

POLICY ISSUE

(Notation Vote)

October 19, 2007

SECY-07-0182

FOR: The Commissioners

FROM: Luis A. Reyes
Executive Director for Operations /RA/

SUBJECT: SEMI-ANNUAL UPDATE ON THE STATUS OF EMERGENCY
PREPAREDNESS ACTIVITIES

PURPOSE:

This paper informs the Commission of the status of important activities in the area of emergency preparedness (EP) and enhancements to nuclear power plant (NPP) licensees' EP programs. It also requests Commission approval on changing the frequency of future updates.

SUMMARY:

In this semi-annual update, the staff is reporting the status of 10 significant EP initiatives. These activities represent the enhancement efforts for EP by the Nuclear Regulatory Commission (NRC) and licensees. Any related documents previously submitted to the Commission are identified under the respective initiative discussion. With this paper, the staff is recommending a change in frequency of this report to an annual update.

BACKGROUND:

The Commission directed the staff to provide a semiannual report on important EP activities in Staff Requirements Memorandum (SRM) "SECY-05-0010, Recommended Enhancements of Emergency Preparedness and Response at Nuclear Power Plants in Post-9/11 Environment," dated May 4, 2005. The staff's last report to the Commission was SECY-07-0070, dated April 10, 2007.

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DISCUSSION:

Although the 10 initiatives described below are important EP activities, they by no means encompass all of the important activities in the EP area. For example, the staff is continuing to perform licensing activities including reviews of emergency plan change submittals for current licensees. The staff also supported the comprehensive review by the Department of Homeland Security (DHS) of NPP's and regional inspection activities.

Initiative 1: Review of EP Regulations and Guidance

The staff provided a rulemaking plan entitled, "Rulemaking Plan for Enhancements to Emergency Preparedness Regulations and Guidance," to the Commission on April 17, 2007. This plan built on the information presented in SECY-06-0200, "Results of the Review of Emergency Preparedness Regulations and Guidance," dated September 20, 2006, and outlined milestones for completion of the enhancements to EP regulations and guidance.

The staff is currently developing an expanded technical basis for the proposed rulemaking which will become the foundation for the proposed rule. The technical basis is expected to be completed in October 2007. The staff intends to initiate a contract to conduct the regulatory analysis in early fiscal year (FY) 2008.

SRM-SECY-06-0200 disapproved the staff's recommendation to delegate to the staff the ability to approve emergency plan changes that represent a reduction in effectiveness. However, the Commission directed the staff to submit a proposal with a documented basis and recommended language that would authorize such a delegation. The staff is on schedule (December 2007) to provide the Commission its recommendation to allow the staff authority to approve emergency plan changes that would result in a reduction of effectiveness of an emergency plan.

The staff is currently pursuing rulemaking only on the issues identified in SECY-06-0200 to be of high priority. In SECY-06-0200 the staff committed to revisit those issues which were determined to be less than a high priority at a later time, and the Commission approved the staff's recommendation to develop a rulemaking plan. The staff intends to budget resources in the FY 2010 budget to disposition the issues identified in SECY-06-0200 that were determined to have less than a high priority.

The NRC/Federal Emergency Management Agency (FEMA) rulemaking working group was formed to ensure changes to regulations and guidance at the NRC and FEMA are in alignment. The working group continues to coordinate actions to limit rulemaking conflicts between the two agencies.

Initiative 2: EP Outreach

The staff has conducted more than 20 outreach activities with key internal and external stakeholders to enhance communications and mutual understanding with industry, foreign governments, State and local governments, and members of the public. The staff has also supported the Office of Nuclear Reactor Regulation (NRR), Office of New Reactors, and Region I in public meetings and information sessions. In addition, the staff continues to conduct periodic meetings with the FEMA Regional Assistance Committee Chairs, the Regional State

Liaison Officers, and Emergency Response Coordinators, and expanded its scope of activities to include an all-hazards approach to EP. As a result of these outreach activities, the staff has increased public awareness of the NRC's mission by engaging the public in NRC activities and expanding partnerships with internal and external stakeholders.

The staff continues to offer many opportunities for stakeholders to tour the Headquarters Operations Center (HOC) and to observe NRC HOC exercise activities. The staff has conducted tours for various groups including non-governmental organizations, foreign dignitaries, senior utility executives, and others. These tours include overviews of the various response teams, presentations on NRC response modes, and demonstrations of facility equipment, communications, and response capabilities. The response to these tours has been consistently positive. In addition, the States of Massachusetts and North Carolina observed two NRC Headquarters exercises and provided positive feedback. These information exchanges will enhance NRC and State relationships and interfaces during exercises and events.

Initiative 3: Early Site Permits, Combined Licenses, and Standard Design Certifications

The staff continues to support new reactor licensing activities, including the review of early site permits (ESPs) and standard design certifications (DCs). In addition, the staff is preparing for the review of multiple combined license (COL) applications. Currently, the staff is reviewing the application for DC for the economic simplified boiling-water reactor and a Westinghouse DC amendment application for the AP1000, which addresses a change for the AP1000 Annex Building Technical Support Center.

The staff is also reviewing the ESP application for the Vogtle site. This represents a first-of-a-kind application review under Title 10 of the *Code of Federal Regulations*, Part 52, "Early Site Permits: Standard Design Certifications; and Combined Licenses for Nuclear Power Plants" (10 CFR Part 52) in that it includes a complete and integrated emergency plan with inspections, tests, analyses, and acceptance criteria (ITAAC). In preparation for inspection activities associated with emergency planning for new reactors, the staff has developed a draft construction inspection procedure, which primarily focuses on verification that the COL ITAAC have been met.

The staff continues to coordinate activities with FEMA in preparation for the review of multiple COL applications including the application for the South Texas Project Units 3 and 4, dated September 20, 2007. To promote openness of NRC processes, the staff has participated in several public meetings to inform the public of the review process for new reactor license applications.

On October 4, 2007, the NRC staff observed a meeting between the Nuclear Energy Institute (NEI) and FEMA regarding FEMA's new reactor application review process. FEMA Headquarters officials informed the NEI New Reactors Working Group of FEMA's review process, the role of FEMA regions in the review process, and FEMA's commitment to meet the schedules for pending COL applications.

Initiative 4: Protective Action Recommendation Study

The staff, with the support of Sandia National Laboratories, is nearing completion of Volume 1 of a draft NUREG documenting results from the project entitled, "Review of NUREG-0654, Supplement 3, Criteria for Protective Action Recommendations for Severe Accidents," (PAR Study). The staff has presented the results to the Advisory Committee on Reactor Safeguards and will address the Committee's comments in the draft NUREG. The Commission Paper, with the staff's recommendations for Commission consideration, as well as the draft NUREG, are progressing and due for submission in December 2007.

The staff intends to conduct a telephone survey of the public residing in NPP emergency planning zones to determine likely public reaction to protective action direction and the implementation of alternative protective action regimens. The survey instrument was submitted to the Office of Management and Budget for approval and was placed in the *Federal Register* for public comment. The public comment period ended June 4, 2007. The NRC received useful comments and will apply them to revise the survey. The final survey and comment resolution will be placed in the *Federal Register*. The staff expects to conduct the public survey by February 2008. Current plans are to publish the results of the focus groups conducted in 2006 and the telephone survey as Volume 2 of the PAR Study in 2008.

Initiative 5: Development and Implementation of a Security-Based Drill and Exercise Program

In a letter dated March 30, 2007, the DHS Director, Chemical and Nuclear Preparedness and Protection Division, concurred on recommendations developed by the joint NRC/FEMA Exercise Scenario Working Group in response to the June 29, 2006, Commission SRM, "Briefing on Status of Emergency Planning Activities." The SRM directed the staff to engage FEMA in identifying a wide spectrum of EP exercise scenarios that would help avoid anticipatory responses associated with the preconditioning of participants. The working group recommended various alternatives, including radiological release options. However, based on a May 23, 2007, letter to NEI from the FEMA Acting Deputy Administrator for Emergency Preparedness, the proposed "no release" option would still require the demonstration of field monitoring dose assessment capabilities and protective action decision-making for a postulated release either through controller injects or evaluation of a separate drill. The working group has developed specific changes to FEMA's exercise evaluation criteria in order to implement these recommendations, which have been submitted to FEMA's Acting Director, Chemical and Nuclear Preparedness and Protection Division for consideration, and have been shared with the FEMA Regional Radiological Assistance Committee (RAC) Chairs. Some opposition to various recommendations has been raised by certain FEMA Regions, including the belief that a large radiological release still needs to be postulated in every biennial exercise to verify continued reasonable assurance. FEMA Headquarters is attempting to gain alignment with Regional RAC Chairs on this issue. NRC management, at various levels, continues to work with FEMA management to gain consensus on a path forward.

The staff participated in joint NRC/FEMA/industry panel sessions at the April 2007 National Radiological Emergency Preparedness Conference and the June 2007 NEI EP and Communications Forum to discuss implementation of NEI 06-04, "Guidelines for the Development of Emergency Preparedness Drill and Exercise Threat-Based Scenarios," dated August 2006, and expectations for the conduct of an "off-year" (non-evaluated) EP drill at each

NPP site over a 3-year period by the end of calendar year (CY) 2009. These meetings provided a forum for increased communication regarding security-based EP drills with FEMA, State and local government representatives, and industry representatives.

The industry has conducted Phase III off-year security threat-based EP drills at several NPP sites: Quad Cities in April 2007; Vogtle in June 2007; Braidwood, Seabrook, Prairie Island, and Brunswick in July 2007; Point Beach in August 2007; and Perry in September 2007. The staff observed each of these drills and also supported pre-drill tabletops at Quad Cities, Braidwood, Seabrook, Prairie Island, and Brunswick Stations. Based on the lessons learned from the initial drill at the Quad Cities Station, the industry provided a supplement to NEI 06-04 in a May 18, 2007, letter which clarified demonstration expectations. NEI and licensees initially underestimated the time and resource commitment needed to conduct these drills effectively. This commitment is significantly above that required for a normal off-year EP drill. NEI has selected an industry loanee to support its efforts in overseeing the effective and consistent conduct of future off-year drills starting in CY 2008.

In early July 2007, the staff implemented a Security Threat-Based EP Drill link on the internal NRC Web site, <http://www.internal.nrc.gov/NSIR/ep-drills-phase-3.html>, which provides status and related Phase III information (i.e., staff observations, industry lessons learned, background documentation, schedules, and points of contact). The staff has provided a link to the public Web site to describe this initiative, which provides applicable NRC and NEI guidance documents. The staff is conducting a public meeting on November 9, 2007, to discuss and solicit comments on the status and lessons learned from the off-year drills and on proposed changes to the FEMA exercise evaluation criteria.

No regulatory requirement exists for licensees to include options to address challenging and non-anticipatory exercise scenarios as reflected in the June 29, 2006, Commission SRM. Thus, the staff has incorporated this element into the proposed EP rulemaking discussed in Initiative 1 of this paper.

Initiative 6: Coordination of EP Activities with FEMA

The staff continues to coordinate and communicate with FEMA in areas of mutual interest and routinely works with FEMA in areas of joint responsibility, particularly with offsite EP issues. FEMA has partnered with the staff on several initiatives such as regional conferences, tri-state meetings, and government-to-government meetings. The staff has initiated periodic conference calls and meetings with FEMA (headquarters and field offices) to seek alignment on specific issues and to expedite issue resolution. This has served to enhance NRC/FEMA relationships and resulted in better communication and coordination. However, the staff recognizes the need for continued efforts to enhance its working relationship with FEMA at all levels of management. The recent confirmation of Dennis Schrader as the FEMA Deputy Administrator, National Preparedness Directorate, should be helpful since it filled a long vacant management position and may enable the NRC to better communicate our issues to FEMA.

The staff suggests continued executive and senior-level communication and coordination with FEMA on important initiatives and programs in the areas of EP and response. In addition, the NRC has extended (and FEMA staff has accepted) invitations to attend formal NRC training in

EP and response. The NRC is also coordinating with FEMA to teach radiological emergency preparedness related courses for NRC staff.

Initiative 7: Potassium Iodide

In a memorandum dated July 3, 2007, the President assigned the authority for Section 127(f) of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Public Law 107-188, regarding the distribution of potassium iodide (KI) out to 20 miles from commercial NPPs to the Director of the White House Office of Science and Technology Policy (OSTP). OSTP requested that the Federal Radiological Preparedness Coordinating Committee (FRPCC) provide a technical analysis of KI use beyond 10 miles from an NPP within 90 days of the issuance of its memorandum dated July 5, 2007, to the FRPCC members. The NRC staff worked with the FRPCC on its technical analysis paper for OSTP. The FRPCC has transmitted the technical analysis paper to OSTP for the Director's consideration to support making a conclusion in his determination of the applicability of Section 127(f) of Public Law 107-88.

Initiative 8: Progress of Alert Notification System Related Activities

Indian Point

On April 13, 2007, Entergy Nuclear Operations, Inc. (Entergy) requested an additional relaxation from the January 31, 2006, Confirmatory Order implementation date of April 15, 2007. The NRC denied the relaxation request and on April 23, 2007, issued a Notice of Violation (NOV) and Proposed Imposition of Civil Penalty (EA-07-092). In its May 23, 2007, reply to the NOV, Entergy committed to resolving its problems and placing the system in operation by August 24, 2007. On July 9, 2007, the staff supported a public meeting on the Indian Point siren issue in Westchester County, New York. On July 30, 2007, the NRC issued a second Confirmatory Order which required Entergy to obtain approval of the new siren system by FEMA in order to meet the conditions of the NRC's initial Order.

Since then, a project team comprising representatives from Region I, the Office of Nuclear Security and Incident Response (NSIR), NRR, Office of the General Counsel, Office of Enforcement, Office of Congressional Affairs, and Office of Public Affairs has conducted weekly status teleconferences. In addition, Region I, NSIR, and NRR staffs participate in weekly status teleconferences with Entergy, FEMA, and the four risk counties in the Indian Point Energy Center Emergency Planning Zone. Significant staff resources have been, and continue to be, expended on oversight of Entergy's compliance with the Confirmatory Order. On August 30, 2007, as a result of Entergy's apparent failure to take the timely and necessary actions to ensure FEMA's approval for use of the new Alert Notification System (ANS) by August 24, 2007, the NRC issued to Entergy an NOV and informed the licensee that the severity level of the NOV and the civil penalty, including potential daily civil penalties, would be determined at a later date. As explained in the August 30, 2007, NOV letter, the staff also disapproved Entergy's request to modify the July 30, 2007, Order. FEMA reviewed an August 24, 2007, ANS submittal by Entergy, and on September 12, 2007, provided a letter to the New York State Emergency Management. Office concluding the siren system was inadequate and did not meet the original system design standards. In response, Entergy has sought to meet with FEMA to gain further detailed information to satisfy FEMA's concerns and develop an action plan to resolve the issue.

General Alert Notification System Issues

In the semi-annual report dated October 3, 2006, the staff reported on a Presidential Executive Order addressing effective, reliable, integrated, flexible, and comprehensive public warning systems, and noted that the staff was working with FEMA to assess the impact of the Executive Order on emergency planning regulations and guidance. FEMA continues to work on a revision of their draft technical bulletin on outdoor warning systems.

Initiative 9: Revision of the FEMA/NRC Memorandum of Understanding

Based on changes in prioritization by FEMA management, FEMA's focus has changed from revising its 44 CFR 350 series regulations, to working on a revision to a manual containing many of FEMA's guidance documents. Once this manual revision is completed, FEMA will return to addressing the revisions of its regulations. Based on discussion with FEMA, the Memorandum of Understanding (MOU) revision project is not expected to resume until FY 2009, subject to FEMA prioritization of this work activity. Staff continues to communicate with FEMA regarding the resumption of the MOU revision activities and desired changes to be incorporated.

Initiative 10: Emergency Action Levels

The staff has been working with industry to establish consistent emergency action levels (EALs) across the country. As a result of efforts by the staff and by industry, the staff anticipates that the remaining 10 plants with NUREG-0654 EAL schemes will submit a proposal to upgrade to NEI 99-01, "Determination of Emergency Action Levels," by the end of FY 2008. In addition, NEI submitted a revision to NEI 99-01, Revision 5 and NEI 07-01, "Methodology for Development of Emergency Action Levels (for) Advanced Passive Light Water Reactors," on February 28, 2007, for NRC endorsement. The staff has provided comments to NEI in a public meeting on May 23, 2007, and a closed meeting on security EALs held on June 29, 2007. As a result, NEI submitted a revision of NEI 99-01, Revision 5, on September 18, 2007, and has submitted a revision of NEI 07-01 on September 21, 2007. The staff is currently reviewing these documents.

RECOMMENDATION:

Effective reporting mechanisms (EDO Daily Notes, periodic briefings, program reviews) are in place to keep the Commission fully and currently informed on the status of EP activities and programs. Current activities described in this paper are not of such a dynamic nature that semi-annual updates would provide substantially new information. Therefore, the staff recommends the frequency of this update be provided on an annual basis beginning in October 2008.

COMMITMENT:

Staff commits to provide the Commission a SECY paper with a recommendation for the staff to have the authority to approve emergency plans that result in a decrease in effectiveness. (December 2007)

RESOURCES:

This paper requests no additional resources. The resources presently identified to implement these initiatives are included in the FY 2008 budget. Resources are currently included in the proposed budget for FY 2009.

COORDINATION:

The Office of the General Counsel reviewed this package and has no legal objection.

/RA/

Luis A. Reyes
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for Operations

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This paper requests no additional resources. The resources presently identified to implement these initiatives are included in the FY 2008 budgets. Resources are currently included in the proposed budget for FY 2009.

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