

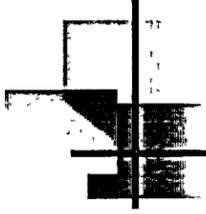
Preparing for New Reactor Licensing and Construction Inspections

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Inspections and Programs, NRR**

INPO/NRC Senior Management Meeting
Atlanta, Georgia
August 29, 2002



New Reactor Licensing Activities



- Readiness Assessment
- Part 50 Licensing Process
- Part 52 Licensing Process
 - Early Site Permit
 - Design Certification
 - Combined License
- Regulatory Infrastructure

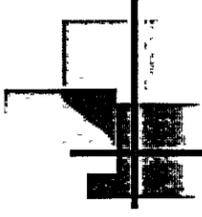


Future Licensing and Inspection Readiness Assessment

SECY-01-0188 & SECY-02-0076

- Licensing processes in 10 CFR Part 52 are ready to be used
- Can complete current new reactor licensing activities
- Additional work needed to be ready for
 - Early site permits
 - License applications
 - Construction of new plants
- Priorities depend on number/timing of industry decisions to pursue new licensing activities



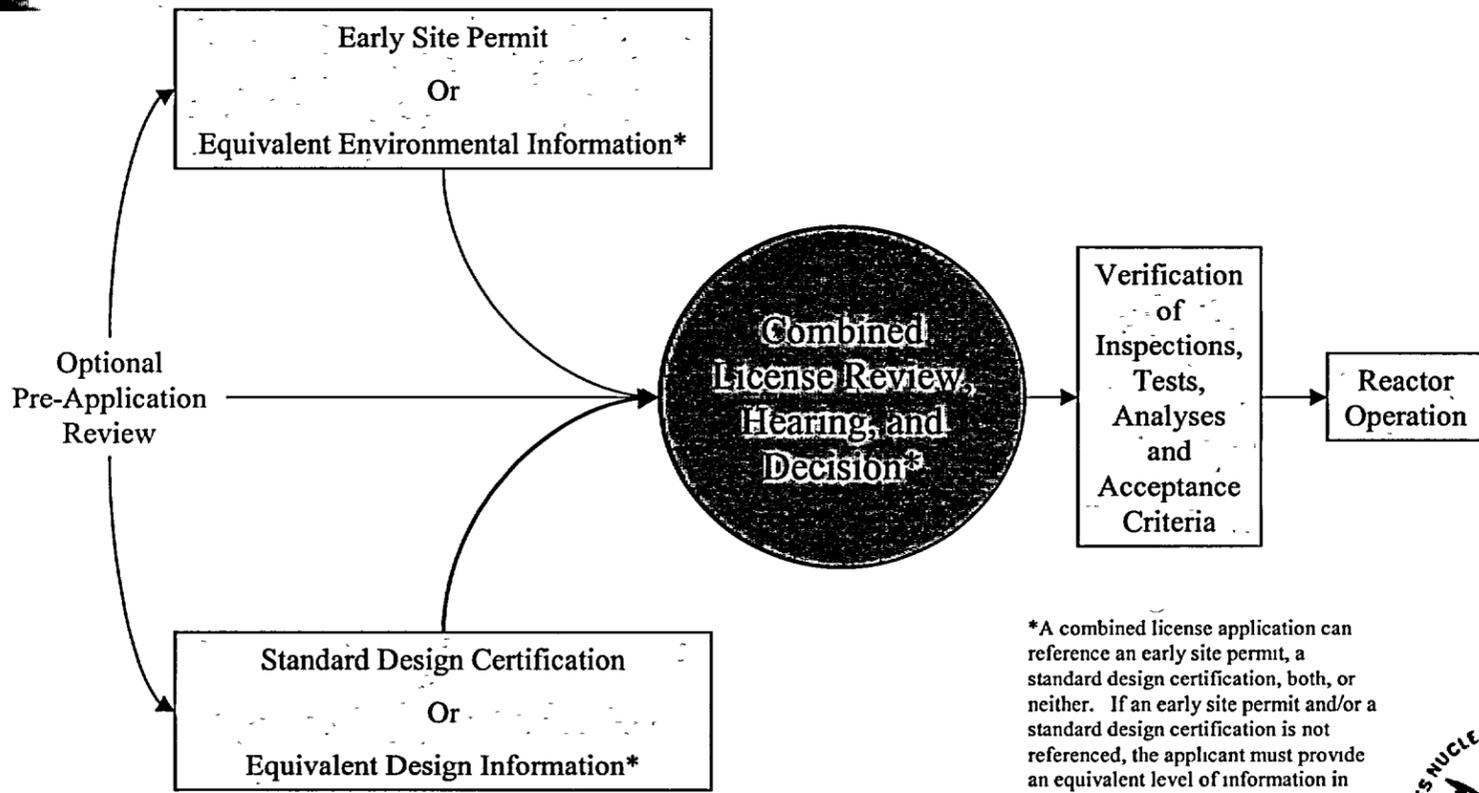


10 CFR Part 50 Licensing Process

- Construction Permit
 - Preliminary Design
 - Site Characteristics
 - Environmental
- Operating License
 - Final Design
 - Operational Programs
 - Emergency Preparedness

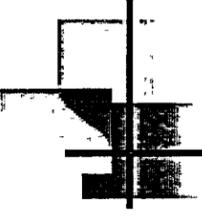


10 CFR Part 52 Licensing Process



*A combined license application can reference an early site permit, a standard design certification, both, or neither. If an early site permit and/or a standard design certification is not referenced, the applicant must provide an equivalent level of information in the combined license application

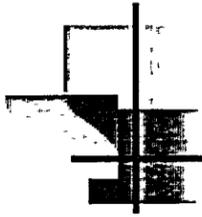




Goals for Part 52 Process

- Stable and predictable licensing process
- Resolve safety and environmental issues before authorizing construction
- Reduce financial risks to licensees (COL)
- Enhance safety and reliability through standardization of nuclear plant designs

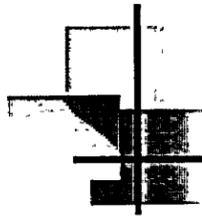




Early Site Permits

- Allows licensee to “bank” site for 10-20 years
- Review Areas
 - Site Safety
 - Environmental Protection
 - Emergency Preparedness

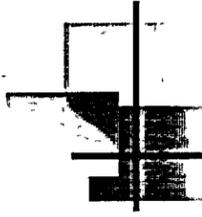




Early Site Permits

- Applications
 - June 2003 – Exelon (Clinton)
 - June 2003 – Entergy (Grand Gulf)
 - Sept 2003 – Dominion (North Anna)
- Current Activities
 - Monthly meetings with NEI and applicants
 - Public meetings in vicinity of site
 - Potential site visits
 - Review Standard

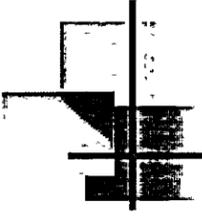




Design Certification

- Allows an applicant to pre-approve a standard nuclear plant design
- 15 year duration
- Reduces licensing uncertainty
- Facilitates standardization

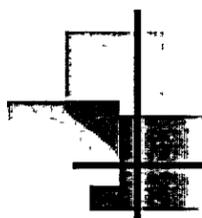




Current Design Reviews

- AP1000- Westinghouse Electric Company
- PBMR- Exelon Generation Company
- GT-MHR- General Atomics
- ESBWR- General Electric Company
- SWR 1000- Framatome Advanced Nuclear Power
- ACR 700- Atomic Energy of Canada Limited
- IRIS- Westinghouse Electric Company

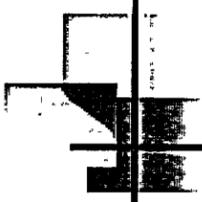




Combined License (COL)

- Combined construction permit and conditional operating license for a nuclear power plant
- COL may reference an ESP, a standard design certification, both, or neither

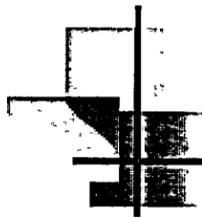




Combined License

- Inspections, Tests, Analyses and Acceptance Criteria (ITAAC)
 - Verify that the facility has been constructed and will be operated in conformity with the license, the provisions of the Atomic Energy Act, and the Commission's rules and regulations
 - ITAAC met prior to fuel load
 - Programmatic ITAAC – SECY-02-0067

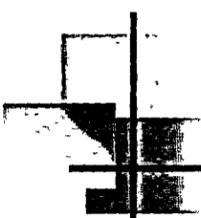




Regulatory Infrastructure

- Rulemaking
- Construction Inspection Program
- Financial/Legal Issues (SECY-01-0207)
- Advanced Reactor Research Plan





Conclusion

- NRC is preparing to license new reactors
- Resources are budgeted, but limited
- Competing with other high-priority reviews.



Backup Slide: SECY-01-0207

- Issues related to licensing merchant plants or modular plants.
 - Operator Staffing
 - Fuel Cycle Impacts
 - Financial Qualifications
 - Decommissioning Funding
 - Minimum Decommissioning Costs
 - Antitrust Review
 - Number of Licenses
 - Annual Fees
 - Financial Protection



Backup Slide:

Advanced Reactor Research Plan

- Consists of 9 key research areas
- Includes activity on Regulatory Framework for Non-LWRs structured around cornerstones of safety
- Scope includes: LWRs (IRIS, AP-1000) & Non-LWRs (PBMR, GT-MHR)
- Next update will include ACR-700, ESBWR, SWR-1000
- Collaborations are key (DOE, National, International Agreements)
- Prioritization process utilizes PIRT (Phenomena Identification and Ranking Tables) PBPM (programs)
- Plan will be sent to Commission in Fall 2002.

