



SECRETARY

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 30, 2011

COMMISSION VOTING RECORD

DECISION ITEM: SECY-11-0053

TITLE: FINAL RULE: ENHANCEMENTS TO EMERGENCY
PREPAREDNESS REGULATIONS (10 CFR PART 50 AND
10 CFR PART 52) (RIN-3150-AI10)

The Commission (with all Commissioners agreeing) approved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of August 30, 2011.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

A handwritten signature in cursive script, reading "Annette Vietti-Cook", is written over a horizontal line.

Annette L. Vietti-Cook
Secretary of the Commission

Attachments:

1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Jaczko
Commissioner Svinicki
Commissioner Apostolakis
Commissioner Magwood
Commissioner Ostendorff
OGC
EDO
PDR

VOTING SUMMARY - SECY-11-0053

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. JACZKO	X				X	5/26/11
COMR. SVINICKI	X				X	7/7/11
COMR. APOSTOLAKIS	X				X	6/1/11
COMR. MAGWOOD	X				X	6/1/11
COMR. OSTENDORFF	X				X	5/24/11

AFFIRMATION ITEM

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary


FROM: Chairman Gregory B. Jaczko

SUBJECT: SECY-11-0053 – FINAL RULE: ENHANCEMENTS TO
EMERGENCY PREPAREDNESS REGULATIONS
(10 CFR PART 50 AND 10 CFR PART 52)
(RIN-3150-AI10)

Approved X Disapproved Abstain

Not Participating

COMMENTS: Below Attached X None



SIGNATURE

5/26/11

DATE

Entered on "STARS" Yes X No

**CHAIRMAN GREGORY B. JACZKO'S COMMENTS ON SECY-11-0053 FINAL RULE:
ENHANCEMENTS TO EMERGENCY PREPAREDNESS REGULATIONS (10 CFR PART 50
AND 10 CFR PART 52)**

I approve the staff's request to publish a final rule to amend certain emergency preparedness requirements in the regulations that govern the domestic licensing of production and utilization facilities. I believe that it is critically important that we finalize this rule as it is the culmination of several years of hard work to re-evaluate EP regulations that were decades old. Although we will certainly learn from the events in Japan, I do not think that we need to wait to implement the many enhancements that this rule will provide, particularly related to security events. The development of this rule has been a multi-year process that has recognized that Emergency Preparedness is a shared responsibility of federal agencies, state and local authorities, and the private sector. That is why we have gone well beyond what is formally required to involve the public, licensees, and other stakeholders in this process. Throughout this multi-year effort, they actively participated and contributed significantly to the development of this rule, and it is a stronger, more effective regulation because of their participation. This is a model of how we should approach our rulemaking in this area and others.

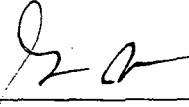
The staff has done an admirable job of providing a final rule package that is reflective of the extensive outreach to a broad audience of stakeholders, as well as being responsive to the Commissions' comments on the draft rule provided in SECY-09-0007. This rule has also been challenging in its development as it required close coordination with FEMA and its stakeholders. The comments made by FEMA at the Commission meeting on May 3, 2011, clearly indicated that the staffs at both agencies have been and will continue to work closely to coordinate our respective regulatory responsibilities for emergency preparedness. I believe it was very beneficial for all stakeholders to have the opportunity to review draft guidance along with the proposed rule language. I think this is a good practice that, whenever possible, should be utilized as part of our rulemaking process.

This rule provides a number of enhancements, some of which have evolved since the proposed rule was first provided to the Commission in 2006. I have followed the development of several important issues related to the rule over the years and I am pleased with the final outcome. In particular, the incorporation of a number of enhancements related to security-related EP issues that had been previously provided to licensees in NRC Order EA-02-026 and Bulletin 2005-02 are now part of the EP rules. These include a requirement for licensees to have Emergency Action Levels for Hostile Actions; a requirement to include hostile action scenarios and other scenario variations in drills and exercises; a requirement to provide specific emergency plan provisions to protect onsite emergency responders, and other onsite personnel in emergencies resulting from hostile action at nuclear power plants; and a requirement to identify alternative facilities to support Emergency Response Organization augmentation during a hostile action. This is reflective of insights developed after the 9/11 attacks and are necessary to deal with security-related events. Another improvement in the final rule is the requirement for licensees to review and update Evacuation Time Estimates periodically. I believe that the shift from a criteria of a 10-percent population changes in the proposed rule to a site-specific population increase that causes the longest ETE value to increase by 30 minutes or 25-percent, whichever is less than the licensee's currently NRC-approved or updated ETE is a practical approach. I do, however, agree with Commissioner Ostendorff that a stronger technical basis is needed for areas such as the backup alert and notification system and evacuation timing. In particular, I am concerned that the guidance that provides a methodology for evaluating changes to the ETEs may be too complex and difficult to inspect for accuracy. The staff will need to re-evaluate the guidance as experience is developed regarding this issue to ensure it is truly working as envisioned.

I continue to believe, as I have indicated in my past votes, that establishing near-site Emergency Operating Facilities (EOF) rather than consolidated EOFs is a more preferred

approach. All emergencies are local and possibly having responders many miles away, even in another state, trying to deal with all of the complicated issues that arise is not, in my view, practical or desired. Whenever possible, it should be encouraged that licensees establish their EOFs as close to sites as practical.

I will also look forward to ultimately receiving the staff's analysis of how we can develop a more performance-based approach to EP. I noted that performance based criteria for Emergency Operations Facilities are part of this final rule. It is a good beginning but should go further. I believe that this will ultimately provide a stronger regulatory approach for emergency preparedness.



Gregory B. Jaczko

5/26/11

Date

AFFIRMATION ITEM

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER SVINICKI

SUBJECT: SECY-11-0053 – FINAL RULE: ENHANCEMENTS TO
EMERGENCY PREPAREDNESS REGULATIONS
(10 CFR PART 50 AND 10 CFR PART 52)
(RIN-3150-AI10)

Approved XX Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below _____ Attached XX None _____



SIGNATURE

07 7 /11

DATE

Entered on "STARS" Yes ☒ No _____

Commissioner Svinicki's Comments on SECY-11-0053
Final Rule: Enhancements to Emergency Preparedness Regulations (10 CFR Part 50 and 10 CFR Part 52) (RIN-3150-AI10)

I approve publication of the draft final rule in the *Federal Register* (Enclosure 3 to SECY-11-0053), subject to these comments and the attached edits. I commend the staff on an extensive and robust stakeholder involvement process, which has led to this final rule and its associated analysis. The staff should continue this stakeholder engagement throughout the implementation period for this rule. On the basis of this engagement, necessary adjustments to the rule and associated guidance may be identified. The staff should strive to finalize the NRC guidance in a timely manner in order to support orderly implementation by licensees and coordination with other affected entities. In addition, the staff should report back to the Commission in an information paper upon the completion of the final FEMA FEP Manual with an analysis of the impacts the FEMA REP Manual, in its final form, poses for the implementation of the final rule by NRC's licensees.

Regarding the amended emergency plan change process, the proposed rule contained an implementation period of 30 days after the final rule's publication in the *Federal Register*. Comments received from stakeholders requested an implementation period ranging from 90 days to 12 months. The draft final rule would make the amended emergency plan change process immediately effective, with no implementation period. I disapprove this and would provide an implementation period of 90 days, which would provide time to institute any necessary changes to plant procedures.

Finally, the basis for the proposed provision in Appendix E, IV.A.9, is unclear to me. The new provision reads as follows:

9. By [INSERT DATE 365 DAYS AFTER THE EFFECTIVE DATE OF THE FINAL RULE], for nuclear power reactor licensees, a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan.

Licensees are already required, under the existing provisions of 10 CFR 50.47(b)(2) to comply with the following requirements:

(b) The onsite and, except as provided in paragraph (d) of this section, offsite emergency response plans for nuclear power reactors must meet the following standards:

... (2) 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.

Regulatory clarity is not served by having two provisions that achieve essentially the same objective but which are stated differently and located in two different locations in the regulations. To the extent that staff has found inadequacies in licensees' compliance with the existing requirement, that issue is best remedied by changes in inspection, enforcement, and guidance. I am unconvinced that this additional, proposed provision in Appendix E provides a direct remedy to staff's concerns and would not include it.



Kristine L. Svinicki 07/7/11

implementation, prioritization, and resource estimates. Based on its review, the NRC staff recommended that the Commission approve rulemaking as the most effective and efficient means to ensure that the high priority EP issues were resolved with an opportunity for participation by all interested stakeholders.

In its SRM to SECY-06-0200, dated January 8, 2007, the Commission approved the NRC staff's recommendation to pursue rulemaking and guidance changes for enhancements to the EP program. On April 17, 2007, the staff provided its rulemaking plan to the Commission. During the development of the plan, the NRC staff assessed the issues identified in SECY-06-0200 and discussed the feasibility of conducting rulemaking and updating guidance on all issues. The staff determined that the best course of action was to conduct rulemaking on the 12 issues identified in SECY-06-0200 as having a high priority, and to reassess the remaining issues at a later date. The decision to conduct rulemaking on the highest priority issues was made to allow a timelier rulemaking effort to occur and enable the staff to more completely assess the remaining lower priority issues.

Due to the similarities between two issues known in the rulemaking plan as "collateral duties" and "shift staffing and augmentation," these issues have been partially combined in this final rule. Additionally, the Commission directed the NRC staff in SRM-M060502, "Staff Requirements – Briefing on Status of Emergency Planning Activities, (Two sessions) 9:30 A.M. and 1:00 P.M., Tuesday, May 2, 2006, Commissioners' Conference Room, One White Flint North, Rockville, Maryland (Open to public attendance)," dated June 29, 2006, to coordinate with the Department of Homeland Security (DHS) to develop emergency planning exercise scenarios that would ensure that EP drills and exercises ^{will be} ~~were~~ challenging and ^{will} ~~did~~ not precondition participant responses. This direction was incorporated into the rulemaking issue regarding the conduct of hostile action drills and exercises because it was so closely related. BL-05-02 provided a definition of "hostile action" for use in EP programs: "An act toward an

responders to the danger of hostile action. NRC inspections to evaluate the effectiveness of the implementation of the ICMs revealed variations in the identification and staffing of alternative emergency response facilities.

BL-05-02 described how alternative locations for onsite emergency response facilities support EP functions during hostile action. It stated that the ERO is expected to be staged in a manner that supports rapid response to limit or mitigate site damage or the potential for an offsite radiological release. It also pointed out that some licensees have chosen not to activate elements of the ERO during hostile action until the site was secured. However, the NRC considers it prudent to fully activate ERO members ^{hostile action events outside of} for ~~off-normal working hours~~ ^{hostile action to} promptly staff alternative facilities, in order to minimize delays in overall site response.

BL-05-02 conveyed that, even during normal working hours, licensees should consider deployment of onsite ERO personnel to an alternative facility near the site during hostile action.

To resolve this issue, the NRC considered taking no regulatory action or continuing the voluntary implementation currently in place as a result of BL-05-02 and the guidance endorsed by NRC Regulatory Issue Summary (RIS) 2006-12, "Endorsement of Nuclear Energy Institute Guidance 'Enhancements to Emergency Preparedness Programs for Hostile Action,'" dated July 19, 2006. If no action had been taken, there would have continued to be no explicit regulatory requirement regarding the actions necessary during hostile action for the ERO to staff an alternative facility. ERO members would likely not have access to the site during hostile action, but timely augmentation would still be necessary for adequate response. Taking no regulatory action may have resulted in inconsistent implementation of ERO augmentation guidelines, and less effective overall site response. The NRC also considered using a voluntary program; however, voluntary programs, such as those developed per the NEI guidance endorsed by RIS 2006-12, ^{would} ~~do~~ not provide a consistent, NRC-approved means for addressing needed enhancements for hostile action. The use of voluntary programs would not have

allow the NRC to require specific scenario content. The NRC is amending its regulations to do so.

Following the terrorist attacks of September 11, 2001, the NRC conducted a review of the EP planning basis in view of the changed threat environment and concluded that the EP planning basis remains valid. The NRC observed licensee performance during numerous hostile action EP exercises and tabletop drills as well as several security FOF exercises. The NRC also discussed security-based EP issues with licensees and Federal, State, and local EP professionals and advocacy groups and issued BL-05-02 to collect information from licensees on the enhancements to drill and exercise programs to address the hostile action contingency.

Through these efforts, the NRC concluded that, although EP measures are designed to address a wide range of events, response to hostile action can present unique challenges not addressed in licensee and ORO drills and exercises, such as:

- Extensive coordination between operations, security, and EP personnel;
- Use of the alternative emergency response facilities for activation of the ERO;
- Execution of initial response actions in a hostile environment (i.e., during simulated hostile action);
- The need to shelter personnel from armed attack or aircraft attack in a manner very different from that used during radiological emergencies;
- Conduct of operations and repair activities when the site conditions prevent normal access due to fire, locked doors, security measures, and areas that have not yet been secured;
- Conduct of operations and repair activities with large areas of the plant damaged or on fire;
- Rescue of and medical attention to significant numbers of personnel; and

a direct correlation to the volume of vehicles on the roadway, which directly affects the roadway capacity. Although changes in infrastructure can impact roadway capacity, changes sufficient to impact the ETE by more than a few minutes, such as the addition of an interstate highway, take many years to plan and construct. Because population changes occur continuously, change in population is considered the more appropriate metric to monitor the potential effect on roadway capacity. Therefore, the NRC is revising the regulations to explicitly require ETE updates based on population changes that cause the ETE values within the analysis to exceed a specified threshold.

The NRC also considered using guidance as a means to solve the problem of the lack of specificity in regulations directing applicants and licensees on the periodicity for updating ETEs. Although the availability of more detailed guidance would provide applicants and licensees with the tools to better update their ETEs, this option would not have provided the regulatory means for enforcing the desired frequency of ETE updates and consistency of ETE determinations.

This
should
not be
in
boldface.

Therefore, the NRC is amending § 50.47(b)(10) and Part 50, Appendix E, Section IV, to require the periodic review and updating of ETEs. NRC guidance for completing the ETE analysis and required ETE updates is contained in NUREG/CR-7002, "Criteria for Development of Evacuation Time Estimate Studies."

5. Amended Emergency Plan Change Process

Applicants for operating licenses under Part 50 for nuclear power reactors, research reactors, and certain fuel facilities, and early site permits (as applicable) and combined licenses under Part 52 for nuclear power plants, are required by regulation to develop emergency plans that meet the requirements of Appendix E to Part 50 and, for nuclear power reactor license applicants, the standards of § 50.47(b). After the facility license was issued, the holder of the license was required by the former § 50.54(q) to follow and maintain in effect emergency plans

this final rule, contain adequate requirements to ensure that licensee compliance with these regulations would result in effective communication between OROs and licensees during emergencies. Therefore, the NRC is not requiring that NIMS/ICS become the sole means of incident command management for licensees.

Comments received by the NRC in response to other specific requests for comments in the proposed rule are addressed in Sections II and IV of this document.

IV. Section-by-Section Analysis

The Commission is amending portions of § 50.47, "Emergency plans," § 50.54, "Conditions of licenses;" Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities;" and § 52.79, "Contents of applications; technical information in final safety analysis report."

1. Section 50.47 Emergency Plans

The NRC is amending § 50.47(b)(3) to remove the reference to the EOF as a "near-site" facility. The final rule provides criteria in Part 50, Appendix E, Section IV.E.8, regarding EOF distance from a nuclear power reactor site and for a performance based approach for EOFs, specifying that these facilities must meet certain functional requirements rather than requiring that they be located within a certain distance of the plant. The intent of this change is discussed in the section on changes to Appendix E, Section IV.E.8. (A discussion of this issue is also provided in Section II.B.3 of this document.)

The final rule amends § 50.47(b)(10) to require licensees to review and update their ETEs periodically. Changes to Appendix E to Part 50 provide the required frequency and details of the ETE updates and submissions to the NRC. **Although requirements for ETEs are found in both § 50.47(b) and in Appendix E to Part 50, the level of detail between them differs. Section 50.47(b) establishes the EP planning standards that licensees must**

meet, whereas Appendix E sets forth more detailed implementation requirements. (A discussion of this issue is also provided in Section II.B.4 of this document.)

This should
not be in
boldface.

This new requirement ensures that ETEs are reviewed periodically to determine whether population changes have caused significant changes in the ETE values. NRC review of ETE updates will ensure they are performed routinely, are consistent across the industry, and are technically sound. NRC guidance will provide more details of NRC expectations for development of an adequate ETE analysis, as well as provide NRC reviewers with guidance on the review of ETE updates. The NRC expects that the updated ETEs will be shared with OROs to be incorporated into offsite protective action strategies.

The NRC received several comments that suggested that the proposed rule language of § 50.47(b)(10) be revised to accommodate changes to ETE update criteria. Two commenters stated that the threshold for ETE updates should be based on a population sensitivity study that would assess the effect of a population change on the ETE. Two commenters argued that the ETE updates should be based on changes in population density rather than absolute population change. The NRC agrees that the ETE update criteria should be changed and should be based on the impact that a population change has on the ETE instead of a percent change in population. However, the details of the revised ETE update criteria should be included in Appendix E to Part 50 where more detailed implementation requirements are found. Two commenters argued that the proposed rule language should be revised to eliminate the requirement for submission of ETEs to the NRC for review and approval. The NRC believes that NRC review is necessary for consistent implementation, but the NRC will not approve the ETE updates. See the discussion under Appendix E to Part 50 in this section of the document for further information on this topic.

The NRC is amending § 50.47(d)(1) to remove the reference to the EOF as a "near-site" facility. The final rule provides criteria in Part 50, Appendix E, Section IV.E.8, regarding EOF

document that describes the programmatic methods that the licensee uses to maintain preparedness and to respond to emergencies, and to demonstrate compliance with the requirements of Appendix E, and for nuclear power reactors, the planning standards of § 50.47(b). In response to a stakeholder comment on § 50.54(q)(1)(ii) in the proposed rule, the NRC has revised this definition in the final rule by removing the proposed reference to "emergency planning functions," and replacing it with "methods for maintaining emergency preparedness and responding to emergencies." Sub-tier documents, such as emergency plan implementing procedures, are not ordinarily subject to the § 50.54(q) change process because these procedures generally only provide instructions in performing the programmatic methods identified and described in the emergency plan. However, if a licensee^e were to relocate a programmatic description to another document, that description will remain subject to the § 50.54(q) change process. For example, if a licensee were to relocate the details of its emergency classification scheme from the emergency plan to a wall chart posted in the control room, the wall chart would be subject to the § 50.54(q) change process. The definition also emphasizes, by incorporation, the role of the licensee's original emergency plan approved by the NRC in minimizing the likelihood that a series of incremental changes, many of which may not have been reviewed by the NRC, over time will constitute a reduction in effectiveness of the NRC approved emergency plan. X

Section 50.54(q)(1)(iii) in the final rule defines the term "emergency planning function" in terms of a capability or resource necessary to prepare for and respond to a radiological emergency. During the development of the EP Cornerstone of the ROP, a group of EP subject matter experts, including NRC staff and nuclear power industry stakeholders, with input from the public, developed a series of planning standard functions that are used in determining the significance of inspection findings. These planning standard functions are paraphrases of the broadly-worded § 50.47(b) planning standards and the corresponding requirements in

Appendix E to Part 50 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 a licensee's emergency plan and emergency response capability. Within the EP Cornerstone, the significance of inspection 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). The characterization of a reduction in effectiveness in the final rule capitalizes on this earlier effort in that any degradation or loss of a planning standard function is deemed to constitute a reduction in effectiveness. The NRC is using the phrase "emergency planning function" in lieu of "planning standard function" as used in the ROP to allow the definition to be applicable to licensed facilities that are subject to Appendix E, but are not subject to the planning standards of § 50.47(b). The emergency planning functions have been established in RG 1.219 along with examples of typical emergency plan changes that are expected to constitute a reduction in effectiveness and examples of changes that are not.

The emergency planning functions do not replace or supplement the regulations upon which they were based and, as such, compliance with these functions is not required. They are only used to differentiate between changes that the licensee is allowed to make without prior NRC approval and those that require prior NRC approval. The NRC did not establish these emergency planning functions in regulations because the underlying regulations already exist, and the expression of the emergency planning functions differs between nuclear power reactors, non-power reactors, and fuel facilities licensed under Part 50 or Part 52. RG 1.219 discusses these emergency planning functions for nuclear power reactor licensees.

In response to the definition of "emergency planning function" in proposed § 50.54(q)(1)(iii), the NRC received a stakeholder comment that suggested that the planning standards of § 50.47(b) should be used for determining reductions in effectiveness, in lieu of the

proposed emergency planning functions, since compliance is based on meeting planning standards. The NRC disagrees with this comment. The § 50.54(q) change process establishes a two factor test to establish whether the licensee has the authority to make a change without prior NRC approval. First, the plan as modified must continue to comply with the requirements of Appendix E, and for power reactors, the planning standards of § 50.47(b). Second, the licensee must establish that the change does not reduce the effectiveness of the emergency plan. These are two different prerequisites. Compliance with the requirements of Appendix E, and for power reactors, the planning standards of § 50.47(b), satisfies the first factor, but it doesn't necessarily meet the second factor.

Under § 50.47(a)(1)(i), an operating license will be issued only if the NRC finds that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. During the licensing process, the licensee or the NRC may have identified planning constraints and vulnerabilities that required the licensee to commit to site-specific capabilities and resources beyond those identified in generic regulatory guidance as meeting the requirements of Appendix E, and for nuclear power reactor licensees, the planning standards of § 50.47(b). After receiving its license, a licensee may have identified newly developed planning or response constraints, or self-identified weaknesses in its emergency plan, and implemented corrective actions beyond that identified in its emergency plan. For example, an applicant having a site with complex meteorological regimes or complex topography may have been required to establish a more advanced emergency dose assessment capability. Because these extensions to generic guidance were found to be necessary to meet the broadly worded requirements in Appendix E, and for nuclear power reactor licensees, the planning standards of § 50.47(b), a licensee seeking to relax these requirements needs to determine that the emergency plan, ^{as modified,} can continue to be effective, ~~as modified.~~ This will generally require that the licensee establish that the considerations that

made the site-specific requirements necessary are no longer applicable to that site, or require an alternative approach that maintains the ^{plans} effectiveness. Thus, simply meeting the requirements of Appendix E, and for power reactors, the planning standards of § 50.47(b), is not necessarily sufficient to prevent a reduction in the plan's effectiveness. For these reasons, the requirements of Appendix E, and for power reactors, the planning standards of § 50.47(b) alone cannot be used for determining reductions in effectiveness. X

Section 50.54(q)(1)(iv) in the final rule defines the term "reduction in effectiveness" as a change to the emergency plan that results in a reduction of the licensee's capability to perform an emergency planning function in the event of a radiological emergency. The phrase "reduction in effectiveness" is an evaluation concept that is used in § 50.54(q) to differentiate between changes that the licensee is allowed to make without prior NRC approval and those that require prior NRC approval. A determination that a change may result in a reduction in effectiveness does not imply that the licensee could no longer implement its plan and provide adequate measures for the protection of the public. The NRC may approve a proposed emergency plan change that the licensee determined to be a reduction in effectiveness, if the NRC can find that the emergency plan, as modified, continues to meet the requirements of Appendix E, and for nuclear power reactor licensees, the planning standards of § 50.47(b), and continues to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. "Radiological emergency" as used in § 50.54(q)(1)(iv) in the final rule means any condition that results in the declaration of any ECL and the implementation of the licensee's emergency plan. A nuclear power reactor licensee evaluating whether a particular emergency plan change constitutes a reduction in effectiveness is expected to consider the spectrum of accidents addressed in the planning basis described in NUREG-0654. In making this determination, licensees of non-power reactors and fuel facilities licensed under Part 50 must base their evaluations on the planning bases for their respective X

ETE values. The proposed requirement to update an ETE analysis based on a standard value of a 10 percent population change would have required licensees to submit updated ETEs that may have had the same time estimates as the original document and therefore, would provide no useful updated ETE information to response agencies. An approach that considers both population change and its impact on the ETE numerical values provides assurance that updated ETE analyses are submitted only when the ETE values are impacted. This links the update to a population change that has an impact on the ETE values on a site-specific basis rather than a generic 10 percent population change that may or may not impact these values. X

Therefore, nuclear power reactor licensees (but not applicants) will be required to provide an updated ETE analysis to the NRC within 365 days of 1) the later of the date of the availability of the most recent decennial census data or the effective date of this final rule, 2) the availability of subsequent decennial census data, and 3) the availability of the population data used in the update, during the years between decennial censuses, when a population increase within the EPZ causes certain ETE values to increase by 25 percent or 30 minutes, whichever is less from the licensee's currently NRC-approved or updated ETE. Licensees should perform a population sensitivity study for various population increases (i.e., 10 percent, 20 percent, and 30 percent increases) to determine the population value that will cause ETE values to increase by 25 percent or 30 minutes, whichever is less. If during the decennial period between censuses this threshold is reached, the licensee must update the ETE analysis to reflect the impact of the population increase. To establish the basis for these update criteria, the NRC considered the input of ETE subject matter experts who considered the sensitivity of ETE analysis tools, uncertainty of the data used in the development of ETEs, and discussions with OROs regarding the time necessary to mobilize resources to support an evacuation. The NRC determined that an ETE increase of 30 minutes is the smallest time value that OROs would consider to potentially impact a protective action decision from shelter-in-place to evacuate or X

Should
not be
under-
lined

changed to require licensees to have a detailed analysis in their emergency plans without providing it to the NRC.

X
X

The final rule does not specify, by position or function, which responsibilities must be assigned, but allows nuclear power reactor licensees the flexibility to determine the limit of assigned responsibilities for effective emergency plan implementation on a site-specific basis. This allows licensees to take credit for new technologies that could potentially affect the number of on-shift staff that would be needed. However, licensees need to ensure that the duties assigned to on-shift staff are reasonable for one person to perform and are not so burdensome as to negatively impact emergency response. (A discussion of this issue is also provided in Section II.A.1 of this document.)

The final rule requires nuclear power reactor licensees to perform a detailed analysis, such as a job task analysis (JTA) or a time motion analysis, to demonstrate that on-shift personnel could implement the plan effectively without having competing responsibilities that could prevent them from performing their primary emergency plan tasks. The NRC expects the analysis to identify all the tasks that must be performed by available staff during an evolution such as response to an emergency. These licensees need to define the events that will be used in the detailed staffing analysis, such as postulated design basis accidents and the DBT, for which there must be emergency planning. The analysis must identify all tasks that must be completed for each analyzed event, and the responders responsible for the performance of those tasks. Licensees must then ensure that there is sufficient on-shift staff to perform all necessary tasks until augmentation staff arrives to provide assistance. Enhancing the regulations to require licensees to ensure that multiple responsibilities assigned to on-shift staff will not detract from adequate emergency plan implementation, will establish a regulatory framework that more clearly codifies the NRC's shift staffing expectations for effective emergency response.

X

notification of the public within about 15 minutes. The 15-minute timeliness expectation for emergency declarations now being codified is consistent with these current regulatory requirements and the EP planning basis.

Although the NRC recognizes that protective actions are not necessary at the lower ECLs and the lower ECL events have lesser potential consequences on the public, the NRC believes that a single timeliness criterion for all four ECLs is necessary. The NRC notes that the ECL, be it a Notification of Unusual Event or a higher ECL, cannot be known until the classification is completed and the declaration is made. This argues against the use of different timeliness criteria for Notification of Unusual Events and higher ECLs because emergency events may not proceed step-wise through the four ECLs.

Further, the actions to assess, classify, and declare an emergency, and the resources needed to accomplish those actions (e.g., "capability"), do not differ by ECL. (Although there are more EAL thresholds to consider during a Notification of Unusual Event than there are at the higher ECLs, this is balanced by increasing demands on the on-shift staff (i.e., to perform assessments, corrective actions, and mitigative actions needed to address the degraded plant condition) associated with the higher ECLs. The conditions (such as insufficient staffing, procedures, and training) that reduce a nuclear power reactor licensee's capability for declaring a Notification of Unusual Event within 15 minutes have a similar effect on the licensee's capability for declaring higher ECLs. Also, the licensee's performance in declaring Notification of Unusual Events is a viable predictor of licensee performance at the less frequently declared higher ECLs. These performance deficiencies might not be identified and corrected if the NRC were to establish one hour for declaring Notification of Unusual Events and 15 minutes for the higher classification level emergencies. Therefore, the NRC has decided to retain the single timeliness criterion in the final rule for all ECLs.

exposure pathway EPZ have been established. It is not necessary to address backup methods in § 50.47(b)(5) because the current provision establishes the overall requirement for alerting and notification.

Based on a comment received on the proposed rule, Part 50, Appendix E, Section IV.E.5 is revised to replace the reference to "physicians" with the term "medical service providers" because licensees typically make arrangements for medical services with medical service providers rather than individual physicians. The phrase "and other medical personnel" is deleted because it is now redundant to the reference to "medical service providers." The NRC also revised Section IV.E.5 of Appendix E to change the term "radiation" to "radiological" to provide consistent use of the phrase "radiological emergency." X

The final rule redesignates the former language of Appendix E, Section IV.E.8 as Section IV.E.8.a; and adds new Sections IV.E.8.b, IV.E.8.c, IV.E.8.d, and IV.E.8.e.

Section IV.E.8.a in the final rule removes the reference to the EOF as a "near-site" facility and adds the requirement that nuclear power reactor licensees must provide an OSC. In a conforming change, the final rule revises § 52.79(a)(17) to clarify that combined license applications are not subject to the TMI action requirements in § 50.34(f)(2)(xxv), which address the need for an onsite TSC, an onsite OSC, and an EOF. Instead, the requirements governing the need for such facilities in Part 50, Appendix E, Section IV.E.8.a(i) will apply to combined license applications. (A discussion of this issue is also provided in Section II.B.3 of this document.)

Section IV.E.8.b incorporates EOF distance criteria currently found in NRC guidance and specifies that an EOF must be located within 10 to 25 miles of each nuclear power reactor site that the facility serves or, if the EOF is located less than 10 miles from a nuclear power reactor site, then a backup facility must be provided within 10 to 25 miles of a site. The distance between the EOF and a site will be determined by the straight line distance from the site's TSC

The commenter also pointed out that the final rule should have the same wording as BL-05-02, which states that "it is appropriate for alternative facilities to have general plant drawings, procedures, phones, and (ideally) computer links to the site." Another commenter recommended an increased implementation period for this part of the rule since licensee facilities do not meet the proposed requirements for the availability of computer links and would need to make facility changes under the site modification process. The NRC agrees in part with these comments. BL-05-02 does direct licensees to equip alternative facilities as stated.

However, the NRC has determined that since the alternative facility (or facilities) must have the capability ^{to communicate} ~~for communication~~ with the EOF, control room, and site security, ^{to conduct} ~~to perform~~ offsite notifications, ^{and for} ~~and for~~ engineering assessment activities, including damage control team planning and preparation, ^{then} ~~then~~ licensees should have flexibility in meeting these requirements based on site-specific characteristics. Also, the NRC did not intend for licensees to perform major facility modifications or construct new facilities to meet the new requirement. The NRC intends for licensees to use existing facilities that are a safe distance from the plant. Therefore, the NRC will not codify the equipment that must be present in the alternative facility (or facilities) but rather will allow licensees to achieve the required capabilities of the alternative facility (or facilities) in the most appropriate manner for their site. (A discussion of this issue is also provided in Section II.A.3 of this document.)

The NRC is also adding new Section IV.E.8.e to permit a nuclear power reactor licensee ^{that} ~~that~~, on the day the final rule becomes effective, has an approved EOF that does not meet the distance criteria for a primary or backup EOF, or does not have provisions for a facility closer to the site if the EOF is located more than 25 miles from a nuclear power reactor site, to not be subject to the requirements of Section IV.E.8.b. These licensees have already received approval from the Commission for variances from existing requirements (and guidance) regarding EOF locations, backup EOF facilities, or other EOF characteristics. (Also refer to the

radiological releases and events, to properly train responders to respond to events more realistic than those currently used in training, and to avoid preconditioning the responders to success with inappropriate anticipatory responses. Licensees are also required to emphasize coordination in their drills and exercises among onsite and offsite response organizations to strengthen the capabilities of the OROs to adequately respond to an emergency at the plant that requires offsite response. (A discussion of this issue is also provided in Section II.A.6 of this document.)

The NRC is adding new Section IV.F.2.j to Appendix E to require that nuclear power reactor licensees conduct exercises that provide ERO members the opportunity to demonstrate proficiency in the key skills necessary to implement the principal emergency response functional areas identified in Section IV.F.2.b. Each exercise will also be required to provide ERO members the opportunity to demonstrate key skills specific to the emergency response duties in each emergency response facility. During each exercise cycle, licensees will be required to vary the content of exercise scenarios to provide ERO members the opportunity to demonstrate proficiency in the key skills necessary to respond to several specific scenario elements, including hostile action directed at the plant site; no radiological release or an unplanned minimal radiological release that does not require public protective actions; an initial classification of or rapid escalation to a Site Area Emergency or General Emergency; implementation of strategies, procedures, and guidance developed under § 50.54(hh)(2); and integration of offsite resources with onsite response. The final rule identifies the exercise cycle as eight calendar years, which must begin in the year of the licensee's first hostile action exercise. This amendment prescribes the minimum exercise scenario elements necessary for licensees to meet NRC expectations for challenging and varied scenario content in biennial exercises.

The NRC received comments regarding the proposed requirement that the first exercise

in the new cycle must include hostile action. In States with multiple nuclear power reactor sites, this would require several such exercises in succession, increasing the burden on State emergency management agencies to support these exercises and perhaps reducing the benefit of preparedness efforts. The implementation period for this provision of the final rule was modified to allow current licensees until December 31, 2015, to conduct a hostile action exercise. The final rule clarifies the expectation that States should fully participate in a hostile action exercise by December 31, 2015, and that State full participation should be rotated among licensees in States with more than one nuclear power reactor plume exposure pathway EPZ. ^{SPACE}

The NRC believes that in the current threat environment nuclear power reactors may be a target for hostile action. Although such an attack is unlikely, EP is a defense-in-depth measure and NRC rules require preparedness for unlikely accidents and events. The final rule requires that hostile action response be integrated formally into the EP program through the inspection of biennial exercises performed early in the first exercise cycle and periodically thereafter.

The proposed rule would have identified the exercise cycle as six years. The proposed rule additionally would have specified a minimum frequency for hostile action scenarios. However, the NRC received numerous comments that the cycle should be changed to eight years and that a minimum frequency for hostile action scenarios should be eliminated to allow more flexibility in meeting the new requirements as well as preserving the variability of scenario challenges. Additionally, the commenters stated that the new requirements for scenario content coupled with the existing requirements would degrade the ability to vary scenario content. The NRC agrees with these comments and has changed the proposed rule to establish an eight-year exercise cycle without a minimum frequency for hostile action scenarios. This change enhances the ability of licensees to vary exercise scenario content in line with the

(5) The licensee shall retain a record of each change to the emergency plan made without prior NRC approval for a period of three years from the date of the change and shall submit, as specified in § 50.4, a report of each such change, including a summary of its analysis, within 30 days after the change is put in effect.

(6) The nuclear power reactor licensee shall retain the emergency plan and each change for which prior NRC approval was obtained pursuant to § 50.54(q)(4) as a record until the Commission terminates the license for the nuclear power reactor.

* * * *

(r) [Reserved].

* * * *

(s)(1) [Reserved].

* * * *

(2)(i) [Reserved].

* * * *

(u) [Reserved].

* * * *

(gg)(1) Notwithstanding 10 CFR 52.103, if following the conduct of the exercise required by paragraph IV.f.2.a of appendix E to part 50 of this chapter, FEMA identifies one or more deficiencies in the state of offsite emergency preparedness, the holder of a combined license under 10 CFR part 52 may operate at up to 5 percent of rated thermal power only if the Commission finds that the state of onsite emergency preparedness provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. The NRC will base this finding on its assessment of the applicant's

December 31, 2013. An applicant that does not receive a combined license or early site permit before December 31, 2013, shall revise its combined license or early site permit application to comply with those changes no later than December 31, 2013. Notwithstanding any Commission finding under 10 CFR 52.103(g) regarding the combined license holder's facility, the combined license holder may not operate the facility until the NRC has approved the license amendment demonstrating compliance with the final rule.

6. The Tennessee Valley Authority Watts Bar Nuclear Plant, Unit 2, holding a construction permit under the provisions of part 50 of this chapter, shall meet the requirements of the final rule issued **[INSERT THE EFFECTIVE DATE OF THE FINAL RULE]** as applicable to operating nuclear power reactor licensees.

Boldface → **II. The Preliminary Safety Analysis Report**

X

H. A preliminary analysis reflecting the need to include facilities, systems, and methods for identifying the degree of seriousness and potential scope of radiological consequences of emergency situations within and outside the site boundary, including capabilities for dose projection using real-time meteorological information and for dispatch of radiological monitoring teams within the EPZs; and a preliminary analysis reflecting the role of the onsite technical support center and the emergency operations facility in assessing information, recommending protective action, and disseminating information to the public.

IV. Content of Emergency Plans

1. The applicant's emergency plans shall contain, but not necessarily be limited to,

AFFIRMATION ITEM

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: Commissioner Apostolakis

SUBJECT: SECY-11-0053 – FINAL RULE: ENHANCEMENTS TO
EMERGENCY PREPAREDNESS REGULATIONS
(10 CFR PART 50 AND 10 CFR PART 52)
(RIN-3150-AI10)

Approved XX Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below XX Attached _____ None _____

I approve the final rule for publication in the *Federal Register*. Additional improvements to emergency preparedness requirements may result from the recommendations of the Task Force on NRC Processes and Regulations Following the Events in Japan. In addition, I join Commissioner Ostendorff in his expectation that the "forthcoming PRA level III initiative in the NRC's Office of Nuclear Regulatory Research should serve to provide the risk-informed technical rationale to support further enhancements of EP requirements and guidance." Finally, I support the ACRS recommendation in their May 18, 2011 letter that the staff should document the language from the Statements of Consideration cited in the ACRS letter in an appropriate guidance document before publishing the final rule.



SIGNATURE

6/1/11

DATE

Entered on "STARS" Yes X No _____

AFFIRMATION ITEM

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary


FROM: COMMISSIONER MAGWOOD

SUBJECT: SECY-11-0053 – FINAL RULE: ENHANCEMENTS TO
EMERGENCY PREPAREDNESS REGULATIONS
(10 CFR PART 50 AND 10 CFR PART 52)
(RIN-3150-A110)

Approved X Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below _____ Attached X None _____



SIGNATURE

1 June 2011

DATE

Entered on "STARS" Yes X No _____

Commissioner Magwood Comments on SECY-11-0053
Final Rule: "Enhancements to Emergency Preparedness
Regulations (10 CFR Part 50 and 10 CFR Part 52)"

I approve staff's request to publish a final rule to effect enhancements to the regulations guiding radiological emergency preparedness (REP) programs in the United States. I applaud the staff for its long, patient work in developing this rule, during which it conducted many public meetings and engaged innumerable stakeholders, including state and local officials and Federal agency representatives. The resulting rule is one of the very best organized and most clearly written rules I've seen, and I congratulate the staff for its effort to communicate these complex matters in such a cogent manner. I also very much appreciate the efforts of those outside NRC who devoted significant time and resources to this effort—particularly our partners at the Federal Emergency Management Agency (FEMA) who share the responsibility to assure that the plans and resources are in place in the event that we are challenged by a radiological emergency.

The subject of REP has gained considerable attention in the aftermath of the events at the Fukushima Dai-ichi nuclear plant in Japan. As we have noted on numerous occasions since that plant was damaged by the Tohoku Earthquake and resultant tsunami, NRC will proceed carefully to understand the lessons that can be learned from this incident and if any changes must be made to the U.S. regulatory framework, this agency will proceed expeditiously to do so. However, many stakeholders have expressed the belief that this rule should not go forward until all the lessons of Fukushima have been analyzed and absorbed.

Despite these reasonable concerns, I believe it is time to move forward. First, it is important to point to the fact that the enhancements associated with this final rule advance public safety over our already very good REP framework. Delaying these enhancements would serve no good cause. Second, if any lessons learned from Fukushima affect this rule, we can institute changes as necessary in the future.

Whatever lessons emerge from Fukushima, we already know that the rigor of REP programs currently in place in the U.S. far exceed similar efforts in most other countries. The insights gained in the aftermath of the Three Mile Island accident taught us the importance of instituting and practicing plans to enable licensees, government organizations, and others to take appropriate actions under a range of scenarios. The emergency preparedness programs instituted after Three Mile Island are an essential layer of the defense-in-depth ensuring the protection of public health and safety.

One of the lessons we learned after Three Mile Island was the vital importance of assuring that decision makers have access to clear information about plant conditions during an emergency. Were an accident to occur in the United States, NRC Resident Inspectors—who work at nuclear power plant sites every day to assure safety performance—would report to the reactor control rooms and on-site Technical Support Centers and be in constant contact with NRC headquarters. The plant operators would also activate their Emergency Response Data

System, which would provide a continuous flow of technical data to NRC. We would have a clear understanding of the situation on the ground and be well-positioned to take timely actions that might be required to protect public safety. When it comes to REP, actions taken in Japan with respect to Fukushima tell little about the response the public should expect in the event of a U.S. accident.

Aside from the effort to learn from Fukushima, there are other NRC activities coming in the near future which could eventually impact the REP framework. For example, work continues to complete the State-of-the-Art Reactor Consequence Analyses (SOARCA) project, which will bring greater realism to the consequences of postulated severe reactor accidents. Fukushima may inform this work substantially. We have seen in Japan, for example, the rather long period of time required for nuclear accidents in light water reactors to develop. The defense-in-depth inherent to the basic design of such plants both allow time for operators to mitigate or prevent radiological releases and provide considerable time for offsite response—SOARCA will help us understand this and inform future considerations of our REP programs.

We may also soon need to consider the REP framework in the context of Small Modular Reactors. These systems raise intriguing questions for the agency's emergency preparedness programs and may force us to take a fresh look at how we analyze and plan for radiological emergencies.

Perhaps the most important element of the final rule before us today is the inclusion of security considerations into REP programs. This rule incorporates the National Incident Management System (NIMS) and the Incident Command System (ICS) into NRC's REP framework, thereby modernizing our approach with the standard system already in use by firefighters, hazardous materials teams, rescuers and emergency medical teams around the U.S.

However, like many stakeholders who commented on this rule, I continue to have questions about how onsite and offsite security resources will be integrated. While I agree with the change made from the proposed rule to avoid requiring licensees to "ensure" that state and local resources were available to support the licensee's plan (because it created a framework under which NRC would attempt, in effect, to regulate state and local agencies), I agree with comments made by several groups that the final rule leaves the situation somewhat uncertain. Nevertheless, it is my experience that resources adapt over time to meet the needs identified by REP exercises. With the inclusion of hostile action-based (HAB) scenarios into exercises (though on an eight-year cycle, which—as several stakeholders pointed out—seems at odds with both the six-year full-scale exercise cycle and the need to assure that participants are well-practiced), I expect that these resource issues will be explored on a plant-by-plant basis. Nevertheless, now that the measures reflected in various orders and voluntary programs are incorporated into regulation, I also believe the staff and the Commission should carefully monitor how inspection results from HAB exercises impact REP programs. The history of the last decade demonstrates that security concerns only increase—they never lessen. This could


have serious implications for both licensees and Local Law Enforcement Agencies as they support integrated safety-security REP programs.

Another issue of note in the final rule is the decision to apply a performance-based approach to the location of Emergency Operations Facilities (EOFs). Given advances in communications technologies and the continuing consolidation of the nuclear utility industry, a performance-based strategy makes complete sense. However, I share the Commonwealth of Pennsylvania's concerns about forgoing the current requirement for licensees to obtain NRC approval to locate their EOFs beyond 25 miles. The issue arises because of the afore-mentioned consolidation of nuclear utilities and I fully expect that it is quite practical in most cases to have a single, well-equipped EOF that is positioned to serve a number of sites. However, it is not clear to me how the concerns of state and local officials will be factored into decisions regarding the location of EOFs. The ACRS shares this concern and has indicated that state and local agencies "may find it more difficult to fulfill their responsibilities at a remote EOF, perhaps one in a different state than the reactor site which it serves". Maintaining the need for NRC approval would have provided an opportunity to assure that all concerns would be aired. As the location of an EOF is not a decision one would expect a licensee to make very often, I reject staff's contention that it would be "unnecessarily restrictive" to require NRC approval. Just because something is convenient doesn't mean that it is appropriate.

Several stakeholders, including Riverkeeper and Pilgrim Watch, raised significant questions regarding the rule's approach to Alert Notification System (ANS) backup means. The basic question exists as to whether the systems would work and effectively alert the public, especially in the instance of widespread power losses (which could be an initiating event, potentially leading to a radiological emergency). Staff's attempts to resolve this matter have been laudable, but I believe many questions remain. This appears to be an area with which both NRC and FEMA will need to engage again in the future.

Finally, I agree with a comment filed by Riverkeeper regarding the missed opportunity to institute greater participation from the general public. While public participation in exercises should not be required, they might be effectively encouraged. Emergency officials might benefit significantly from the insights of the public as they plan and resource their REP efforts.

Despite these few reservations, I believe the final rule advances our mission to protect public health, safety, and security. I look forward to the further engagement of FEMA, other Federal entities, and our partners in state and local government as we refine REP programs. I also look forward to additional scrutiny and comment from the public as this rule is tested in table-tops and exercises at sites across the country.



William D. Magwood, IV 6/1/11 Date

AFFIRMATION ITEM

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER OSTENDORFF

SUBJECT: SECY-11-0053 – FINAL RULE: ENHANCEMENTS TO
EMERGENCY PREPAREDNESS REGULATIONS
(10 CFR PART 50 AND 10 CFR PART 52)
(RIN-3150-AI10)

Approved ☒ Disapproved ☐ Abstain ☐

Not Participating ☐

COMMENTS: Below ☐ Attached ☒ None ☐



SIGNATURE

5/24/11

DATE

Entered on "STARS" Yes ☒ No ☐

**Commissioner Ostendorff's Comments on SECY 11-0053,
"Final Rule: Enhancements to the Emergency Preparedness Regulations (10 CFR Part 50
and 10 CFR Part 52) (RIN 3150-A110)"**

I approve the staff's recommendations and final rule revising the NRC's emergency preparedness (EP) requirements as described in SECY-11-0053. The staff in partnership with the Federal Emergency Management Agency (FEMA) has comprehensively and systematically revised the NRC's EP requirements to enhance licensees' emergency preparedness. I would also like to express my appreciation to FEMA officials who participated in and supported the recent Commission meeting on the EP final rulemaking. The insights of FEMA have helped inform the Commission in a manner to promote harmonization of our agencies efforts to protect the American public. I also commend the staff for the management of this rulemaking and in particular, the stakeholder outreach efforts. The NRC and FEMA jointly conducted 11 public meetings in six different cities in a one-year time frame that exemplifies the type of "in the field" direct feedback from stakeholders that is critical to effective rulemaking.

In that spirit, I believe now is the appropriate time to promulgate this final rule, independent of recent NRC efforts to self-assess NRC programs and process in view of the accident at the Fukushima Daiichi nuclear plant. The enhanced EP rule, in particular the amendments for hostile action based preparedness and for evacuation time estimate (ETE) updating, further a licensee's preparedness to take certain EP actions and protective measures in the event of a radiological emergency.

I am mindful that there may be additional opportunities to further enhance our EP requirements, guidance, and technical basis. In looking down the road, Presidential Policy Directive 8 to integrate a national preparedness system will afford the NRC another opportunity to partner with FEMA and advance EP expectations. Coupled with the NRC Fukushima Task Force's and FEMA's corresponding efforts, the NRC will have another opportunity to refine its requirements at an appropriate time. Any future EP rulemaking should include stronger technical bases for areas such as backup alert and notification system (ANS) and evacuation timing. In addition, I believe the state-of-the art reactor consequence analysis (SOARCA) project and forthcoming probabilistic risk assessment (PRA) level III initiative in the NRC's Office of Nuclear Regulatory Research should serve to provide the risk-informed technical rationale to support further enhancements of EP requirements and guidance. In that respect, I support the staff's research in several areas to determine the feasibility of risk-informing EP as noted in SECY 11-0053.

With respect to ANS for residents in surrounding communities near nuclear power plants, technology advancements and lessons learned from natural disasters should continue to be leveraged to ensure all segments of the population are effectively informed in a radiological emergency. As one senior Federal official stated in response to a recent tornado disaster in Missouri, to reach everyone is key and "we've got to keep everyone in mind."

Finally, States and local agencies as first responders have the direct burden in coordination with the NRC's licensees, to implement these pending major Federal EP revisions from the joint NRC/FEMA effort. Because States and local authorities have yet to see the final revisions to FEMA's guidance, after issuance of FEMA guidance the staff should assess stakeholder feedback and inform the Commission if the FEMA guidance adversely affects the timelines for rule implementation schedules outlined in SECY 11-0053. However, the issuance of NRC's final rule should not be delayed as adjustments to implementation schedules have been made in anticipation of these pending changes.