



Enhancement of NRC Station Blackout Requirements for Nuclear Power Plants

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Background

- March 11, 2011 Japan Earthquake
- Near-Term Task Force (NTTF)
 - SECY-11-0093, “Near-Term Report and Recommendations for Agency Actions Following the Events in Japan,” (July 12, 2011)
- Commission Direction
 - SRM-SECY-11-0093 (August 19, 2011)
 - Directed the staff to identify and recommend which NTTF recommendations should be implemented without delay



Background (Cont.)

- SECY-11-0124 (September 9, 2011) and SECY-11-0137 (October 3, 2011)
 - Staff provided recommendations on those NTTF action items that should be initiated without delay and the associated prioritization.
- SRM-SECY-11-0124 (October 18, 2011)
 - Commission directed the staff to initiate rulemaking on NTTF Recommendation 4.1, “Station blackout regulatory actions,” in the form of an advance notice of proposed rulemaking (ANPR).



Commission Direction (SRM-SECY-11-0124)

- The staff should issue an ANPR for SBO.
- The staff should complete rulemaking within 24-30 months of October 18, 2011.
- The staff should craft recommendations that continue to realize the strengths of a performance-based system as a guiding principle.
- The staff's approaches should be flexible and able to accommodate a diverse range of circumstances and conditions.
- The staff should monitor nuclear industry efforts underway to strengthen SBO coping times and consider whether any interim regulatory controls for coping strategies for SBO events would be appropriate while rulemaking activities are in progress.



SBO Requirements

- 10 CFR 50.2 Definition
- 10 CFR 50.63
 - requires that nuclear power plants have the capability to withstand an SBO event and maintain core cooling and containment integrity for a specified duration
- Related Guidance Documents
 - Regulatory Guide 1.155
 - NUMARC 87-00



SBO Rulemaking

- Address beyond design basis external events that create extended loss of all ac condition to maintain/restore:
 - Core cooling
 - Containment
 - Spent fuel pool cooling
- Apply appropriate design and treatment (maintenance and test) requirements to equipment used to mitigate events
- Consider periodic reanalysis to reflect changing operational environments



SBO Rulemaking (Cont.)

- Monitoring industry efforts
 - NEI 12-06, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide
- Interim Staff Guidance 12-01
 - JLD-ISG-2012-01, Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events
 - Public comment period closes July 7, 2012



Status

- Issued the ANPR (March 20, 2012)
- Public comment period closed May 4, 2012
- Reviewing responses received during public comment period
- Staff is currently developing the regulatory basis to demonstrate that “SBO rulemaking” is the correct regulatory solution