not complete its functions and tasks in a timely manner,
 - (f) a reduction in the frequency of ERF equipment maintenance, calibration, or testing not supported by the site’s experience with equipment reliability (e.g., a frequency greater than the observed mean time between failures),
 - (g) a change to an ERF use that allows nonemergency uses that would decrease the readiness of the ERF for emergency use, and
 - (h) a change that reduces the inventory or availability of equipment.

- c. The following examples would generally not require prior NRC approval:
- (1) A change replaces existing ERF equipment with equipment of like quality, reliability, performance, and user interface. (The 10 CFR 50.54(q) evaluation must document the basis of this equivalency conclusion.)
 - (2) A planned change to relocate the EOF has the effect of impeding the principal OROs from participating in the response at the EOF, but these organizations accept the availability of reliable telecommunications capabilities (e.g., videoconferencing, Web EOC™, digital display boards fed via data link) as viable alternatives. (However, see Regulatory Position C.2.)

4.9 10 CFR 50.47(b)(9), Emergency Assessment Capability

Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

- a. One emergency planning function has been defined for this planning standard:
- Methods, systems, and equipment for assessment of radioactive releases are in use.
- b. Proposed Section IV.B and Section IV.E.2 of Appendix E to 10 CFR Part 50 provide supporting requirements. Informing criteria appear in Section II.I of NUREG-0654 and the licensee's emergency plan. The following are examples of changes that could require prior NRC approval:
- (1) A change to facility procedures, systems, staffing, training, or equipment that would reduce the capability of the ERO to perform assessments of imminent and ongoing radioactive releases in accordance with the emergency plans. Examples include the following:
 - (a) a change to the onsite meteorological measurements program such that meteorological data currently readily available in ERFs in accordance with the emergency plan would no longer be readily available,
 - (b) a change in ERO staffing that would eliminate the on-shift capability to make timely and accurate estimates of the actual or potential radiological hazards through liquid or gaseous release pathways,
 - (c) reassignment of dose assessment responsibilities from a site-specific EOF member to a common EOF manned with ERO personnel not sufficiently competent in the site's radiation monitoring systems, ventilation systems, source terms, or potential release paths to perform a credible dose assessment,
 - (d) replacement of a site-specific dose assessment model with a generic model that provides results that have not been shown to be representative for the topography, meteorological regimes (e.g., valley effects, sea breeze), release pathways, or source terms applicable to that plant and its environs,
 - (e) a change in field monitoring air sampling media such that the requisite iodine sensitivity could not be met because of interference from the presence of noble gases,
 - (f) site vehicles designated for field monitoring service no longer have power jacks needed for sampling equipment without a viable compensatory action,

- (g) changes to dose assessment software that would reduce the options available to assessment personnel to perform assessments for releases that have not yet started or that could occur through unmonitored release paths, and
- (h) an incremental series of changes (e.g., retirement of a post-accident sampling system, followed by a change to treatment requirements for high-range containment monitors, etc.), any one of which may be acceptable on its own, but in combination, reduces the likelihood that a timely and accurate estimate of the radioactivity in the containment atmosphere or reactor coolant system can be obtained under accident conditions enveloped by the NUREG-0654 planning basis.

c. The following examples would generally not require prior NRC approval:

- (1) A change replaces existing field monitoring equipment with equipment of like quality, reliability, performance, and user interface. (The 10 CFR 50.54(q) evaluation must document the basis of this equivalency conclusion.)
- (2) A change to dose assessment software updates site parameter files to reflect changed detector isotopic efficiencies resulting from an approved effluent radiation monitoring system upgrade.

4.10 Proposed 10 CFR 50.47(b)(10), Emergency Protective Actions

A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed and must be updated on a periodic basis and updates must be submitted to NRC for review and approval. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed

a. Two emergency planning functions have been defined for this planning standard:

- (1) A range of public protective action recommendations (PARs) is available for implementation during emergencies.
- (2) A range of protective actions is available for plant emergency workers during emergencies.

b. There are no supporting requirements in Appendix E to 10 CFR Part 50. Informing criteria appear in Sections II.J.1–8 and II.J.10 and Supplement 3 to NUREG-0654 and the licensee's emergency plan. The following are examples of changes that could require prior NRC approval:

- (1) A change to facility procedures, training, or equipment that would reduce the capability of the ERO to implement timely and appropriate protective actions for onsite employees and other individuals present in the plant areas controlled by the licensee, and to make timely and appropriate PARs to State and local officials in accordance with the emergency plans. Examples include the following:

- (a) a security initiative that would place jersey barriers blocking one of two site evacuation routes (stipulated in the emergency plan for use under certain wind directions) without compensatory changes to the emergency plans,
- (b) a revision to visitor site familiarization programs that would result in unescorted persons on site not receiving adequate instruction in site evacuation or site accountability,
- (c) a planned closure of roads or bridges used as site evacuation routes for which viable compensatory measures have not been implemented or have not been made known to the site population,
- (d) changes to facility procedures that could result in personnel not qualified to wear respiratory protection devices being assigned to ERO positions with functions and tasks that could reasonably require the use of such equipment,
- (e) a process change that would result in PARs that relax earlier PARs that have already been relayed to OROs and are being implemented by the public,
- (f) policies and training programs that would cause ERO members who need to wear respiratory protection equipment to perform their assigned functions and tasks in accordance with the emergency plans to be disqualified from doing so,
- (g) a change to PAR decision logic in the emergency plans that would mandate 360-degree, 5-mile radius evacuations as a minimum PAR even when the actual wind persistence and wind direction forecasts at the time of the emergency do not warrant such an action,
- (h) a change to PAR decision logic in the emergency plans such that the range of protective actions considered by the ERO would be inappropriately restricted to the extent that the most effective PAR (lowest overall risk to the individual) might not be implemented,
- (i) changes that reduce the control a licensee has over access to the owner-controlled area or exclusion area (e.g., public roadway traversing the site, public recreational area within exclusion area), and
- (j) a change to a security contingency plan that would impede implementation of onsite protective actions in accordance with the emergency plan.

c. The following examples would generally not require prior NRC approval:

- (1) A change replaces existing personal protective equipment with equipment of like quality, reliability, performance, and operation. (The 10 CFR 50.54(q) evaluation must document the basis of this equivalency conclusion.)
- (2) A change to PAR decision logic in the emergency plans removes KI as a PAR option for the public following the decision by State officials to no longer issue KI to the public.
- (3) The site evacuation time estimate is updated to reflect changes in the site demography and infrastructure.

4.11 10 CFR 50.47(b)(11), Emergency Radiological Exposure Control

Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

- a. One emergency planning function has been defined for this planning standard:
- The means for controlling radiological exposures for emergency workers are established.
- b. Section IV.E.1 of Appendix E to 10 CFR Part 50 provides supporting requirements. Informing criteria appear in Section II.K of NUREG-0654 and the licensee's emergency plan. The following are examples of changes that could require prior NRC approval:
- (1) A change to facility procedures, training, staffing, or equipment that would reduce the capability of the ERO to control the radiological exposures of emergency workers in accordance with the emergency plans. Examples include the following:
 - (a) radiation exposures incurred during an emergency not being recorded as occupational exposure pursuant to 10 CFR Part 20, "Standards for Protection against Radiation,"
 - (b) radiation dosimetry not being issued in accordance with emergency plans to offsite assistance (ambulance, fire, local law enforcement) entering the radiologically controlled area,
 - (c) personnel decontamination materials and agents not being maintained in a ready state, and
 - (d) authority to authorize emergency exposure limits not being available 24/7.
- c. The following example would generally not require prior NRC approval: A change replaces existing radiological protection instrumentation (e.g., friskers, survey instruments, continuous air monitors, dosimeters) relied on in the emergency plans with equipment of like quality, reliability, performance, and operation. (The 10 CFR 50.54(q) evaluation must document the basis of this equivalency conclusion.)

4.12 10 CFR 50.47(b)(12), Emergency Medical Support

Arrangements are made for medical services for contaminated injured individuals.

- a. One emergency planning function has been defined for this planning standard:
- Arrangements are made for medical services for contaminated, injured individuals.
- b. Proposed Section IV.E.5–7 of Appendix E to 10 CFR Part 50 provides supporting requirements. Informing criteria appear in Section II.L of NUREG-0654 and the licensee's emergency plan. The following are examples of changes that could require prior NRC approval:
- (1) A decision to terminate a letter of agreement with an offsite medical facility relied on in the emergency plans that would have the effect of delaying medical treatment for contaminated injured individuals without a viable alternative facility accessible within a timeframe consistent with the urgency of emergency medical treatment.
 - (2) A change in licensee training assistance to an offsite medical facility identified in the

emergency plans to the extent that the ability of hospital personnel to handle contaminated injured individuals is degraded (e.g., training on radiological contamination control involving contaminated injured individuals, the general primacy of trauma treatment over treatment for radiation exposure).

- (3) A change in on-shift staffing and/or availability of emergency kits that would preclude site personnel from ensuring that adequate radiological contamination controls are implemented at the receiving medical facility.
- (4) A change in facility staffing and/or availability of emergency kits that would reduce onsite first aid capabilities identified in the emergency plans without viable compensatory measures.

c. The following example would generally not require prior NRC approval: Designation of a replacement offsite medical facility provided that the new facility has equivalent capabilities and is accessible within a timeframe consistent with the urgency of emergency medical treatment. (The 10 CFR 50.54(q) evaluation must document the basis of this equivalency conclusion.)

4.13 10 CFR 50.47(b)(13), Recovery and Reentry Planning

General plans for recovery and reentry are developed.

a. One emergency planning function has been defined for this planning standard:

- Plans for recovery and reentry are developed.

b. There are no supporting requirements in Appendix E to 10 CFR Part 50. Informing criteria appear in Section II.M of NUREG-0654 and the licensee's emergency plan. The following are examples of changes that could require prior NRC approval:

- (1) A change to onsite procedures addressing termination of the emergency and transition to a recovery organization such that an orderly transition, including coordination with State officials, to a recovery organization may not occur for the spectrum of accident scenarios enveloped by the NUREG-0654 planning basis.
- (2) A change to hazard assessment and radiation protection assignments in reentry and recovery procedures that would not provide an adequate level of personal protection in uncertain reentry conditions.
- (3) A change that reduces the level of detail in plan provisions for the structure of the recovery organization and the authorities and responsibilities of key personnel assigned such that a reasonable general framework no longer exists.

c. The following example would generally not require prior NRC approval: A proposed change to the general framework of a recovery organization to reflect changes in position titles made in the normal operating organizations.

4.14 10 CFR 50.47(b)(14), Drill and Exercise Program

Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected. Periodic exercises must demonstrate response to a wide spectrum of accidents including but not limited to accidents with, and accidents without, core damage, radiological release, and hostile action against the site and accidents that allow some realistic simulated actions to mitigate the accident and/or the radiological release.

a. Three emergency planning functions have been defined for this planning standard:

- (1) A drill and exercise program (including radiological, medical, health physics, etc.) is established.
- (2) Full-scale drills and exercises are assessed via a formal critique process in order to identify weaknesses.
- (3) Identified weaknesses are corrected.

b. Proposed Section IV.F.1–2 of Appendix E to 10 CFR Part 50 provides supporting requirements. Informing criteria appear in Section II.N of NUREG-0654 and the licensee’s emergency plan. The following are examples of changes that would require prior NRC approval:

- (1) A change in the conduct of drills and exercises that would have the effect of reducing the challenge presented to the ERO personnel such that the key functional areas and major tasks are not provided an opportunity to practice their assigned responsibilities including use of the plans, procedures, and equipment associated with those responsibilities; demonstrate their capabilities; or identify weaknesses in their performance. Examples include the following:⁴
 - (a) exercises use the same general scenarios from exercise to exercise (e.g., “fire at 9 a.m., loss of offsite power at 11 a.m., general emergency after the lunch break”),
 - (b) frequent reuse of a given scenario,
 - (c) lack of sufficient detail in scenario regarding expected ERO response to the data and situations presented by the scenario,
 - (d) scenarios and controller conduct do not cause drill or exercise participants to “work for the information” as they would in an actual event,
 - (e) overreliance on player simulation when there are no valid constraints to actual play (e.g., not obtaining the tools and parts for a simulated repair activity, not obtaining/reviewing the radiation work permit, not donning protective clothing and equipment, not going to the location of the repair, returning to onsite support center sooner than the actual repair would have taken),
 - (f) scenarios that never allow ERO success to change the course of the exercise, and
 - (g) scenario objectives that never force the use of backup capabilities (e.g., loss of the primary ring-down phone used for initial notifications).

⁴ This list is not to be construed as regulatory requirements that need to be addressed in each and every exercise, but rather, possible reductions in effectiveness if not addressed in the drill and exercise program as a whole.

- (2) A change in the conduct of drill and exercise critiques that has the effect of reducing the ability of the critique to adequately identify weaknesses in the ERO play and to implement necessary corrective actions. An example would be a critique process that does not identify and formally evaluate any deviation in the ERO performance expected by the scenario (i.e., either the scenario was wrong or the ERO was wrong; the situation needs to be evaluated and appropriate corrective actions taken).

c. The following example would generally not require prior NRC approval: A change in the overall exercise program schedule provided that the program continues to meet the scheduling requirements in Appendix E to 10 CFR Part 50.

4.15 10 CFR 50.47(b)(15), Emergency Responder Training

Radiological emergency response training is provided to those who may be called on to assist in an emergency.

a. One emergency planning function has been defined for this planning standard:

- Training is provided to emergency responders.

b. Proposed Section IV.F.1–2 of Appendix E to 10 CFR Part 50 provides supporting requirements. Informing criteria appear in Section II.O of NUREG-0654 and the licensee’s emergency plan. The following are examples of changes that could require prior NRC approval:

- (1) A change in the conduct of ERO training such that ERO personnel are not provided sufficient training and other performance development opportunities related to their assigned functions and responsibilities to enable their acceptable performance in those functions and responsibilities prior to assignment to key ERO positions and periodically as long as they continue to be so assigned. Examples include the following:
 - (a) a change reducing the frequency of required training that is not supported by demonstrated ERO performance in drills and exercises or by the infrequency of changes in the emergency plan and its supporting procedures,
 - (b) a change reducing the frequency of updating training materials to reflect changes in the emergency plans and procedures,
 - (c) a change lengthening the time to address ERO performance weaknesses attributed to training deficiencies, consistent with the significance of the weakness,
 - (d) a change that eliminates training effectiveness measurements (tests, job performance measurements) currently required, and
 - (e) a change that reduces the availability of site familiarization training currently presented to offsite assistance groups (e.g., firefighters, local law enforcement, and medical services, including mutual aid companies that would support these groups).

c. The following example would generally not require prior NRC approval: A change to emergency training program lesson plans to conform with approved changes in the emergency plans or to plant systems and equipment relied on in those plans.

4.16 10 CFR 50.47(b)(16), Emergency Plan Maintenance

Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.

a. Two emergency planning functions have been defined for this planning standard:

- (1) Responsibility for E-plan development and review is established.
- (2) Emergency planning personnel are properly trained.

b. There are no supporting requirements in Appendix E to 10 CFR Part 50. Informing criteria appear in Section II.P of NUREG-0654 and the licensee's emergency plan. The following are examples of changes that could require prior NRC approval:

- (1) A change in the facility organization, staffing, or procedures that has the effect of reducing management oversight and control over the emergency preparedness program such that the effectiveness of the emergency plan may be reduced. Examples include the following:
 - (a) a decrease in the scope, periodicity, or independence of the performance of emergency preparedness program reviews,
 - (b) an increase in the amount of time to implement needed emergency plan and supporting procedures changes identified as corrective actions for identified plan deficiencies and ERO weaknesses,
 - (c) changes in the scope or frequency of training and performance enhancement opportunities for emergency preparedness management and staff, and
 - (d) delegation of responsibility for performance of various aspects of emergency plan maintenance to contractors or other external groups without adequate supervisory oversight to ensure that program elements continue to be met (e.g., a change delegating testing and maintenance of the ANS to an external group not subject to typical nuclear facility work process and configuration controls).

c. The following example would generally not require prior NRC approval: A proposed change consolidating some site emergency preparedness program maintenance and review activities with those of sister facilities within a corporation, provided that site-specific commitments continue to be met.

5.0 EFFECTIVENESS REVIEW PROCESS

5.1 Screening Changes

All proposed changes to the emergency plans should be screened to determine whether a 10 CFR 50.54(q) evaluation is necessary and to determine whether another formal change process is applicable. Appendix A to this guide illustrates an evaluation approach. Each proposed change should be screened separately. Treatment of changes collectively should be reserved for (1) repetitive identical changes, (2) editorial or typographical changes such as formatting, paragraph numbering, spelling, or punctuation that does not change intent, (3) conforming changes, or (4) two or more elements that are interdependent (e.g., a change to one element compensates for a change to another element). The following are examples of screening questions:

- 5.1.1 Are the proposed changes addressed in Regulatory Position C.2 of this guide? If so, the changes should be submitted for NRC review and approval before implementation, as described in Regulatory Position C.2 of this guide.
- 5.1.2 Does the proposed change involve program elements associated with one or more emergency planning functions as defined in Regulatory Position C.4 of this guide? If not, the proposed change may be implemented without prior NRC approval. This screening should be documented as described in Regulatory Position C.5.4.
- 5.1.3 Would the emergency plans, modified as proposed, continue to comply with all applicable regulations? If not, the change must be processed as an exemption request pursuant to 10 CFR 50.12, “Specific Exemptions,” rather than 10 CFR 50.54(q).
- 5.1.4 Does another change process control the proposed change? If so, implement the other change process. If the proposed change is subject to one or more change processes in addition to 10 CFR 50.54(q), compliance with all of the applicable change processes is required. For example, a change to the radiation monitoring system described in the FSAR that is subject to a technical specification and that impacts an EAL threshold could be subject to 10 CFR 50.59, “Changes, Tests, and Experiments”; 10 CFR 50.90; and 10 CFR 50.54(q).
- a. Does the proposed change affect information provided in the FSAR? If so, the change must be screened for the applicability of 10 CFR 50.59.
 - b. Does the proposed change require a revision to a technical specification? If so, a license amendment pursuant to 10 CFR 50.90 is required before implementing the change.
 - c. Implement the following change processes as applicable: for QA programs, apply 10 CFR 50.54(a); for Safeguards plans, apply 10 CFR 50.54(p).
 - d. If the proposed change affects the design, operation, testing, or maintenance of the ANS, the applicable change process is described in 44 CFR 350.14. The cognizant State official(s) must request prior approval by FEMA of the proposed changes.

5.2 Evaluation Process

Proposed changes to the emergency plans that were not dispositioned by the above screening process must be evaluated pursuant to 10 CFR 50.54(q) to determine whether the change represents a reduction in effectiveness of the emergency plans. Changes determined to cause a reduction in effectiveness should be submitted for NRC approval as described in Regulatory Position C.5.3. Appendix A to this guide illustrates an evaluation approach. The evaluation process should address the following items.

5.2.1 Identify the individual proposed changes to be evaluated. Each proposed change should be evaluated separately. Treatment of changes collectively should be reserved for (1) repetitive identical changes; (2) editorial or typographical changes such as formatting, paragraph numbering, spelling, or punctuation that doesn’t change intent; (3) conforming changes; or (4) two or more elements that are interdependent (e.g., a change to one element compensates for a change to another element).

5.2.2 For each proposed change, determine the licensing basis for each existing program element being changed using the guidance of Regulatory Position C.1.7. The impact of a proposed change cannot be

adequately assessed without knowledge of the rationale for the original structure of the affected program element.

5.2.3 Identify the emergency planning functions affected by each proposed change. Use the information in Regulatory Position C.4 and the evaluation criteria of NUREG-0654 to inform this evaluation. Recognize that a proposed change can impact more than one emergency planning function.

5.2.4 For each proposed change, evaluate whether the proposed change would reduce the licensee's capability to perform emergency planning functions (i.e., reduce the effectiveness of the emergency plans). Refer to Regulatory Positions C.1 through C.4 in making these determinations. Any such change would require NRC approval before implementation as described in Regulatory Position C.5.3.

5.2.5 The NRC expects that 10 CFR 50.54(q) evaluations will be of a level of rigor and thoroughness consistent with the scope of the proposed changes, with particular emphasis placed on the risk-significant planning standards (10 CFR 50.47(b)(4), (5), (9), and (10)). Any 10 CFR 50.54(q) evaluation that is of inadequate scope and extent to reasonably assess the impact of the proposed change on the effectiveness of the emergency plans would be considered a violation of the rule.

5.2.6 In cases where the licensee is unsure whether the proposed changes constitute a reduction in effectiveness, the NRC suggests that licensees arrange a pre-application conference call with the appropriate regional or Headquarters staff to discuss the proposed change and ask the staff to clarify the regulatory positions in this guide. Note that this pre-application conference does not relieve the licensee of its authority and responsibility under 10 CFR 50.54(q) to determine whether the change constitutes a reduction in effectiveness.

5.2.7 In a departure from previous guidance, the NRC is no longer separately treating alternative methods for complying with regulations. The licensee is expected to evaluate all such alternative approaches pursuant to 10 CFR 50.54(q), as it would any proposed change, to determine whether the proposed approach results in a reduction in effectiveness of the emergency plans. The licensee would apply under the license amendment application process for prior NRC approval pursuant to 10 CFR 50.54(q) and as described in Regulatory Position C.5.3 for any changes that the licensee determines to cause a reduction in effectiveness.

5.3 Approval for Changes That Reduce Effectiveness

According to proposed 10 CFR 50.54(q)(4), licensees must submit applications for prior NRC approval of a change that the licensee has deemed to be a reduction in effectiveness in the form of a license amendment application under 10 CFR 50.90. In addition to the filing requirements of 10 CFR 50.90, the application must include all emergency plan pages affected by the change and a forwarding letter identifying the change(s), the reason for the change(s), and the licensee's basis for concluding that its emergency plans, as modified, continue to meet the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50. The license amendment application may be approved, denied, or returned as appropriate under the 10 CFR 50.91 and 50.92 process.

5.4 Documentation of Changes

As required by proposed 10 CFR 50.54(q)(5), the licensee must retain a record of each change to the emergency plan made without prior NRC approval for a period of 3 years from the date of the change and submit, as specified in 10 CFR 50.4, "Written Communications," a report of each such change within

30 days after the change is made. This record should explicitly identify each change made and the basis for the licensee's determination that the change would not require prior NRC approval. All conclusions made pursuant to 10 CFR 50.54(q) should be supported by rationale statements (e.g., "The proposed change does not require prior NRC approval because..."); a simple check-off is not acceptable.

Another requirement of proposed 10 CFR 50.54(q)(6) is that the licensee retain the emergency plan and each change for which prior NRC approval was obtained pursuant to proposed 10 CFR 50.54(q)(4) as a record until the Commission terminates the license for the nuclear power reactor.

Nonetheless, it may be prudent to save all emergency plan change documentation to show the historical progression of changes, since the NRC reserves the right to review, at any time, all emergency plan changes that have been made.

D. IMPLEMENTATION

The purpose of this section is to provide information to applicants and licensees regarding the NRC's plans for using this draft regulatory guide. The NRC does not intend or approve any imposition or backfit in connection with its issuance.

The NRC has issued this draft guide to encourage public participation in its development. The NRC will consider all public comments received in development of the final guidance document. In some cases, applicants or licensees may propose an alternative or use a previously established acceptable alternative method for complying with specified portions of the NRC's regulations. Otherwise, the methods described in this guide will be used in evaluating compliance with the applicable regulations for license applications, license amendment applications, and amendment requests.

REGULATORY ANALYSIS

The NRC staff did not prepare a separate regulatory analysis for this draft guide. A value/impact analysis was included in the regulatory analysis (ADAMS Accession No. ML082750457) for the proposed amendments to 10 CFR Part 50 published on XXXX XXX, 2009 (xx FR XXXXXX). A copy of the regulatory analysis is available for inspection or copying for a fee in the Commission's Public Document Room at 11555 Rockville Pike, Rockville, MD, under RIN 3150-AI10.

REFERENCES

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4. NUREG-0654/FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," U.S. Nuclear Regulatory Commission and Federal Emergency Management Agency, Washington, DC, November 1980.
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APPENDIX A 10 CFR 50.54(q) PROCESS

