



Licensing Process

***Presented to Howard University
Computers and Nuclear Energy
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Licensing under Part 50 VS. Licensing under Part 52

- Same – most requirements
- Different – applications, process, timing, and finality

Required for Licensing

- Applicant Qualifications
- Design Acceptability
- Environmental Impacts
- Operational Programs
- Site Safety
- Verification with Inspections, Tests, Analyses and Acceptance Criteria (ITAAC)

Licensing Steps under Part 50

- LWA under 10 CFR 50.10
- Construction Permit – 10 CFR 50.35(a)
- Byproduct Material under Part 30
- Source Material under Part 40
- Special Nuclear Material under Part 70
- Operating License – 10 CFR 50.57

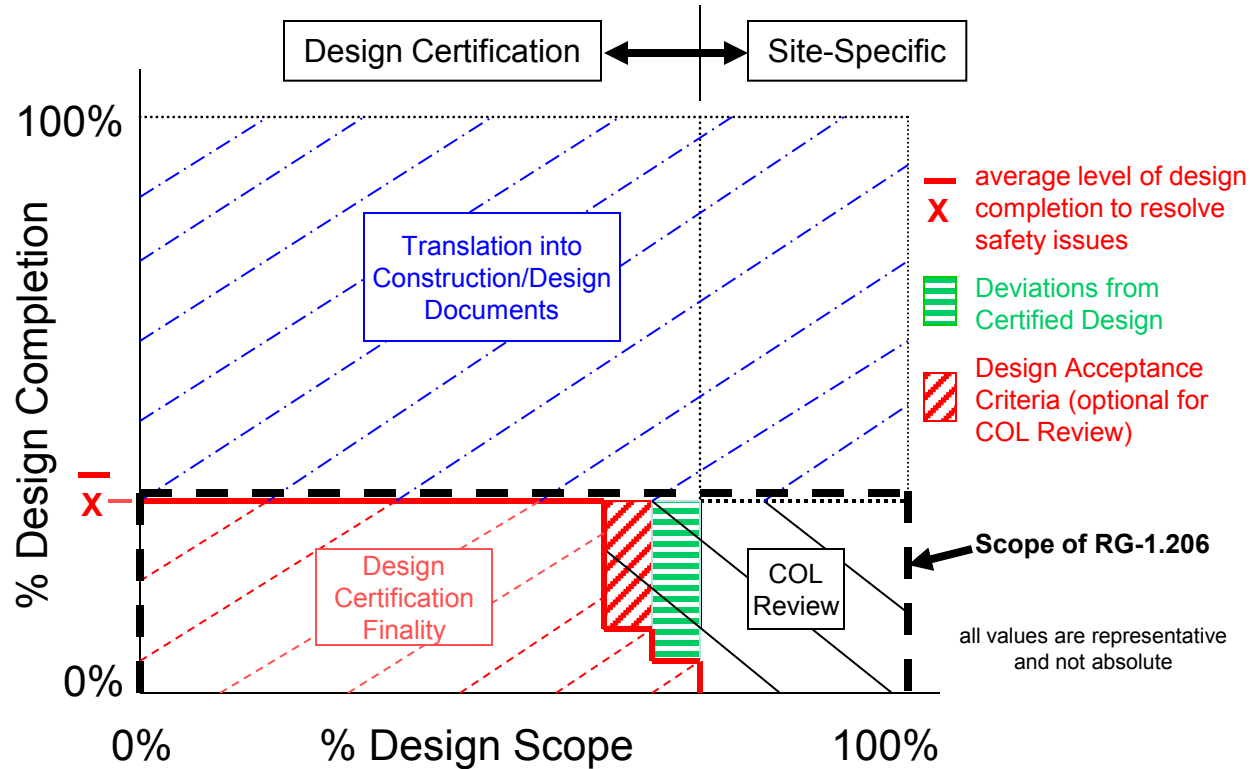
Part 50 Licensing Process

- Construction Permit – 50.34(a)
 - ✦ Preliminary Design
 - ✦ Site Safety
 - ✦ Environmental Impacts
 - ✦ Mandatory Hearing
- Operating License – 50.34(b)
 - ✦ Final Design
 - ✦ Operational Programs
 - ✦ Emergency Preparedness
 - ✦ Optional Hearing

Licensing under 10 CFR Part 50

- Lack of finality at construction permit stage
- Final safety decisions not made until plant is nearly complete and most costs expended
- Construction delay and rework because of design and regulatory changes
- Public participation difficult

Level of Detail

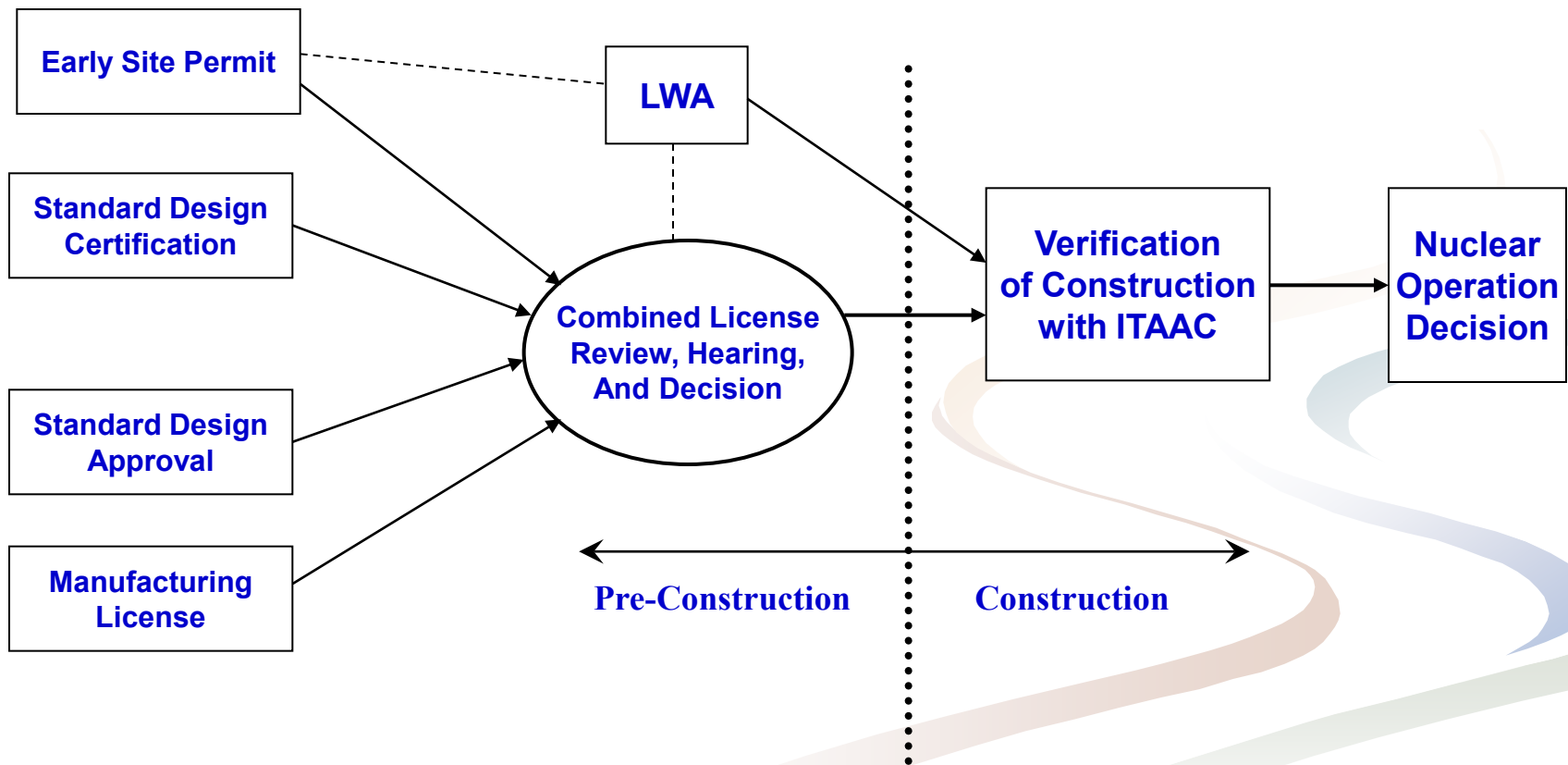


Combined License Application Referencing a Certified Design

Licensing under 10 CFR Part 52

- Stable and predictable licensing process
- Resolves safety and environmental issues before authorizing construction
- Timely and meaningful public participation
- Standardization of nuclear plant designs
- Reduces financial risk to licensees (COL)

Part 52 Licensing Process



Conclusions

- CP/OL application requirements in 50.34 were not fully updated post-TMI
- Application guidance out-of-date (RG 1.70)
- Some modern requirements are not applicable, e.g. TMI, PRA, Severe Accidents
- Plant design achieves finality at OL
- Many licensing steps in the CP/OL process