
Nuclear Power 2010:

The Nuclear Revival and Licensing New Nuclear Power Plants

ABA Section on Administrative Law and Regulatory Practice
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"The new licensing process... was envisioned as involving three steps: certifying a plant design, obtaining an early site permit, and then a combined license application pairing those first two.... That hasn't quite happened yet, as none of the combined license applications received by the NRC – so far – reference both a certified design and an approved early site permit."

- **NRC Commissioner Kristine L. Svinicki, (April 20, 2009)**
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“By developing Part 52, the Commission created a more predictable application process that allowed utilities to go through those steps sequentially.... But almost no one is following that ideal process. Instead, we are once again doing everything in parallel....”

- **NRC Commissioner Gregory B. Jaczko, (February 12, 2009)**
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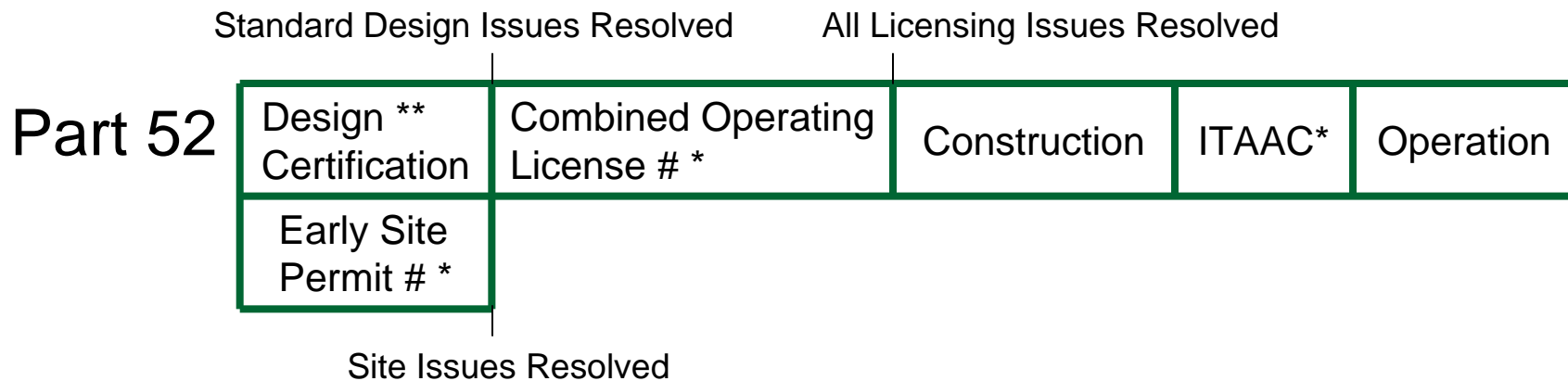
...[S]o far, only one of the five designs currently being referenced in the COL applications... is a certified design and it is only referenced in one COL application.... The result of these problems is that the early COL applications are unlikely to achieve the full benefits of the Part 52 process."

- **Former NRC Chairman Dale E. Klein, (July 24, 2008)**
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" ...[T]here is less predictability in the review process because we are doing the environmental reviews, the design reviews and the COL reviews simultaneously rather than in sequence."

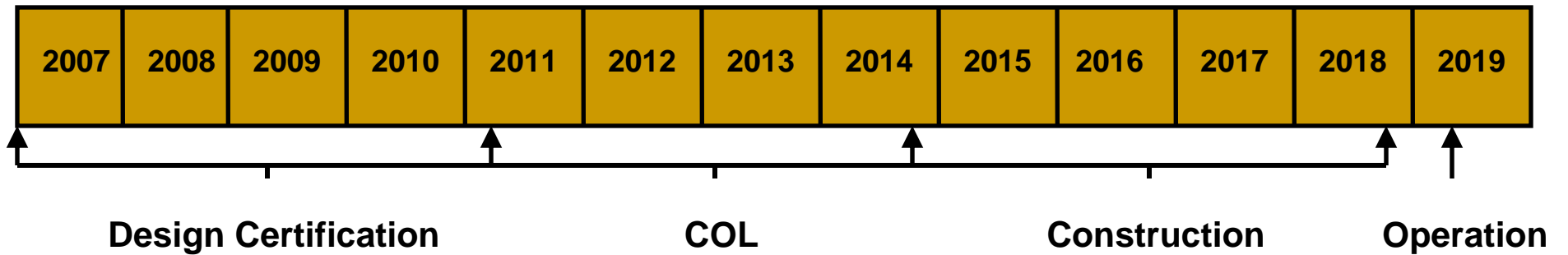
- **NRC Chairman Gregory B. Jaczko,
(November 16, 2009)**

Part 50 vs. Part 52

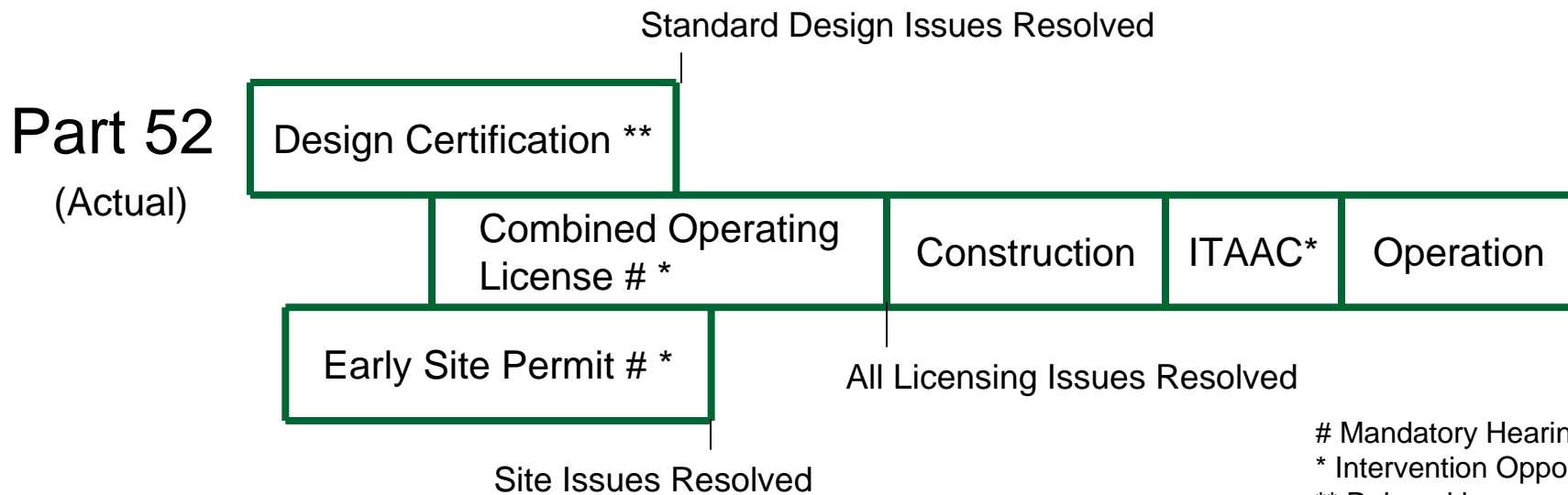
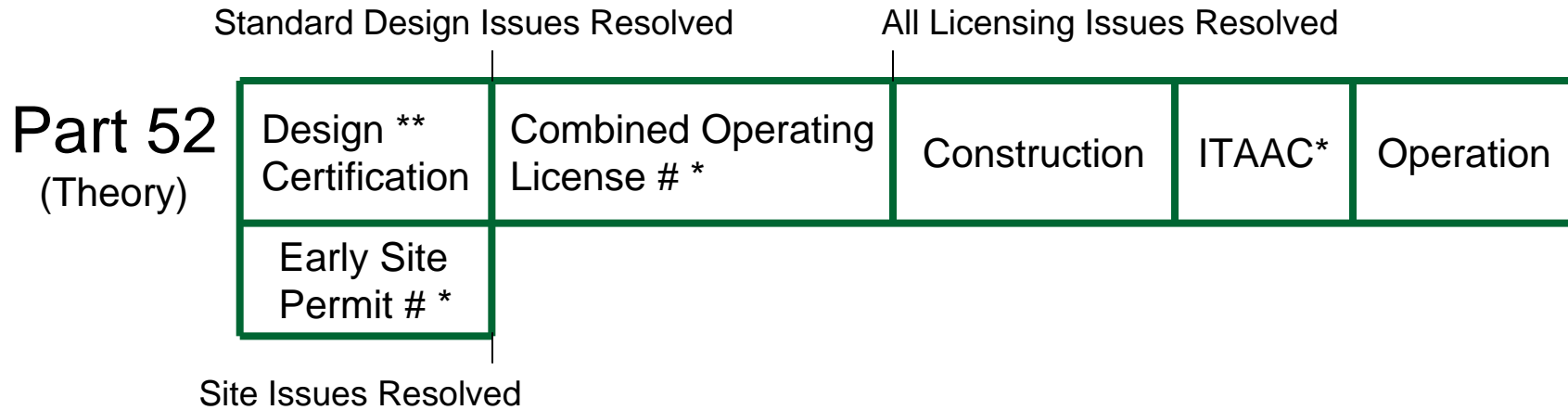


Mandatory Hearing
 * Intervention Opportunity
 ** Rulemaking

Greenfield Timeline – Nuclear Licensing and Construction

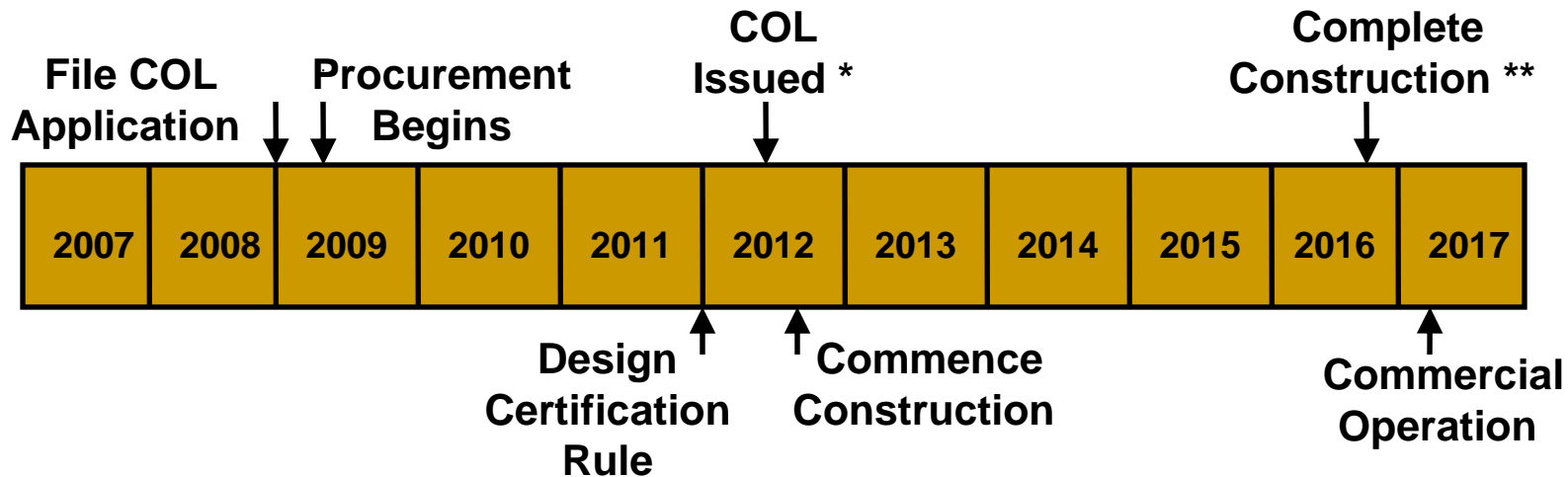
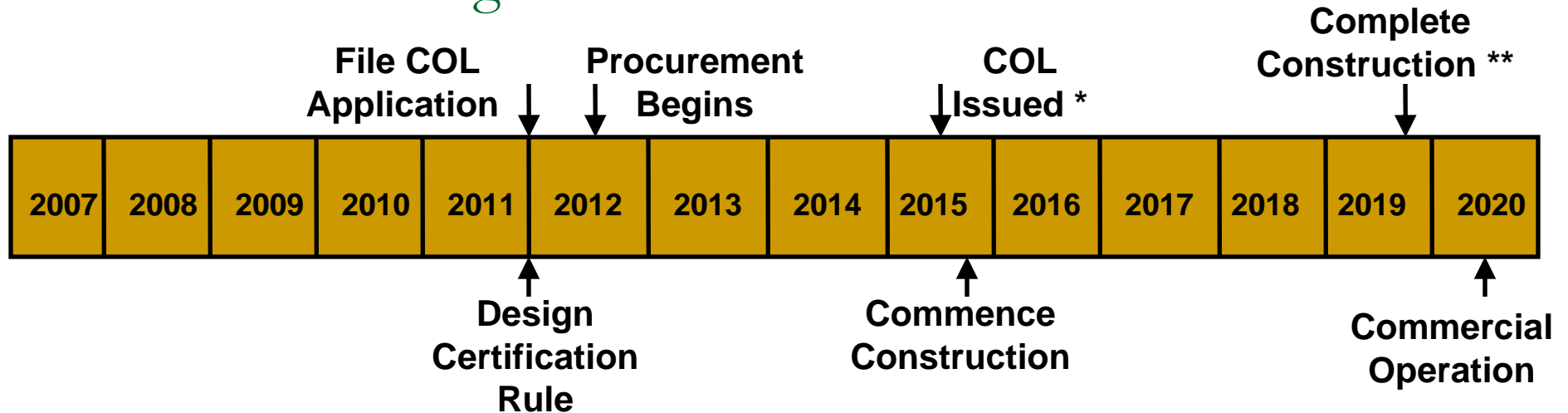


Part 52: Theory vs. Actual



Mandatory Hearing
 * Intervention Opportunity
 ** Rulemaking

Greenfield Timeline – Nuclear Licensing and Construction

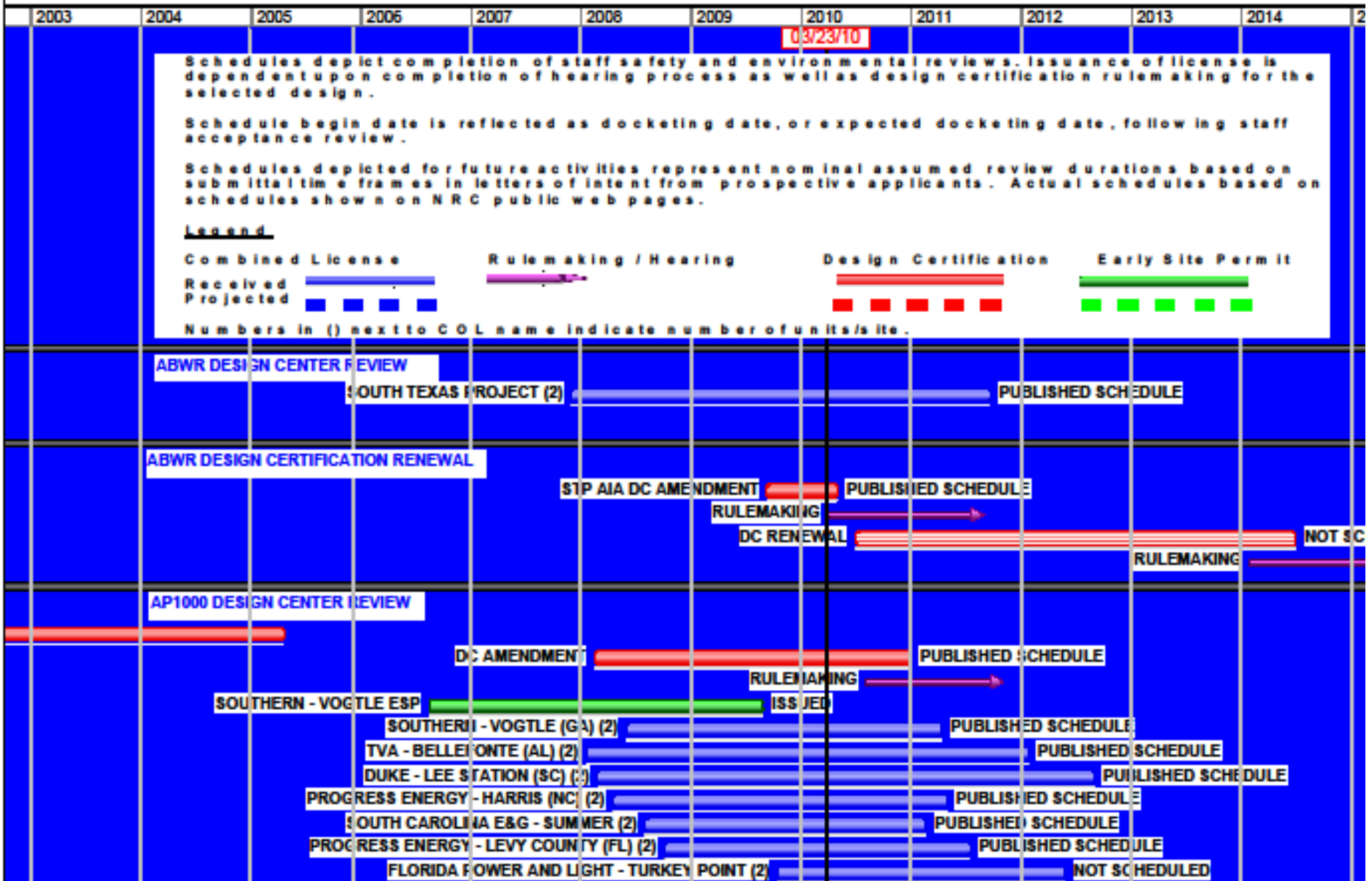


*Assumes No ESP (subtract 3-6 months for ESP)

**Assumes Pre-construction and LWA Work Complete Prior to COL Issuance

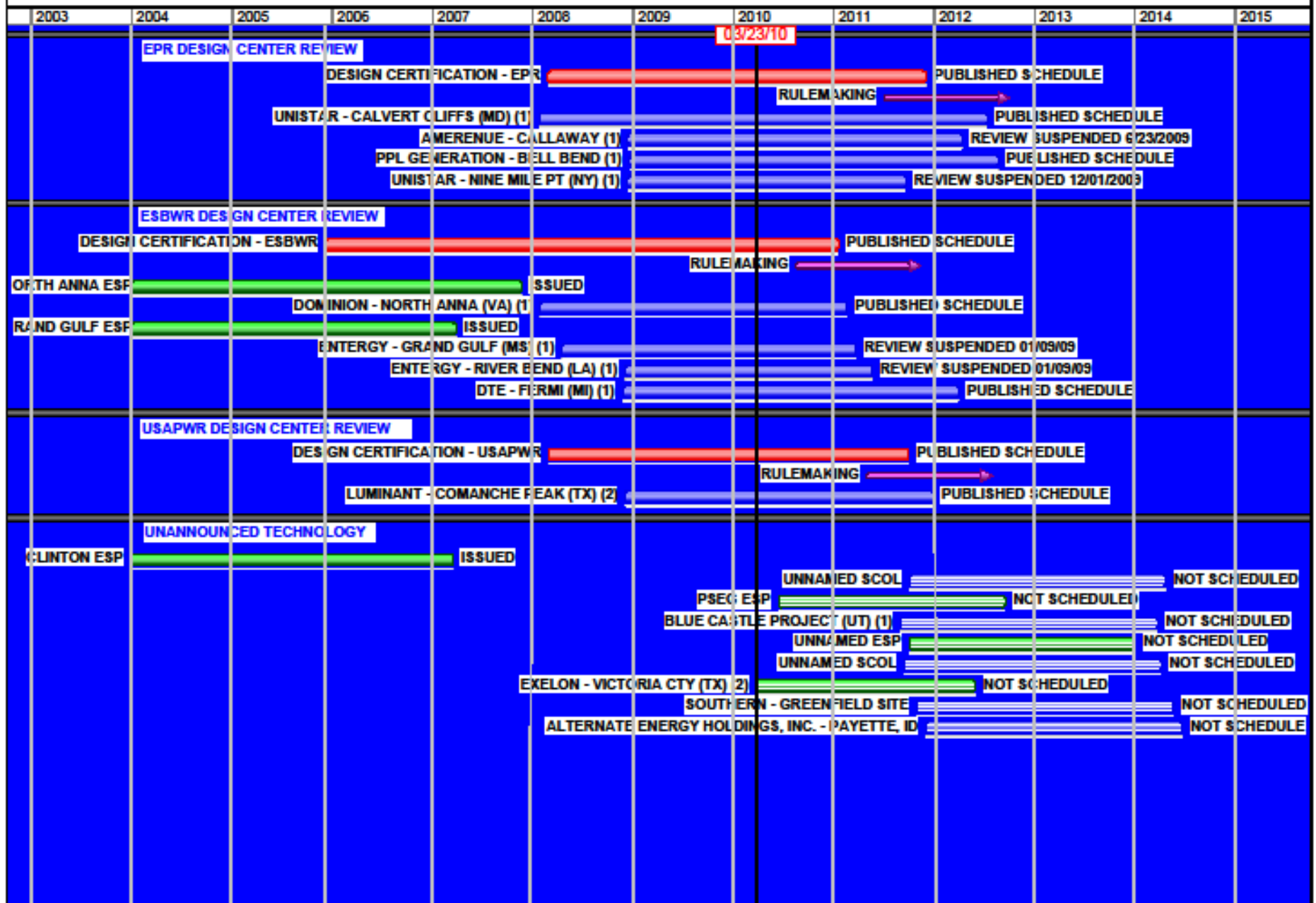
New Reactor Licensing Applications

Schedules by Calendar Year



New Reactor Licensing Applications

Schedules by Calendar Year



Concurrent DCR and COL Proceedings Were Predictable

- Finalizing certified design uncovers practical design problems
 - Fabrication issues
 - Operating experience
 - Resolve deferred Issues
 - Design Acceptance Criteria
 - COL Action Items
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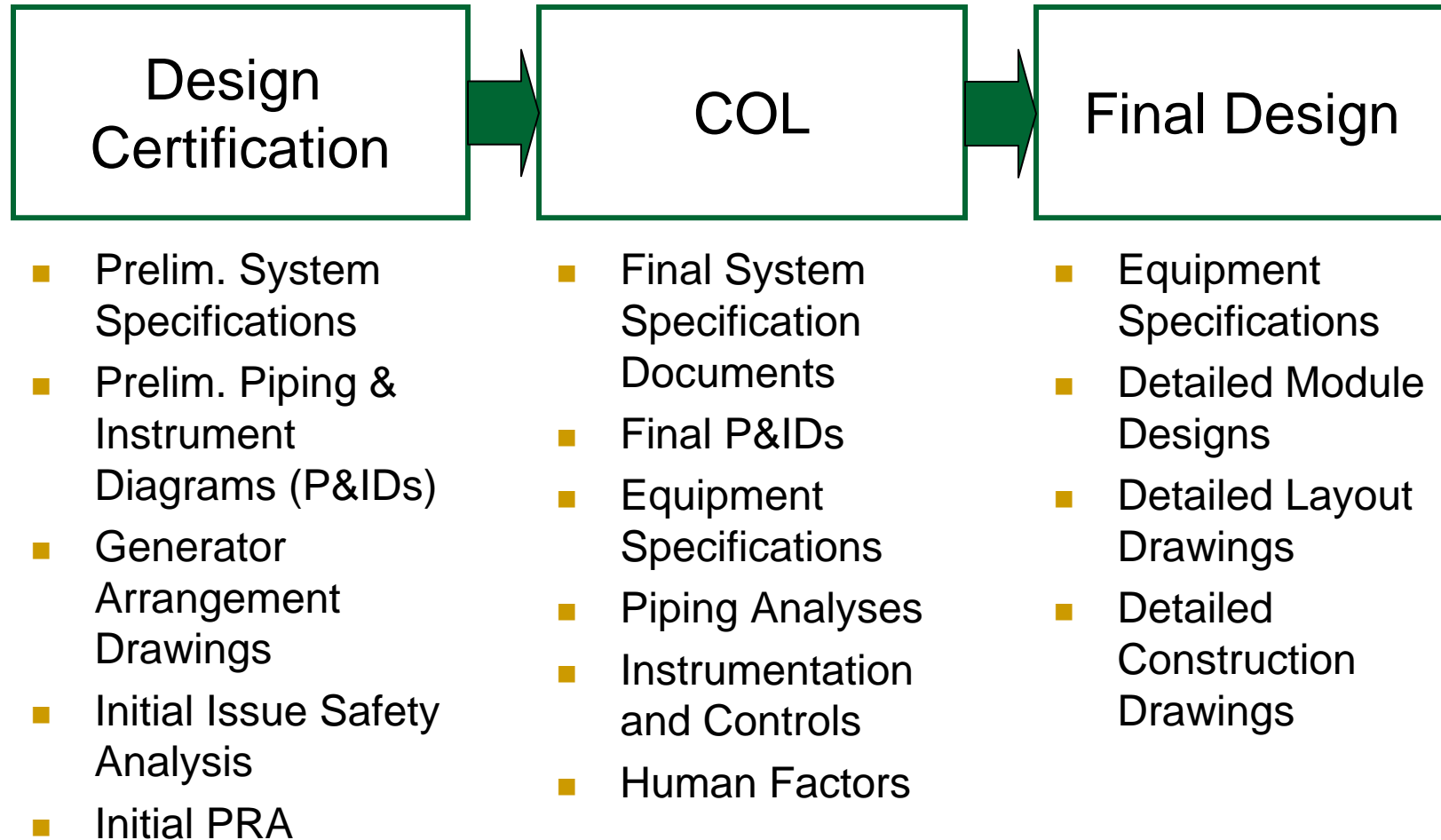
Concurrent DCR and COL Proceedings

Were Predictable:

Level of Detail

- "The information submitted for a design certification must include performance requirements and **design information sufficiently detailed to permit the preparation of acceptance and inspection requirements by the NRC, and procurement specifications and construction and installation specifications by an applicant.** The Commission will require, before design certification, that **information normally contained in certain procurement specifications and construction and installation specifications be completed and available for audit if the information is necessary for the Commission to make its safety determination.**"
 - 10 C.F.R § 52.47
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Design Changes in COL Were Predictable: Design Completion



Design-Centered Approach

- April 2008 – NRC Final Policy Statement on the Conduct of New Reactor Licensing Proceedings
 - Allows concurrent review of COLA/DC – “Design-Centered Approach”
 - Contentions regarding design:
 - Referred to DC proceeding for resolution, and
 - Held in abeyance in the COLA proceeding if otherwise admissible

 - In Progress Energy (Shearon Harris 2&3), Commission rejected contention that COLA is incomplete because referenced DC not approved (May 2009)
 - 10 CFR § 52.55(c) permits a COLA applicant to reference a DC Application at its own risk
 - Final Policy Statement refers “otherwise admissible” design related contentions to DC Proceeding
 - Contention that merely asserts that DC is incomplete not “otherwise admissible”

 - Similar Procedure followed for concurrent ESP and COL proceedings
 - Site-suitability or environmental contentions referred to ESP and held in abeyance in COLA
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NRC Interim Staff Guidance-11

- Design Certification Applicant can “freeze” licensing-basis information
 - Design Certification Rule based on information at time of freeze
 - Post-freeze changes resolved as COL departures, exemptions or amendments
 - More predictable review/decision schedule
 - May not defer some changes
 - Correction of Significant Technical Errors
 - Changes to Achieve Compliance with Regulation
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Conclusion

- Sequencing of Part 52 Approvals in the Initial Round of COLs Has Differed From the Process Envisioned in the Rule
 - NRC Has Implemented Processes Consistent With Part 52 That Accommodate Practical Considerations
 - Next Round of Applications Should Be Closer to Theory, but the Need for Flexibility Will Continue
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