



**Power Reactor  
Decommissioning  
Commission Meeting  
March 15, 2016**

**Introductory Remarks**

**Michael Johnson**

**Deputy Executive Director for Reactor  
and Preparedness Programs**

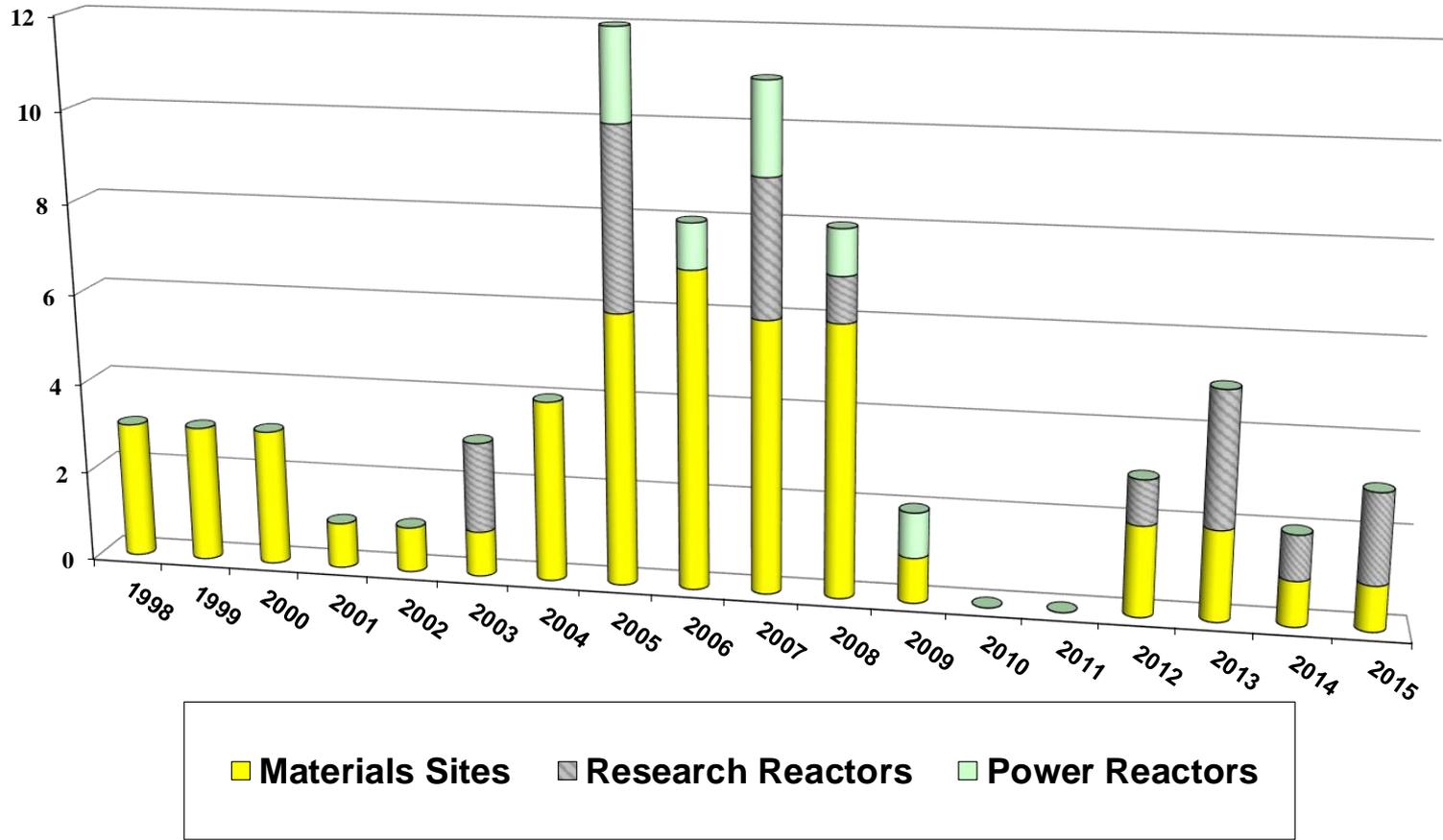
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**Overview of Reactor Decommissioning  
Experience**

**Bruce Watson**

**Office of Nuclear Material Safety and Safeguards**

# Safe Decommissionings Lead to NRC License Terminations



# **Significant Events Regarding Reactor Decommissioning Transitioning**

## **2000 - SECY-00-145 Integrated Rulemaking Plan for Nuclear Power Plant Decommissioning**

- **September 11, 2001**
- **License Renewal**

## **2008 – SECY-08-0024 Delegation of Commission Authority to Staff to Approve or Deny Emergency Plan Changes that Represent a Decrease in Effectiveness**

- **Requires Commission Approval**

## **2011 - Fukushima Daiichi**

- **New Orders**

# **Defined Decommissioning Roles**

- **NRC Role**
  - **Independent Safety Regulator**
  - **Radiological Decommissioning**
- **State Legislatures and Public Utility Commissions Role**
  - **Regulate Utility Commerce**
  - **Site Restoration**
- **Licensee Role**
  - **Safe Decommissioning**
  - **Citizens Advisory Groups**

# State and Local Government and Public Involvement is Variable



# Experienced Power Reactor Decommissioning Program

10 Power Reactor Licenses Terminated

5 in Active DECON

14 in SAFSTOR

3 Announced Future Shutdowns



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**Regulatory Framework for Operating Plants  
Transitioning to Decommissioning**

**Meena Khanna**

**Office of Nuclear Reactor Regulation**

# **Recent and Planned Plant Shutdowns**

- **Unplanned Reactor Shutdowns**
  - **Kewaunee**
  - **San Onofre Units 2 and 3**
  - **Crystal River Unit 3**
  - **Vermont Yankee**
  
- **Future Planned Shutdowns**
  - **FitzPatrick**
  - **Pilgrim**
  - **Oyster Creek**
  
- **Other Potential Plants?**

# **Current Regulatory Framework Ensures Safe Decommissioning**

- **Ensures adequate protection of public health and safety and of the environment**
- **Some regulations for power reactors continue to apply to decommissioning plants**
- **Risks of radiological releases are reduced at decommissioning plants**
- **Licensing actions are submitted to reflect reduction in risk**
- **Long-term regulatory framework for decommissioning is established during transition**

# **Decommissioning Transition Experience and Challenges**

- **NRC and Licensee Experience Gap**
  - **15-year interval since prior decommissioning**
  - **Learning curve in processing decommissioning transition licensing actions**
  
- **Licensing Impacts from the Five Premature Reactor Unit Shutdowns**
  - **Minimal pre-planning of licensing reviews**
  - **Over 70 decommissioning-related licensing actions**
  - **Concurrent licensing action submittals and competing priorities for expedited reviews**

# **NRC Actions and Assessment**

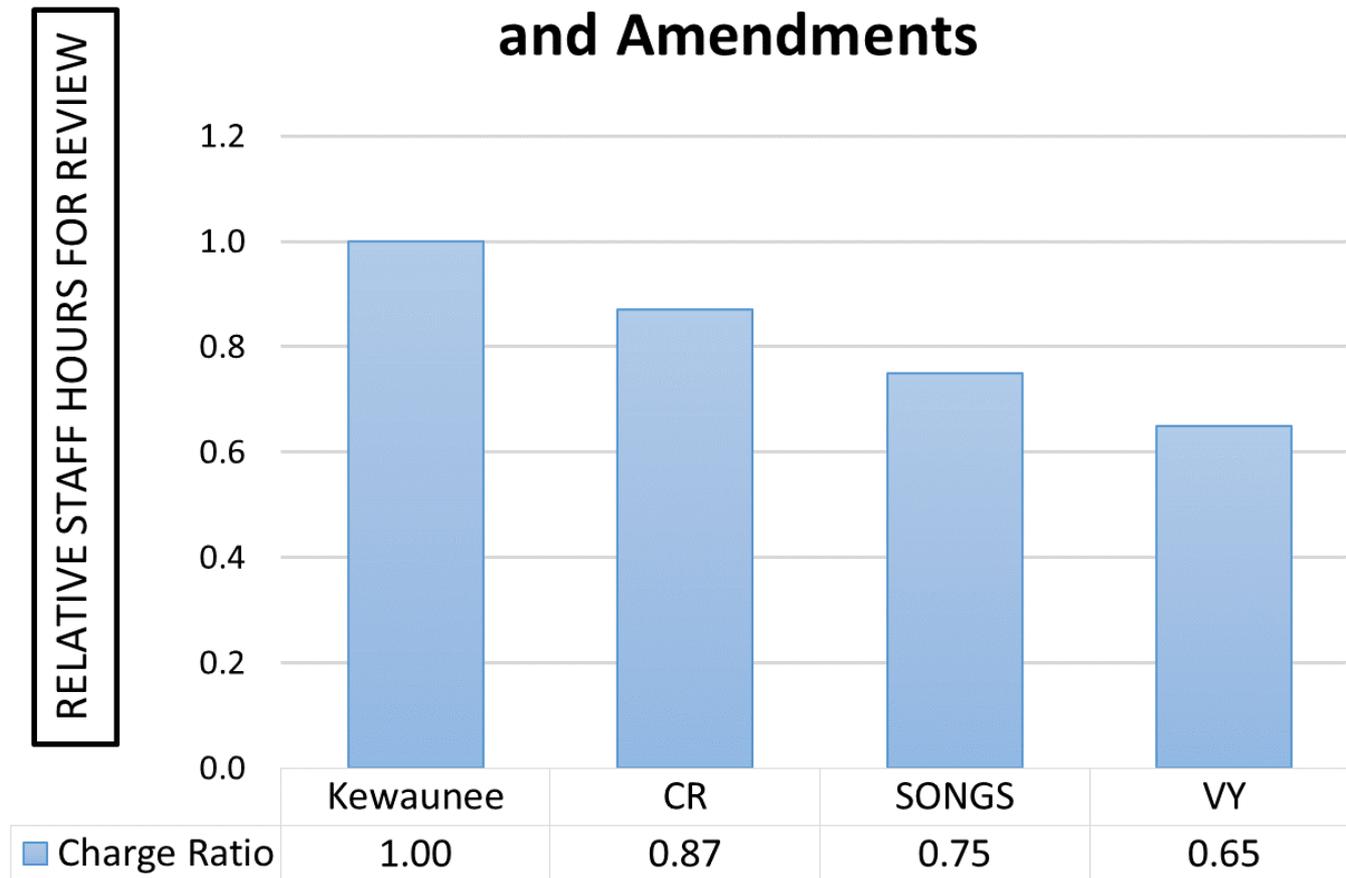
- **Actions Taken to Gain Efficiencies**
  - **Consolidated project management**
  - **Formed interoffice working group**
  - **Developed interim staff guidance**
  - **Prioritized decommissioning licensing actions**
- **Assessment of Current Regulatory Framework**
  - **Plants are decommissioning safely**

# **Implementing Lessons Learned to Gain Efficiencies**

- **Early licensee engagement with NRC**
- **Early licensee submittals of decommissioning licensing actions**
- **Use of established precedent**
- **Public and intergovernmental meetings and outreach**

# Efficiencies Gained from Experience

## Efficiencies Gained In Processing Emergency Preparedness Exemptions and Amendments



# Going Forward

- **Continued use of current transition process with implementation of lessons learned until decommissioning rulemaking is implemented**
- **Proceed with decommissioning rulemaking activities as directed by the Commission**

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**Overview of the Rulemaking Effort and Advanced  
Notice of Proposed Rulemaking**

**Jason Carneal**

**Office of Nuclear Reactor Regulation**

# **Commission Established Rule Scope**

**In SRM-SECY-14-0118, the Commission Directed Staff to Address the Following Issues in the Rulemaking:**

- Graded Approach to Emergency Preparedness**
- Lessons Learned**
- NRC Approval of Post-Shutdown Decommissioning Activity Report**
- Maintaining Three Existing Decommissioning Options and Associated Timeframes**
- Role of State and Local Governments and Non-Governmental Stakeholders**
- Other Issues Deemed Relevant by Staff**

# **Seeking Stakeholder Input**

- **Staff published an Advance Notice of Proposed Rulemaking (ANPR) on November 19, 2015**
- **Public meeting conducted on December 9, 2015**
- **ANPR comment period extended to March 18, 2016**

# **ANPR Will Help Define Rule Scope**

**The ANPR seeks specific feedback on:**

<b>Emergency Preparedness</b>	<b>Physical Security</b>	<b>Fitness for Duty</b>
<b>Training Requirements for Certified Fuel Handlers</b>	<b>Current Regulatory Approach for Decommissioning</b>	<b>Application of backfitting protection</b>
<b>Decommissioning Trust Funds</b>	<b>Offsite and Onsite Liability Protection</b>	<b>General Questions (e.g., Cumulative Effects of Regulation)</b>

# **Pursuing Rule Completion**

- **Advance Notice of Proposed Rulemaking**
  - **Published November 2015**
- **Draft Regulatory Basis**
  - **November 2016**
- **Final Regulatory Basis**
  - **June 2017**
- **Proposed Rule/Draft Regulatory Guidance**
  - **April 2018**
- **Final Rule/Final Regulatory Guidance**
  - **Objective: Provide to the Commission in calendar year 2019**

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**Closing Remarks**

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