

**March 5, 2008, Public Meeting on Emergency Preparedness
Draft Preliminary Proposed Rule Language
Industry Review, Questions and Recommendations**

Security Event-Based Drills and Exercises—Appendix E to Part 50, F. Training

NRC Goal

Incorporate hostile-action drills into training, drill and exercise programs. Ensure scenarios are challenging, incorporate a wide range of scenarios, and avoid preconditioning.

NEI Position

NEI agrees that certain enhancements to licensee drill and exercise programs are appropriate. NEI also agrees that preconditioning provides negative training for both on-site and off-site responders. The industry fully supports the June 29, 2006, staff requirements memorandum statement, "The staff should coordinate with DHS to develop emergency planning exercise scenarios which would help avoid anticipatory responses associated with preconditioning of participants by incorporating a wide spectrum of releases (ranging from little or no release to a large release) and events, including security-based events. These scenarios should emphasize the expected interfaces and coordination between key decision-makers based on realistic postulated events. The staff should share experiences of preconditioning or 'negative training' with DHS."

However, promulgating hostile-action based exercise requirements at this time is premature in light of continuing industry Phase III drills, and FEMA and NRC working group alignment commitments. NEI does not agree with the following components proposed in the EPDPR language or in the proposed draft of FEMA's Interim Radiological Emergency Preparedness Program Manual. NEI's recommendations aim to support the NRC's goal of ensuring that exercise scenarios are challenging, incorporate a wide range of scenarios and avoid preconditioning:

- Requiring every exercise to result in a General Emergency contributes to preconditioning.
 - Recommendation: Allow the option of one exercise in an exercise cycle NOT to result in a General Emergency.
- Requiring a radioactive release during every exercise (the EPDPR allows a minimal release option) contributes to preconditioning.
 - Recommendation: Requirements for radioactive release should be consistent between the NRC rule and FEMA's exercise evaluation manual. Allow the option in one exercise of an exercise cycle to not include a radioactive release if the proper mitigating measures are performed.
- Requiring dose levels to exceed EPA-400 Protective Action Guides (PAGs) beyond five miles is not supported by recent studies such as the state-of-the-art reactor consequence analysis.
 - Recommendation: Vary radioactive release magnitude from one exercise to another, but require the radioactive release to be consistent with plant-specific source terms and probabilistic risk-informed (i.e., most likely) accident progression.

- A requirement to exceed PAGs at 5 miles creates credibility issues with the scenario. This is a negative experience for the licensee's ERO. It also creates dose rates on-site and in-plant that severely limits or prohibits movement of ERO personnel/teams.
- If the purpose of the extent of play is to require evacuation out to 10 miles, then it should be acceptable to drive this with a controller inject. A message to State decision-makers, after receipt of the utility PAR, to implement a different PAR for exercise demonstration purposes could be used.
- Requiring a radioactive release for every other hostile-action-based exercise contributes to preconditioning.
 - Recommendation: Do not require a radioactive release for every other hostile-action-based exercise.

To date, the FEMA exercise evaluation focus group discussions support NEI's position.

Industry Clarifying Question

- Is the definition of a "biennial exercise planning cycle" six years? What is the purpose of the NRC's review of an exercise scenario?

NRC Response

Cycle length is indeterminate at this time. Cycle length of eight years is under discussion.

The staff stated that the purpose of reviewing the exercise scenario is to ensure that all six-year exercise objectives are met.

The current exercise regimen may be preconditioning off-site responders. The staff is concerned that off-site decision-makers may automatically jump to a higher classification level or actions even though it may not warranted.

NEI Position

NEI believes that an eight-year cycle should be evaluated.

Scenarios are developed based on consensus between the licensee and its off-site emergency response organizations, and are agreed upon by FEMA. Adding an additional NRC review further complicates the scenario development process. NEI is concerned that the NRC and FEMA may not be in agreement on scenario extent of play or related technical expectations, delaying the development of supporting exercise documentation.

On-Shift Collateral Duties—Appendix E to Part 50, A. Organization

NRC Goal

Ensure that resources are available for emergency plan implementation and implementation of protective measures and ensure that on-shift personnel are not overburdened.

Industry Clarifying Question

- Define collateral duties. What off-normal event(s) should the industry plan for? Should the analysis be limited to the risk-significant planning standards?

NRC Response

Staff member one: During implementation of the "post-9-11 security orders," the NRC recognized that new security requirements produced actions that created "collateral duties" among emergency responders.

The staff suggests that revisions to NUREG-0654, Table B-1 (functional areas for on shift responders), may be required. The staff made the following statements:

- Control room operators cannot have emergency plan duties in addition to being assigned to the fire brigade.
- Control room operators may not be able to fulfill their actions assigned in Table B-1.
- The staff does not agree with Table B-1 double-asterisk positions, which note that the positions identified could be assigned other functions (e.g., shift technical adviser, mechanical maintenance/rad-waste operator, electrical maintenance and control technician, health physics technician, fire brigade).
- History has shown that there are response functions that perhaps go beyond those functions required by Table B-1.

Staff member two: The NRC is concerned with a perceived lack of rigor of a 'coordinated' or 'systematic' approach to ensure implementation of the emergency plan and emergency operating procedure response functions. The staff has not identified where collateral duty overlaps occur but expects the licensee to make this determination.

Apparently, opinions vary among the staff. This leads us to believe that the NRC has not developed a fully vetted approach to assessing the impact of collateral duties.

NEI Position

The staff's response could be interpreted as meaning that operations, nuclear security and radiological protection personnel should not be assigned to fire brigades, if NUREG-0654 Table B-1 implies that they have other, specific functional duties. NEI believes that collateral duties are acceptable as long as all required emergency response duties can be effectively performed in a timely manner during an accident sequence.

Industry Recommendation

The industry has developed a white paper supporting a suggested collateral duty assessment approach. This paper offers a systematic method for the determination of shift staffing that will ensure all tasks during an accident sequence can be performed. NEI will request a public meeting with the staff to discuss an industry approach to on-shift duties during an emergency.

Backup Means for Alert and Notification System—Appendix E to Part 50, D. Notification Procedures

NRC Goal

Ensure the public can be alerted if there is a problem with the primary alert and notification system (ANS).

Industry Clarifying Question

- Is this requirement premature? National guidance in keeping with the presidential directive has yet to be finalized. FEMA REP 10 has not been revised to address new criteria.

NRC Response

Regardless of the status of national ANS guidance and REP 10, the staff recommends moving forward on the EPDPR at this time.

NEI Position

The ANS EPDPR guidance is premature until the existing ANS guidance (CPG-1-17, Outdoor Warning Systems Guide (March 1980), and REP 10, Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants (November 1985), has been revised. The House Committee on Appropriations directed DHS/FEMA to update its guidance on outdoor warning and mass notification systems (see House Report 107-740 related to Fiscal Year 2003 Appropriations Bill).

In addition, the staff's position fails to consider the features of many current ANS installations. These features include overlapping siren coverage, sound propagation levels that exceed design requirements, AC and battery power capability, and primary and backup 24-hour activation capability. Any new rule must allow for consideration of site-specific ANS design features and existing capabilities before imposing additional requirements.

NEI observes that this rulemaking issue was identified as an enhancement to off-site preparedness during the comprehensive review process. As the final disposition of issues identified through the comprehensive review is still ongoing, it is premature to include this comprehensive review issue as a part of rulemaking.

Emergency Response Organization Augmentation and Alternate Facilities—Appendix E to Part 50, D. Notification Procedures

NRC Goal

Ensure the ability of the emergency response organization (ERO) to take actions to mitigate facility damage or implement protective measures. Require an alternate facility for ERO mustering .

Industry Clarifying Question

- Does the EPDPR intent go beyond what was required in NRC Bulletin 2005-02? It appears that the capability to classify and notify at the alternate facility required by the EPDPR exceeds what was already required and implemented by the bulletin.

NRC Response

The staff clearly plans to expand requirements for the alternate facility beyond what is currently in place as required in Bulletin 2005-02. The EPDPR expands this facility's function by requiring the capability to perform classification and notification of the off-site response organizations.

NEI Position

Adding this capability to make classifications and notifications at the alternate facility would require equipment to be installed and maintained. This would duplicate the capabilities of the licensee's Emergency Operations Facility (EOF). There have been no lessons learned during the Phase III hostile-action drills that suggest any need for additional requirements. The plant staff is capable of performing the classification and notification of the off-site response organization functions until the near-site and on-site facilities are staffed.

The requirement for classification and notification in the alternate facility should be removed from the EPDPR.

Coordination with Off-Site Response Organization—Appendix E to Part 50, A. Organization

NRC Goal

Ensure supplemental resources are available to respond to a hostile action at a nuclear power plant.

Industry Clarifying Question

- The EPDPR language requires evaluation of off-site collateral duties. Can the staff define collateral duties and how this evaluation would be conducted? What is FEMA's role in making this determination?

NRC Response

The functions that should be assessed to determine collateral duties are traffic control, route alerting and decontamination.

If a function could not be performed because of collateral duty assignments, the burden lies with the licensee to resolve the matter. As an example, if off-site fire response resources are insufficient, the licensee may need to establish an on-site fire department to fight a fire onsite, because an offsite fire department could be committed to performing route alerting.

NRC did not fully answer the question in that they did not comment on FEMA's role.

NEI Position

Off-site emergency response agencies have mutual aid agreements in place to support natural or technological events for which the response need exceeds local resources. Off-site agencies demonstrate the National Incident Management System (NIMS) during hostile-action-based exercises. NIMS would be utilized to activate additional resources when the response need exceeds local resources.

NEI observes that this rulemaking issue was identified as an enhancement to off-site preparedness during the comprehensive review process. As the final disposition of issues identified through the comprehensive review is still ongoing, it is premature to include these comprehensive review issues as a part of rulemaking.

Emergency Classification Timeliness—Appendix E to Part 50, C. Activation of Emergency Organization

NRC Goal

Ensure timely emergency response actions, including notification of off-site response organizations. Enhance the ability to implement protective measures. Instill a sense of urgency for classification, but do not force incorrect classifications due to time constraints.

Industry Clarifying Question

- What is the staff's justification for this component of the EPDPR? This component of the EPDPR does not meet the intent of SECY 06-0200.

NRC Response

A perceived lack of urgency on the part of emergency directors is the principal justification for this component of the EPDPR.

Staff examples given include:

- One late classification and one missed classification.
- It is unacceptable to wait on emergency action level (EAL) determinations that have timed events associated with classification.
- The NRC is focusing on capability to classify, as well as the timeliness of the classification.

NEI Position

The capability to classify an event is clearly addressed in the regulatory oversight process (ROP) EP significance determination process. One late and one missed event classifications do not constitute a compelling basis or identify a widespread industry problem for imposing proposed rule codification. These two cases were cited through the existing NRC enforcement program or ROP. The staff should not codify a provision that already is addressed through the NRC regulatory oversight process.

The timeliness goal for the declaration of an emergency class is addressed in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline". The NRC should continue to rely on the jointly developed performance indicators, and related criteria, found in NEI 99-02. The DEP indicator monitors the timeliness and accuracy of licensee classification performance during actual events, along with performance in drills and exercises. Should performance of the licensee program drop below certain standards, the licensee program would enter the regulatory response column and the NRC would perform baseline and supplementary inspections. Industry average DEP performance is typically in excess of 95%; this figures indicates licensee personnel have a sufficient sense of urgency regarding emergency classification.

This proposed regulatory criterion is not an enhancement to emergency preparedness regulations and guidance following terrorist events of Sept. 11, 2001, and should be deleted.

Evacuation Time Estimate Updating—Appendix E to Part 50, IV. Content of Plans

NRC Goal

Establish a frequency for evacuation time estimate (ETE) updates and identify other changes that require ETE update. Establish consistency of ETE review/update across the industry. (The EPDPR suggested that a 10% threshold be applied.)

Industry Clarifying Question

- How should the licensee determine when the 10% threshold is met? What is the technical basis for 10%?

NRC Response

It was unclear to NEI if the staff was stating if the 10% criterion applied to population increase or to a 10% increase in the ETE itself. Clarification is needed.

NEI Position

To our knowledge, the NRC does not have the staff expertise to review ETE analysis. This was made evident during COLA reviews of ETE. ETE's submitted for COLA applications were reviewed by a contractor.

Building quality objectives into the requirements for development of ETEs would be a more cost-effective approach.

This proposed regulatory criterion is not an enhancement to emergency preparedness regulations and guidance following the terrorist events of September 11, 2001 and is not appropriate for rulemaking.

Proposed Industry Action if Rulemaking Proceeds

It would be difficult to determine a 10% cumulative impact of changes on ETEs without actually revising the ETE study itself. There are many demographic, road network and area-characteristic factors that affect these estimates.

The industry commit's to develop a white paper and schedule a public meeting to further discuss the industry approach with the NRC. This approach would define the quality objectives that each ETE must meet.

Protection for On-Site Personnel—Appendix E to Part 50, I. On-Site Protective Action During Hostile-Action Events

NRC Goal

Protect on-site workers during hostile-action emergencies. Identify alternative protective action schemes and site-specific solutions.

Industry Clarifying Question

- Does this codify Bulletin 2005-02 or does this requirement exceed what was required in the bulletin? Is the expectation that physical protection be provided to protect site personnel? Does this EPDPR address emergency workers or non-emergency workers?

NRC Response

The regulation codifies Bulletin 2005-02 requirements only. The NRC concurred that the current EPDPR language could be misleading and agreed to clarify it.

NEI Position

NEI agrees with this approach as long as the supplementary information published with the proposed and/or final rule cites or repeats the examples of acceptable onsite protective measures contained in Bulletin 2005-02. As an alternative, consideration should be given to addressing onsite protective actions during hostile action events in 10 CFR 50.47(b)(10) vice 10 CFR 50 Appendix E Section I."

Emergency Action Levels for Security Events—Part 50.47 Emergency Plans, (b)(14)

NRC Goal

Provide regulatory certainty and establish unambiguous enforceable emergency classifications and action level criteria for hostile action events. Ensure appropriate response actions for hostile-action events are implemented.

Industry Clarifying Question

- Plants have committed and implemented security EALs in accordance with Bulletin 2005-02. 10CFR50.54(q) insures that the commitment is not removed. Why is this component of the EPDPR required?

NRC Response

The staff stated that there was a need to codify all actions implemented under post 9-11 orders and bulletins. The staff stated that there were no additional actions beyond what was required by orders and bulletins.

NEI Position

NEI agrees with this approach.

Decrease in Effectiveness—Part 50.54(q)

NRC Goal

Maintain capabilities and resources relative to the emergency plan. Ensure changes to the approved emergency plan are properly evaluated. Ensure changes that reduce the effectiveness of the emergency plan are reviewed by the NRC. Ensure consistent and predictable implementation and enforcement.

NEI Position

NEI supports transferring approvals of reduction in effectiveness/decrease in effectiveness from the commission to headquarters staff.

Changes should be compared to the current plan and not the original safety evaluation report plan.

Examples should be removed from the EPDPR language.

It appears that the staff interprets any reduction of commitment as a potentially significant reduction of the effectiveness of the emergency plan. Licensees should be allowed to implement alternate methods for meeting the regulations, without prior NRC approval, provided that the alternate method allows only minimal reduction in existing regulatory margin. This concept of allowing the licensee to minimally reduce regulatory margin while still meeting regulations is similar to the approach allowed by the 50.59 rule. NEI takes the position that the 50.54(q) evaluation process should be similar to the 50.59 process.

Industry Clarifying Question

Are examples of changes specified in this component of the EPDPR an all-inclusive list of the changes that can be made without prior approval?

NRC Response

Examples are not an all-inclusive list.

Industry Action:

NEI plans to develop guidance for the industry that implements the EPDPR and seek NRC endorsement of the guidance.

Emergency Operations Facility, Performance-Based Approach—50.47 Emergency Plans (b)(3)

NRC Goal

Define the conditions under which licensees could establish consolidated emergency operations facilities (EOF) without prior approval. Outline the functions and the capabilities necessary for a consolidated EOF.

Industry Clarifying Question

- Does this specifically address consolidation only? Will any change be required for plants that do not elect to consolidate their EOFs?

NRC Answer

This component specifically addresses consolidation only and not requirements for licensees or fleets that do not have consolidated EOFs in place.

NEI Position

NEI agrees with this approach.

Proposed Industry Action

Develop an NEI technical document that would guide licensees on using a performance-based approach and ask for NRC endorsement.