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## **POLICY ISSUE INFORMATION**

April 18, 2005

SECY-05-0064

FOR: The Commissioners

FROM: Luis A. Reyes  
Executive Director for Operations

SUBJECT: NRC AGENCY-WIDE EMERGENCY PREPAREDNESS AND RESPONSE  
IMPROVEMENTS

PURPOSE:

To present the plan to enhance the effectiveness of emergency preparedness and incident response, including an improved training program for NRC responders. Further to inform the Commission of a 3 year implementation of key improvement initiatives.

BACKGROUND:

In June of 2004, the Commission authorized the formation of a new Division of Preparedness and Response (DPR) in the Office of Nuclear Security and Incident Response (NSIR). The DPR was formed at a time when the U.S. Nuclear Regulatory Commission (NRC) and the Federal Government were improving the Nation's preparedness for and ability to respond to

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May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552) Exemption number <u>2</u>
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Name and organization of person making determination. <u>Susan M. Frant</u>
Date of Determination <u>November 18, 2004</u>

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The Commissioners

-2-

Incidents in the post-9/11 environment. In addition, the Commission directed and the staff has integrated safety, security, and emergency preparedness within the NRC's strategic plan for fiscal years 2004-2009.

The Commission recognized that enhancement of the program would build upon the NRC incident response program, developed after the Three Mile Island accident, which had worked well for more than 25 years. The Commission noted in its December 20, 2004 Staff Requirements Memorandum (SRM) that "The staff should implement a continuous self-assessment and improvement program that addresses emergency preparedness and response issues."

Shortly after the establishment of DPR, the Office of the Inspector General (OIG) recommended specific improvements to the incident response program, based on observations and information collected during interviews with NRC staff and others. In OIG-04-A-20, "Audit of NRC's Incident Response Program," the OIG provided 17 recommendations for upgrading the agency's incident response capabilities. The staff responded to the OIG with an action plan to address the recommendations in a November 3, 2004, memorandum from the Deputy Executive Director for Homeland Protection and Preparedness (ML042960632). The specific proposed actions to address each OIG recommendation are designated under each initiative in Attachment 1 and a cross-walk is also provided.

The Homeland Security Council's post-9/11 initiatives also prompted NRC to review emergency response programs. On January 6, 2005, the U.S. Department of Homeland Security (DHS) completed a 2-year effort and issued the National Response Plan (NRP) in accordance with Homeland Security Presidential Directive 5, "Management of Domestic Incidents." This plan is an all-hazard, all-discipline plan for response to incidents that might pose a threat to public health and safety. The NRC, together with other federal agencies and State and local authorities, are updating their emergency preparedness and incident response plans to reflect the nationwide integration of the new NRP by April 14, 2005.

In response to the OIG report and the actions needed to conform to the DHS's National Response Plan, NSIR formed a task group to develop recommendations to enhance the incident response and emergency preparedness program. This group complemented actions that were already underway to enhance emergency preparedness and response in the current threat environment and to update basic documents to conform to the National Response Plan.

The task group consisted of staff from NSIR, the Regions, and the Office of the Executive Director for Operations (OEDO) and was led by a senior manager. From October 2004 through February 2005, the proposed initiatives, actions, and budget were discussed with each program office, OEDO, the Office of Public Affairs, the Office of Congressional Affairs, the Office of State and Tribal Programs and the regions. The program plan (Attachment 1) was sent to Commission offices, the Regions and Program offices for comment in early December 2004. Subsequently, the plan was reviewed and concurred in by the Offices of Nuclear Reactor Regulation, Nuclear Material Safety and Safeguards, Research, and the Regions.

The Commissioners

-3-

Furthermore, the members of the group visited each of the regions, nine licensees, five federal agencies, two state agencies, one local agency, and IAEA to familiarize themselves with other incident response organizations, best industry practices, and private sector programs. The group also reviewed the concept of operations of the emergency operations of several international regulators with large nuclear power programs. The regions listed their "best practices" in an August 27, 2004 memorandum from William Travers, and these were included in the plan (ML042190409).

DISCUSSION:

The staff has developed four program goals to support the agency's mission of ensuring that the agency continues and licensees remain prepared to effectively respond to incidents. The program goals are:

- Ensure that NRC personnel are capable to consistently and effectively respond to incidents
- Act as a unified response organization
- Achieve excellence in stakeholder outreach
- Continually improve NRC preparedness and response capabilities

Attachment 1 is the staff's plan for enhancing the program through implementing a series of 10 initiatives. The 10 initiatives incorporate recommendations from the OIG audit and have been categorized as improvements in the following areas:

- Incident Response Qualification Program
- Program Standardization
- Assessment of Response
- Facilities
- Post-9/11 Emergency Preparedness
- Incident Response Staffing
- Outreach
- Staff Augmentation
- Lessons-Learned and Corrective-Action Programs
- Bench Marking

It is noteworthy that the qualification improvement initiative is a 3 year effort to enhance the qualification program for the agency. The initiative will provide a more rigorous training and qualification program and more effectively document the qualifications of NRC response personnel.

Several of the initiatives deal with process improvement and best practices implementation. Therefore, improvements of this nature will be documented in an NRC incident response program manual chapter, providing the basis for a single, consistent, coherent, and effective

The Commissioners

-4-

program for headquarters and the regions. The effort is designed to enhance NRC response actions during and after an incident involving nuclear facilities or materials to ensure the protection of public health and safety and the security of radioactive materials.

Performance measures are being improved to support the emergency preparedness and response program goals in alignment with the NSIR Operating Plan.

ISSUES:

There are three considerations that bear on the staff's plan for enhancing the effectiveness of emergency preparedness and incident response including an improved training program for NRC responders: (1) the level of improvement appropriate for each initiative, (2) the resources to implement the initiatives, and (3) the length of time to implement the enhancements. Improvements specific to each initiative were identified, with programmatic enhancements proposed to raise the level of the agency's capabilities to prepare for and respond to incidents. Consideration was given to address agency-wide consistency, cost effectiveness, and best practices. The staff's recommendations will move the agency toward a higher level of excellence in its ability to respond to incidents. In some instances, the initiatives are phased over a 3 year period to completely implement. With respect to resources, the staff has estimated both the full-time equivalent (FTE) agency-wide effort needed and the contract and other funds needed for the 3 year effort. (Figure 1)

To address these proposed improvements, the staff placed the 10 initiatives in order recognizing the interrelationship. The staff intends to proceed in the following order:

- Qualification

Although NRC responders have consistently demonstrated their ability to respond to incidents, the qualification program is not formal nor well documented. Further, qualification of responders is not consistent across the agency nor are qualifications consistently documented.

Some actions have already been initiated with FY 05 resources to address this initiative as indicated in the Program Plan (Attachment 1). In addition, improvements here will apply to other initiatives (such as Lessons Learned, Assessment, Staffing, and Program Standardization). Actions to complete this initiative also address eight of the seventeen recommendations in the OIG report.

- Program Standardization

Incident response program elements are not consistently performed in the same manner at headquarters and at the regions. This initiative provides an agency-wide opportunity to make programs more cost effective and efficient, as well as a method to reinforce, through demonstration, a consistent understanding of NRC's incident response program by stakeholders.

The Commissioners

-5-

This initiative will also affect improvement under other initiatives, such as Assessment, Staffing, Staff Augmentation, and Lessons Learned through the adoption of consistent practices throughout the agency. This initiative addresses nine of the 17 OIG recommendations.

- Assessment of Response

The OIG recommended enhancing the incident response assessment program. This initiative will enhance the agency's capability to self-evaluate and continually improve incident response capabilities.

Lessons Learned and Qualification initiatives rely on a sound assessment program.

- Facilities

Recent improvements have been made to the headquarters and region incident response centers and have provided an improved incident response capability for the agency. This initiative consolidates additional upgrade and replacement recommendations necessary to maintain the agency at a high level of incident response capability.

Several significant equipment upgrades and improvements have been identified under this initiative, such as improvements in communication equipment at headquarters and the regions, and replacement of obsolete equipment.

- Post 9/11 Emergency Preparedness

The Commission has re-emphasized the importance of an effective emergency preparedness program following the events of September 11, 2001. SECY-05-0010 "Recommended Enhancements of Emergency Preparedness and Response at Nuclear Power Plants in Post-9/11," dated January 10, 2005, discussed a number of initiatives undertaken by the agency to raise the level of licensee preparedness. This initiative serves to maintain an agency-wide focus on this aspect of incident preparedness and response.

- Incident Response Staffing

A top-down review of incident response organization staffing was performed by the staff as part of addressing the enhancements to the qualification program, in addition to executive management recommendations to consider a team based approach to the organization. It was found that more efficient use of personnel resources, better coordination among responders, and more effective communication and response practices would result from modifications in staffing. This initiative addresses those improvements.

The EDO has initiated the incident response team concept through the solicitation of individuals to fill three-team complements for positions in the Reactor Safety Team, Protective Measures Team, Safeguards Team, and Operations Support Team. Executive Team members have recommended improvements to headquarters Incident Response Center activation and more effective information transfer to the Executive Team during an incident.

The Commissioners

-6-

- Outreach

Enhancements in strengthening NRC links with stakeholders have been initiated through the establishment of an Outreach Team within NSIR's Division of Preparedness and Response. In part, this was in response to observations in recent licensee emergency preparedness exercises where offsite (state, local, tribal) response organizations were not fully prepared to interface with the NRC in a realistic manner. This initiative defines specific improvements to ensure that stakeholders receive effective and consistently accurate information, including information which serves to coordinate the combined response capability of the agency, licensee, state, local, and tribal government officials, and federal incident responders.

Improvements to Outreach are focused on providing better coordination, direction, and effectiveness (efficiency, consistency, cost effectiveness) to agency resources. Program Standardization, Lessons Learned, and Assessment initiatives also provide elements to improve Outreach initiative elements.

- Staff Augmentation

An effective staff augmentation process ensures that appropriate numbers of pre-identified and qualified responders are available and capable to promptly respond to an incident. While the current processes in use by the agency are functional, headquarters and region practices are not consistent in application, testing and drill frequency, and have some inefficiencies. This initiative will standardize processes, establish specific criteria to further ensure responders are available, and test and evaluate staff augmentation practices to ensure timely response capabilities are maintained.

Actions are already in progress to address staff augmentation improvements at headquarters. Program Standardization and Facilities initiatives provide elements to also address continued improvement in this area.

- Lessons Learned

Establishing additional practices to evaluate lessons learned and provide methods to continually improve the agency's incident response program builds on the current headquarters exercise lessons learned program. This initiative would expand those practices which would be included in current efforts to establish a formal agencywide program.

Actions to this initiative are already in progress and will also be addressed by several other initiatives, including Qualification, Program Standardization, Assessment, and Outreach.

The Commissioners

-7-

- Bench Marking

An effective benchmarking process allows the agency to review the attributes of other existing programs for incorporation into the NRC incident response program as well as provides for a mechanism to determine if the existing NRC response functions are adequate in light of a changing environment. To monitor for change, benchmarking is a process that is periodically repeated.

Benchmarking results from a recent regional initiative to capture best practices as well as visits to other programs were incorporated into the Program Plan, with this initiative developed to continue benchmarking efforts as part of an agency-wide process. In regard to future benchmarking actions, this initiative will establish a methodology and schedule.

RESOURCES:

The following table shows the incident response program baseline for the FY 2006 budget, and the resources required to fund the 10 improvement initiatives over a 3-year implementation period beginning in FY 2006. The FY 2006 President's Budget column shows resources budgeted for emergency preparedness and incident response activities for the key initiatives discussed in this paper. For the resources in 2006 above the President's Budget, the staff has provided the Enhancements resources as above guidance for consideration during the review of the FY 2006 current estimate within the budget review process. The 2007 resources are consistent with the budget submissions provided to the Office of the Chief Financial Officer and will be considered by the Planning Review Committee during the forthcoming FY 2006/2007 budget review process. FY 2008 reflects planned resources for completing the 3-year implementation. Resources would be distributed among the Regions, Office of Human Resources and the Office of Nuclear Security and Incident Response as determined by the Planning, Budgeting, and Management Review process.

Figure 1

Initiative	FY 2006 President's Budget		Enhancements		Total FY 2006		Total FY 2007		Total FY 2008	
	\$K	FTE	\$K	FTE	\$K	FTE	\$K	FTE	\$K	FTE
Incident Response Qualification Program	0	3	100	3.25	100	6.25	250	7.75	250	7.75
Program Standardization	0	0.5	100	.25	100	0.75	60	0.5	50	0.5
Assessment of Response	0	0.7	0	0	0	0.7	200	0	100	0
Facilities*	2400	1	800	0	3200	1	1200	1	1100	1
Post 9-11 Emergency Preparedness	0	0	0	0	0	0	100	0	0	0
Incident Response Staffing	0	0.2	0	0	0	0.2	0	0.5	0	.5
Outreach	0	4	0	2	0	6	200	7	200	7
Staff Augmentation	0	0	0	0	0	0	0	0.05	0	0.05
Lessons-learned and corrective-action programs	0	0	0	0	0	0.1	0	0.15	0	0.15
Benchmarking	0	0	0	0	0	0.1	0	0	0	0
Total	2,400	9.5	1,000	5.5	3,400	15.0	2,010	17	1,700	17

\*Additional resources for FY 2005 requirements for Facilities are being addressed in a separate forthcoming significant reallocation memo.

The qualification program initiative will require additional agency training hours not included in the estimates above which offices will need to accommodate. The staff has estimated that training for non-dedicated incident response personnel will increase by approximately 15 hours annually per responder. This estimate is based on the current vision of an enhanced and more consistent program using web-based training, team and position specific training, and tabletop drills. Approximately half of the agency-wide responder positions are filled by NRC managers.

The Commissioners

-9-

COORDINATION:

The Office of the General Counsel has no legal objections to the recommendations in this paper. The Office of the Chief Financial Officer has reviewed this paper for resource implications and has no objections.

***/RA/***

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Executive Director  
for Operations

Attachments:

1. Program Plan for Enhancing Emergency Preparedness and Response

COORDINATION:

The Office of the General Counsel has no legal objections to the recommendations in this paper. The Office of the Chief Financial Officer has reviewed this paper for resource implications and has no objections.

**/RA/**

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Attachments:

- 1. Program Plan for Enhancing Emergency Preparedness and Response

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\* See previous concurrence

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