March 6, 2003

Mr. Stephen D. Floyd
Senior Director, Regulatory Reform
Nuclear Energy Institute
Suite 400
1776 I Street, NW
Washington, DC 20006-3708

SUBJECT: RESPONSE TO LETTER DATED JANUARY 6, 2003, COMMENTS ON DRAFT REVISION OF THE EMERGENCY PREPAREDNESS SIGNIFICANCE DETERMINATION PROCESS (SDP), APPENDIX B OF MANUAL CHAPTER 0609

Dear Mr. Floyd:

Your letter of January 6, 2003, transmitted another round of NEI comments on the draft revision of the Emergency Preparedness (EP) Significance Determination Process (SDP), Appendix B of Manual Chapter 0609. On three occasions, NRC staff met publically, and at great length, with the NEI EP SDP Issue Task Force during the EP SDP revision process and appreciates the industry input, particularly when unintended consequences were identified.

However, the NRC staff is somewhat puzzled that your letter communicates the need for further significant changes to the draft revision of the EP SDP. It was our impression that stakeholder concerns had been addressed to a great extent and improvements in the EP SDP were achieved. Where there were differences, industry views were considered and differences discussed professionally. The goals of the draft revision were to incorporate lessons-learned and a white path for the risk significant planning standards, and more closely align the EP cornerstone with the other cornerstones. I believe we have achieved these goals and that the revised EP SDP appropriately assigns significance and properly determines the need for supplemental inspection.

Your letter also stated that there has been inconsistency between the NRC Regions in the use of the EP SDP, yet you did not provide any specifics to help illustrate your concerns. You further suggested that NRR should play a more active role in ensuring consistency and suggested participation in the SERP as a mechanism. Please be advised that NRR EP staff participate in all of the SERPs for EP findings to ensure consistency. Furthermore, discussion of EP findings between NRR staff and the regions span from inspector identification to consensus at the SERP.

You stated in your letter that an overlap exists between Performance Indicators (PIs) and EP SDP inspection findings. However, the sections within the draft EP SDP where the overlap exists were not identified. I assume that the comment on the attachment regarding Section 4,

PS 5 eludes to this concern. In this comment you stated that NEI 99-02 incorporated siren performance for reliability and therefore the criteria for individual siren statistics should be deleted. The NRC staff does not consider the examples in the revised EP SDP Section 4.5 as overlapping the Alert and Notification System (ANS) PI. On the contrary, the examples provided in Section 4.5 relate to programmatic failings (e.g., design flaws, inadequate and/or delayed corrective actions, or deficiencies in the test program, maintenance program, or associated procedures) such that the planning standard function is lost or degraded. Thus, ANS availability is used to assess the impact of the significance of programmatic findings. Whereas, the ANS reliability PI does not reflect this type of failure.

With regard to your comments on the EP SDP not providing equivalent results for issues of similar risk significance, it may be helpful to compare the basis for the EP Cornerstone in some measure to the Reactor at Power SDP. Changes in Probabilistic Risk Assessment (PRA) estimates form the basis for the Reactor SDP. The extent to which a non-operational safety related component changes the PRA estimate determines the significance of the related finding consequently affecting risk to public health and safety. However, public health and safety itself is not affected. The component was not needed to perform its function and may have performed anyway in a degraded manner. Redundant systems would have performed their function and in fact, there was no reactor accident to call on these systems in the first place. But, in abstract "probability space" risk estimates have increased due to the lack of a fully functioning defense-in-depth feature.

EP is predicated on the Commission's 1986 Policy Statement "Safety Goals for the Operation of Nuclear Power Plants." The Commission stated that:

> The Commission recognizes the importance of mitigating the consequences of a core-melt accident and continues to emphasize features such as containment, siting in less populated areas, and emergency planning as integral parts of the defense-in-depth concept associated with its accident prevention and mitigation philosophy.

The Commission further stated:

> A defense-in-depth approach has been mandated in order to prevent accidents from happening and to mitigate their consequences. Siting in less populated areas is emphasized. Furthermore, emergency response capabilities are mandated to provide additional defense-in-depth protection to the surrounding populations.

Given this basis, the significance of an EP program failure is determined in terms of its effect as if it were needed during an emergency. Therefore, if an emergency were to exist, implementation of the EP program would be degraded and the level of protection of public health and safety is less than had the program element met regulatory requirements. Once again, the impact on public health and safety is not actual since there was no accident and the plan was not implemented. But, in abstract "probability space" risk to public health and safety increased due to the lack of a fully functioning defense-in-depth feature.

A difference between the EP Cornerstone and the Reactor Cornerstones is that there is no quantitative estimate of the impact on public risk in probability space. Rather, the EP Cornerstone assigns the most significance to those functions most closely related to warning the public of the need to take protective actions (i.e., the risk-significant planning standards of classification, notification, dose assessment and protective action recommendations). In both cases, there is no actual effect on the public, but rather an effect in an abstract construction of risk probabilities. The one is quantified through equipment failure estimates and the other qualified by the functional ability to protect public health and safety.

Once again, thank you for submitting comments. NEI, industry stakeholders and the public have provided valuable insight during the EP SDP revision process and it has been appreciated by the NRC staff.

Sincerely,

/RA/

Theodore R. Quay, Chief
Equipment and Human Performance Branch
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

Enclosure: As stated

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Theodore R. Quay, Chief
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Office of Nuclear Reactor Regulation

Enclosure: As stated

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Response to Enclosure, "Industry Comments on draft Appendix B to NRC Inspection Manual Chapter 0609, 'Emergency Preparedness Significance Determination Process,' dated 11/11/2002"

1. Comment:

Section 2

Text changes are needed to make it clear that not all utilities are committed to NUREG-0654 and that evaluation of performance should be based against approved Emergency Plans. NRC criteria not addressed in the licensee's approved plan should be corrected through the regulatory process, not be identified as a "performance issue" in the Regulatory Oversight Process. (This is consistent with treatment of performance issues in other cornerstones.)

Response:

Section 2 simply identifies that Regulatory Guide (RG) 1.101 states that Federal guidance document NUREG-0654 provides acceptable methods for complying with the standards in 10 CFR 50.47 that must be met in onsite and offsite emergency response plans. It further states that except in those cases in which the licensee proposes an acceptable alternative method for complying with specific portions of the Commission's regulations, the methods described in RG 1.101 (e.g., NUREG-0654, NUMARC/NESP-007) will be used in evaluating Emergency Plans. Thus, Section 2 merely restates an already published NRC position. It is provided for the inspector in order to inform the significance determination process. Additionally, within each part of Section 4, Failure to Comply, the EP SDP identifies that a licensee's emergency plan should also be used as informing the significance determination process. The comment has not been incorporated.

2. Comment:

Section 2

Weakness Definition: The wording of White finding for Weakness "associated with" RSPS functions was restored after industry comments. This could reopen situations to inspector interpretation. The definition should be reevaluated to ensure that its usage is clear enough to promote consistent usage. Additionally weakness descriptions found in the (b)(14) text need to be looked at concurrently.

Response:

The use of the wording "associated with RSPS" is intentional in order to *avoid* inconsistencies. It delineates the difference in assessing significance between a planning standard (PS) and a risk significant planning standard (RSPS) and is not considered to be opened for interpretation. On the contrary, it identifies a specificity to an RSPS weakness. The comment has not been incorporated.

3. Comment:

Section 3

Reference to EPPOS papers should be removed from the document and be replaced and clarified by issuance of other documents such as Regulatory Issue Summaries in the near future.

Response:

Emergency Preparedness Position (EPPOS) Papers are internal NRC documents to provide staff guidance on evaluating EP issues. As such, they are referenced in the EP SDP as an aid to inspectors when performing significance determination. The comment has not been incorporated.

4. Comment:

Section 4

PS 2: Under white finding the statement is "... Staffing augmentation processes are routinely not capable of ensuring timely augmentation..." This section references the requirements and guidance of NUREG-0654 Table B-1. The requirements and guidance in Table B-1 are interpreted very differently from one facility to the next. This could easily result in widely differing interpretations and inspection findings.

Response:

Section 4, Planning Standard 2 white significance example states, "Staffing augmentation processes are routinely not capable of ensuring timely augmentation of the on-shift emergency response staff to the extent that more than one required ERO function (IAW Plan commitments to NUREG-0654 Table B-1), would not be filled." Thus, the example recognizes that licensees' specific plan commitments to NUREG-0654 Table B-1 vary from site to site. Therefore, the comment has not been incorporated.

5. Comment:

PS 5: Color criteria for "individual siren statistics" returned to service. This creates a new regulatory requirement. There are no requirements to track individual siren availability. NEI 99-02 incorporates siren performance for reliability; therefore the criteria for individual siren statistics should be deleted.

Response:

No new regulatory requirement has been created. 10 CFR 50.47(b)(5) states, in part, that the means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone has been established. Section IV.D.3 of Appendix E to 10 CFR Part 50 states, in part, that the prompt public notification system shall have the capability to essentially complete the initial notification of the public within the plume exposure pathway EPZ within about 15 minutes. Thus, if an individual siren is unavailable, the capability to provide prompt public notification, and meet regulations, is in question. Further, the EP SDP examples provided in Section 4.5 relate to programmatic failings (e.g., design flaws, inadequate and/or delayed corrective actions, or deficiencies in the test program, maintenance program, or associated procedures) such that the planning standard function is lost or degraded. Thus, it is not a reliability issue and does not overlap with the ANS Performance Indicator. The comment has not been incorporated.

6. **Comment:**

PS 7: Dissemination of Public Information: White finding is for failure to perform complete distribution. The wording appears to require 100% dissemination of EP related public information to the public in the transient areas of the EPZ. This could be misinterpreted and should be reworded to ensure a consistently reasonable approach by inspectors. A reasonable attempt to distribute information may be all that can be done, given that licensees have no control over private businesses that may be asked to distribute information. In addition, if a new facility opens and doesn't immediately have information, the current SDP wording could result in a white finding. This is contrary to the staff's verbal intent.

Response:

Comment accepted. Wording in the white example has been changed to clarify that the licensee's *process* of public information dissemination is the issue. The white example now states, "Processes do not provide for the complete dissemination of EP-related public information such that the the licensee does not provide information to all transient areas, EPZ segments, or other specialized/localized groups (e.g., hotels, recreational parks, select phone books, zip codes)."

7. **Comment:**

PS 10: There is confusion regarding the level of severity yellow, white, green findings in the owner controlled area (OCA). The following criteria are recommended:

- Process does not exist (yellow)
- Process does not provide adequate assurance (white)
- Weakness in procedures, equipment etc. (green)

Response:

The recommendations of the comment are already contained within the examples. As written, the yellow example does not simply depend on whether the process exists or not. It is dependent on whether the process is capable of performing its function. If it does not exist, it obviously cannot perform its function. However, it may still exist but not be capable of performing its function, and thus virtually does not exist. The white example is based upon whether the process consistently provides adequate assurance that it is capable of performing its function. The comment has not been incorporated.

8. **Comment:**

PS 14: White finding occurs if all Program Elements aren't demonstrated in five years. Regulations specify a six year cycle.

Response:

Comment accepted. Time interval changed from five to six years.

9. **Comment:**

Section 5

Timeliness of Corrective Actions: Although the 20% failure rate was eliminated, the current draft could be read to use the DEP PI standard of a 10% failure rate.

Response: Section 5.3 identifies RSPS 10 CFR 50.47(b)(9) as not being covered by the DEP PI. Thus, it appropriately assesses a white significance at a 10% failure rate which is commensurate with the DEP PI. Appropriately, a failure to correct a weakness associated with a non-RSPS is assessed as green. Additionally, this issue was discussed at length during the publically observed meeting held on September 12, 2002, and the NRC staff requested NEI and industry to provide an acceptable alternative solution. Thus, we removed the previously proposed criteria based on your input, only to receive this comment without a proposed solution. Thus, the section remains unchanged.