

NEI White Paper

EMERGENCY PLAN CHANGE PROCESS

10 CFR 50.54(q)

March, 2005

I. Introduction

On February 14, 2005, the NRC issued Regulatory Issue Summary 2005-02 (“RIS”) Clarifying the Process for Making Emergency Plan Changes. This RIS was prompted by the various differences in interpretation of the application of 50.54(q), which determines whether a proposed change to a licensee’s emergency plan requires NRC approval. The differences in interpretation of this regulation have become a more pressing concern as licensees seek to revise their emergency plans in light of the many changes in, for example, level of technical support, communications related technology, equipment and facility modifications, and security enhancements that have an impact on emergency planning.

As is noted in the initial sections of the RIS, the regulatory process for changing an emergency plan is described in 10 CFR 50.54(q). Under 10 CFR 50.54(q), a licensee may make changes to its emergency plan “only if the changes do not decrease the effectiveness of the plans and the plans, as changed, continue to meet the standards of S 50.47(b) and the requirements of Appendix E” to Part 50. Thus, integral to a determination about whether NRC approval is required for a particular change to an emergency plan is a clear understanding of what constitutes a “decrease in effectiveness” (“DIE”) of the emergency plan.

The industry has had longstanding concerns about the NRC’s interpretation of what constitutes a decrease in effectiveness. The NRC’s position in this regard became a clear point of discussion when the agency issued Emergency Preparedness Position No. 4 in November, 1998. The regulatory interpretation contained in the EPPOS had the effect of suppressing licensee initiated changes to emergency plans because licensees perceived the NRC to require prior agency approval for *any* changes to emergency plans and implementing procedures. While the RIS now establishes two criteria for determining that a DIE exists (and NRC approval for a change must therefore be obtained), these criteria are not markedly different from those included in EPPOS No. 4. The first criteria contained in the RIS establishes a DIE if the change means that the capability to perform a function as previously stated in the emergency plan no longer exists or *is degraded*. The second criteria contained in the RIS establishes a DIE if the change in an emergency preparedness requirement based on timeliness results either in not meeting the requirements to perform a function in a timely manner as set forth in 10 CFR 50.47(b) and Appendix E to Part

50, and as defined in the licensee’s emergency plan, or in *relaxing* the time to perform a function as defined in the regulation and the licensee’s plan. In each case the criteria act to require NRC approval for every change that would result in any decrease in the capability to perform a function or to perform a function within the time specified in the plan.

Most of the changes identified – both under EPPOS 4 and now – are not to bring a feature of the emergency plan into compliance with a regulation but, rather, to make improvements that would allow the plan to function in a more optimal manner. As such, there is a clear need to implement a regulatory process that encourages licensees to make plan changes to enhance public safety without imposing unnecessary regulatory burden.

The DIE criteria contained in the RIS is a step in the right direction but limits the ability of emergency planners to be responsive to changes to their stakeholders, including members of the utility Emergency Response Organization and state and local emergency response agencies. The criteria set out in the RIS should take into account the substantial margin of safety (which can be expressed in terms of capability to perform a function or the time in which it will be performed) licensees have incorporated into their emergency plans. The industry should be able to implement aspects of the plan where greater information and knowledge demonstrate that unnecessary margin can be removed and, in their place, putting more efficient or effective methods of performing the particular function(s). The clear benefits of applying a performance-based approach to emergency planning should be recognized. The interpretation of DIE criteria should not create a substantial regulatory burden for both the agency and licensees without a demonstrable improvement of safety. For these reasons and those stated below, adherence to the criteria in the RIS does not establish an effective or efficient process pursuant for licensees to use to modify their emergency plans.

II. The Term “Decrease in Effectiveness”

10 CFR 50.54(q) contains the phrase “decrease in effectiveness” but does not contain a specific definition of or criteria to explain the application of the term. The RIS defines a DIE so that, in effect, it will encompass *any* change that would result in *any decrease* in the capability to perform a function or to perform a function within the time specified in the original plan as modified by subsequent changes. The DIE criteria contained in the RIS are not compelled by the language of the regulation. Similarly, the NRC is not compelled to implement an approach requiring a DIE to be defined as a reduction in a specific quantity or time specified in an emergency plan as neither may be a critical to capability to perform the particular function at issue.

Rather, than applying the two criteria in the RIS and then attempting to identify specific actions that would not constitute a DIE through examples, the agency should consider an alternative approach. We recommend that the approach be a process based on – although not exactly the same as – the current 10 CFR 50.59 change process. It is not necessary to make this process a mirror image of the 50.59 process because the term DIE is unique to emergency planning. Further, if the attributes of a DIE are readily understood because they are, to some extent, applied in other change processes, there is a greater likelihood that both licensees and the regulator will apply them consistently.

The industry recommends that the evaluation of whether there is a decrease in effectiveness consider several tests, an affirmative response to any one of which would establish that the change is a DIE requiring NRC approval. Those tests would be:

- the change eliminates or negates the regulatory basis for a previous NRC decision on emergency planning;
- the change substantially affects the capability or the margin associated with that capability to perform one or more particular plan function;
- the change does not meet 10 CFR 50.47 planning standards and Appendix E;
- the change would invalidate or change specific commitments which in turn substantially affect the capability to perform one or more particular plan function;
- the change would alter a specific numerical parameter such that it no longer bounds the assumed for emergency planning capability/regulatory compliance;
- the change substantially alters assumptions or analyses previously used to establish emergency planning functionality; or
- the change would prevent the performance of an emergency plan function within the time required by regulation or would substantially increase the time to perform a particular emergency plan function.

We note that the RIS contains examples of plan changes that constitute a DIE as well as examples of plan changes that would not qualify as a DIE. These examples range from very broad criteria (“Implementation of changes that are a result of revised regulations, guidance standards or other technical documents to which the licensee is committed”) to very detailed and specific changes (“Increase in facility activation time”). Although the specific examples are not intended to provide guidance in every situation, the development of a broader framework, such as that proposed by NEI, will allow licensees and the NRC to more consistently identify and evaluate those changes that properly require NRC review and approval. To ensure that the criteria cited above “works” in practice, each of the NRC’s examples was judged against the criteria. Attachment 1 provides an Analysis of RIS 2005-02 Examples of Potential Changes resulting in a Decrease in Effectiveness of the

Emergency Plan. This demonstrates, and confirms in practice the soundness of this approach.

III. Conclusion

The NRC should consider adopting the above described criteria for evaluation of whether a change to an emergency plan constitutes a DIE. As the criteria are modeled on the 50.59 change process, but are customized to appropriately fit the regulatory requirements for emergency planning, defining a DIE in this manner should ensure that changes appropriately characterized as DIEs receive NRC review and approval. Importantly, these criteria are consistent with and will enhance the agency's effort to manage emergency preparedness programs in a risk-informed manner.

IV. Proposed Action

The industry recommends that the NRC adopt the criteria set out above. As NEI's 50.54(q) Guidance document (March 2005) provides a rigorous review process to determine whether a proposed change to the emergency plan (including planning standards, Appendix E and emergency action levels) (1) constitutes a DIE of the plan and/or (2) results in the plan, as changed, no longer meeting either the planning standards of 10 CFR 50.47(b) or the requirements of Appendix E to 10 CFR Part 50, the NRC should consider revising the RIS to include the criteria proposed herein and endorse the method of evaluation included in the NEI Guidance. In doing so, the agency will ensure that those changes which have been identified as a decrease in effectiveness will receive appropriate attention and more minor changes, which clearly have only very limited effect on capability or performance time, do not require NRC approval. This action would relieve the industry of the undue burden (without a clear safety benefit) that the RIS creates, while ensuring that licensees follow the rigorous evaluation/screening process established in the NEI 50.54(q) Guidance.

NEI has committed to support implementation training to assure consistency once the RIS is revised along with endorsement of NEI guidance.