



NUCLEAR ENERGY INSTITUTE

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May 19, 2004

Mr. Nader Mamish  
Director, Office of Emergency  
Preparedness  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**SUBJECT:** NEI White Paper – “Range of Protective Actions for Nuclear Power Plant Incidents”

Dear Mr. Mamish:

During the course of a declared emergency the licensee is responsible to provide early phase protective action recommendations (PARs) that should be considered by offsite emergency response organizations. Due to inconsistent approaches this requirement has been identified as a generic issue. In an effort to provide a focus and path forward, NEI submits the enclosed white paper “Range of Protective Actions for Nuclear Power Plant Incidents,” for the staff’s review and follow-up discussion.

The enclosed white paper details the range of early phase PARs that may be used for nuclear power plant incidents that would be used to protect the public during a nuclear power plant incident that has been based on a strategy of evacuation and sheltering since emergency plan development nearly 25 years ago.

The paper examines the protective actions detailed in current guidance and provides a number of industry recommendations. Each of the subject guidance documents contains the same basic concepts of evacuation and sheltering as protective actions. However, sufficient ambiguity exists within the guidance to have resulted in divergent implementation of protective action schemes.

The industry provides the following recommendations:

- Evacuation - Triggers  
The minimum recommendation that should be made at a General Emergency is to evacuate 2 miles around and 5 miles downwind from the plant. Subsequent recommendations should be based on the EPA PAG's, changing plant conditions or changes in wind direction.
- Sheltering – Use of Sheltering as an alternative to evacuation for short term releases  
A licensee may choose to not integrate the use of sheltering for short term releases into their protective action recommendation scheme.
- Sheltering – Use of sheltering for special populations and impediments  
Licensees should incorporate sheltering into their emergency plans consistent with existing guidance, noting that the use of sheltering as an alternative to evacuation is a decision that will be made by offsite officials. Implementation of the licensee emergency plan commitment should incorporate allowance for offsite officials to utilize sheltering as an alternative to evacuation at their discretion, in accordance with the guidance. These plans should be developed and maintained in collaboration with those offsite officials. Thus, licensees will typically recommend evacuation as dictated by the guidance, but will incorporate the proviso that the use of sheltering as an alternative is a local or state decision, and is acceptable.
- Sheltering – Effectiveness of sheltering  
Licensee or offsite officials may opt to utilize a range of sheltering implementation schemes, including:
  - The use of qualitative methods for determining the effectiveness of sheltering. Example, if certain plant or radiological conditions exist, then shelter, OR
  - The use of quantitative methods for determining the effectiveness of sheltering. Example, the comparison of sheltering versus evacuation doses.
  - Utilization of simple public instructions. Example: stay indoors and limit outside sources of air, OR
  - Utilization of more complex public instructions. Example: in addition to the above simple instructions, recommend going into a basement or more substantial building, use of respiratory protection.

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- Heightened Awareness - Use of Heightened Awareness  
Licensees should incorporate the use of heightened awareness in their protective action schemes consistent with the guidance and offsite agency plans.

In conclusion, the industry recognizes our responsibility to provide early phase protective actions including evacuation, sheltering, KI and heightened awareness to maximize health and safety of the public.

Once the staff has had an opportunity to review the industry's approach and recommendations, I suggest that we discuss an implementation path forward. Consideration of a phased in approach between licensees and their offsite emergency response organizations should be considered.

If you have any questions regarding this submittal or request a meeting, please contact me at (202) 739-8110 or by e-mail (apn@nei.org).

Sincerely,

A handwritten signature in cursive script, appearing to read "Alan Nelson".

Alan Nelson

Enclosure