USNRC Actions in Response to the Fukushima Nuclear Accident

Commissioner William C. Ostendorff
United States Nuclear Regulatory Commission

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Agenda

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- NRC post-Fukushima Actions
  - Regulatory Approach
  - Specific Actions Taken
  - What's Next

Near-Term Task Force

SECY-11-0093 **(July 12, 2011)**

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- Continued operation and licensing do not pose an imminent risk to safety.
- Task Force conclusion reinforced decision that there was ***no need*** to shut down plants in the wake of Fukushima.

Near-Term Task Force

SECY-11-0093 **(July 12, 2011)**

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Key Lessons Learned

- External hazard design
  - Seismic and flooding
- Prolonged loss of AC power
  - "Station Blackout" (SBO) coping
- Reliable containment venting
  - Boiling water reactors (BWRs)
- Multi-unit events
- Spent fuel pools

Near-Term Task Force

SRM-SECY-11-0093 (Aug. 19, 2011)

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Commission's Big Picture Approach

- Implement certain recommendations without delay
- Integrated and prioritized assessment of other recommendations
- Senior level steering committee oversight of implementation details

Three Tiers of Prioritized Actions

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- Tier 1: Actions without delay
  - Strive to complete and implement Fukushima lessons learned within 5 years – by 2016
  - Implementation should be transparent; regulatory mechanisms should be clear and specific
  - Performance-based system should be a guiding principle
- Tier 2: Further information needed, but no longer term study needed
- Tier 3: Longer term study necessary

Regulatory Standard

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- Reasonable assurance of ***adequate protection*** of public health and safety
  - Derived from Atomic Energy Act and case law
- General principles
  - NRC has broad authority
  - Nexus to radiological health and safety
  - Objective criteria not required – case-by-case basis
  - Does NOT mean zero risk

Backfit Rule

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Proposed New Requirements must be Systematically Evaluated and will not be Imposed unless:

- Needed for Adequate Protection (Cost of implementation is not considered) or
- Provide Substantial Increase in Safety with Justifiable Costs (May consider qualitative factors such as defense in depth)

Regulatory Principles and Practices

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- Technical Competence
- Active Engagement with Stakeholders
- Openness and Transparency
- Independence

Tier 1 Actions

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Orders (March 2012)

- EA-12-049 – Mitigating strategies beyond design basis events
- EA-12-050 – Hardened vents for Mark I and II containments
- EA-12-051 – Spent fuel pool instrumentation

Tier 1 Actions

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Requests for Information (March 2012)

- Seismic and flooding walkdowns
- Seismic and flooding reevaluations
- Enhanced EP staffing and communications

Tier 1 Actions

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- Modified Order for Containment Venting Systems EA-13-109 issued June 6, 2013
  - Supersedes Order EA-12-050
  - Severe Accident Capability
  - Phase 1 wetwell vent and Phase 2 drywell vent
- Filtration Strategies Rulemaking
  - In March 2013, the Commission directed the staff to initiate rulemaking for filtering strategies
  - Proposed rule scheduled for December 2015

Rulemaking Activities

- Station Blackout (SBO) Mitigation Strategies
  - Scope of rulemaking has expanded
    - Spent Fuel Pool instrumentation and makeup capability
    - Emergency Preparedness
  - Regulatory Basis - July 2013
  - Proposed Rule- June 2014
  - Final rule - December 2016

Post-Fukushima Safety Enhancements

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What's next?

- Commission decisions pending:
  - Recommendation 1 regarding Regulatory Framework
  - Expedited transfer of spent fuel
- Implementation of Orders
- Staff review of external hazard reevaluations
- Transition activities to line organization
- Continued stakeholder engagement

Stakeholder Engagement

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Fort Calhoun Extended Shutdown

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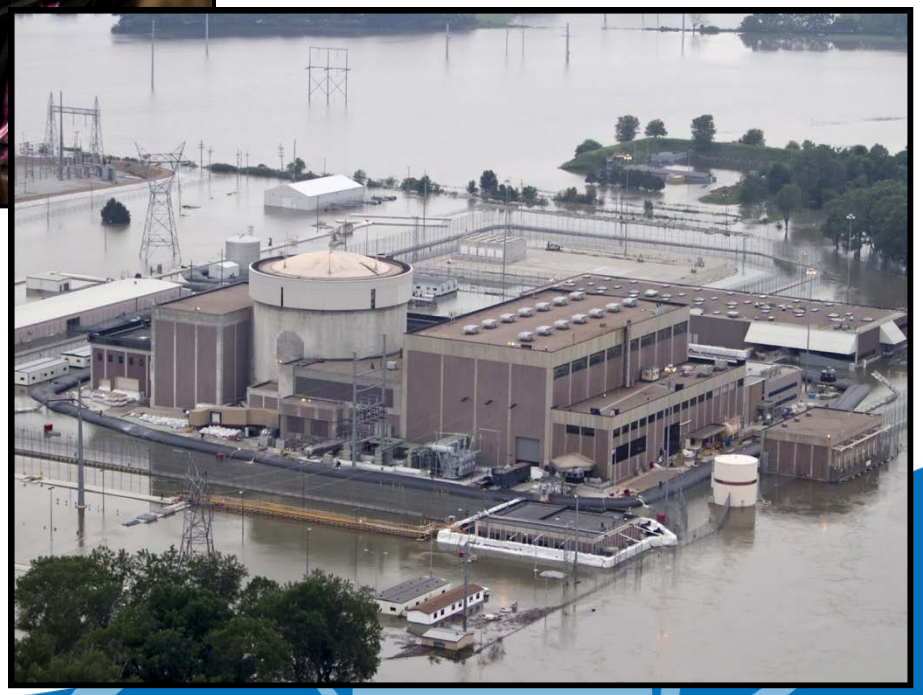

Conclusions

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- NRC is making considerable progress in implementing safety enhancements at U.S. plants
- No imminent risk from continued operation of U.S. nuclear power plants
- NRC lessons-learned consistent with the international community assessments
- NRC continues to evaluate additional lessons learned for applicability to U.S. plants

Thank You

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Questions

Comments

Discussion