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Rules and Directives Branch  
Office of Administration  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**SUBJECT:** Comments on Standard Review Plan (SRP) 3.5.1.4 "Missiles Generated by Tornadoes and Extreme Winds" and Draft Guide-1143 "Design Basis Tornado and Tornado Missiles for Nuclear Power Plants", and SRP 2.3.1 "Regional Climatology."

On behalf of the industry, and consistent with the NRC SRP Update Program, NEI submits the following comments. Where applicable, the rationales supporting the comments are included.

Comments on SRP Section 3.5.1.4 "Missiles Generated by Tornadoes and Extreme Winds":

*Comment:* The industry has no comment on this section of the SRP.

Comments on Draft Guide 1143 "Design Basis Tornado and Tornado Missiles for Nuclear Power Plants":

*Comment:* Consider adding the following after the last sentence of the second paragraph of section on Tornado-generated Missile Characteristics "However, similar to current operating plants, a limited number of windows of missile vulnerability in otherwise tornado resistant structures can be accepted based on appropriate probabilistic missile strike analysis, provided the aggregate probability of missile damage through these windows is acceptable. Examples of windows of missile vulnerability are unprotected louvers, doors, stacks, penetrations, and exposed portions of piping."

*Rationale:* In design of new plants or during the operation of existing plants, conditions can arise requiring systems and components that are not protected by physical barriers. SRP 3.5.1.4, "Missiles Generated by Natural Phenomena", Revision 2 Item III.3, permits use of probability methods for evaluations of missile vulnerability. This probability option is retained in Revision 3 (dated January 2006) of the same SRP. However, the text in DG-1143 without clarification could be

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interpreted to completely rule out using appropriate probability methods. Simulation studies using missile zones and missile populations based on walk down and statistics of missile trajectories utilizing approved tornado wind field simulation and missile transport methodologies have been utilized in current operating plants to accept conditions or to arrive at strategies for missile protection.

*Comment:* DG-1143, Table 2 does not appear to place a limitation on the height at which the automobile missile may impact the plant. Earlier versions of SRP 3.5.1.4 (see, for example, Missile Spectrum II from the 1996 Revision 3) limited the height above grade at which the automobile missile would be considered. The height limitation was invoked during the AP1000 design certification and forms a part of their DCD in Subsection 3.5.1.4 (first bullet).

DG-1143, Figure 1: the NRC should consider a way to relate this figure to a map of the United States (with state boundaries) as an assist to the reader.

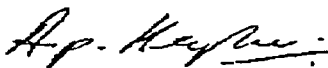
**Comments on SRP Section 2.3.1 "Regional Climatology"**

*Comment:* Regulatory Position II.6: suggest deletion of parenthetical definition of winter months (e.g., December, January, February) so as not to accidentally preclude March, which could produce the PMWP in a given area.

In Section II on page 2.3.1-3, Item 6 requires the 48-hour probable maximum winter precipitation load to be added to the 100-year return period snowpack load. The SRP Description of Changes identifies this change as a "clarification". However, in the past these values were not combined, so it appears to be a new position and will impact standard designs. The basis for this additional conservatism is not defined.

Please contact Cedric Jobe at 202-739-8128; [cij@nei.org](mailto:cij@nei.org) or Jim Fisicaro 202-739-8018; [jjf@nei.org](mailto:jjf@nei.org) should you have any questions on the comments provided in this letter.

Sincerely,



Adrian P. Heymer

c: Document Control Desk