

# Discussion of Challenges Associated with Risk Informed Completion Time Applications



### **Introductory Remarks**

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#### **Importance of Risk Informed Completion Times**

- Once implemented, TSTF-505 has the potential to:
  - Enhance safety
    - Increase organizational risk awareness
    - Improving maintenance planning.
      - Integration of more preventative maintenance
      - Use of more in-house staff
  - Improve operational practices
    - Holistically address allowed outage times
    - Nearly eliminating the need for NOEDs
- More widespread implementation throughout the fleet will maximize realization of these benefits



## **Industry Plans for Applications**

- As Vogtle review progressed, interest in RICT has substantially increased
- Majority of fleet intends to pursue RICT
- Timing of application submittals dependent on availability of fire and/or external event PRAs
  - Plants transitioning to NFPA 805 now have fire PRAs likely sufficient to support RICT applications
- Near term application plans
  - Five to eight plants in 2015
  - Six to ten additional plants in 2016
- Regulatory stability is essential to efficient application reviews



## **Industry Plans for Support**

- Fleet-wide implementation requires substantial coordination efforts
  - NEI task force
    - Application development
    - Implementation
  - Summer 2015 workshop
    - Provide information for near-term applicants
    - Overview of operational best practices
  - Generic considerations database
- Activities intended to reduce burden for licensees and NRC



## **Application Review Challenges**

- Application review issues may discourage potential future applicants
- RAIs raising questions on previously approved NEI 06-09 Rev. 0 guidance, TSTF-505 and associated safety evaluations
- Generic issues being re-visited in individual plant application reviews
- Regulatory guidance being interpreted differently
- Following topics are provided for illustration



## **PRA Related Challenges**

- PRA scope and technical adequacy expectations
  - Fire PRA
    - Open methodology issues (electrical cabinet heat release rates, transient fire treatment, etc)
    - Regulatory instability associated with changes in approved approaches
    - Potentially alleviated by Risk-Informed Steering Committee work and freeze point concept implementation
  - External events
    - Peer reviews, as applicable
    - Common understanding of regulatory expectations



## **CCF Treatment in RICT Calculations**

- NEI 06-09 Rev. 0 provides direct requirements for CCF treatment:
  - Quantitative adjustment of CCF probabilities specifically discussed and state to not be required; instead:
    - Prompt operability assessments and extent of condition (as is already done)
    - Use of RMAs to address potential for CCF
- NRC safety evaluation of NEI 06-09 Rev. 0:
  - Directly addressed and clarified the use of RMAs while the operability assessment is ongoing
  - Did not take any exception to the quantitative methods



## **CCF Treatment in RICT Calculations (cont)**

- RAIs calling for CCF probability adjustments
- RG 1.177 Appendix A is cited as the requirement
  - Regulatory Position in Appendix A applies only to Tier 1 not to Tier 3 (page 12 of RG 1.177)
  - Tier 1 is the risk calculation to support license amendment request for permanent TS change to a CT
  - Tier 3 is the risk calculation used to assess real time configuration risk while the CT is in effect
  - RMTS is not a permanent CT change, but uses Tier 3
    CRMP process to calculate configuration-specific CTs



## **TS Admin Controls Beyond TSTF-505**

- TSTF-505 identifies the TS Admin Control describing the RICT Program
- RAIs have proposed additional TS Admin Controls for programmatic requirements
  - Require exiting or not entering RICT if LCO restoration will not be possible
  - Reassessment of RMAs when equipment is returned to service
  - PRA success criteria to be "up to date, clear and reviewed"
  - PRA Functionality prohibited if inoperability cause unknown
- No clear basis provided for why additional items beyond TSTF-505 are needed to provide reasonable assurance for safety



#### **Additional TS Restrictions Beyond TSTF-505**

- NRC is proposing additional TS notes in individual TS Conditions to preclude voluntary RICT use for loss of function
- TSTF-505 already addresses this in TS Admin Controls (part d)
- Result would be that TS would be inconsistent
  - Some TS conditions have a note
  - Others do not



## **Additional Generic RAIs**

- RAIs imply existence of a "RG 1.177 Tier 2" process for RICT implementation, even though high risk configurations are already addressed in NEI 06-09
- Identify FSAR safety analyses which supports use of PRA Functionality in TS actions
- Exclude TS from RICT Program scope if there may not be enough time to establish PRA Functionality
- Linking surveillance frequency changes (TSTF-425) to RICT use



## **Application Review Issues - Conclusion**

- RAIs are revisiting generic issues already reviewed and approved for implementation
  - Insufficient safety or regulatory bases provided for proposed changes
  - Differing interpretation of RGs and approved guidance of NEI 06-09
- Need to proactively address generic issues before additional applications enter review process



### **Proposed Path Forward**

- Generic issues to be resolved generically
- Industry and NRC to evaluate lessons learned from previous and ongoing reviews
  - Review RAIs against previously approved TSTF-505 and NEI 06-09
  - Evaluate enhanced guidance for reviewers and sites developing applications
- Documentation of key lessons learned
- Model application revision/notes
- RAI/RAI response database
- Continued dialogue between industry and NRC
- Supporting timely reviews of ongoing applications

