

# Modernization Plan #1D BTP 7-19 Update

Public Meeting  
NRC Staff Presentation  
August 29, 2019

---

---

# Agenda

- Description of Changes Proposed for BTP 7-19
- Discussion with and feedback from NEI/Stakeholders
- Next Actions
- Schedule

---

# Major Changes in Proposed BTP

- Reorganization of BTP to align review guidance with acceptance criteria
- Clarification of applicability
- Incorporation of categorization scheme and graded approach for addressing CCF in DI&C systems
  - D3 Assessment
  - Qualitative assessment
- Clarification of criteria for addressing spurious operation
- Clarification of criteria for manual system level actuation

---

# Process Flow for CCF Assessment

- Determine category of proposed DI&C system (i.e., A1, A2, B1, B2)
- Identify any integration or interconnectivity of the proposed DI&C system with other categories of systems
- If A1 system, perform D3 assessment
  - Use of means to eliminate CCF from further consideration
  - Use of diverse means
  - Use of analysis to demonstrate consequences of CCF is within acceptable limits
- If A2 or B1 system (or integrated B2 system), perform qualitative assessment

---

# Spurious Operation

- Evaluate potential for spurious operation due to CCF in DI&C system
- Evaluation should focus on those spurious operations that may induce initiating events that can challenge plant safety
- Design features or defensive measures can be credited to reduce scope of evaluation

---

# Manual System Level Actuation and Indications

## SRM-SECY-93-087 Positions 3 and 4 Clarifications

- Refers to the displays and manual controls described in Position 4 of the SRM on SECY-093-87
- Displays and manual controls necessary to monitor and perform system level actuation of safety critical functions
- Need to be located within the main control room
- Displays and controls provided for Position 4 can be credited as diverse means for addressing Position 3

---

# Still Under Consideration

## Industry Feedback Requested

- How Leak-Before-Break (LBB) criteria can be credited in excluding large break LOCAs and MSLB events from evaluation
- Need feedback from industry regarding crediting LBB
  - Applicability to PWRs and BWRs
  - What operator or maintenance actions will be taken if a leak is detected to allow LBB to be credited for exclusion of the two events

# Next Steps and Schedule Milestones

|      | Activity   | Completion Date              |
|------|--|------------------------------|
| A.1  | Begin revision to draft BTP 7-19   | In progress                  |
| A.2  | Category 2 public meeting to discuss the direction of draft BTP 7-19   | Completed<br>April 4, 2019   |
| A.3  | Category 2 public meeting to discuss topic focused areas of BTP 7-19   | Completed<br>June 26, 2019   |
| A.4  | Finalize draft BTP 7-19 for staff review   | Completed<br>August 19, 2019 |
| A.5  | Final Category 2 public meeting to discuss BTP 7-19 prior to NRC review and concurrence                            | August 29, 2019              |
| A.6  | Agency review and concurrence on draft BTP 7-19 in preparation for public comment period                           | October 2019                 |
| A.7  | ACRS Subcommittee Meeting  | November 2019                |
| A.8  | Issue Draft BTP 7-19 for public comment period (60 day comment period)<br>Public meeting, if needed – January 2020 | December 2019                |
| A.9  | Public comment period ends   | February 2020                |
| A.10 | Public Comment/ACRS Comment Resolution Complete  | March 2020                   |
| A.11 | ACRS Full Committee Meeting  | April 2020                   |
| A.12 | Prepare Final BTP 7-19 Concurrence<br>Receive OMB Clearance Approval (non-major rule determination)                | May 2020                     |
| A.13 | Issuance of Final BTP 7-19   | June 2020                    |



# Questions



# Acronyms

- BTP: Branch Technical Position
- BWR: Boiling Water Reactor
- CCF: Common Cause Failure
- D3: Defense-in-Depth and Diversity
- DI&C: Digital Instrumentation and Controls
- LBB: Leak-Before-Break
- LOCA: Loss of Coolant Accident
- MSLB: Main Steamline Break
- NEI: Nuclear Energy Institute
- PWR: Pressurized Water Reactor
- SRM: Staff Requirements Memorandum