Nuclear Plant Operation Joint FERC/NRC Meeting

Dan Dorman, Deputy Director Engineering and Corporate Support Office of Nuclear Reactor Regulation





Discussion Points

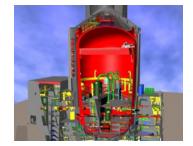
- Operations of Nuclear Plants
- Cyber Security Activities
- Station Blackout Rulemaking and Grid Reliability Standards Activities



New Reactor Applications



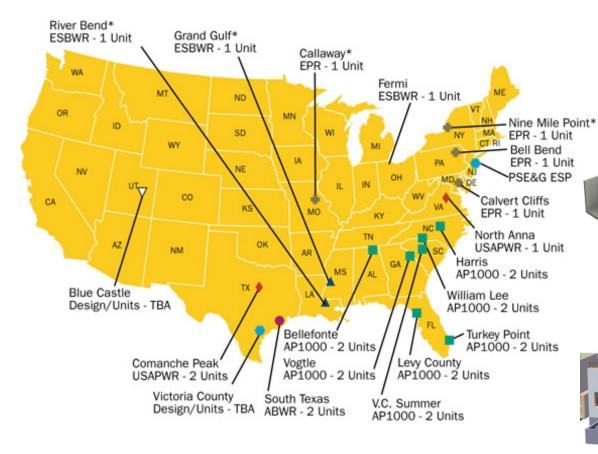




AP1000

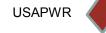


EPR





^{*}Review Suspended by Applicant



ESBWR

VCS 2 & 3 Aerial View - October 2011

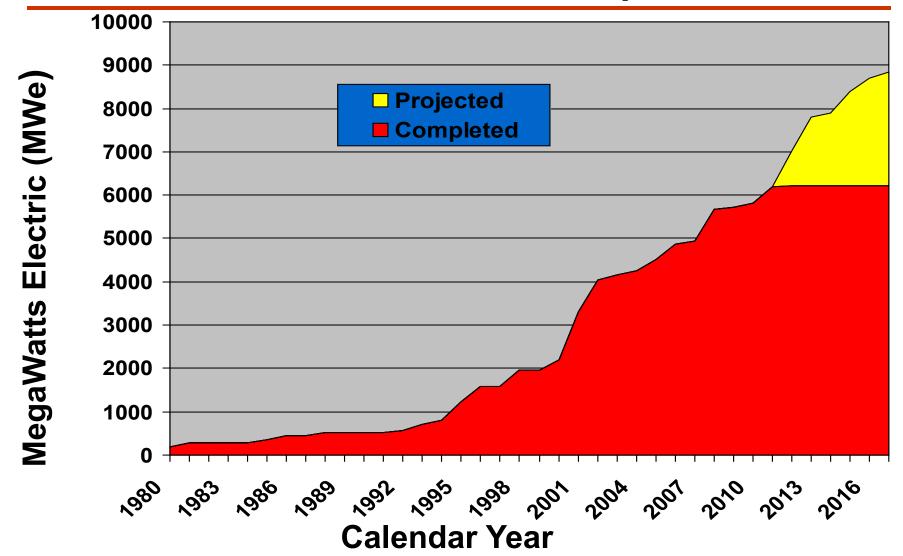


Vogtle Construction Update





Additional Power From Uprates





Existing Plant Operations

- Nuclear Plants and Load Following
- NRC Staff uses grid assessments as part the evaluation of power uprate license amendments
- NRC Staff continues to utilize support (as needed) from NERC and FERC Staff for enforcement discretion cases at NPPs which involve consideration of grid reliability and its relationship to nuclear safety.



NRC/FERC Staff Interactions

- NRC, FERC and NERC staff continue to meet on quarterly basis to share ongoing issues
- FERC supports NRC in the inspection and evaluation of dams under NRC jurisdiction
- NRC participated in Joint Grid Event Investigations related to Southern California Blackout.

Cyber Security Activities Joint FERC/NRC Meeting

Marc Dapas, Deputy Director
Office of Nuclear Security and Incident
Response



Guidance Development

- 10 CFR 73.54, "Protection of Digital Computer and Communication Systems and Networks"
 - Scope of Systems
 - Regulatory Guide 5.71 "Cyber Security Programs For Nuclear Facilities"
- Memorandum of Agreement with FERC
- Memorandum of Understanding with NERC
- Bright-Line process
- NEI 10-04, "Identifying Systems and Assets Subject to the Cyber Security Rule"
 - Includes scoping criteria for SSCs in the BOP



Protecting People and the Environment

Program Implementation

- Interim Milestones 1-7 (12/31/2012)
 - addresses key threat vectors for all CDAs, including BOP SSCs
 - emphasis on target set equipment and associated threats
- Milestone 8 (site specific date)
 - full cyber security program implementation
 - policies and procedures: training, attack mitigation, incident response, continuity of operations, etc.
 - completion of all design remediation actions including those that require a refuel outage for implementation.





Oversight Activities

- Inspection Program
 - Temporary Instruction
 - Training
- Significance Determination Process
- Pilot process
- Full Implementation



Station Blackout Rulemaking and Grid Reliability Standards Activities Joint FERC/NRC Meeting

Dan Dorman, Deputy Director Engineering and Corporate Support Office of Nuclear Reactor Regulation



Discussion Points

- Lessons learned from
 Fukushima station blackout
 rulemaking and activities
- Geomagnetic disturbances (GMDs) and long-term coping for loss of electrical power



Lessons Learned from Fukushima

- Actions Being Taken Without Delay Based on the Near Term Task Force (NTTF) Report:
- Seismic and flood hazard reevaluations
- Seismic and flood walkdowns
- Station blackout regulatory actions
- Mitigating strategies for beyond design basis events
- Reliable hardened vents for Mark I containments
- Strengthening and integration of emergency procedures
- Emergency preparedness regulatory actions



Geomagnetic Effects

- •The NRC staff is participating with other federal agencies in evaluating the effects of GMDs
- •Any recommendations from the NERC led Task Force will be considered for applicability to transmission system elements pertinent to nuclear plants



Geomagnetic Effects (cont.)

- Current NRC guidance and practice does not require evaluation of GMDs
- NRC evaluated performance capabilities of safety significant equipment
- NRC evaluating long term shutdown capability (beyond 7 days) without offsite power for existing plants



Acronyms

- BOP Balance of Plant
- CDA Critical Digital Asset
- CSP Cyber Security Plan
- IAW In Accordance With
- SRM Staff Requirements Memorandum
- SSC System, Structure, or Component
- SSEP Safety, Important to Safety, Security, and Emergency Preparedness