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Key Licensing Assumptions for the Clinch River SMR Construction Permit Application



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Acknowledgement and Disclaimer

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Purpose of Meeting

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- Discuss revised key licensing assumptions
 - Understand the roles and responsibilities to allow the NRC staff to gain understanding of the coordination between TVA and Generation mPower's SMR applications
 - Discuss the integrated schedule for the Construction Permit Application (CPA) and Design Certification Application (DCA)
 - Discuss current project status



Background



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- In late 2010 and early 2011, TVA, Generation mPower (GmP) and NRC Staff met on key assumptions for developing the CPA
 - TVA's assumptions were based on submitting a CPA in advance of the DCA
 - The sequence of events has changed
 - In a letter from the NRC dated April 9, 2013, TVA was requested to reassess how those assumptions have been affected by the revised sequence of the applications.
 - TVA submitted a revised Key Assumptions letter on June 14, 2013
 - A public meeting was proposed to discuss the overall strategy for coordinating the CP and DC reviews.



Key Assumptions Not Affected

The following key assumptions were not affected by the revised submittal sequence

- Key Assumption #1 – TVA will use the Part 50 licensing process
- Key Assumption #2 – TVA will prepare a PSAR utilizing the content of Reg Guide 1.70 including an Environmental Report addressing the guidance contained in NUREG 1555
 - The Environmental Report will also address the guidance contained in Regulatory Guide 4.2
- Key Assumption #4 was withdrawn in 2010
- Key Assumption #5 – NRC Staff would inspect B&W as a vendor



Key Assumptions Affected

The following key assumption was affected by the revised submittal sequence but the purpose of the assumption was not changed

- Key Assumption #3 – Utilization of a One Design – One Review Approach
 - Annotations will be used to identify information already provided in the DCA
 - Design changes identified during Clinch River construction will be factored appropriately into the Operating License Application
 - GmP and TVA intend to keep the standard plant design and the Clinch River design consistent



Key Assumptions Affected

The following key assumption was affected by the revised submittal sequence

- Key Assumption #6 – Lessons learned during the inspection and enforcement program along with the initial test program will be used to inform and confirm the ITAAC developed by GmP as part of the DCA
 - GmP will review lessons learned from Clinch River for incorporation in the ITAAC closure plans



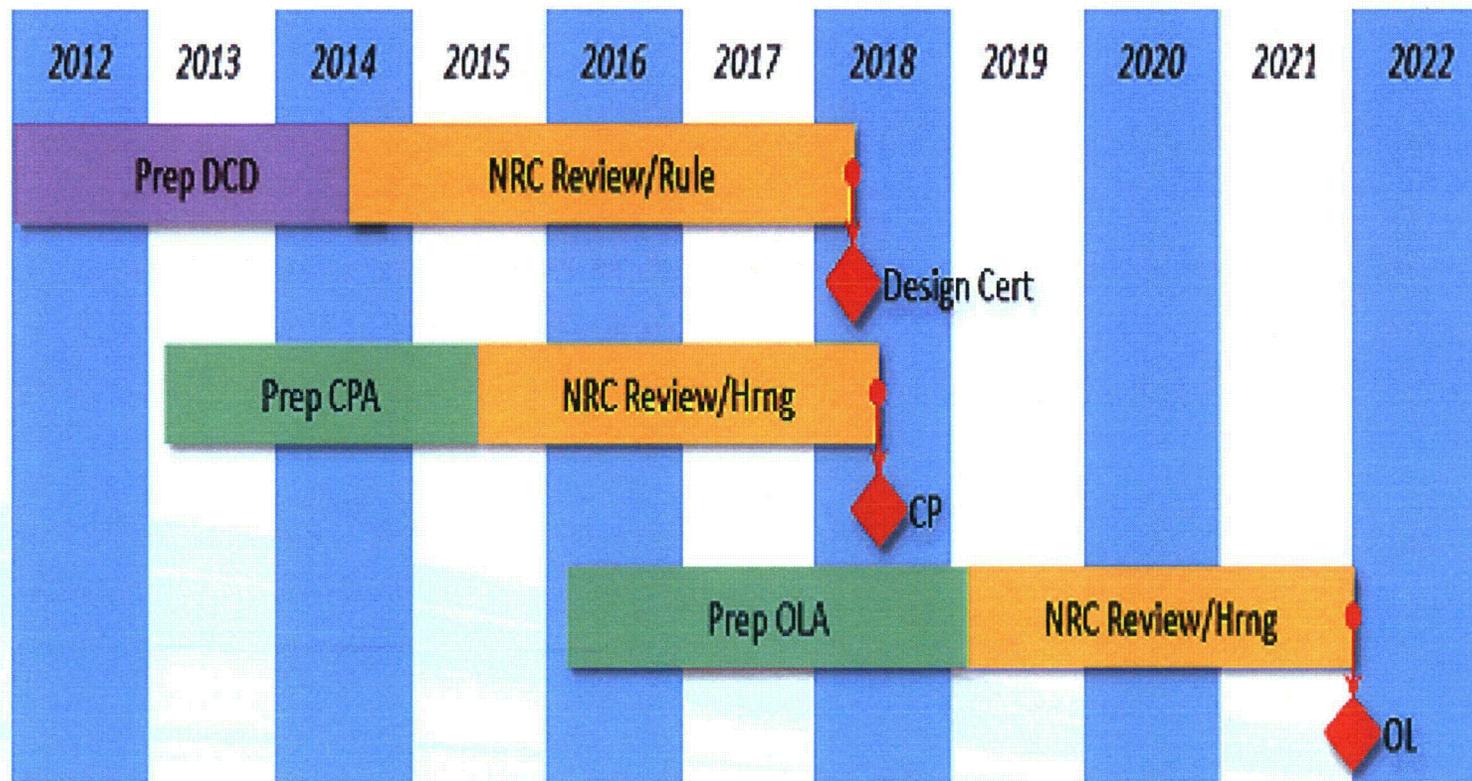
DCA & CPA Preparation



- mPower Design Certification Application
 - Scheduled for submittal to NRC in September 2014
 - Prepared by GmP (B&W, Bechtel)
 - Reviewed by Industry Consortium including TVA
- Clinch River Construction Permit Application
 - Scheduled for submittal to NRC in June 2015

CPA Part	Responsibility
Part 1 – General & Administrative Information	TVA
Part 2 – Preliminary Safety Analysis Report	TVA, GmP
Part 3 – Environmental Report	TVA, AECOM
Part 4 – Technical Specifications	TVA, GmP
Part 5 – Emergency Plan	TVA, Enercon
Part 7 – Exemption Requests	TVA, GmP
Part 8 – Safeguards/Security Plans	TVA, GmP
Part 9 – Withheld Information	TVA, GmP
Part 11 – Enclosures	TVA, AECOM, GmP

Coordinated Part 50/Part 52 Process: One Design, One Review





CPA/DCA Consistency

- During DCA Preparation
 - Focus on bounding Clinch River site characteristics
 - TVA is participating in design reviews and reviewing DCA chapters
- During CPA Preparation
 - GmP (Bechtel, B&W) preparing majority of PSAR
 - » Same engineering, licensing, and publications team ensures consistency between the DCA and CPA
 - » Will confirm that standard plant design bounds site characteristics
 - CPA Revision 0 will be based on DCA Revision 0
 - » PSAR will follow the same table of contents as DCD Tier 2
 - DCD Tier 2 standard plant information that is included in the CPA will be clearly identified
 - » Margin annotations, different fonts, brackets or braces being considered



CPA/DCA Consistency (*cont'd*)

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- During CPA Preparation (*cont'd*)
 - DCD Tier 2 chapters will be reviewed to identify the standard plant DCD content (text, tables, and figures) that will be included in the corresponding PSAR chapters:
 - » DCD information needed for CPA
 - » DCD information not required for CPA but included
 - » DCD information not required for CPA and not included, to retain construction flexibility
 - » DCD information does not apply to CPA and not included
 - » DCD information is limited, site-specific information is needed for CPA
 - » DCD information must be changed for the CPA



CPA/DCA Consistency (*cont'd*)

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- During NRC Review of CPA and DCA
 - DCD RAI responses and DCD Tier 2 changes will be reviewed for incorporation in the PSAR
- During Clinch River Construction
 - GmP will review changes to the standard plant design for impact to the mPower design certification



- Four (4) Regulatory Framework Document (RFD) workshops held with the NRC
 - Major sections/topics reviewed
 - NRC comments provided
- Only CPA sections not reviewed were Chapter 2, sections of Chapter 3, the Emergency Plan and the Environmental Report
 - Additional meetings on specific topics from above will be scheduled as appropriate with the NRC
 - These meetings make the additional RFD workshops unnecessary
- Currently reviewing necessity and benefit of RFDs going forward
 - Availability of DCD information minimizes the value of identifying the differences between the regulatory requirements and the need to further maintain the earlier RFDs



Future Interactions

- Site Characterization Activities
 - Subsurface investigation
- Continue to conduct periodic meetings with NRC management and Commissioners to discuss CR pre-application topics
- Pre-Submittal Meetings
 - PSAR Chapter 2 topics
 - Flooding analyses
 - Groundwater analyses
 - Geology, seismology, and geotechnical analyses
 - Significant ER-related topics
 - Environmental scoping meeting
 - PSAR/ER readiness reviews

Site improvements



Subsurface Investigation



Hydrology



Meteorological tower

Other Activities

- Ecological surveys
- Flooding analyses
- Geological field reconnaissance

- Cultural surveys
- Environmental data collection
- Meteorological analyses



Questions?

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