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POLICY ISSUE
(Notation Vote)

January 10, 2005

SECY-05-0010

FOR: The Commissioners

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

SUBJECT: RECOMMENDED ENHANCEMENTS OF EMERGENCY PREPAREDNESS AND
RESPONSE AT NUCLEAR POWER PLANTS IN POST-9/11 ENVIRONMENT

PURPOSE:

To obtain Commission approval of the staff's recommendations for enhancing emergency preparedness and response in the post-9/11 environment.

BACKGROUND:

The basis of radiological emergency preparedness and response (EP) is to protect public health and safety through the avoidance of radiological exposure of the public due to a release from a nuclear power plant. Since the Three Mile Island (TMI) accident of 1979, the underlying premise has been that conditions and events driving an accident are typically due to equipment malfunction, component failure, or operator error. As a result, it is assumed that the event will escalate in a stepwise fashion through the event classifications (i.e., Alert to Site Area Emergency to General Emergency) based on subsequent equipment malfunctions, component failures, or operator errors. Accident progression in security-based events may not be as logical or diagnosable. However, EP is a dynamic process with flexible plans to allow for response to a wide range of events.

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May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552)

Exemption Number 2
Nuclear Regulatory Commission review required before public release.

Thomas B. Blount, EPD:DPR:NSIR
Name and organization of person making determination.

Date of Determination: 10/22/04

Following the events of September 11, 2001, the staff issued SECY-03-0165, "Evaluation of Nuclear Power Reactor Emergency Preparedness Planning Basis Adequacy in the Post-9/11 Threat Environment," dated September 23, 2003. While SECY-03-0165 determined that the EP basis remains valid, the staff recognized that security events differ from accidental events due to the planned action to maximize damage and loss of life. Certain EP functions, such as onsite personnel accountability or site evacuation, may not be appropriate using current EP strategies. The staff has identified enhancements that improve the implementation of emergency plans in response to security events.

DISCUSSION:

A terrorist act cannot affect core physics and cause melt sequences to occur faster or create a larger source term than those previously analyzed. However, the precursor events leading up to core damage may occur at a different pace or sequence than experienced in other events. Since issuance of SECY-03-0165, the staff identified several enhancements for emergency plan implementation during security-based events.

The staff informed stakeholders of these enhancements during regional outreach meetings (11/10/04, 12/1/04, 12/2/04 and planned for 1/13/05) and meetings with the Nuclear Energy Institute and industry representatives, but has not discussed implementation details. The staff recognizes that some of the proposed enhancements affect offsite response organizations directly and that further dialogue is appropriate. The staff intends to continue outreach efforts and workshops in order to ensure appropriate stakeholder involvement with the Federal Emergency Management Agency (FEMA) and State and local officials. Following implementation, the staff intends to continue to engage licensees and offsite response organizations to ensure that the enhancements were implemented appropriately and will inform the Commission of its findings in this regard.

The proposed program enhancements are summarized below and are described in greater detail in the attachment to this document.

- Enhanced Security-Based Emergency Action Levels (EALs)

The staff intends to make security-based emergency declarations more anticipatory than declarations used for accidental events so that emergency response actions can be implemented earlier. The staff is developing guidance with appropriate stakeholder involvement, consistent with the Commission's direction in staff requirements memoranda, "STAFF REQUIREMENTS - DISCUSSION OF SECURITY ISSUES (CLOSED-EX.1), 9:30 A.M. WEDNESDAY, AUGUST 18, 2004," dated September 10, 2004 and "STAFF REQUIREMENTS - COMSECY-04-0019," dated May 5, 2004. This guidance will enhance the current radiological event-focused scheme by improving security-based EALs. The staff intends to issue this guidance in a safeguards advisory.

- Enhanced Onsite Protective Actions

Onsite protective actions are intended to maximize site personnel safety during emergency conditions. Current practices may not be appropriate during security-based events due to the physical danger of land based attacks and the short time frames that may be involved with an aircraft attack. Protective actions, such as the site evacuation and assembly, must be carried out with consideration of the risk to personnel from the hazard. The staff supports appropriate

enhancement of onsite protective actions which ameliorate the risks associated with a security-based event. The staff is developing guidance to assist licensees in the development of such enhancements. The staff intends to issue this guidance in a safeguards advisory.

- Abbreviated Notification to the NRC

The current reporting requirements allow licensees up to 1 hour to inform the NRC Operations Center of an imminent threat to the facility. In the post 9/11 environment there is a threat of coordinated attacks. The timing of this notification would not allow the NRC to warn other nuclear facilities of the threat or initiate a Federal response to the affected site in a timely manner. The staff view is that it is appropriate for licensees to notify the NRC immediately after informing local law enforcement agencies (e.g. State/County/local Police or County Sheriff depending on site specific arrangements) of the threat and requesting assistance. This notification to the NRC is intended to be of short duration, containing basic information and minimum details. This supports NRC notification of other nuclear facilities and initiates Federal response to the affected facility. This notification may also initiate the Federal response to an "Incident of National Significance" under the National Response Plan (NRP). The staff intends to issue this guidance in a safeguards advisory.

- Security-Based EP Drill and Exercise Program

In SECY-03-165, the staff advised the Commission of a plan to implement a drill and exercise program that would have each licensee conduct site-specific enhanced security-based drills or exercises to improve emergency response organization skills. The staff intends to provide licensees the opportunity to voluntarily adopt such a program through issuance of a safeguards advisory. It is planned that a pilot drill program would be implemented to gather lessons learned before demonstration drills or exercises for each site are scheduled.

- Review of EP Planning Standard Guidance

The staff intends to review the NRC guidance in NUREG-0654/FEMA-REP-1, "Criteria for the Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants." The review would capture the guidance provided by the staff in the security advisory proposed in this SECY as well as that promulgated by the Commission's Order of February 2002. The results of the review will be issued as a supplement to the NUREG. This review will be conducted in a manner complimentary to the "top-to-bottom" review being performed by the Emergency Preparedness Directorate of EP regulations and requirements contained in 10 CFR 50.47(b) and 10 CFR 50, Appendix E. Should the review of guidance identify necessary regulatory changes, that information will be provided to the top-to-bottom review team.

The staff will seek stakeholder input and will coordinate with FEMA. The staff will provide the Commission with a schedule for completion of the planned "top-to-bottom" review and planned enhancements as directed in SRM-M041214B, "STAFF REQUIREMENTS - BRIEFING ON EMERGENCY PREPAREDNESS PROGRAMS INITIATIVES, 1:00 P.M. DECEMBER 14, 2004," dated December 20, 2004.

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- Adjustment of EP Inspection Resources

To ensure appropriate licensee implementation of program enhancements, the staff intends to modify the NRC EP inspection program. In the attachment, the staff describes an adapted inspection program that will incorporate the security event based enhancements while minimizing resource implications.

- Enhanced Offsite Protective Action Recommendations (PARs)

The staff proposes working with stakeholders on a safeguards advisory to operating nuclear power plant licensees seeking voluntary adoption of enhanced offsite PARs for security events. The enhancement would have licensees consider PARs for the general public at emergency classification levels lower than a General Emergency. One such enhanced scheme would be: in-place sheltering for the general population and evacuation of schools and parks, within a 2-mile radius at a Site Area Emergency or lower classification. The in-place sheltering PAR would direct the general public indoors to monitor the local emergency alert system (EAS) in preparation for an evacuation should plant conditions degrade. Stakeholder consultation on this enhancement will involve OROs and FEMA.

- Abbreviated Notification to Offsite Response Organizations

The staff proposes working with stakeholders on a safeguards advisory to operating nuclear power plant licensees seeking voluntary adoption of an abbreviated initial notification to State and local authorities. The current practice is for licensees to provide a detailed description of the event with supporting information in the initial notification. The timing of some security events may not allow the use of this process. Stakeholder consultation on this enhancement will involve OROs and FEMA.

RECOMMENDATIONS:

The staff recommends that the Commission approve the following staff activities:

1. Issuance of a safeguards advisory to licensees seeking voluntary adoption of:
 - Enhanced Security-Based EALs
 - Enhanced Onsite Protective Actions
 - Abbreviated Notification to the NRC
 - Security-Based EP Drill and Exercise Program
2. Review of each of the EP planning standards guidance and development of a new supplement to NUREG-0654/FEMA-REP-1 for security events.
3. Adjustment of EP inspection resources to incorporate assessment of licensee implementation of the program enhancements identified in this paper.
4. Development of a safeguards advisory to offsite stakeholders and FEMA seeking voluntary adoption of:
 - Enhanced Offsite PARs
 - Abbreviated Notification to Offsite Response Organizations

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RESOURCES:

The activities addressed in this paper were anticipated during the creation of the Emergency Preparedness Directorate (EPD). The staff intends to perform these activities with existing EPD allocated resources of 2.9 FTE in FY 05 and 3.3 FTE in FY 06, as identified in the attachment. The staff anticipates no resource impacts on the Regions or other NRC organizations.

COORDINATION:

This paper has been coordinated with the Office of the General Counsel, which has no legal objection. The Office of the Chief Financial Officer has reviewed this Commission Paper for resource impacts and has no objection.

/RA/

Luis A. Reyes
Executive Director
for Operations

Attachment: Background Information in Support
of Staff Recommendations

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Luis A. Reyes
Executive Director
for Operations

Attachment: Background Information in Support
of Staff's Recommendations

ADAMS Accession No.: Package: ML043090445
 Commission Paper: ML042720354
 Attachment ML043090281

* See previous concurrence

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