



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001**

May 11, 2011

MEMORANDUM TO: ACRS Members

FROM: Girija Shukla, Senior Staff Engineer /RA/
Reactor Safety Branch – B
Advisory Committee on Reactor Safeguards

SUBJECT: CERTIFICATION OF THE MINUTES OF THE MEETING OF THE
SUBCOMMITTEE ON PLANT OPERATIONS AND FIRE PROTECTION
REGARDING DRAFT FINAL RULE “ENHANCEMENTS TO
EMERGENCY PREPAREDNESS REGULATIONS,” (10 CFR 50 AND 10
CFR 52) AND RELATED REGULATORY GUIDANCE DOCUMENTS, ON
NOVEMBER 1, 2010

The minutes for the subject meeting were certified on May 11, 2011. Along with the transcripts and presentation materials, this is the official record of the proceedings of that meeting. A copy of the certified minutes is attached.

Attachment: As stated

cc w/o Attachment: E. Hackett
C. Santos
Y. Diaz-Sanabria

cc w/ Attachment: ACRS Members



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May 11, 2011

MEMORANDUM TO: Girija Shukla, Senior Staff Engineer
Reactor Safety Branch – B
Advisory Committee on Reactor Safeguards

FROM: Mr. John Sieber, Chairman
Operations and Fire Protection Subcommittee
Advisory Committee on Reactor Safeguards

SUBJECT: CERTIFICATION OF THE MINUTES OF THE MEETING OF THE
SUBCOMMITTEE ON PLANT OPERATIONS AND FIRE PROTECTION
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CFR 52) AND RELATED REGULATORY GUIDANCE DOCUMENTS, ON
NOVEMBER 1, 2010

I hereby certify, to the best of my knowledge and belief, that the minutes of the subject meeting held on November 1, 2010, are an accurate record of the proceedings for that meeting.

/RA/ May 11, 2011
John Sieber, Chairman Date
Plant Operations and Fire Protection Subcommittee

Certified on: May 11, 2011
Certified by: John Sieber

Issued: May 11, 2011

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
MINUTES OF THE MEETING OF THE SUBCOMMITTEE ON PLANT OPERATIONS AND
FIRE PROTECTION REGARDING DRAFT FINAL RULE "ENHANCEMENTS TO
EMERGENCY PREPAREDNESS REGULATIONS," (10 CFR 50 AND 10 CFR 52) AND
RELATED REGULATORY GUIDANCE DOCUMENTS
NOVEMBER 1, 2010, ROCKVILLE, MARYLAND

On November 1, 2010, the ACRS Subcommittee on Plant Operations and Fire Protection held a meeting in Room T-2B1, 11545 Rockville Pike, Rockville, Maryland. The purpose of the meeting was for the Subcommittee to discuss the Draft Final Rule, "Enhancements to Emergency Preparedness Regulations," (10 CFR 50 and 10 CFR 52) and related regulatory guidance documents, Draft Regulatory Guide 1.219, "Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors," Interim Staff Guidance (ISG) NSIR/DPR-ISG-01, "Emergency Planning for Nuclear Power Plants," and NUREG/CR 7002, "Criteria for Development of Evacuation Time Estimate Studies." The meeting was convened at 8:30 AM and adjourned around 3:30 PM the same day. The meeting was open to the public.

The NRC is enhancing the current emergency preparedness (EP) regulations pertaining to nuclear reactors. This final rulemaking: (1) codifies EP requirements imposed by Commission order after the terrorist attacks of September 11, 2001, as modified based upon experience and insights gained by the NRC during implementation, (2) codifies certain EP and response enhancements discussed within NRC Bulletin 2005-02, and (3) adds several new requirements that resulted from NRC staff review of EP regulations and guidance.

Attendees:

ACRS Members	Others	NRC Staff
John Sieber (Chairman)	Harry Sherwood (FEMA)	Don Tailleart (NSIR)
John Stetkar	Susan Perkins-Grew (NEI)	Howard Benowitz (OGC)
Dennis Bley	Mike Slobodien (Entergy)	Robert Kahler (NSIR)
Mike Ryan	Anthony DeFelice (FEMA)	Chris Miller (NSIR)
Harold Ray	Martin Hug (NEI)	Holly Hall (NSIR)
Sam Armijo	Keith Kemper (Exelon)	Robert Beall (NRR)
ACRS Staff	Justin Krometis (IEM)	Steve LaVie (NSIR)
Girija Shukla (DFO)	Paul Serra (Dominion)	Bethany Cecere (NSIR)

The presentation slides and handouts used during the meeting are attached to the Office Copy of the meeting transcript. The presentation to the Subcommittee is summarized below.

Opening Statement

Subcommittee Chairman John Sieber convened the meeting by introducing the ACRS members present and stating that the subcommittee will hear presentations from the NRC staff and the industry regarding the Draft Final Rule, "Enhancements to Emergency Preparedness Regulations," (10 CFR 50 and 10 CFR 52) and related regulatory guidance documents. He noted that the ACRS has received written comments from the Westchester Citizens Awareness Network regarding today's meeting. He then invited the staff to begin the presentation.

BACKGROUND

The NRC is amending certain emergency preparedness (EP) requirements in its regulations related to nuclear reactors in 10 CFR 50 AND 10 CFR 52. The final rule adds a conforming provision in the regulations that govern licenses, certifications, and approvals for new nuclear power plants. The final rule codifies certain voluntary protective measures contained in NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," and other generically applicable requirements similar to those previously imposed by Commission orders. In addition, the final rule amends other licensee emergency plan requirements based on a comprehensive review of the NRC's EP regulations and guidance. The requirements enhance the ability of licensees in preparing to take and taking certain EP and protective measures in the event of a radiological emergency; address, security issues identified after the terrorist events of September 11, 2001; clarify regulations to effect consistent emergency plan implementation among licensees; and modify certain EP requirements to be more effective and efficient.

After the terrorist events of September 11, 2001, the NRC determined that it was necessary to require certain modifications of EP programs for operating power reactor licensees to ensure continued adequate protection of public health and safety. These modifications were issued to licensees by NRC Order EA-02-026, "Order for Interim Safeguards and Security Compensatory Measures," dated February 25, 2002. Order EA-02-026 was issued to the license holders of the 104 commercial nuclear power reactors in the United States. This order required licensees to implement interim compensatory measures (ICMs) for the post-September 11, 2001, threat environment and take actions.

Following the issuance of Order EA-02-026, the NRC conducted inspections of licensee EP programs and held meetings with nuclear power industry representatives to discuss the inspection results and the modifications licensees had made to their EP programs. Also following the terrorist events of September 11, 2001, the NRC evaluated the EP planning basis for nuclear power reactors given the changed threat environment. In non-public SECY-03-0165, "Evaluation of Nuclear Power Reactor Emergency Preparedness Planning Basis Adequacy in the Post-9/11 Threat Environment," issued on September 22, 2003, the NRC staff reported to the Commission that the EP planning basis remained valid, including scope and timing issues.

However, the NRC staff also recognized that security events differ from accident events due to the planned action to maximize damage and loss of life and that the EP response to such events also differed. The NRC staff noted several EP issues that required further action to better respond to the post-September 11, 2001, threat environment.

On December 14, 2004, the NRC staff briefed the Commission on EP program initiatives. During the briefing, the NRC staff informed the Commission of its intent to conduct a 5 comprehensive review of EP regulations and guidance. On February 25, 2005, in response to

the Commission's staff requirements memorandum (SRM), SRM-M041214B, "Briefing on Emergency Preparedness Program Initiatives" dated December 20, 2004, the NRC staff provided the Commission with a schedule of activities for the completion of the comprehensive review. The NRC staff, through SECY-05-0010, "Recommended Enhancements of Emergency Preparedness and Response at Nuclear Power Plants in Post-9/11 Environment," issued on January 10, 2005, requested Commission approval of the NRC 'staff's recommendations for enhancing, through new guidance documents, EP in the post-September 11, 2001, threat environment.

In its SRM to SECY-05-0010, dated May 4, 2005, the Commission directed the staff to provide the results of a comprehensive review of EP regulations and guidance. The SRM to SECY-05-0010 also approved the 'staff's recommendation to proceed with enhancements to address EP issues as described in SECY-05-0010. As a result, the NRC staff issued Bulletin 2005-02 (BL-05-02), "Emergency Preparedness and Response Actions for Security-Based Events," dated July 18, 2005, which recommended enhancements that licensees could integrate into EP programs at power reactors.

BL-05-02 also sought to obtain information from licensees on their actions taken to implement Order EA-02-026 and to modify their EP programs to adjust to the current threat environment. Based on the results of the post BL-05-02 inspections, meetings with members of the nuclear power industry, and licensees' responses to BL-05-02, the NRC determined that licensees were implementing strategies to satisfy Order EA-02-026 and enhance their programs to address the changed threat environment.

As directed by the Commission SRMs discussed above, the NRC staff conducted a comprehensive review of the EP regulatory structure, including reviews of regulations and guidance documents. As part of this review, the NRC staff met with internal and external stakeholders through several public meetings in 2005 and 2006 to discuss the elements of the EP review and plans to update EP regulations and guidance. Section III of this document provides a list of the public and other stakeholder meetings.

On September 20, 2006, the NRC staff provided the results of its review to the Commission in SECY-06-0200, "Results of the Review of Emergency Preparedness Regulations and Guidance," dated September 20, 2006. In that paper, the NRC staff discussed the activities it had conducted to complete the review and provided its recommendation to pursue rulemaking for enhancements to the EP program. The NRC staff explained that the comprehensive review of the EP program identified several areas where the implementation of EP regulations and guidance, recent technological advances, and lessons learned from actual events, drills, and exercises had revealed to the NRC areas for potential improvement and increased clarity for the EP program. The staff divided the potential enhancements into two categories: security-based EP issues and other EP issues. The NRC staff evaluated each issue and assigned it a priority of high, medium, or low based on an analysis of the issue's relationship to reactor safety, physical security, EP, NRC strategic goals of openness and effectiveness, and stakeholder impact.

The NRC staff's outreach efforts, data gathering, research, and analysis led to the identification of 12 issues with a high priority, including six security EP issues and six non-security EP issues. In SECY-06-0200, the staff presented a framework for the potential enhancements to the EP regulations and guidance to address these issues, including steps for 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. In a memorandum dated 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," 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 were challenging and 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 NPP or its personnel that includes the use of violent force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other devices used to deliver destructive force. Other acts that satisfy the overall intent may be included."

In an effort to conduct a rulemaking that would be transparent and open to stakeholder participation, the NRC engaged stakeholders through various means during the development of this rule. The NRC discussed the proposed improvements to the EP regulations and guidance at several conferences with key stakeholders present including the 2007 NRC Regulatory Information Conference and the 2008 National Radiological Emergency Preparedness (NREP) Conference.

The NRC posted draft rule language on the e-rulemaking website, on February 29, 2008, and solicited stakeholder comments. The NRC considered the comments received on the draft rule language in the process of developing the proposed rule. The NRC continued the use of public meetings as a method to foster open communication with stakeholders when it held public meetings on March 5, 2008, and on July 8, 2008. At the March 5, 2008 meeting, the NRC staff discussed the draft preliminary rule language for the rulemaking on enhancements to EP regulations and guidance and answered stakeholders' questions on the rule language. At the July 8, 2008 meeting, the NRC staff discussed the public comments on the draft preliminary rule language and answered stakeholders' questions on how these comments may be addressed in the proposed rule.

On January 9, 2009, the NRC staff provided the proposed rule to the Commission in SECY-09-0007, "Proposed Rule Related to Enhancements to Emergency Preparedness Regulations (10 CFR Part 50)." In its SRM to SECY-09-0007, dated April 16, 2009, the Commission approved the publication of the proposed rule. The NRC published the proposed rule on the enhancements to EP regulations for public comment in the *Federal Register* on May 18, 2009

(74 FR 23254). Because it received several requests to lengthen the public comment period, the NRC extended the deadline for the public comment period from August 3, 2009, to October 19, 2009. During the public comment period, the NRC and the Federal Emergency Management Agency (FEMA) jointly held 11 public meetings to discuss the proposed rule and related guidance documents. The NRC received a total of 94 submittals and from these submittals, 687 individual comments were identified.

On December 8, 2009, NRC and FEMA staff briefed the Commission on the status of the EP rulemaking and comments received during the public comment period. In addition, a panel of external stakeholders briefed the Commission on their comments and views regarding the proposed rule. In SRM-M091208, "Staff Requirements – Briefing on the Proposed Rule: Enhancements to Emergency Preparedness Regulations," dated January 13, 2010, the Commission directed the NRC staff to continue working with FEMA in considering comments from State and local officials, and other interested stakeholders, to enhance the EP regulations and guidance. The Commission also directed the NRC staff to address the impacts of the rule and to consider providing a public draft of the rule language and guidance documents via the NRC public website while working with the Advisory Committee on Reactor Safeguards on the draft final rule.

Discussion of the Documents:

- **Draft Final Rule, "Enhancements to Emergency Preparedness Regulations"**

The final rule requires 10 CFR Part 50 licensees that are currently subject to the EP requirements to ensure that their EP programs meet the EP requirements in the final rule. The final rule similarly applies to certain applicants for construction permits under Part 50 with respect to their discussion of preliminary plans for coping with emergencies (50.34(a)(10)), operating licenses under Part 50 (50.34(b)(6)(v)), early site permits under Part 52 that choose to propose either major features of an, or a complete and integrated, emergency plan (52.17(b)(2)), and combined licenses under Part 52 (52.79(a)(21)).

This final rule does not affect the findings necessary for issuance of a renewed nuclear power operating license under 10 CFR Part 54.

An effective EP program decreases the likelihood of an initiating event at a nuclear power reactor proceeding to a severe accident. EP cannot affect the probability of the initiating event, but a high level of EP increases the probability of accident mitigation if the initiating event proceeds beyond the need for initial operator actions. As a defense-in-depth measure, emergency response is not normally quantified in probabilistic risk assessments. However, the level of EP does affect the outcome of an accident in that the accident may be mitigated by the actions of the ERO or, in the worst case, consequences to the public are reduced through the effective use of protective actions. Enhancements to the level of EP in this manner enhance protection of public health and safety through improvements in the response to unlikely initiating events that could lead to severe accidents without mitigative response.

The NRC EP requirements are based on planning standards in 50.47(b) that apply to onsite and offsite emergency response plans. The planning standards apply to onsite and offsite plans because, in making its licensing decision, the NRC looks at the application (or the licensee's activities in the case of existing facilities), the current State and local government emergency plans, and FEMA's recommendation, which is based on the content of the State and local plans. FEMA's regulations in 44 CFR Part 350 also contain these planning standards, which are used

to make its recommendation on the adequacy of the plans and capability of the State and local governments to implement them; however, FEMA's regulations address only offsite (State and local government) plans. The changes to 50.47(b) in this final rule are designed to affect the onsite plans, not the offsite plans. The changes have been written in a way that is expected to limit the chance of unintended impacts on FEMA regulations.

As discussed in this final rule, the amendments to 10 CFR Part 50 and Part 52 are divided into two Parts: One for security-related EP issues and the other for non-security related EP issues.

The security-related changes address EP actions for hostile action. Some of the changes are based on requirements in Order EA-02-026. After the issuance of Order EA-02-026, however, the Commission took several additional steps to ensure adequate protection, including the issuance of Order EA-02-261, "Access Authorization Order," issued January 7, 2003; Order EA-03-039, "Security Personnel Training and Qualification Requirements (Training) Order," issued April 29, 2003; Order EA-03-086, "Revised Design Basis Threat Order," issued April 29, 2003; the Design Basis Threat (DBT) final rule; and the Power Reactor Security Requirements final rule. As a result of these adequate protection requirements, the Commission has determined that the existing regulatory structure ensures adequate protection. Therefore, the EP changes in this final rule that are based on the requirements of Order EA-02-026 are not necessary to ensure adequate protection during hostile action. These amendments are considered enhancements to the current EP regulations. However, licensees' implementation of these enhancements will result in a substantial increase in EP and the protection of public health and safety.

The non-security related issues are high priority items that resulted from the comprehensive review of EP regulations and guidance. These changes are new or amended requirements that result in a substantial increase to public health and safety because they maintain or strengthen the ability of licensees to effectively implement their emergency plans.

- **Draft Regulatory Guide 1.219, "Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors"**

This draft Guide describes a method that the staff considers acceptable to implement the requirements in 10 CFR 50.54(q)), "Conditions of Licenses," relate to emergency preparedness and specifically to making changes to emergency response plans.

The NRC's objectives for 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.

10 CFR 50.54(q) requires licensees to follow and maintain the effectiveness of an emergency plan that meets the standards in 10 CFR 50.47(b) and the requirements in 10 CFR Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities." This section also contains requirements for the process by which the licensee may make changes to its emergency plan without prior application to, and approval by, the NRC, provided that the changes do not reduce the effectiveness of the plan and that the plan, as changed, continues 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 a holder of a license under 10 CFR Part 50, or a holder of a combined license under 10 CFR Part 52, "Licenses, Certification, and Approvals for Nuclear Power Plants", where the Commission has made the finding under 10 CFR 52.103(g), (1) evaluates proposed changes to its emergency plan for their impacts on the effectiveness of the plan, (2) obtains prior NRC approval for changes that are deemed to reduce the effectiveness of the plan, and (3) documents and reports such changes and the evaluations of these changes.

As a result of lessons learned from operating experience, the NRC determined that additional action was necessary to provide clarity and consistency in the implementation of the rule. In 2010, the NRC amended 10 CFR 50.54(q) to address these concerns. The amended 10 CFR 50.54(q) differs significantly from the former rule. The following items are among the significant changes and clarifications:

- The amended rule replaced the phrase "decrease in effectiveness" with the phrase "reduction in effectiveness." The amended rule defined this phrase and other terms used in 10 CFR 50.54(q).
- The amended rule defined "reduction in effectiveness" as a change in an emergency plan that reduces the licensee's capability to perform an emergency planning function in the event of a radiological emergency. An "emergency planning function" is defined as a capability or resource necessary to prepare for, and respond to, a radiological emergency. This guide identifies the emergency planning functions associated with each planning standard for nuclear power reactors.
- The amended rule language specifies that licensees must use the license amendment process in 10 CFR 50.90, "Application for Amendment of License, Construction Permit, or Early Site Permit," in applying for prior NRC approval of those changes determined to be a reduction in effectiveness.

The emergency planning functions were derived from the planning standard functions that subject matter experts from the nuclear power industry and the NRC established during the development of the emergency preparedness cornerstone of the Reactor Oversight Process (ROP). Regulatory Position 4 of this guide tabulates the emergency planning functions, the supporting requirements in Appendix E to 10 CFR Part 50, and the informing criteria of NUREG-0654/Federal Emergency Management Agency (FEMA)-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," issued in November 1980, for each of the planning standards in 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 require prior NRC approval.

- **Interim Staff Guidance (ISG) NSIR/DPR-ISG-01, "Emergency Planning for Nuclear Power Plants"**

The purpose of this interim staff guidance (ISG) is to provide updated guidance information for addressing emergency planning (EP) requirements for nuclear power plants. This guidance is based on changes to EP regulations in 10 CFR 50.47, "Emergency Plans," and 10 CFR Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities."

The ISG should be used by licensees and applicants as guidance for implementing changes to onsite EP programs based on the revised EP requirements and by NRC staff for reviewing the adequacy of the revised onsite EP programs. The ISG also provides additional guidance on topics not specifically addressed in the EP final rule, such as integrating offsite response organization event response concepts with onsite EP programs. This guidance supplements and/or replaces previous guidance given in various documents and generic communications, including several NUREGs, bulletins, information notices, and regulatory issue summaries, as indicated in the sections that discuss each of the guidance topics.

- **NUREG/CR 7002, “Criteria for Development of Evacuation Time Estimate Studies”**

The evacuation time estimate (ETE) is a calculation of the time to evacuate the plume exposure pathway emergency planning zone (EPZ), which is an area with a radius of about 10 miles around a nuclear power plant. Section IV of Appendix E to 10 CFR Part 50 requires that an analysis of the time required to evacuate be provided for various sectors and distances within the plume exposure pathway EPZ for transient and permanent residents. The ETE is primarily used to inform protective action decision-making and may also be used to assist in development of traffic management plans to support an evacuation. The ETE is used as an information tool, and therefore, no minimum evacuation time must be achieved. The guidance in NUREG-0654 provides additional information regarding the use of ETE results. ETEs should be used by licensees in the development of offsite protective action recommendations and by offsite response organizations when making offsite protective action decisions.

This guidance document details the process for the development of ETEs for four population segments including:

- Permanent residents and transient population;
- Transit dependent permanent residents;
- Special facility residents (e.g., hospitals, prisons, nursing homes, etc.); and
- School populations

Guidance is provided on developing evacuation demand, preparation activities, ETE modeling and reporting results. Some of the key criteria developed in this document include:

- Development of ETEs for the staged evacuation protective action;
- Emphasis on the use of existing emergency preparedness programs when developing the ETE;
- Use of traffic simulation modeling;
- Consideration of shadow evacuations in the analysis;
- Verification of commitment of resources, such as buses and ambulances, etc.;
- Consideration of the evacuation

Public Comments:

On May 18, 2009, the NRC published a request for comments on Enhancements to Emergency Preparedness Regulations; Proposed Rule in the *Federal Register* (74 FR 23254). On the same day, the NRC published a request for comments on several draft guidance documents on the proposed rule's docket at www.regulations.gov, including: NSIR/DPR-ISG-01, Interim Staff Guidance Emergency Planning for Nuclear Power Plants; RG 1.219, Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors; and NUREG/CR-7002, Criteria for Development of Evacuation Time Estimates.

Similarly, on May 18, 2009, FEMA published in the *Federal Register* a request for comments on FEMA's proposed Radiological Emergency Preparedness Program (REPP) Manual and proposed NUREG-0654/FEMA-REP-1, Rev. 1, Supplement 4.

Following the publication of these documents, the NRC and FEMA jointly conducted 11 public meetings in six different cities between June 2 and June 23, 2009. One additional public meeting was held by the NRC in Rockville, MD on September 17, 2009. At these meetings, the NRC introduced the proposed EP requirements and associated onsite EP guidance documents, and answered questions from the meeting attendees. The NRC did not request or accept oral public comments at these meetings.

The NRC received 94 comment submissions¹ in response to its May 18, 2009 *Federal Register* notices. Some comments received by FEMA in response to the request for comments on FEMA's proposed REPP Manual and proposed NUREG-0654/FEMA-REP-1, Rev. 1, Supplement 4, concerned NRC-jurisdictional EP issues. The NRC and FEMA determined that these comments should be addressed by the NRC. As a result, these comments were transferred to the NRC for resolution. Similarly, some comments received by the NRC concerned FEMA-jurisdictional issues and were transferred to FEMA for resolution and appear in FEMA's comment resolution document associated with the REPP Manual and NUREG-0654/FEMA-REP-1, Rev. 1, Supplement 4.

The associated comment summary document addresses NRC-jurisdictional comments submitted to the NRC in writing by October 29, 2009, as well as NRC-jurisdictional comments submitted in writing to FEMA.

NRC STAFF PRESENTATION

**Division of Preparedness and Response,
Office of Nuclear Security and Incident Response (NSIR)**

In the meeting, the NRC staff provided a brief overview of the Emergency Preparedness Rule background and discussed the EP Rule process vs. the standard rulemaking process. The staff further discussed the following 12 main EP Rulemaking Topics: 1. On-Shift Multiple Responsibilities; 2. Emergency Action Levels for Hostile Action; 3. Emergency Response Organization Augmentation and Alternative Facilities; 4. Licensee Coordination with Offsite Response Organizations; 5. Protection for Onsite Personnel; 6. Challenging Drills and Exercises; 7. Backup Means for Alert and Notification Systems; 8. Emergency Declaration Timeliness; 9. Emergency Operations Facility – Performance-Based Approach; 10. Evacuation Time Estimate Updating; 11. Amended Emergency Plan Change Process; and 12. Removal of Completed One-Time Requirements.

The NSIR/DPR-ISG-01 Interim Staff Guidance is related with the EP Rulemaking Topics 1, and 3-9. NRC Bulletin 2005-02 and NEI 99-01, Revision 5 is related with the EP Rulemaking Topic 2. NUREG/CR-7002 is related with the EP Rulemaking Topic 10, and Regulatory Guide 1.219 is related with the EP Rulemaking Topic 11. The EP Rulemaking Topic is covered by 10 CFR 50.54. The staff then discussed each of these supporting regulatory guidance documents.

The NUREG/CR-7002, "Criteria for Development of Evacuation Time Estimate Studies" includes development of evacuation time estimate studies, evacuation time estimates for staged evacuation protective action, and evaluation criteria for reviewers.

The Regulatory Guide 1.219, "Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors" includes explanation of definitions, explanation of emergency planning functions, examples of changes requiring/not requiring prior NRC approval, and guidance on change submittals, documentation, and record retention.

The NSIR/DPR-ISG-01, "Interim Staff Guidance Emergency Planning for Nuclear Power Plants" includes guidance on remaining topics, integration of offsite response with onsite EP programs, and its future incorporation into NUREG-0654.

The staff further discussed an overview of the public comments resolution process, emergency preparedness rulemaking working group, and the NRC-FEMA joint comment resolution team.

The public comments on on-shift multiple responsibilities included types of events to be analyzed and the time period covered by the analysis. The comments on Emergency Action Levels for Hostile Action included the use of future emergency action level schemes. The comments on Emergency Response Organization Augmentation and Alternative Facilities included reference to "hostile action," multiple locations for alternative facilities, and event classification capability. The comments on Licensee Coordination with Offsite Response Organizations included identification of offsite resources, and letters of agreement/memoranda of understanding with offsite agencies. The comments on Protection for Onsite Personnel included specification of required protective actions, and the use of multiple procedures for hostile action. The comments on Challenging Drills and Exercises included length of exercise planning cycle, use of minimal/no radiological release scenarios, and frequency of certain scenario elements.

The comments on Backup Means for Alert and Notification Systems included a need for backup ANS design specification and the use of batteries in lieu of backup means. The comments on Emergency Declaration Timeliness included clarification of when declaration is made, start/stop of timeliness "clock," and reference to "plant operator." The comments on Emergency Operations Facility (EOF) – Performance-Based Approach included exemptions for existing EOFs and EOF consolidation. The comments on Evacuation Time Estimate (ETE) Updating included ETE update threshold and completion of ETE updates. The comments on Amended Emergency Plan Change Process included definitions of "change" & "emergency plan," timing of required reports of changes, summary of 50.54(q) analyses, and use of license amendment process. The comments on Amended Emergency Plan Change Process included changes to Regulatory Guide 1.219, such as alignment with final rule, consistent application of term "change," changes that are not reductions in effectiveness, guidance regarding "margin," and implementation guidance.

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) PRESENTATION

U.S. Department of Homeland Security (DHS)

The FEMA staff provided an overview of the FEMA's proposed Radiological Emergency Preparedness (REP) Program Manual and proposed NUREG-0654/FEMA-REP-1, Rev. 1, Supplement 4. FEMA also provided an overview of the public comments process and stated that the FEMA REP Program Manual/NUREG-0654 Supplement 4 was released on May 18, 2009 for a 150 day comment period. FEMA received over 120 submissions containing over 2300 individual comments and FEMA convened the Public Comment Adjudication Team (PCAT), which represented 10 FEMA Regional representatives and 5 FEMA Headquarters staff. FEMA and NRC also convened a Joint Comment Adjudication Team (JCAT). FEMA's target date for publication and issuance of the FEMA REP Program Manual/NUREG-0654 Supplement 4 is aligned with the NRC Rulemaking targets.

The following are the key policy changes for the FEMA REP Program Manual/NUREG-0654 Supplement 4. It included preparing for and responding to hostile action-based (HAB) events, aligning the REP Program with national preparedness systems and initiatives (e.g., NIMS/ICS and HSEEP), ensuring more challenging drills and exercises to enhance exercise activities, and ensuring backup means for Alert & Notification System.

NUCLEAR ENERGY INSTITUTE (NEI) PRESENTATION

The NEI representatives provided an overview of the industry's comments and stated that The NEI agrees with the NRC's conclusion that the existing basis for emergency preparedness remains valid including scope and timing issues.

The NEI made further remarks related to the proposed rule implementation process, cumulative impact on licensees and offsite response organizations, consideration of the State of the Art Reactor Consequence Analysis (SOARCA).

The NEI also made the following recommendations: 1. consider holistic impacts to licensees concerning implementation schedule based on other rulemaking impacting licensees and ISG language ambiguity; and 2. consider SOARCA findings in ACRS review if "greater use of quantitative data" should be considered, then associated guidance and rules should be deferred.

COMMENTS AND OBSERVATIONS FROM THE SUBCOMMITTEE MEMBERS

Dr. Stetkar stated that there is a lack of treatment of uncertainty in Evacuation Time Estimate and the Rule does not take advantage of SOARCA.

Dr. Bley stated that SOARCA is not available yet and should not be used prematurely.

Dr. Ryan stated that SOARCA should not be used as it is not available yet. It is difficult to assess SOARCA's impact on the rule at this time.

Mr. Ray stated that he is not sure whether uncertainty should be considered. EP should be well planned and well exercised and adequate participation by all parties is very important.

Dr. Armijo stated that the EP exercise schedules should be reasonable and need to be worked out among all parties involved and why not use SOARCA to see if the rule has excessive requirements. There is no urgency to publish the rule, it is only an enhancement.

SUBCOMMITTEE CONCLUSIONS

Chairman Sieber concluded the meeting by thanking the staff and the applicant. He stated that the presentations and discussions were very informative. The Subcommittee will provide a report to the Full Committee during the upcoming ACRS meeting, when the Committee will review the Draft Final Rule, "Enhancements to Emergency Preparedness Regulations," (10 CFR 50 and 10 CFR 52) and related regulatory guidance documents. After reviewing this matter, the Committee may consider providing a report on this matter. The meeting was adjourned.

REFERENCES

1. Draft Final Rule, "Enhancements to Emergency Preparedness Regulations"
2. Draft Regulatory Guide DG-1237, "Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors"
3. Interim Staff Guidance (ISG) NSIR/DPR-ISG-01, "Emergency Planning for Nuclear Power Plants"
4. NUREG/CR 7002, "Criteria for Development of Evacuation Time Estimate Studies"

NOTE:

Additional details of this meeting can be obtained from a transcript of this meeting available in the NRC Public Document Room, One White Flint North, 11555 Rockville Pike, Rockville, MD, (301) 415-7000, downloading or view on the Internet at <http://www.nrc.gov/reading-rm/doc-collections/acrs/> or it can be purchased from Neal R. Gross and Co., 1323 Rhode Island Avenue, NW, Washington, D.C. 20005, (202) 234-4433 (voice), (202) 387-7330 (fax), nrgross@nealgross.com (e-mail).
