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Mr. Robert Moody
U.S. Nuclear Regulatory Commission
One White Flint North, Mail Stop 06H2
11555 Rockville Pike
Rockville, MD 20852

Dear Mr. Moody:

I am writing to respond to the questions which are raised in the federal register notice announcing the public meeting to discuss selected topics for the review of emergency preparedness regulations and guidance for commercial nuclear power plants. Having attended the meeting, many of the questions were not addressed. The format of the meeting allowed the agenda to be dictated by the interests of a few people positioned at the roundtable. While many of their issues were interesting and the roundtable participant's concerns were legitimate, the questions which were posed in the federal register notice, which are the subject of your briefing paper to the Commission, went unanswered. A number of the participants in the audience expressed frustration that the subjects they came to discuss were never raised. The NRC should host a series of smaller "breakout" groups to discuss many of these issues in depth, since the issues are refinements of existing emergency response plans and build upon knowledge of the existing plans.

The views expressed in this letter are based on my experience in participation in nuclear emergency drills since 1989.

Complacency in emergency planning is a very bad thing. The thought that all emergency plans are just fine the way they are, and that no improvements are needed simply does not pass the straight face test given governmental response to a recent natural disaster. Every plan can be improved and many of us call our plans "living documents" which are revisited often to look for new ways to handle issues. It would be useful to look at each of the questions which are posed in the Federal Register notice with a small group of people willing to brainstorm and to play out some changes in procedures to see if they are workable solutions.

The questions from the Federal Register notice are set forth in **bold** in the same order in which they were posed. My answers pose some additional questions to you.

1. How can federal, State, local and Tribal governments best respond to protect public health and safety to a rapidly developing security event that has already been broadcast in the media?

All levels of government should work together to protect public health and safety. Emergency plans for fast-breaking events need to provide for a series of automatic actions that do not require evaluative thinking. Pondering the uncertainties involved in a fast-breaking incident could paralyze action. The thought process needs to take place calmly, in advance of the incident, with automatic actions pre-approved.

There is some notion that the Government and the Media have a sort of "us and them" relationship. In fact, the media should be allies of government in providing a two-way flow of information between the public and those who serve the public.

Interestingly, the media was "embedded" in the Iraq war, and they were able to provide direct feedback to the public. Why not consider embedding media representatives so that quick situational updates could be provided? Certainly the Joint Information Center (JIC) is one location where the media interface is planned and executed, and some reporters will be there. But there may also be reporters out in the impacted area, providing details about how people are reacting and what they are doing. This is great information that can help to inform the people at the JIC about whether the message they are providing is understood. Clarifying messages can be issued in much the same way that rumor control is practiced.

2. What approaches work best to minimize the impact of enhanced rules and/or guidance on local and State government?

A collaborative approach works better than a decide, announce, and defend approach. The NRC relies on NEI to provide an interface with the nuclear power plant owners. Why doesn't the NRC also rely on their Office of State and Local Programs, Conference of Radiation Control Program Directors, National REP conference, League of Municipalities, National Conference of State Legislators, National Conference of Mayors, and other similar groups to provide interested individuals who can provide input?

The promulgation of rules can involve a notice of proposed rulemaking that allows early and substantial involvement. Then a draft rule is noticed in the Federal Register, which allows for a comment period. Then the agency must develop a response to comment document and finalize the rules. This could take several years before the rules are in effect.

A shorter process that still allows for early and substantive involvement is where draft guidance is developed jointly with involvement from groups that include local and State government. The draft is circulated widely, allowing for much public input. Various public hearings can be held in different parts of the country so that viewpoints from all geographic regions are heard. Finalizing guidance is almost a misnomer, since the concept of guidance is that it is more flexible than rules and can be revisited and improved in an iterative fashion.

3. What enhancements to EP regulations and guidance would help you to more effectively and efficiently implement them in a post-9/11 environment?

The single biggest failure during emergency events has been communications. We need to be sure that communication channels are available and utilized. However, we can't even seem to get communications right during non-emergencies, when we are just planning for emergencies. As an example, these questions were not even addressed at a meeting designed to address these questions! We have got to do better at communicating.

We need a subgroup to look at the communication channels between the nuclear power plant, federal agencies, and State, local and Tribal agencies. What is available? What has back up generators? What will be available if electricity is knocked out? What about computer networks for communication? What about net-to-phone communications? What is faster than just having voice communications? What about burst communications so that many people get the same information at the same time? Are the cable companies able to provide some additional communication channels between facilities?

We need a subgroup to look at the communication channels between all agencies and the public. We need to look at the message (but that's covered in a later question) and we need to look at the medium to convey that message.

4. What EP regulations and guidance should be enhanced based upon advances in technology?

Communication, communication, communication. Use of the internet, blogs, messages posted on weather.com for certain communities, web-based systems for showing radiation levels in various latitude/longitude positions are all possibilities.

Agenda Item 1: Security-Based ECLs and EALs

How will public health and safety be enhanced by having security-based ECLs and EALs?

For fast-breaking incidents, it is important to have good communication and understand actions that will be taken automatically.

However, using the same terminology for security emergency events as for other emergency events will be confusing. An Alert will be triggered by a security breach of the owner controlled area. A Site Area Emergency will be triggered by a breach of the Protected Area, and a General Emergency will be declared if there is a breach of the vital area.

When using the terminology of an Alert, SAE, or GE, there are some automatic protective actions that may be triggered. Transitioning to security based ECLs and EALs requires revisiting a number of tools such as pre-written press releases, designed to communicate clearly to the public.

Agenda Item 2: Prompt NRC Notification

1. What public health and safety benefits can be derived from an early notification of a security event to a central location, such as the NRC operations Center?

It depends completely on the quality of the message. If there are false positive messages because the notification is so early that no assessment is being done, the readiness will decrease because the messages will lose their impact.

Early in any emergency, the information received has a large uncertainty bar around any data points. Basing conclusions on early information, particularly unverified information, prior to emergency classification, propagates the uncertainty.

The NRC has justified the early notification process by saying that they will be able to give a quick heads-up to the rest of the nuclear power plants in the country because their intelligence suggests that attacks on nuclear power plants will occur simultaneously in multiple locations. The notification of the NRC operations center does not address the issue that attacks could be planned to occur simultaneously at a nuclear power plant, a chemical facility, a dam, a water supply or at other facilities in other industry sectors.

The notification of the NRC does not bring additional response resources to the nuclear power plant being attacked. NRC is merely a communication conduit. They can (and will) make additional phone calls. They will pass along the information that they receive – regardless of the quality of that information. They could pass along rumors if the information is not verified and validated before it is passed along.

2. How should early notifications of security events be sequenced to best protect public health and safety?

The messages should only occur after assessment and classification of the emergency. They should occur simultaneously with the NRC Operations Center and the offsite response organizations being notified using the best technology.

Agenda Item 3: Onsite Protective Actions

What is the most effective way to implement offsite protective actions, such as site evacuation of non-responder personnel or accounting for personnel following release from the site during a terrorist threat or strike?

Agencies who have studied the actions of various terrorist groups have gleaned some commonality in tactics that may be employed. For instance, they have warned that secondary explosions may be designed to occur as first responders are converging on the scene of an incident. Given this information, rethinking the current method of determining accountability for all site personnel by gathering them together may be counterproductive.

Agenda Item 4: Emergency Response Organization Augmentation

During a terrorist event, would there be impediments that would preclude effective recall to the site of station emergency response personnel during a terrorist event and how could they be overcome?

This would best be answered by a group of individuals working in concert with the intelligence organizations. The type of information needed to make this kind of judgement is not available in the public domain.

Agenda Item 5: Drill and Exercise Program

How can security-based drills and exercises be most effective in training, practicing and assessing coordinated response roles and responsibilities?

When security based drills become such a part of the emergency planning vocabulary that they are seamlessly integrated into the existing drills and exercises, we will have fulfilled our responsibilities. As long as they are "special" and not part of the normal drill regime, people will have to think twice before they react (is it security or is it something else) and they will delay their action. If we use a true "all hazards" approach, this will just be one more scenario that has certain decision trees associated with it and we will all carry out our roles as prescribed.

Most importantly, it is necessary that federal government representatives participate in the drills and exercises. Exercising with only licensee, State, local and Tribal agency representatives gives a false impression of what the federal government agencies will do in an emergency. Having drill participants meet and work side by side with the NRC, Federal Emergency Management Agency, Health and Human Services, Environmental Protection Agency, Department of Energy and other federal counterparts builds trust between the agencies.

Agenda Item 6: Enhanced Offsite Protective Action Recommendation (PARs)

1) What value to public health and safety would a recommendation to "go indoors and monitor the emergency alert system" at a site area emergency classification provide during a security event?

If the emergency planners and the media are really working together, the suggestion for the public to monitor the event from the comfort of their home by watching TV or listening to the radio could have tremendous value. Those individuals for whom evacuation is recommended and is necessary should be able to get out of the area without having roadways congested by voluntary evacuees.

2) What benefits or possible consequences would occur for stakeholders, if such a recommendation were made during a security event?

Gathering family together, staying in one place to monitor the situation in real time so that all decisions for additional protective actions would be transparent could bring tremendous public confidence. The more that decisions seem logical to the public, the more likely they are to actually do the recommended action. The more timely the decision, the more confidence the public will have in the governmental representatives making the decision.

Agenda Item 7: Abbreviated Notifications to Offsite Response Organizations

1) What public health and safety benefit would be derived from an abbreviated notification to the ORO during a security event?

If, as intelligence suggests, simultaneous or near-simultaneous attacks are planned in a number of industry sectors, the notification to the State Police Office of Emergency Management can mobilize resources to respond to such attacks.

2) How could such an abbreviated notification be effectively implemented during an onsite security event?

The notification should occur after validation of the information and classification of the event. It should occur simultaneously with notification of the NRC operations center.

Agenda Item 8: Backup Power to Siren Systems

Should the NRC require that the ANS be operable in the absence of AC power, or are there backup alerting methods that can reliably alert the public in a timely manner under reasonably anticipated conditions that would be an adequate substitution for backup power?

The NRC should research all commercially available methods for alerting the public and provide a report of their findings, noting the pros and cons of each method. State, local and Tribal agencies would then be able to make the choice of the best technology for their particular constituency, terrain, and geopolitical area.

Agenda Item 9: Protective Action Recommendation Guidance

1. How can the responsibilities of the licensee and State, local and Tribal officials be clarified relative to protective actions to protect public health and safety?

The authority for each governmental agency is clearly defined in statute. What has led you to the conclusion that the responsibilities need clarification? Why don't you convene a group of licensees, States, locals, and Tribal officials to answer that question first?

2. How can sheltering be more clearly defined?

A small group of communication experts and emergency planners should craft some specific "model" messages, and try them out on some focus groups. The messages should be honed until they are well understood by most of the population, including translating the messages into languages that are common to people in the areas of concern.

A good resource is the study called Redefining Readiness prepared by the New York Academy of Medicine, published last year. This study deals with two scenarios, release of smallpox virus and a dirty bomb. It makes a strong case for involving the public in planning for emergency response. See:

http://www.healthprivacy.org/usr_doc/RedefiningReadinessStudy.pdf

I know about four kinds of actions that can be called "sheltering".

1) Asking for heightened awareness of the public and getting them to watch their TV, listen to the radio, or otherwise note emergency instructions.

2) Asking people to go inside, close their windows and doors, turn off their air handling system, and listen to EAS messages.

3) Asking people to go to "preferential shelters" such as schools or other public buildings which may offer greater shielding from radiation exposure than a wood frame house.

4) Asking people to go to a "shelter of the last resort" if they can congregate in a sturdy building that affords better protection than outside or in their car.

Making sure that people are given good instructions and that the rationale for those instructions are clear is essential. The best way to try out messages of this sort are to contract with a professional to lead some focus groups of ordinary citizens from within Emergency Planning Zones throughout the country. The methodology in "Redefining Readiness" may be a good starting point.

3. How can guidance related to the updating and use of evacuation time estimates be enhanced?

Have you determined that there is a problem with updating and use of evacuation time estimates? Current evacuation time estimates are based on the U.S. Census that takes place every ten years. Are there tools that can be used to update this information on a more frequent basis?

I look forward to receiving answers to the questions posed in this letter and to participating in a broader dialogue.

Sincerely,



Jim Lipoti, Ph.D.
Director