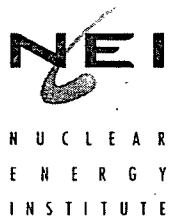


# **Nuclear Regulatory Commission Briefing on New Plants**

**April 30, 2008**



# Industry Panel

- **Christopher M. Crane, Chief Operating Officer, Exelon Generation, Chairman, New Plant Oversight Committee**
- **Stephen A. Byrne, Chief Nuclear Officer, South Carolina Electric & Gas, Chairman NEI New Plant Working Group**
- **Anthony R. Pietrangelo, Vice President, Regulatory Affairs, NEI**

# Discussion Topics

- **Current Process Overview**
- **Technical/Policy Issues**
- **Industry Priorities**
- **Conclusion**

# Current Process Overview

- **Companies will move forward with COL applications**
  - **Construction decision based on numerous considerations – not just COL issuance**
- **Constructive industry-NRC-public interaction**
  - **Site scoping visits**
  - **Design-Centered Review Approach**
- **Potential Process Issues**
  - **Implementing new/revised rules**
  - **Enhancing the environmental review process**

# Technical/Policy Issues

- **Maintaining standardization & high quality applications**
- **Level of Safety**
  - **Industry developed safer designs consistent with Advanced Reactor Policy Statement**
  - **Same regulated safety standard for new and existing plants**
- **Implementing PRA requirements for new plants**
- **Supply chain qualifications**

# Industry Priorities

- **Generation III+ deployment (next decade)**
- **Response to COL & DC RAIs**
- **Finalize understandings on COL implementation processes:**
  - **Construction inspection, enforcement and assessment**
  - **ITAAC close-out process, including fuel load authorization process**
- **Complete rulemakings**
  - **Waste Confidence**
  - **Part 73**
  - **Aircraft Impact Assessment**

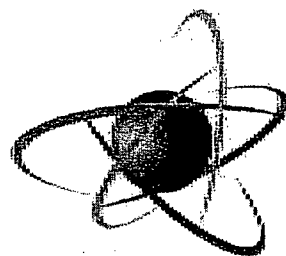
# Conclusion

- **Challenges of parallel reviews recognized**
  - **Industry & NRC staff coming to grips with details of COL processes**
- **Need for integrated industry & NRC COL review schedules**
  - **Incorporate benefits of design centered reviews**
- **Good NRC-applicant-public communication**

# List of Acronyms

- **COL – Combined Construction Permit and Operating License**
- **DC – Design Certification**
- **NRC -- Nuclear Regulatory Commission**
- **PRA – Probabilistic Risk Assessment**
- **RAI – Request for Additional Information**





**U.S. NRC**

UNITED STATES NUCLEAR REGULATORY COMMISSION

*Protecting People and the Environment*

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# **STATUS OF NEW REACTOR ISSUES**

**April 30, 2008**

**Luis Reyes**

**Executive Director for Operations**

# Agenda

- Accomplishments and Recent Activities
- Status of New Reactor Projects and Rulemaking
- Selected Safety and Environmental Technical Issues and Potential Schedule Impacts

# **Accomplishments and Recent Activities**

Gary Holahan, Deputy Director  
Office of New Reactors

# **Accomplishments Since Last Briefing**

- Completed acceptance reviews
- Issued limited work authorization (LWA) rule implementation guidance
- Completed environmental site audits

# **Other Recent Activities**

- Vendor Inspection Initiatives
- Planning and Scheduling Tools
- Recruitment and Knowledge Management

# **Status of New Reactor Projects and Rulemaking**

Thomas Bergman, Deputy Director  
Division of New Reactor Licensing  
Office of New Reactors

# **Status of Early Site Permits**

- Three Early Site Permits (ESPs) issued
- One ESP under review

# **Status of Design Certification Reviews**

- Four Design Certifications (DCs) issued
- Three DCs under review
- One DC Amendment under review



# **Combined License Application Reviews**

- Nine Combined License Applications (COLAs) submitted
  - Seven acceptance reviews complete and under review
  - Two applications under acceptance review

# **Ensuring Safety and Meeting Schedule Commitments**

- Planning and review tools
- Focus on safety and execution
- Enhanced openness and transparency of project execution

# **Status of Key Rulemaking Activities**

- Aircraft Impact Rulemaking
- Security Rulemaking
- Design Certification Rulemaking Process

# Conclusions

- Planning and review tools have been beneficial
- Schedule commitments are being met
- Continue to develop infrastructure to support new reactor reviews

# **New Reactor Sump Design Reviews**

Christopher Jackson, Chief  
Containment and Ventilation Systems  
Branch 1  
Office of New Reactors

# Key Points

- Regulations, guidance and experience are adequate to support new reactor reviews
- Level of detail lagging
- Continuing to receive application supplements – schedule impacts
- New approaches

# Path Forward

- Coordination between Offices
- International cooperation
- Planning and conducting safety-focused reviews to bring issue to timely resolution

# **Limited Work Authorization Rule Implementation**

Brent Clayton, Chief  
Environmental Technical Support  
Branch  
Office of New Reactors



# Definition of “Construction”

- New definition consistent with agency statutory authority
- Construction or preconstruction
- Changes affect all new reactor site and environmental reviews

# **Preconstruction Impacts**

- Environmental Reports to describe impact of “preconstruction” activities
- Preconstruction impacts assessed only in context of cumulative impacts
- Allows appropriate evaluation of impacts of construction activities being authorized

# **Interim Staff Guidance**

- Level of analysis to separate impacts commensurate with significance of impact
- Simple analyses sufficient in most areas
- Use request-for-additional information process for near-term applicants

# **Other Permitting Authorities**

- Potential timing issues with permits for preconstruction activities
- 1975 Memorandum of Understanding with Army Corps of Engineers being updated to address Part 52 and LWA rule

# **NRC Resources and Schedules**

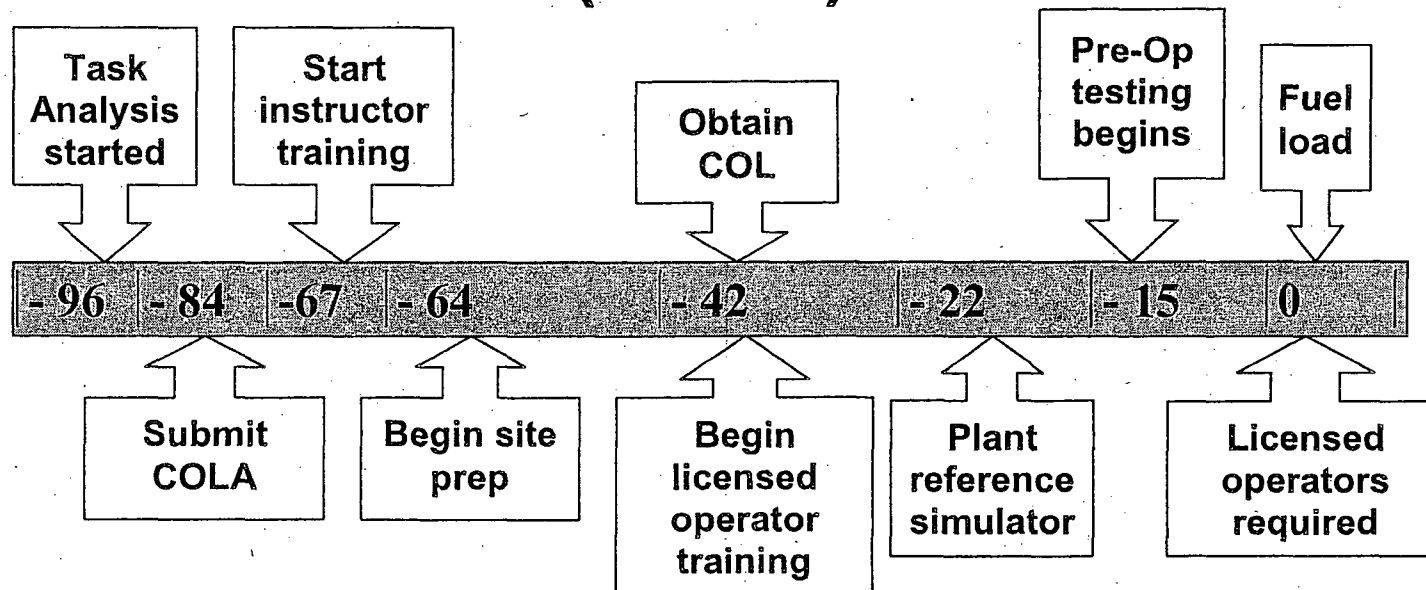
- Timely notification of LWA requests allows proper resource and schedule planning
- Later notification addressed on application specific basis

# **Operator Licensing for New Reactors**

Michael Junge, Chief  
Operator Licensing and Human  
Performance Branch  
Office of New Reactors

# Coordination of NRC Reviews and Examinations

## Training & Initial Accreditation Timeline (Months)



# **Operator Licensing Process**

- Process for acquiring knowledge and experience required for licensed operator duties post construction
- Topic of numerous public stakeholder interactions
- Industry technical paper under review



# **Digital Control Rooms**

- Operator examination content and administration
- Crew interactions and communications

# **NRC Readiness**

- Simulator for inspectors and examiners
- Examiner training and qualification

# **Transition to Operating Reactors**

- Activities fully coordinated with NRR, TTC, and the Regions
- Conduct of cross training

# Acronyms

- COLA – Combined License Application
- DC – Design Certification
- ESP – Early Site Permit
- LWA - Limited Work Authorization
- NRR – Office of Nuclear Reactor Regulation
- TTC – Technical Training Center