

POLICY ISSUE INFORMATION

October 31, 2008

SECY-08-0168

FOR: The Commissioners

FROM: Roy P. Zimmerman, Director
Office of Nuclear Security and Incident Response

SUBJECT: ANNUAL UPDATE ON THE STATUS OF EMERGENCY
PREPAREDNESS ACTIVITIES

PURPOSE:

This paper is intended to inform the Commission of the status of on-going activities within the emergency preparedness (EP) programs. This document does not contain any new commitments, recommendations or request for resources.

BACKGROUND:

In the Staff Requirements Memorandum (SRM) to SECY-05-0010, "Recommended Enhancements of Emergency Preparedness and Response at Nuclear Power Plants in Post-9/11 Environment," dated May 4, 2005, the Commission directed that the staff provide a semiannual report on important EP activities. In the staff's 2007 semiannual update to the Commission, SECY-07-0182, "Semi-Annual Update on the Status of Emergency Preparedness Activities," dated October 19, 2007, the staff requested, and the Commission approved, the staff's recommendation to change the frequency of this report from semiannual to annual. The Commission also directed that the annual update become more of a self-assessment and communication tool, summarizing accomplishments and providing status updates on improvement initiatives within the EP programs. In the SRM to SECY-07-0182, the Commission stated that this paper should be coordinated with, and not overlap the Reactor Oversight Process self-assessment of the EP cornerstone.

CONTACT: Anthony Bowers, NSIR/DPR
(301) 415-5313

DISCUSSION:

This paper summarizes a review of the EP program and serves as a communication tool for Nuclear Regulatory Commission (NRC) management and staff, while providing a status update on EP topics discussed in the prior year submittal. The paper summarizes major portions of the self-assessment by focusing on key insights, key accomplishments, challenges and upcoming activities. The enclosure to this paper includes more detailed information and is organized similar to the paper. The assessment concluded that the accomplishments of the EP staff and improvement initiatives in progress or planned, positively contribute to the NRC's overall ability to ensure adequate protection of public health and safety, the environment, and in the secure use and management of radioactive materials. In addition, the staff appropriately informed and involved stakeholders to ensure the regulatory process is efficient, timely and realistic.

The staff focused its review on the following activities: EP Regulations and Guidance, EP Outreach Activities, New Reactor Licensing, EP Inspection Activities, EP Studies - Protective Action Recommendation (PAR) and Evacuation Study, Hostile Action-Based (HAB) Drills, Emergency Action Levels (EALs), and Materials Licensing. Key insights from the self assessment include:

- Outreach activities involving State and local authorities, industry, and non-governmental organizations, are positively received by stakeholders. One example that validates this positive stakeholder perception stems from the Commission meeting held on August 12, 2008, where State and local representatives from California, Illinois, and Ohio provided positive feedback with regard to the staff's participation and alignment with the Federal Emergency Management Agency (FEMA) during the 20 focus group meetings on conducting more realistic and challenging exercises.
- EP rulemaking activities are progressing as scheduled with positive feedback from stakeholders. The EP rulemaking initiative is being approached with an emphasis on open communication and solicitation of feedback from stakeholders early in the rulemaking process. In addition, the staff is committed to considering and being responsive to stakeholder input before implementing any enhanced regulatory initiative.
- Overall, NRC and FEMA interaction and alignment has shown marked improvement during fiscal year (FY) 2008. Staff and management from both agencies continue to work on promoting schedule stability during new reactor license reviews and EP rulemaking.
- Efforts to ensure new reactor licensing reviews are consistent and well managed will continue to require heightened staff focus.

Below are examples of key accomplishments achieved during FY 2008:

- A joint NRC and FEMA exercise scenario task force was formed with a charter to identify ways to invoke greater realism into EP exercise scenarios, avoid anticipatory responses associated with preconditioning of participants, integrate NRC and FEMA guidance documents, identify opportunities to enhance existing EP regulations, and engage

stakeholders in the process to change existing regulations and guidance. The task force recommended changes to exercises such as varying quantities and types of releases, as well as changes to event escalation. Improved alignment with FEMA in this area resulted in joint tasking letters signed by both FEMA and NRC managers to their respective staffs. The recommended changes will be incorporated as part of the EP rulemaking.

- Licensees, as part of their phased implementation of NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events", dated July 18, 2005, are conducting HAB drills on a voluntary basis, with NRC and FEMA observation. The staff is engaging licensees prior to scheduled drills to provide: 1) insights from prior staff observations and, 2) support for scenario development. Three of the pilot drills were observed by FEMA staff specifically to aid in their review of preliminary draft changes to guidance and exercise evaluation criteria. In addition, NRC Headquarters, and Regions I and III Incident Response organizations participated in HAB EP drills with the Three Mile Island and Byron Nuclear Power Plants to demonstrate the NRC's response to a terrorist event. To date, 18 of the 23 HAB EP drills have been observed by the staff. The staff's proposed rulemaking will address including HAB scenarios in the biennial graded exercises.
- The staff has developed and implemented processes and infrastructure to enable efficient EP reviews of new reactor applications. For example, the staff has developed a new reactor review template that is used by NRC staff and contractors to ensure that each application is reviewed in a consistent manner. The template is also proving to be an effective knowledge transfer tool for new staff members. Currently, the staff has 17 combined operating license (COL) applications under review and has met its schedule for the EP review of the new reactor applications.
- In October 2008, the staff participated with FEMA in an in-process review (IPR) for new reactor applications. The purpose of the IPR was to ensure consistency of the review process, determine opportunities for process improvements, and reaffirm new reactor EP review expectations.

Below are examples of challenges experienced during FY 2008, currently being addressed by the staff and management:

- As with any new process, the licensing process established in Title 10 of the *Code of Federal Regulations* Part 52 has presented challenges to the NRC and FEMA, specifically as they relate to schedule adherence. FEMA has requested that the time allotted to complete its review of COL applications be increased. NRC staff and management are working with FEMA to better define acceptable review processes that work toward preserving schedule integrity while promoting consistent reviews of COL applications.
- Consistent application of industry guidelines in Revision 1 to Nuclear Energy Institute (NEI) 06-04, "Conducting a Hostile Action-Based Response Drill," remains the most significant challenge for effective implementation of HAB drills. The staff has engaged the NEI EP Working Group to ensure consistent application of the guidance by licensees for the remaining HAB drills.

Below are examples of significant activities that are either in-progress or planned for staff implementation:

- The staff is on schedule to submit the proposed EP rule package to the Commission in November 2008. The rule package focuses on the following areas: backup means for alert and notification systems, on-shift emergency responders with collateral duties, emergency plan change approval process, emergency action levels for security-related events, emergency classification timeliness, performance-based approach to emergency operations facilities, emergency response organization augmentation and alternate facilities, evacuation time estimate updating, licensee coordination with offsite response organizations during security-based events, protection for onsite personnel, security event-based drills and exercises, and shift staffing and augmentation. Following the publication of the proposed rule, the staff intends to hold several public meetings that will provide the staff an opportunity to discuss questions and comments on the proposed rule with interested stakeholders. Concurrent with the publication of the proposed rule, the staff is planning to publish draft guidance and the rule's technical basis. Publication of the final rule is scheduled for February 2010.
- Thirty-eight HAB drills remain to be completed in FY 2009. NRC staff will prioritize its attendance at these drills based on mission requirements and funding availability. NSIR staff intends to observe at least 12 of the remaining 38 HAB drills. Regional NRC staff will be encouraged to attend, as practical. The staff, in coordination with FEMA and NEI, will continue to provide input into exercise scenarios prior to implementation and will integrate lessons learned from each completed HAB drill, as appropriate, into guidance documents.

Resolution of Prior Commitments:

In SECY 07-0182, the staff committed to provide the Commission with a recommendation for the staff to have the authority to approve or deny emergency plan changes, which continue to meet the regulations, but result in a decrease in effectiveness. The staff prepared and submitted SECY 08-0024, "Delegation of Commission Authority to Staff to Approve or Deny Emergency Plan Changes That Represent a Decrease in Effectiveness," dated February 25, 2008. As stated in the SRM to SECY 08-0024, dated May 19, 2008, the Commission approved the staff's recommendation.

COORDINATION:

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

/RA/

Roy P. Zimmerman, Director
Office of Nuclear Security and Incident Response

Enclosure:
As stated

Below are examples of significant activities that are either in-progress or planned for staff implementation:

- The staff is on schedule to submit the proposed EP rule package to the Commission in November 2008. The rule package focuses on the following areas: backup means for alert and notification systems, on-shift emergency responders with collateral duties, emergency plan change approval process, emergency action levels for security-related events, emergency classification timeliness, performance-based approach to emergency operations facilities, emergency response organization augmentation and alternate facilities, evacuation time estimate updating, licensee coordination with offsite response organizations during security-based events, protection for onsite personnel, security event-based drills and exercises, and shift staffing and augmentation. Following the publication of the proposed rule, the staff intends to hold several public meetings that will provide the staff an opportunity to discuss questions and comments on the proposed rule with interested stakeholders. Concurrent with the publication of the proposed rule, the staff is planning to publish draft guidance and the rule's technical basis. Publication of the final rule is scheduled for February 2010.
- Thirty-eight HAB drills remain to be completed in FY 2009. NRC staff will prioritize its attendance at these drills based on mission requirements and funding availability. NSIR staff intends to observe at least 12 of the remaining 38 HAB drills. Regional NRC staff will be encouraged to attend, as practical. The staff, in coordination with FEMA and NEI, will continue to provide input into exercise scenarios prior to implementation and will integrate lessons learned from each completed HAB drill, as appropriate, into guidance documents.

Resolution of Prior Commitments:

In SECY 07-0182, the staff committed to provide the Commission with a recommendation for the staff to have the authority to approve or deny emergency plan changes, which continue to meet the regulations, but result in a decrease in effectiveness. The staff prepared and submitted SECY 08-0024, "Delegation of Commission Authority to Staff to Approve or Deny Emergency Plan Changes That Represent a Decrease in Effectiveness," dated February 25, 2008. As stated in the SRM to SECY 08-0024, dated May 19, 2008, the Commission approved the staff's recommendation.

COORDINATION:

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

/RA/

Roy P. Zimmerman, Director
Office of Nuclear Security and Incident Response

Enclosure:

As stated

ADAMS Accession No.: ML082320951

WITS 200500137/EDATS: SECY-2008-0602

| | | | | | | |
|--------|----------------------|----------------------|----------------|----------------------------|-----------|----------|
| OFFICE | NSIR/DPR | Tech Editor | NSIR/DPR | NSIR/DPR | NSIR/DPR | DDEP/DPR |
| NAME | STucker | KAzariah-Kribbs | ABowers | MNorris | KWilliams | CMiller |
| DATE | 8/19/08 | 8/29/08 | 8/19/08 | 8/20/08 | 8/28/08 | 9/11/08 |
| OFFICE | NSIR/DPR | PMDA/NSIR | CFO | OE | NRR | NRO |
| NAME | MLeach | VHuth (SAbraham for) | JDyer | CCarpenter (SMagruder for) | ELeeds | MJohnson |
| DATE | 9/16/08 | 9/16/08 | N/A via E-mail | 9/16/08 | 9/17/08 | 9/19/08 |
| OFFICE | NMSS | OGC | NSIR/OD | | | |
| NAME | MWeber (DDorman for) | BJones | RZimmerman | | | |
| DATE | 9/19/08 | 9/23/08 | 10/31/08 | | | |

OFFICIAL RECORD COPY

Annual Update on the Status of Emergency Preparedness Activities

Emergency Preparedness (EP) Regulations and Guidance

Accomplishments:

- The staff completed the technical basis for the current EP rulemaking. This document serves as the basis for the draft proposed rule, the proposed rule, and the statements of consideration (the latter two are in development).

Improvement Initiatives:

Initiative 1 – “Open” Rulemaking Process

To promote openness of the rulemaking process and to encourage stakeholder participation, the staff published draft rule language on www.regulations.gov. Stakeholders were informed of an opportunity to review and provide comments on the draft rule. The staff conducted two public meetings to discuss the preliminary draft rule language and stakeholder comments. Comments received were used to clarify intent and avoid unintended consequences proposed by the rule language. For example, one stakeholder’s comment pointed out that the preliminary draft rule language went beyond the scope of Nuclear Regulatory Commission (NRC) Bulletin 2005-02, “Emergency Preparedness and Response Actions for Security-Based Events”, dated July 18, 2005. As this was not the staff’s intent, the staff edited the rule language in response to this feedback.

Initiative 2 – Coordination with the Federal Emergency Management Agency (FEMA)

The NRC and FEMA established a Working Group at the staff level to ensure that cross-cutting issues related to rulemaking are discussed early in the rulemaking process. The Working Group provides a forum to discuss the impact of proposed rulemaking on oversight processes and the ability to ensure the consistency of FEMA and NRC guidance documents. The next steps for the Working Group include the NRC review of the draft FEMA Radiological Emergency Preparedness (REP) Program Manual and the FEMA review of the NRC draft interim staff guidance, which will accompany the EP rule.

Initiative 3 – Challenging EP Exercise Scenarios

On June 29, 2006, Commission SRM M060502, “Briefing on Status of Emergency Planning Activities”, directed the staff to engage FEMA in identifying a wide spectrum of EP exercise scenarios, including steps that would help avoid anticipatory responses associated with the preconditioning of participants. In response, a joint NRC and FEMA exercise scenario task force was formed with a charter to identify ways to invoke greater realism into EP exercise scenarios, avoid anticipatory responses associated with preconditioning of participants, integrate NRC and FEMA guidance documents, identify opportunities to enhance existing EP regulations, and engage stakeholders in the process to change existing regulations and guidance. The task force recommended changes to exercises such as varying the quantities and types of releases, as well as changes to event escalation.

Enclosure

Challenges:

Aligning regulatory products between the NRC and FEMA staff remains a challenge. While the NRC and FEMA staff are continuing to successfully address technical issues that emerge, administrative challenges exist that have the potential to create unplanned delays (e.g., FEMA-published documents need reviews by the U. S. Department of Homeland Security and the Office of Management and Budget). The staff and FEMA continue to seek alignment on the issues and are working to ensure that the review process does not delay implementation of any rule changes. The recommended changes will be incorporated as part of the EP rulemaking, and publication of the Final Rule is scheduled for February 2010.

Upcoming Activities:

- The staff is on schedule to submit the proposed rule package to the Commission in November 2008. The rule package focuses on the following areas: backup means for alert and notification systems, on-shift emergency responders with collateral duties, emergency plan change approval process, emergency action levels for security-related events, emergency classification timeliness, performance-based approach to emergency operations facilities, emergency response organization augmentation and alternate facilities, evacuation time estimate updating, licensee coordination with offsite response organizations during security-based events, protection for onsite personnel, security event-based drills and exercises, and shift staffing and augmentation. Following the publication of the proposed rule, the staff intends to hold several public meetings which will provide the staff an opportunity to discuss questions and comments on the proposed rule with interested stakeholders. Concurrent with the publication of the proposed rule, the staff is planning to publish draft guidance and the rule's technical basis. Publication of the final rule is scheduled for February 2010.
- In response to direction provided in Staff Requirements Memorandum (SRM) to SECY 06-0200, "Results of the Review of Emergency Preparedness Regulations and Guidance", dated January 8, 2007, the staff is drafting a Commission Memorandum on the path forward for the performance-based regulatory regimen for EP. This action is being tracked, with a due date to the Commission of December 30, 2008.
- Following the completion of the above rulemaking for the higher priority EP issues in 2010, "Results of the Review of Emergency Preparedness Regulations and Guidance," dated September 20, 2006, the staff intends to evaluate the medium and low priority issues identified in SECY 06-0200, Enclosure 2, "Ranking of Emergency Preparedness Issues," Table 2, "Other EP Issues," for potential incorporation into future EP rulemaking and guidance.

EP Outreach Activities*Accomplishments:*

The staff continues to receive stakeholder feedback indicating that its outreach activities are having a positive effect on stakeholder perception of the NRC and alignment with other Federal agencies (e.g., FEMA). For example, during the Commission meeting on August 12, 2008,

State and local representatives from California, Illinois, and Ohio provided positive feedback with regard to the staff's participation and alignment with FEMA during the 20 focus group meetings to discuss hostile action-based (HAB) drills and improving realism of EP exercises. In addition, the staff received similar feedback from State and local authorities regarding participation in four regional scheduling conferences. Altogether, the staff actively participated in approximately 50 outreach opportunities focusing on current EP initiatives with emphasis on improved transparency of EP programs.

Improvement Initiatives:

Initiative 1 – Engaging External Stakeholders

The staff continues to strengthen relationships with NRC stakeholders. For example, the staff helped to establish the Joint FEMA/NRC Partners in Preparedness Conference held in December 2007. As a result, external stakeholder support for the HAB drill program and EP rulemaking focus groups has been noteworthy.

NRC outreach activities are also focusing on creating a “working group” type environment with non-governmental organizations (NGOs). The important focus of this relationship is to further increase the openness and transparency of the staff's EP activities and aid NRC staff in obtaining the perspectives of NGOs. The staff engaged NGO leaders with EP interests and created a distribution list, with points of contact, to use for informing groups of upcoming public meetings, correspondence, and other pertinent NRC information. This effort has been positively received by NGOs, as evidenced by the Mothers for Peace organization inviting NRC staff to meet for a first-of-its-kind NGO Focus Group discussion in California in May of 2008.

Initiative 2 – Maintaining a Customer Focus

Feedback received from State and local stakeholders indicates that they experienced some difficulty in locating certain EP documents for reference in the Agencywide Documents Access and Management System. To highlight the EP issues, the staff created three compact discs (CDs) with information on the draft rulemaking language, a summary of the issues for this rulemaking, the NUREG for the Protective Action Recommendation (PAR) Study, joint correspondence with FEMA revealing the alignment of missions for the HAB drill program, and draft changes to the FEMA REP Manual, included with prior FEMA approval. This effort was well received as evidenced by the 700 CDs distributed to stakeholders thus far, many of which were provided to stakeholders requesting the CD after its initial distribution.

In addition, to keep stakeholders informed of important NRC EP information and events, the staff maintains the NRC public web site current and has developed a quarterly newsletter, which is also on the website, to highlight recent and upcoming events of interest to the radiological EP community. The first newsletter was published on September 29, 2008, and distributed within the agency, to FEMA, and the applicable NGOs.

Initiative 3 – Outreach Support for the PAR Study Telephone Survey

Recognizing the need for proactive communication in support of the PAR Study, the staff conducted outreach efforts to enhance awareness of the “telephone survey.” Outreach

activities included EP topics presented in the “Inspector Newsletter,” periodically issued by the Office of Nuclear Reactor Regulation, conference calls with State and local emergency managers, and presentations at multiple conferences with stakeholder attendees. The stakeholders appreciated having the information about the survey prior to the survey being conducted.

Initiative 4 – NRC/FEMA Memorandum of Understanding Relating to Radiological Emergency Planning and Preparedness

In the SRM to SECY 06-0101, “Emergency Preparedness for Daycare Facilities Within the Commonwealth of Pennsylvania; Update on Staff Actions and Request for Commission Approval for Related Staff Actions,” dated June 21, 2006, the Commission directed that “The staff should specifically pursue an increased NRC participation in defining the extent of play for FEMA exercises during revision of the NRC/FEMA Memorandum of Understanding (MOU). The staff should inform the Commission of the outcome of its efforts related to revision of the MOU.” The staff continues to discuss NRC participation in the extent of play meetings with FEMA in periodic Working Group meetings, and there is alignment on the need for the revision. However, FEMA identified that the MOU is included in Title 44 of the *Code of Federal Regulations* (CFR) Appendix A, Part 353, “Fee for Services in Support, Review and Approval of State and Local Government or Licensee Radiological Emergency Plans and Preparedness,” therefore; any changes to the MOU will require FEMA rulemaking. FEMA does not anticipate being able to fully commit resources to the revision of the MOU until 2011 due to other higher priority work.

Challenges:

Due to the complexity and comprehensive scope of EP rulemaking, HAB drills, and other EP activities, the staff will need to ensure that stakeholders are kept informed and involved during each phase of implementing these initiatives.

Upcoming Activities:

- The staff is working towards becoming an active partner with the National Emergency Management Association (NEMA). NEMA is the association of State Emergency Management Directors and can be a key partner in NRC programs, especially in areas that demand high public confidence, such as the HAB drill initiative. The staff became an organizational member of NEMA in September 2008, and intends to discuss the NRC mission and ongoing EP initiatives with the membership at future conferences.

New Reactor Licensing

Accomplishments:

- The staff continues to support the review of design certifications, early site permits (ESPs), and combined operating license (COL) applications. This work includes the Westinghouse AP1000 Design Certification amendment, the initial design certification review work for the General Electric economic simplified boiling-water reactor, the AREVA evolutionary power reactor, Mitsubishi US advanced pressurized-water reactor design certifications, and the

Vogtle ESP application. The staff has prepared requests for additional information (RAIs) and draft safety evaluation reports for six new reactor applicants. Currently, the staff has 17 COL applications under review and has met its schedules for the EP review of the new reactor applications.

- The staff has developed and implemented processes and infrastructure to enable efficient EP reviews of new reactor applications. For example, the staff has developed a new reactor review template that is used by NRC staff and contractors to ensure that each application is reviewed in a consistent manner. The template is also proving to be an effective knowledge transfer tool for new staff members.
- On October 30, 2008, the staff participated with FEMA in an in-process review (IPR) for new reactor applications. The purpose of the IPR was to ensure consistency of the review process, determine opportunities for process improvements, and reaffirm new reactor EP review expectations.

Improvement Initiatives:

Initiative 1 – Update of Review Template

As the staff and contractors use the review template, the staff is assessing and updating the template, as necessary, to incorporate lessons learned and efficiencies that can be gained in the process. An expected outcome is a reduction in the time required to complete a high quality review of a new reactor license application. This should result in lower contract costs and reduced staff resources needed for future reviews.

Initiative 2 – Revised Process for Requests for Additional Information

After the development of the initial review schedules for new reactor license applications and in response to a request from FEMA, the staff recognized that efficiencies could be gained in the review process by FEMA sending RAIs directly to the COL applicant and affected State and local governments. The staff engaged stakeholders in a public meeting to discuss this revision to the RAI process. Through these discussions, the parties achieved mutual agreement on the details of a revised process, and are updating procedural guidance and training regarding the changes.

Challenges:

As with any new process, the licensing process established in 10 CFR Part 52 has presented challenges to the NRC and FEMA, specifically as they relate to schedule adherence. FEMA has requested that the time allotted to complete its review of COL applications be increased. NRC staff and management are working with FEMA to better define acceptable review processes that work towards preserving schedule integrity while promoting consistent reviews of COL applications.

Upcoming Activities:

- The staff will continue to support the review of design certification, ESPs, and COL applications, and will coordinate review efforts with FEMA.

EP Inspection Initiatives*Accomplishments:*

- In addition to providing inspection support for baseline EP inspection program activities, the staff supported several supplemental EP inspection activities as requested by regional staff. These activities included staff participation in the Palo Verde 95003 inspection, the DC Cook inspection related to the yellow Alert Notification System Performance Indicator (PI), and the Vogtle 95001 inspection related to event classification and the licensee critique following the March 2006 biennial EP exercise. In addition, the staff supported subsequent meetings associated with the significance determination and closure of the findings.
- The staff conducted both internal and external training activities for government stakeholders by facilitating one-day “Introduction to Emergency Preparedness” presentations. FEMA staff attended these presentations. The course was also presented to representatives from the States of Delaware and California, and various other State and local government agencies ranging from health and environmental groups, to emergency response organizations. These presentations were well received as evidenced by student evaluation forms.

Improvement Initiatives:

Initiative 1 – Data Collection for Drill and Exercise Performance

A temporary instruction (TI) was developed to determine whether the drill and exercise performance indicator (DEP PI) needs to be changed to provide more detailed information on licensee opportunities to make event classifications, notifications, and protective action recommendations. The staff plans to review the information resulting from the TI to ensure the DEP PI accurately reflects the licensee’s performance in each of the three areas. Data collection will be complete by December 31, 2009.

Initiative 2 – Assessment of Licensee Critiques Following Biennial EP Exercises

The staff has completed an assessment of licensees’ critique performance weaknesses during the biennial EP exercise. The staff initiated the assessment because of an increasing trend in the number of findings associated with licensees’ critiques of performance weaknesses during exercises. The staff’s assessment recommended additional staff guidance regarding exercise critiques and the development of a generic communication. These enhancements have been provided to the Regions for comment. Once the comments have been resolved, a generic communication is planned.

Initiative 3 – Indian Point Sirens

The staff continued to provide technical support to Region I, which served as the lead office for Indian Point Siren upgrade issues that were mandated by the NRC in accordance with the Energy Policy Act of 2005. Following two previous Orders by the NRC and enforcement action, the licensee submitted a final design report on July 10, 2008. On August 22, 2008, FEMA approved the Indian Point design report for the alert notification system (e.g., sirens) and the new siren system was placed in service on August 27, 2008. As a means of enhancing the siren system, Entergy, the licensee for Indian Point, committed to issuing tone alert radios to those residents that do not receive adequate siren sound coverage by November 1, 2008. In order to satisfy the remaining Confirmatory Order requirement, Indian Point must demonstrate successful performance of the sirens by conducting and documenting three consecutive reliability tests after the system is placed into service. To date, two successful consecutive reliability tests have been conducted.

Upcoming Activities:

- As indicated above, the staff is making progress related to EP activities associated with new reactor COL applications, rulemaking, and HAB exercise and scenario efforts. The staff will develop new and/or revise existing inspection procedures in support of these activities and the Reactor Oversight Process EP cornerstone program.

EP Studies

Accomplishments:

- In December 2007, the staff published NUREG/CR-6953, Volume 1, "Review of NUREG-0654, Supplement 3, Criteria for Protective Action Recommendations for Severe Accidents," which provides an evaluation of alternative protective actions that could potentially reduce consequences to the public during a severe radiological emergency at a nuclear power plant (NPP).

Improvement Initiatives:

Initiative 1 – Evacuation Study

In response to lessons learned from Hurricanes Katrina and Rita, the staff contracted Sandia National Laboratories to analyze mass public evacuations and emergency responder actions. This study, "Assessment of Emergency Response Planning and Implementation in the Aftermath of Major Natural Disasters and Technological Accidents," included research on 11 large-scale evacuations. In 8 of the 11 evacuations, the hazard or response encroached upon 14 NPP emergency planning zones (EPZs). This study was published in October 2008, as NUREG/CR-6981 "Assessment of Emergency Response Planning and Implementation for Large Scale Evacuations." A key finding of the study validated the effectiveness of existing EP regulations and guidance for NPPs. However, an opportunity exists to further strengthen the EP program in the areas of special needs, regional approach to evacuations, staged and shadow

evacuations, and traffic control plans. The staff will evaluate the results of the study, and consider further enhancements to EP regulations and guidance.

Initiative 2 – PAR Study Telephone Survey

After publishing NUREG/CR-6953, Volume 1 in December 2007, the staff continued the study with a telephone survey of the public within NPP EPZs to determine public action tendencies in response to protective action direction from authorities. The survey is complete and the survey results will be published as Volume 2 of the PAR Study by December 2008. The survey data indicates that the EPZ population is generally well informed regarding what actions to take during a NPP emergency. The staff intends to revise NUREG-0654, Supplement 3 to include guidance, informed by the results of the study and Commission direction. The study was conducted with the assistance of Sandia National Laboratories. These actions are being tracked, and are due to the Commission by December 2008 (publish survey data), and February 2010 (revise NUREG-0654, Supplement 3), respectively.

Upcoming Activities:

- The staff has contracted with the Center for Risk Communications to develop a NUREG/CR that can be used by licensees, State and local response organizations to enhance the Joint Information Centers and radiological risk communications.

Security Interface

Accomplishments:

- To date, 18 of 23 HAB EP drills have been observed by the staff. In support of this initiative, NRC Headquarters and Regions I and III Incident Response Organizations participated in HAB EP drills with the Three Mile Island and Byron Nuclear Power Plants to demonstrate the NRC's response to a terrorist event. Additionally, three of the pilot drills were observed by FEMA staff specifically to aid in their review of preliminary draft changes to guidance and exercise evaluation criteria.
- Through staff involvement in working groups, public meetings, direct observations of drills, and NRC/FEMA senior management interaction, the staff has achieved improved alignment with FEMA regarding the HAB drill initiative.

Improvement Initiatives:

Initiative 1 – Improvements in Hostile Action-Based Drills

Licensees, as part of their phased implementation of NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events", dated July 18, 2005, continue to conduct HAB drills on a voluntary basis with NRC and FEMA observation. The staff is engaging licensees prior to scheduled drills, to provide insights on staff observations and support for scenario development.

Challenges

- Consistent application of industry guidelines in Revision 1 to Nuclear Energy Institute (NEI) 06-04, "Conducting a Hostile Action-Based Response Drill", remains the most significant challenge for effective HAB drills. The staff has engaged the NEI EP Working Group to ensure consistent application of the guidance by licensees for the remaining HAB drills.

Upcoming Activities:

- Thirty-eight HAB drills remain to be completed in (FY) 2009. NRC staff will prioritize its attendance at these drills based on mission and funding requirements. NSIR staff intends to observe at least 12 of the remaining 38 HAB drills. Regional NRC staff will be encouraged to attend, as practical. The staff, in coordination with FEMA and NEI, will continue to provide input into exercise scenarios prior to implementation and will integrate lessons learned from each completed HAB drill, as appropriate, into guidance documents.

Licensing

Accomplishments:

- The staff reviewed NEI 99-01, Revision 5, dated February 2008, and determined that it was acceptable for use.
- The staff has completed technical reviews of 15 emergency plan (E-plan) changes to include five full emergency action level (EAL) scheme changes from those being based on the earlier NUREG-0654 guidance to EALs based on NEI 99-01, "Methodology for Development of Emergency Action Levels."

Improvement Initiatives:

Initiative 1 – Emergency Action Levels

NEI developed NEI 07-01, "Methodology for Development of Emergency Action Levels for Advanced Passive Light Water Reactors", dated March 2008. The staff is reviewing this document for possible future endorsement and is providing comments to NEI on needed changes.

Following an Unusual Event declaration at Fermi 2 on October 11, 2007, related to the suspected tampering with the safety relief valve tailpiece and subsequent NRC special inspection, the staff determined that a generic communication was warranted. The licensee considered classifying this event as a Site Area Emergency (SAE). The staff's review of the licensee's procedures for classifying events identified that the licensee's procedures did not contain the Technical Bases document that would provide additional information to assist in the accurate classification. That information, were it included, would have led the licensee to a classification of less than a SAE. The staff is preparing an Information Notice to inform

licensees of issues related to control of E-plans and implementing EAL Technical Bases documents.

Initiative 2 – 10 CFR 50.54(q)

The staff has been working to clarify the process for making EP changes. The staff is revising NRC Regulatory Information Summary (RIS) 2005-02, "Clarifying the Process for Making Emergency Plan Changes," dated February 14, 2005, with a supplement to provide guidance to licensees for development of proposed E-plan changes. The information in the RIS supplement will clarify the process for changing E-plans to ensure that the licensee maintains effective E-plans, thereby providing reasonable assurance that the licensee is capable of protecting public health and safety. The RIS will provide a consistent methodology for licensees to evaluate changes to their E-plans and will also provide guidance for the development of applications to the NRC for prior approval.

Challenges:

In SECY 06-0118, "Materials Licensee Emergency Preparedness," dated May 17, 2006, the Commission was informed of the intent to transfer EP program responsibilities from the Office of Nuclear Materials Safety and Safeguards (NMSS) to NSIR during FY 2008. In FY 2009, NSIR is responsible for the EP review and analysis of two new applications for uranium enrichment facilities (AREVA's gas centrifuge facility and GE-Hitachi Laser Based facility). In addition, it is anticipated that one fuel fabrication E-plan change will be received. NSIR is working with NMSS to ensure existing resources are appropriately prioritized to support these reviews.