UCS Perspective on the Japan Task Force Report Short-Term Actions

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General Comments

- UCS endorses the need for swift and comprehensive action by the NRC to identify and eliminate safety vulnerabilities that have been highlighted by Fukushima
- Should be part of a larger review of the adequacy of safety margins and other defense-in-depth measures

Orders

- Orders are appropriate where swift action is warranted; the process for implementing them should be transparent
 - Should be as clear and specific as possible when issued

How not to issue orders

- NRC should avoid repeating the experience of the B.5.b order
 - Issued February 25, 2002
 - Final guidance not endorsed until December 22, 2006
 - Inspections not completed until December 2008
 - Open issues remained even in 2009
- Due in part to NRC-NEI disputes hidden from the public

- UCS agrees that near-term action is needed to define the current seismic and flooding risk profile and to address vulnerabilities
- GI-199 data, North Anna, Ft. Calhoun underscore concern
- Draft GL could provide a good evaluation basis, but timelines are too long and SMA/SPRA option could confuse the public

- UCS supports general framework for extended SBO mitigation but the ultimate level of protection will depend on resolution of many issues
 - Reliability and availability standards for coping equipment/procedures
 - Asserted seismic margins need to be demonstrated
- Credit should be given for B.5.b measures in severe accident scenarios only if they can be shown to work

Hydrogen control in SBOs

- The NRC should act immediately to require reliable backup power for hydrogen igniters at ice condensers and Mark IIIs to prevent containment rupture under SBO conditions
- In fact, in 2006 the Commission directed the staff to "promptly proceed to require" these measures. It never happened and they remain voluntary commitments. Why?

- UCS supports requirements for reliable hardened wetwell vents for Mark I and Mark II BWRs
 - Operability under a range of severe accident conditions must be demonstrated
- No need to wait for final Fukushima vent analyses to proceed

- UCS supports prompt action to address the safety issues posed by overstuffed spent fuel pools
- The staff does not provide adequate justification for deferring action on important Task Force recommendations such as requiring reliable pool instrumentation
- Rulemaking to require accelerated transfer of spent fuel to dry casks should be a near-term action

- Strengthening and integration of EOPs,
 SAMGs, EDMGs are overdue
- Proposed requirements that EDMG procedures be developed and integrated into plant procedures were opposed by NEI and omitted in the final 50.54(hh) rule and guidance
- 10/2006 letters: staff expectation that licensees would integrate B.5.b into procedures for effective use in nonsecurity-initiated events

 "The implementing procedures for B.5.b ... are not linked to the EOPs... B.5.b procedures are similar to fire safe-shutdown procedures in that they are stand alone and if you try to run them concurrently there may be conflicts ..." --- e-mail from Christopher Cahill, RI, 6/11/10

- UCS agrees with all Task Force recommendations for emergency planning enhancements but believes the Task Force defense of the 10-mile EPZ is premature
 - Fukushima experience needs to be fully assessed

Acronyms

- EDMGs: Extensive Damage Mitigation Guidelines
- EOPs: Emergency Operating Procedures
- EPZ: Emergency Planning Zone
- GI: Generic Issue
- GL: Generic Letter
- NEI: Nuclear Energy Institute

Acronyms (cont.)

- SAMGs: Severe Accident Mitigation Guidelines
- SBO: Station Blackout
- SMA: Seismic Margin Assessment
- SPRA: Seismic Probabilistic Risk Assessment
- UCS: Union of Concerned Scientists