

White Paper

Impact of Nuclear Regulatory Commission Emergency Preparedness Security Enhancements to Offsite Planning Entities

Background

The Nuclear Regulatory Commission (NRC) is the federal agency charged with regulating nuclear power plants within the United States. As such, the NRC provides stringent regulations for onsite emergency preparedness (EP) programs. The Federal Emergency Management Agency¹ (DHS/FEMA) was charged with evaluating offsite Radiological Emergency Response Programs (RERP), and certifying to the NRC reasonable assurance that state and local preparedness and response are adequate to protect the public in the event of an emergency at a nuclear power plant.

As a result of the terrorist attacks of September 11, 2001, as well as threats against nuclear facilities prior to and subsequent to that attack, the NRC began reassessing emergency preparedness planning as it relates to nuclear power plants. The NRC determined that the planning basis in NUREG 0654 remained valid, but that enhancements to EP regulations to address specific security-related issues were necessary. As a result, a revised design base threat regulation has been put into place at all nuclear power plants. In addition, the NRC has issued several Regulatory Issue Summaries (RIS) and bulletins that address these enhancements to the onsite security programs. Nuclear power plants are required to take advisories in bulletins under consideration; in addition, utilities are required to implement any regulatory requirements resulting from bulletin feedback, or dictated in RIS documents. These requirements focus on the licensee and affect to a significant degree the onsite preparedness and response planning, but do not take into consideration the effect these requirements may have on the offsite preparedness and response.

Objective

This paper serves as a mechanism to voice the concerns of the endorsing states' emergency management agencies² regarding NRC Bulletin 2005-02 *Emergency Preparedness and Response Actions for Security-Based Events*. Although the NRC has held a public meeting to address concerns raised by this bulletin, the meeting necessarily included members from the general public who voiced concerns about issues that were

¹ As of October 1, 2005, the Radiological Emergency Response Program (RERP) is under the preparedness directorate of the Department of Homeland Security. There has been little indication regarding the effect this organizational change will have on the federal RERP, and in turn, what impact it will have on the states. The program will officially not be part of DHS/FEMA, and federal regulations indicating such will likely need to be rewritten.

² Massachusetts Emergency Management Agency, New Hampshire Bureau of Emergency Management, Vermont Emergency Management Agency

not necessarily related to the topic at hand. There has been no opportunity for state stakeholders to meet with utility partners, the NRC and DHS/FEMA to thoroughly discuss the issues raised by this bulletin. Therefore many items remain unaddressed.

The states' emergency management agencies agree that RERPs and nuclear EP programs need to be revisited in a post 9/11 world. However, we strongly advocate that these enhancements be identified, created and implemented jointly so that all the players can appropriately express their concerns and effectively make changes to their programs in a coordinated fashion. The domino effect does not serve public safety well, as states are forced into a position of attempting to catch up to the consequences of well-meaning but ill-conceived regulation, rather being afforded a full partnership in the development of a well-crafted strategic response.

In their effort to improve EP, the NRC maintains they have worked with DHS/FEMA; however, the states have received no guidance, nor have they been provided the opportunity either by the NRC or DHS/FEMA to offer their insights, perspectives and knowledge regarding the development and impact of these onsite regulatory requirements. It is only now, after the fact, when NRC guidance has been issued that they seek input from stakeholders.

Issues

Altered Planning Assumption

Although the NRC states that the emergency preparedness planning assumptions in NUREG 0654 are still valid, we believe the planning assumption must be expanded if we are to include preparing for security-based events. Additionally, the planning assumptions must be examined with regard to the expectations of offsite support for onsite security-based events, particularly as they elevate emergency planning and response considerations beyond the premise of a potential radiological release and plant conditions, and cannot be easily molded into the current offsite response and protective action schemes.

In Bulletin 2005-02 (Attachment 2, page 3 of 30), a revised Emergency Action Level (EAL) includes the example of a validated NRC notification of an airliner attack less than 30 minutes away. Further explanation of the EAL (page 10 of 30) states that "[t]his EAL is not premised solely on the potential for a radiological release." To the contrary, existing offsite plans are based on plant conditions and the potential for a radiological release.

Additionally, notification of this particular alert level could elicit a response that is appropriately quite different from what the planned response for an "Alert" notification would commonly entail. An airliner attack threat to a nuclear power plant "less than 30 minutes away" could trigger off-site actions on the part of state and local communities beyond those included under the Emergency Classification Level (ECL) of "Alert." Such a notification would trigger the simultaneous activation of multiple response

organizations at the state and local levels, as well as at multiple plants, all of which impact the ability of each organization to respond. Regardless of the impact site of the plane, be it the plant or not, the state still must mobilize assets to respond to airplane crash.

ECLs cannot be easily modified to include security-based events because of the resulting chain of events that occur at the state and local levels. Attachment 2, Page 2 of 30, contains ECL definitions that have been revised to include a "security-based perspective." This revision changes the perspective of the ECL's from potential or actual degradation of the plant from an engineering and/or technological basis, to one that includes security threats and malicious events that result in or "may result" in degradation of plant safety.

A security-based ECL will have major implications for offsite emergency plans and procedures. Depending upon the level of classification, a number of resources are mobilized based upon the potential of a radiological release. Many of the security-based planning assumptions are not premised on a radiological release, but on the compromise of security at a plant. In all actuality, the security at nuclear power plants is based on a robust design and it is anticipated that many of these triggering events will quickly be dispersed. Meanwhile, state and local response may have already ramped up to an "Alert" or "Site Area Emergency" status.

Moreover, the inclusion of a security-based perspective into the existing ECL's significantly alters the factors that could lead to offsite consequences, potentially propelling them beyond the traditional scope of State Departments of Public Health and Emergency Management. These security-based changes require significant involvement and event analysis by state homeland security and law-enforcement officials as early as the "Unusual Event" level. The effect of this involvement on RERP response is still unclear, and there is not yet any formal incorporation of this type of homeland security or law enforcement elements in RERP plans or training.

Modification of Emergency Plans

Attachment 2, Page 1 of 30, states that "[e]mergency plans and procedures should be modified to adopt [the new ECL] definitions." Although it is understood that the NRC Bulletin applies to nuclear power plants and onsite emergency preparedness plans, there are definitive implications for offsite emergency plans. It is not clear whether the NRC truly considered the potential modifications to offsite emergency plans necessitated by the inclusion of security-based threats, or if this Bulletin was developed with DHS/FEMA input.

Regardless, there is still no guidance from DHS/FEMA regarding the inclusion of security-based events in state and local RERPs. Until such guidance is issued, states are bound to their regulatory requirements, and all changes to plans must be vetted through and approved by DHS/FEMA.

Recommendations

- Affected states are willing and able to work with the NRC, DHS/FEMA and their respective utilities to mutually identify site-specific and appropriate strategies that address security threats to nuclear facilities. Appropriate protective action strategies and recommendations need to be developed and factored in as further enhancements to state and local RERPs. All should evaluate together each of the scenarios contained in NRC Bulletin 2005-02 for off-site implications. The goal is to assure protection of the public.
- The NRC must take offsite implications into consideration prior to issuing future regulatory guidance and/or requirements.
- DHS/FEMA must work with the NRC to identify where regulatory guidance effects offsite planning, and develop timely and pertinent guidance to states for plan modification.