



Fuel Facilities and Nuclear Materials Users Business Lines Commission Briefing

March 2, 2017



Opening Remarks

Victor M. McCree
Executive Director
for Operations

Fuel Facilities Business Line Meeting Agenda:

- **Overview of the Fuel Facilities Business Line**
- **Current Fuel Cycle Program Environment**
- **Oversight Accomplishments and Opportunities**
- **Fuel Cycle Operating Experience**



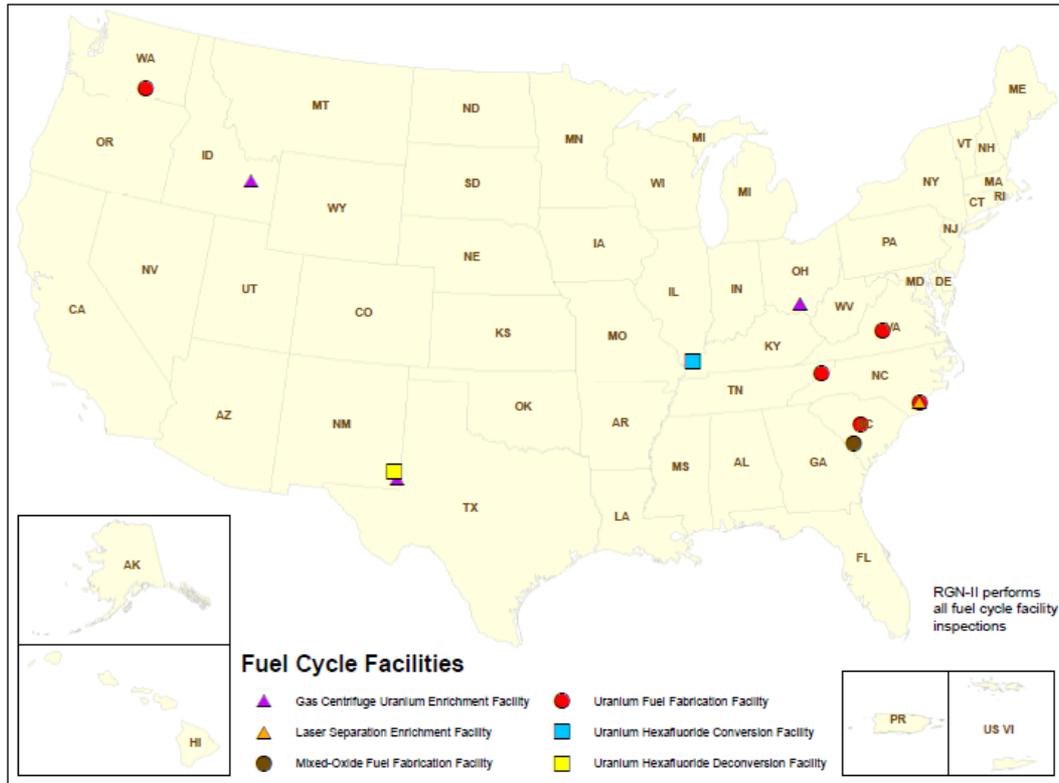
Overview of the Fuel Facilities Business Line

**Marc Dapas, Director
Office of Nuclear Material
Safety and Safeguards**

Focusing on Our Priorities

- **Ensuring safety and security through licensing, oversight, and environmental reviews**
- **Supporting U.S. non-proliferation activities**
- **Maintaining effective communications with stakeholders on regulatory activities**

Location of NRC Regulated Fuel Cycle Facilities



Successfully Implemented Project Aim Rebaselining Activities

- **Completed rebaselining implementation activities by October 2016**
- **Revised internal guidance commensurate with licensing and inspection program changes**
- **Communicated changes to stakeholders**

Improving the Fee Billing Process

- **Issued a joint NMSS/OCFO tasking memorandum**
- **Overarching objectives:**
 - **Ensure that internal controls for fee billing/cost recovery are in place**
 - **Define roles and responsibilities for NMSS and OCFO staff**
 - **Improve communication for establishing fee billing policy, setting requirements, and conducting invoicing**

Enhancing Fuel Facilities Safety Culture Outreach and Education

- **Outreach:**
 - **Planned presentation at 2017 FCIX**
- **Westinghouse Columbia Lessons-Learned Report**
- **Addressing safety culture through our Alternative Dispute Resolution Program**
- **Newest Educational Tool:**
 - **Safety Culture Educational Resource Workbook**



Current Fuel Cycle Program Environment

**Craig Erlanger, Director
Division of Fuel Cycle Safety,
Safeguards, and Environmental Review,
NMSS**

Significant Progress on Several Regulatory Initiatives

- **Cyber security rulemaking**
- **Implementation of Post-Fukushima activities**
- **Dermal and Ocular Chemical Exposures at Fuel Cycle Facilities**

Successfully Implementing Licensing and Oversight Programs

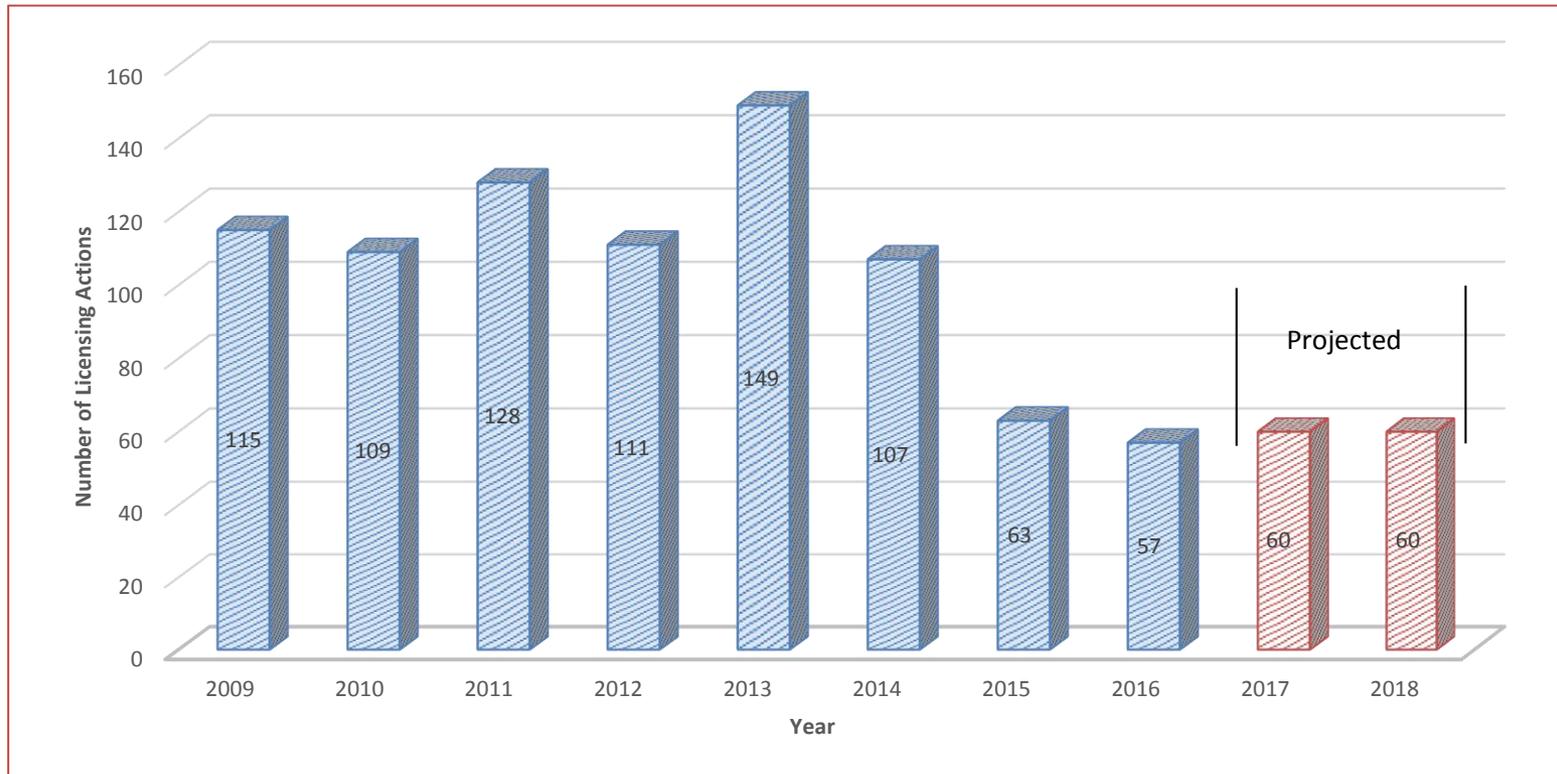


**Westinghouse Columbia
Fuel Fabrication
Facility**



**Honeywell Metropolis
Works**

Focusing on the Future of the Licensing Environment



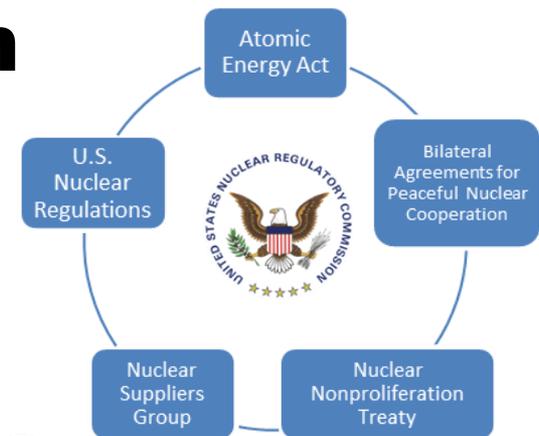
Supporting Regulatory Activities Through Stakeholder Outreach

Regulatory Activity	Revised	2016												2017												2018												2019											
		Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
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MC&A Reg. Guides Driver: SRM	02/23/2017	<div style="display: flex; justify-content: space-between;"> ↓ ↓ </div> comment period for RGs												RGs issued seperately																																			
FCIX Driver: Staff	02/23/2017													<div style="display: flex; justify-content: space-between;"> ● </div> FCIX Meeting																								<div style="display: flex; justify-content: space-between;"> ● </div> FCIX Meeting											
= Reg. Basis/Draft Guidance = Proposed Rule/Draft Guidance = Final Rule/Final Guidance = Public Interaction = Implementation = Non-rulemaking/NRC Activities ● = Meeting occurrence = Marks a milestone with text ↓ = Change occurred below arrow http://www.nrc.gov/materials/fuel-cycle-fac/regs-guides-comm.html#cumeffects																																																	
V = Site Visit A = ACRS Meeting																																																	



Positively Impacting International Safeguards Activities

- **Ensuring that the U.S. Government can meet treaty obligations**
- **Effectively engaging with Federal partners and interagency groups**



Focusing on Future Opportunities

- **Completing GL 2015-01 activities**
- **Completing the proposed cyber security rulemaking package**
- **Improving the accuracy of fee billing**



Oversight Accomplishments and Opportunities

**Mark Lesser, Director
Division of Fuel Facility Inspection,
Region II**

Oversight Accomplishments

- **Completed Core Inspection Program**
- **Performed reactive inspection (AIT) at the Westinghouse Columbia Fuel Fabrication Facility**
- **Conducted plant specific corrective action follow up inspections**
- **Conducted Information Security readiness and closeout inspections**

Organizational Accomplishments

- **Implemented Project Aim
rebaselining activities**
 - **Plant Modifications Inspection**
 - **Webinar option for Licensee
Performance Review meetings**
 - **Reactive Inspection Criteria
publically available**
- **Risk Informed the Enforcement
Policy for Information Security**

Mixed Oxide Fuel Fabrication Facility Inspection Accomplishments

- **Completed 1500 hours of inspection activities**
- **Completed 2 of 53 principal systems, structures, and components verifications**
- **Assessed Severity Level III problem with undersized welds**

Westinghouse Columbia Scrubber Condition

- **Completed an AIT inspection**
- **Issued a Confirmatory Action Letter**
- **Conducted a Program Adjustment Review**
- **Submitted an INES Report**



Focus Areas

- **Knowledge Management**
 - **Supporting Strategic Workforce Planning**
 - **Promoting cross-qualification**
 - **Maintaining proficient knowledge in a variety of technologies**
- **Ensure strong collaboration with the NMSS and NSIR Program Offices**
- **Complete inspections of natural phenomena hazard evaluations**



Fuel Cycle Facilities Operating Experience

**Brian Smith, Deputy Director
Division of Fuel Cycle Safety,
Safeguards, and Environmental Review,
NMSS**

Westinghouse Columbia Lessons-Learned Report

- **The staff's review focused on:**
 - **Licensing**
 - **Inspection**
 - **Operating experience**
 - **Roles and responsibilities of
Region II and NMSS**
 - **Knowledge management**

Westinghouse Columbia Lessons-Learned Report

- **Ensure that all systems with potential intermediate and high consequences are inspected at an appropriate periodicity**
- **Develop guidance on ISA and facility modification reviews to risk-inform inspection planning**
- **Improve operating experience framework**

Leveraging Operating Experience to Improve our Programs

- **Domestic:**
 - **Analyzed fuel cycle events over the past 5 years**
 - **Knowledge gained from evaluating significant events is used to improve the inspection program**
 - **Operating experience insights are shared with DOE counterparts**

Leveraging Operating Experience to Improve our Programs

- **International:**
 - **Participated as a National Coordinator with the IAEA's Fuel Incident Notification and Analysis System to share operating experience**

Questions



Nuclear Materials Users Business Line

March 2, 2017



Opening Remarks

Victor M. McCree
Executive Director
for Operations

Nuclear Materials Users Business Line Meeting Agenda:

- **Overview of Nuclear Materials Users Business Line**
- **Current National Materials Program Environment**
- **Materials Licensing and Inspection Program**
- **Web-Based Licensing System**
- **Implementation of the Agreement State Program**



Overview of Nuclear Materials Users Business Line

**Marc Dapas, Director
Office of Nuclear Material
Safety and Safeguards**

Ensuring Safety Over a Broad Range of Activities

- **Communicating and coordinating with stakeholders and partners**
- **Managing workload for the NMU business line**
- **Establishing Center of Expertise for Rulemaking**

Focusing on Several High Priority Items

- **Working to complete Commission-directed tasks involving a re-evaluation of Category 3 security and source accountability**
- **Working closely with the State of Wyoming on its application to become an Agreement State**
- **Revising the Tribal Protocol Manual to reflect the Commission-approved Tribal Policy Statement**



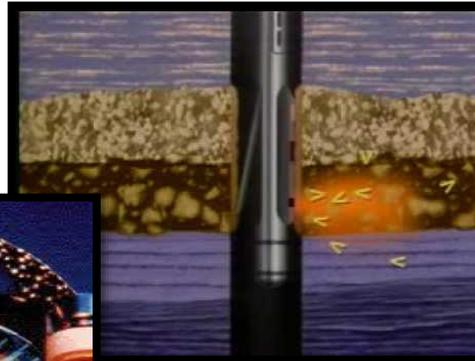
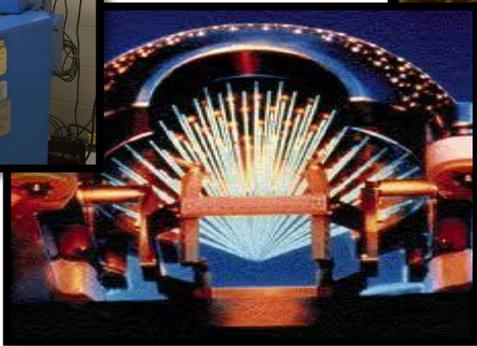
Current National Materials Program Environment

Daniel Collins, Director

**Division of Material Safety, State, Tribal,
and Rulemaking Programs,
NMSS**

Ensuring Safety and Security under the National Materials Program

- **Over 20,000 specific licensees**
- **Agreement States regulate about 86%**
- **Number of materials licensees remains relatively stable**



Effectively Supporting NRC's Strategic Goals and Objectives

- **National Materials Program completed about 20,000 licensing actions, well over 5000 inspections, and 9 IMPEP reviews**
- **Significant progress on many National Materials Program activities**
- **Part 37 program review**
- **Re-evaluation of Category 3 security source accountability**
- **Patient release, principally involving radioactive iodine treatment**

Supporting International Activities

- **Satisfy international treaty and convention obligations, as well as statutory mandates**
- **Support IAEA assistance programs and activities**

Actively Communicating with Stakeholders

- **Closely coordinate with OAS and CRCPD**
- **Meet formally with ACMUI twice per year**
- **Outreach efforts include safety culture**



Focusing on Continuous Improvement

- **Prioritizing resources to address GAO and OIG audit recommendations**
- **Maintaining program flexibility to adapt to changes and resource reductions while still meeting the mission**
- **Keeping up with continual technological advancement**



Material Licensing and Inspection Program Accomplishments and Challenges

**Linda Howell, Deputy Director
Division of Nuclear Material Safety,
Region IV**

Implementing a Robust Regional Materials Oversight Program

- **Completed approximately 1650 licensing actions and conducted about 1000 inspections for nearly 2400 NRC materials licensees**
- **Evaluated approximately 1900 reciprocity requests**
- **Regions perform unannounced, performance-based inspections of work being conducted in the field**

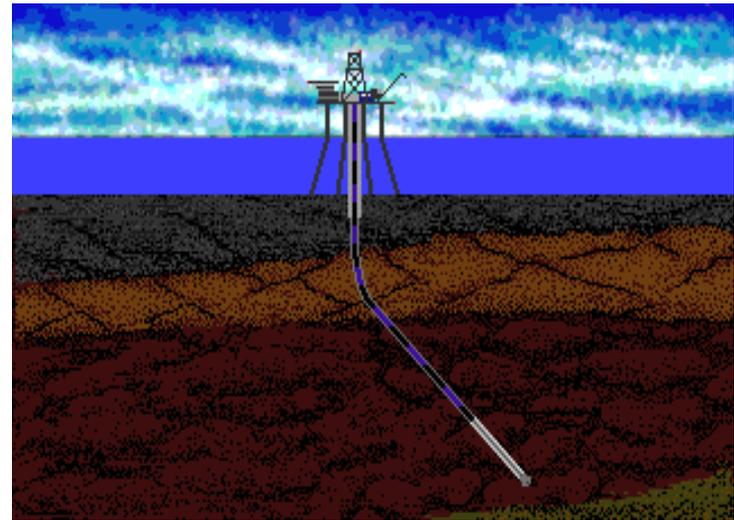
Focusing on Safety and Security While Conducting Inspections in a Large Geographical area



Radiographic Operations



Offshore Well Logging



Monitoring the Transfer of a Self-Shielded Blood Irradiator



Category 2 Quantity of Cs-137 was loaded into a Type B shipping container for transport to a new location



Security provided by SWAT and other police officers

Responding to Events, Evaluating Allegations, and Taking Enforcement Action When Needed

- **Conducted 22 reactive inspections**
- **Closed 44 allegations and processed 16 cases involving potential willful actions**
- **Issued 40 escalated enforcement actions**
- **Ensured safety culture traits were addressed in enforcement cases**

Other Activities in Support of the National Materials Program

- **Oversight of Master Materials Licensee programs**
- **Coordination and Support of the Agreement State Program**
- **Participate in working groups and guidance development initiatives**
- **Support international initiatives**
- **Provide instructors to the Technical Training Center**

Progress Continued on the Use of WBL in FY2016

- **WBL will increase efficiencies in licensing and its use has resulted in greater consistency**
- **Helped staff manage licensing and inspection case work**
- **Reconciling WBL/FAIMIS interface challenges to enhance accuracy of fee billing**
- **Enhancements to WBL have been made to address OIG audit findings**



Implementation of the Agreement State Program

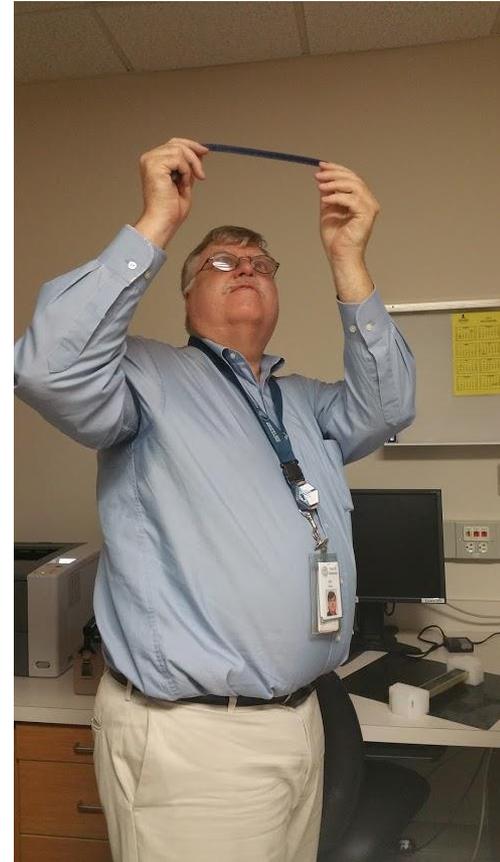
**Paul Michalak, Chief
Agreement State Program
Branch, NMSS**

Ensuring Consistency within the National Materials Program

- **Nine IMPEP reviews in FY16**
- **14 IMPEP periodic meetings**
- **Graded approach for addressing Agreement State program weakness**
- **Proposed final Policy Statement for the Agreement State Program**



IMPEP Inspection



Improving IMPEP

- **Focused self-assessment to evaluate efficiency and effectiveness of IMPEP**
- **Enhancing clarity and consistency in IMPEP evaluation criteria**
- **Focusing on two common performance indicators**
 - **Technical Staffing and Training**
 - **Status of Materials Inspection Program**

Active Partners in the National Materials Program

- **Agreement States contribute to IMPEP reviews and NRC-led working groups**
- **Wyoming and Vermont are expected to submit formal Agreement State applications in FY17**
- **Maintaining sufficient technical staffing is a recurring issue for Agreement States**

Meeting Agreement State Training Needs

- **FY16 – provided 38 training classes with 548 training slots filled with Agreement State personnel**
- **FY17 – estimated to provide 38 training classes with over 500 slots filled with Agreement State personnel**
- **Topical webinars used to provide additional training**
- **Positive feedback on training opportunities and content**

Agreement States' Current Areas of Interest

- **Actions related to the 2016 GAO audit and investigation on source security**
- **Re-evaluation of Category 3 security and source accountability**
- **Activities addressing non-military radium**
- **Part 35 rulemaking**
- **Financial planning proposed rulemaking**

Questions

List of Acronyms

- **ACMUI – Advisory Committee on the Medical Uses of Isotopes**
- **AIT – Augmented Inspection Team**
- **CRCPD – Conference of Radiation Control Program Directors**
- **DOE – U.S. Department of Energy**
- **FAIMIS – Financial and Accounting Integrated Management Information System**
- **FCIX – Fuel Cycle Information Exchange**
- **FY – Fiscal Year**
- **GAO – Government Accountability Office**
- **GL – Generic Letter**
- **IAEA - International Atomic Energy Agency**

List of Acronyms

- **IMPEP – Integrated Materials Performance Evaluation Program**
- **INES – International Nuclear and Radiological Event Scale**
- **ISA – Integrated Safety Analysis**
- **NMSS – Office of Nuclear Material Safety and Safeguards**
- **NSIR – Office of Nuclear Security and Incident Response**
- **OAS – Organization of Agreement States**
- **OCFO – Office of the Chief Financial Officer**
- **OIG – Office of the Inspector General**
- **WBL – Web Based Licensing**