

SCHEDULING NOTE

Title: **STRATEGIC PROGRAMMATIC OVERVIEW OF THE FUEL FACILITIES AND THE NUCLEAR MATERIALS USERS BUSINESS LINES (Public Meeting)**

Purpose: The purpose of the briefing is to provide the Commission with a discussion of strategic considerations associated with the Fuel Facilities and the Nuclear Materials Users Business Lines.

Scheduled: **April 23, 2019**
9:00 a.m.

Duration: Approx. 3 hours

Location: Commissioners' Conference Room, 1st Floor OWFN

Fuel Facilities Business Line

40 mins.*

NRC Staff¹

Steven West, Deputy Executive Director for Materials, Waste, Research, State, Tribal, Compliance, Administration and Human Capital Programs

John Lubinski, Director, Office of Nuclear Material Safety and Safeguards (NMSS)

Topic:

- Overview of the Fuel Facilities Business Line

Michael King, Director, Division of Fuel Cycle Safety, Safeguards and Environmental Review, NMSS

Topic:

- Current Fuel Cycle Program Environment

LaDonna Suggs, Director, Division of Fuel Facility Inspection, RII

Topic:

- Fuel Cycle Inspection Program Activities

James Rubenstone, Chief, Material Control & Accounting Branch, Division of Fuel Cycle Safety, Safeguards and Environmental Review, NMSS

Topic:

- International Atomic Energy Agency Safeguards Activities Update

¹ Other business line partner office directors and regional administrators will be located in the well as appropriate

Commission Q & A

50 mins.

Break

5 mins.

Nuclear Materials Users Business Line

40 mins.*

NRC Staff¹

Steven West, Deputy Executive Director for Materials, Waste, Research,
State, Tribal, Compliance, Administration and Human Capital Programs

John Lubinski, Director, Office of Nuclear Material Safety and Safeguards (NMSS)

Topic:

- Overview of Nuclear Materials Users Business Line

Andrea Kock, Director, Division of Materials Safety, Security, State,
and Tribal Programs, NMSS

Topic:

- Status of the National Materials Program

Paul Michalak, Chief, Agreement States Program Branch, NMSS

Topic:

- Integrated Materials Performance Evaluation Program Trends and Agreement States Program Topics

Joseph Nick, Deputy Director, Division of Nuclear Materials Safety, Region I

Topic:

- Regional Materials Licensing and Inspection Program Activities

Commission Q & A

50 mins.



Strategic Programmatic Overview of the Fuel Facilities and the Nuclear Materials Users Business Lines

- Commission Meeting
- April 23, 2019





Opening Remarks

Steven West

Deputy Executive Director for Materials,
Waste, Research, State, Tribal, Compliance,
Administration and Human Capital Programs

Fuel Facilities Business Line Meeting Agenda:

- Business Line Overview –
John Lubinski
- Current Program Environment –
Mike King
- Inspection Program Activities –
LaDonna Suggs
- International Atomic Energy Agency
Safeguards Activities –
Jim Rubenstone



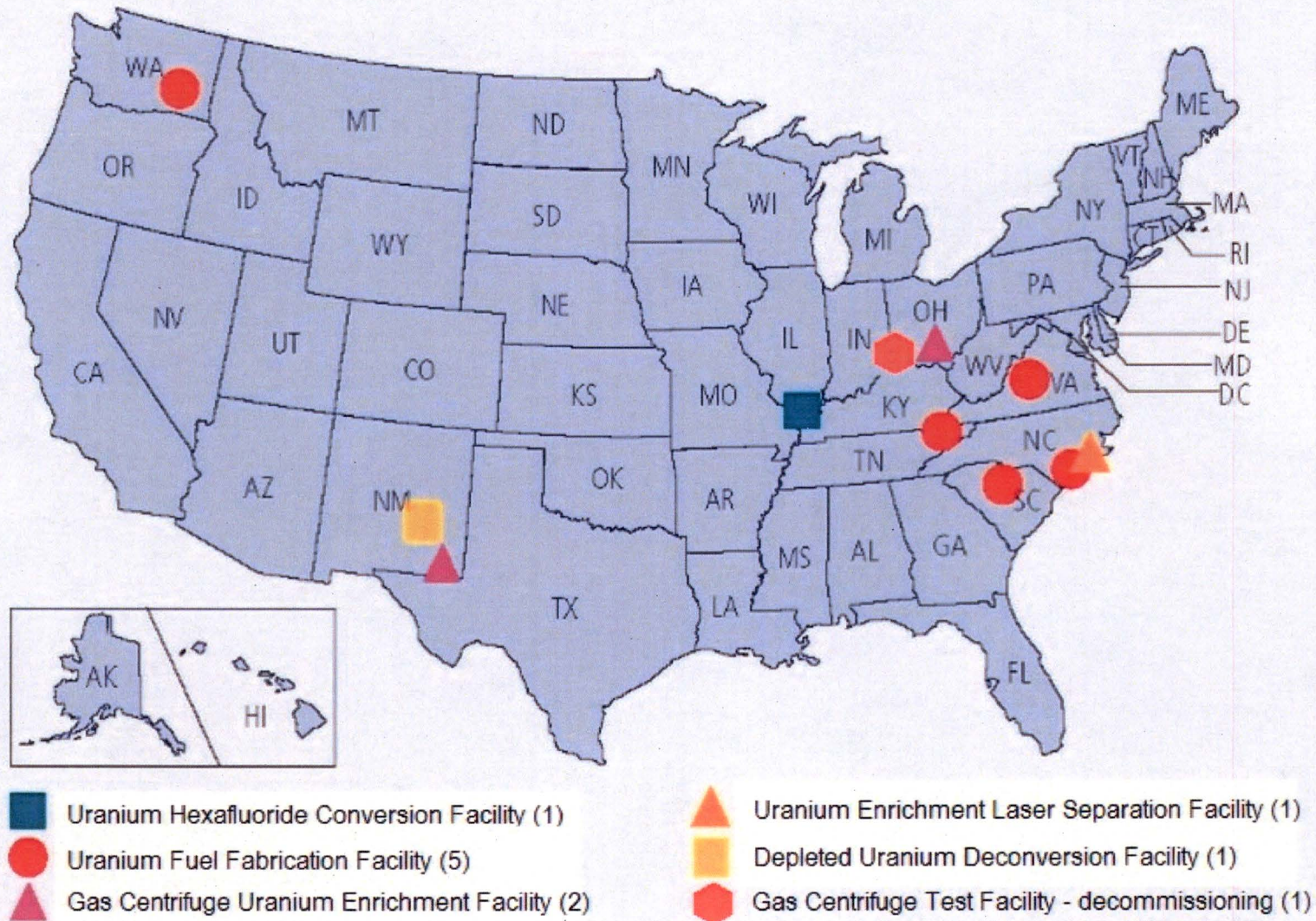
Overview of the Fuel Facilities Business Line

John Lubinski, Director
Office of Nuclear Material Safety
and Safeguards

Focusing on Our Priorities

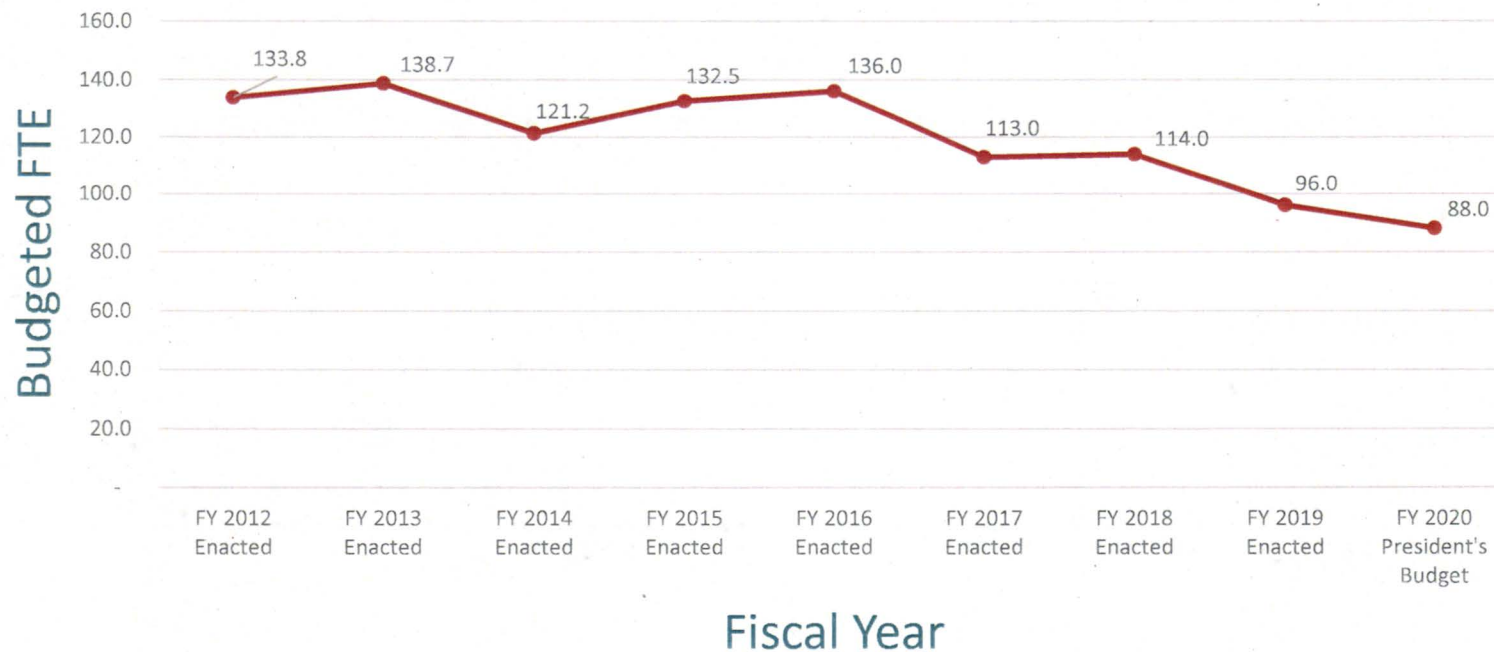
- Ensuring the readiness to perform licensing reviews for new technologies, medical isotope production, accident tolerant fuel, and advanced reactors
- Ensuring safety and security while increasing effectiveness and efficiency
- Supporting U.S. non-proliferation activities
- Maintaining effective communications with stakeholders on regulatory activities

Regulated Fuel Cycle Facilities



Addressing the Changing Workload

Fuel Facilities Business Line FY 2012 - FY 2020 Budget



Focusing on Improving Our Regulatory Framework

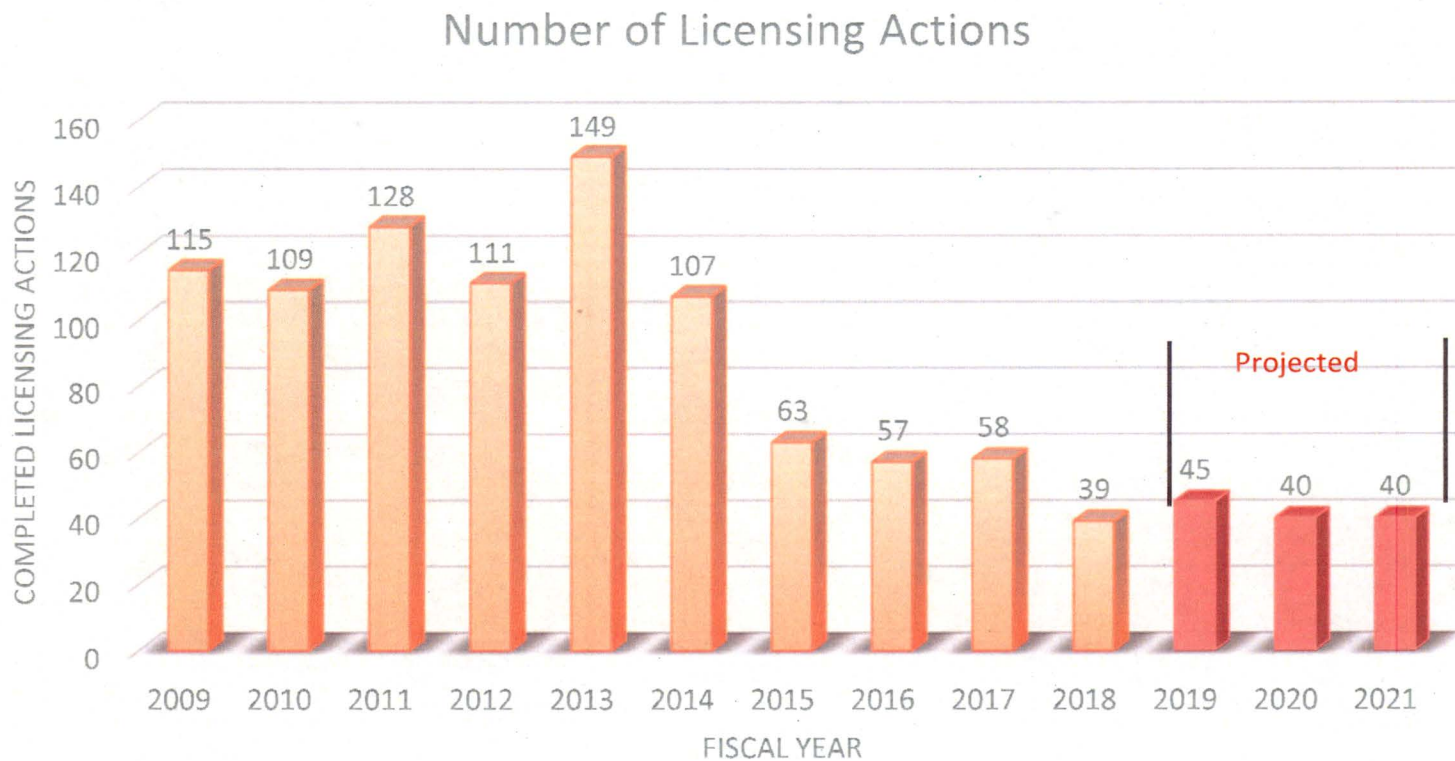
- Continuing to risk-inform our regulatory activities
 - NMSS memorandum on reasonable assurance of adequate protection
- Improving the effectiveness and efficiency of our programs and processes
 - FCSE and DFFI reorganizations
 - NMSS reorganization and Centers of Expertise



Current Fuel Cycle Program Environment

Mike King, Director
Division of Fuel Cycle Safety, Safeguards,
and Environmental Review,
NMSS

Focusing on the Anticipated Licensing Workload



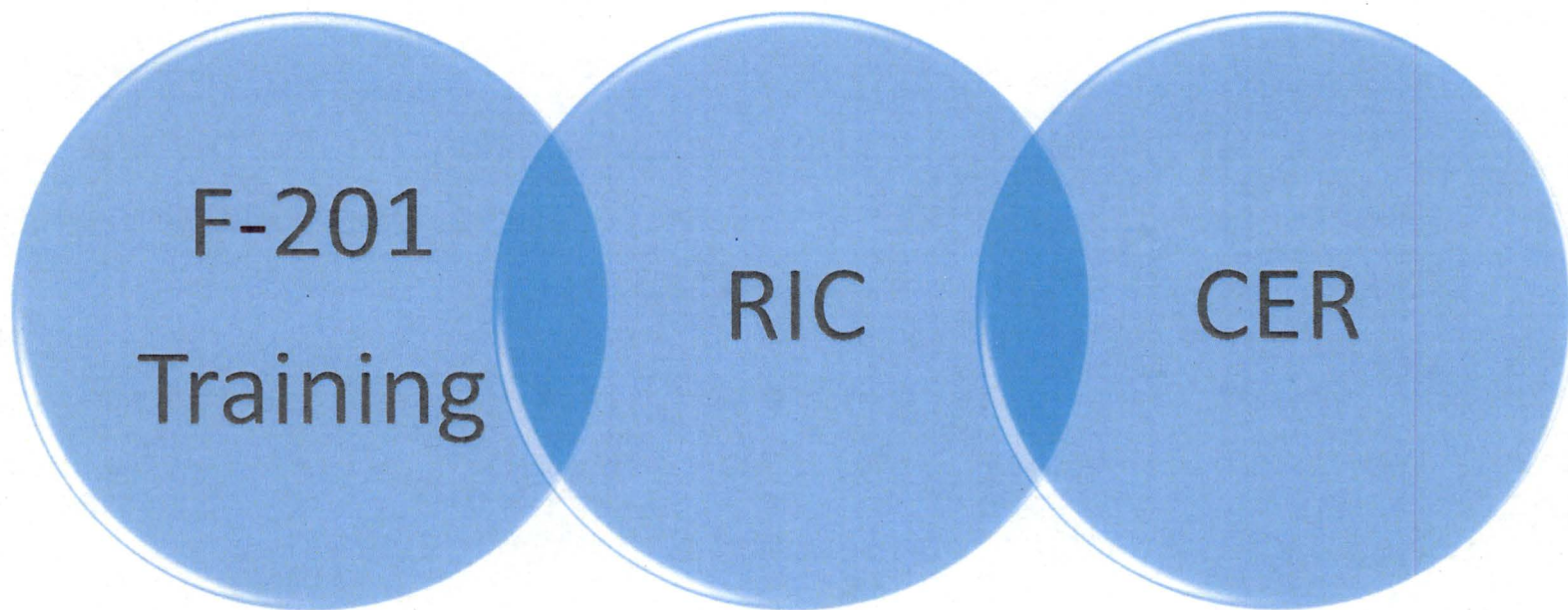
Successfully Implemented Fuel Cycle Licensing Programs

- Performed internal licensing process reviews
- Implemented enhancements to the licensing program
- Continued to leverage knowledge management activities

Successfully Implemented Fuel Cycle Oversight Programs

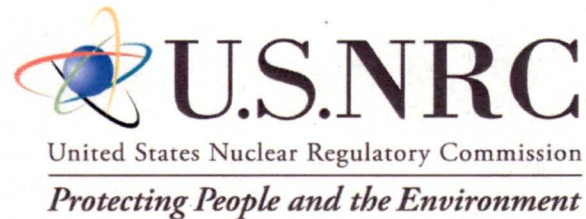
- Established a formal self-assessment program
- Leveraged operating experience to improve the oversight program
- Launched an initiative to evaluate our existing suite of safety and safeguards inspections

Improving Regulatory Activities through Stakeholder Outreach



Ensuring the Safety and Security of Fuel Facilities

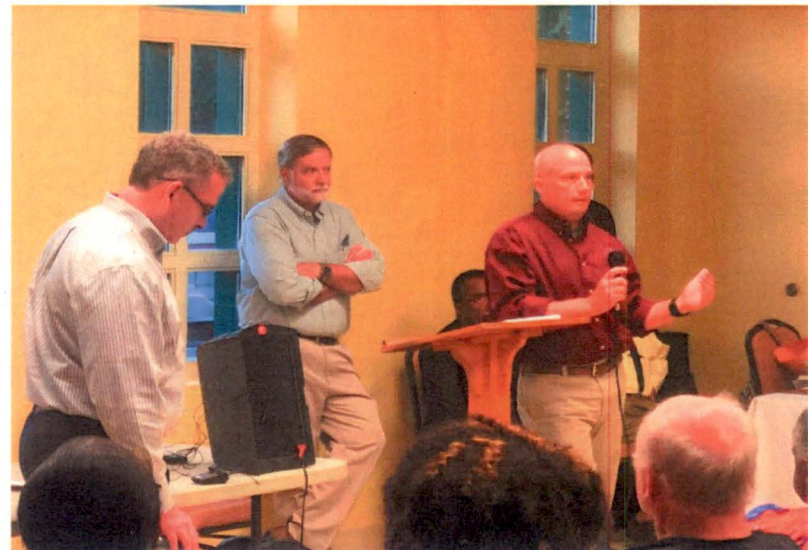
- Implementing strategies to risk-inform the licensing and inspection program
- Modernizing our decision-making
- Supporting medical isotope, accident tolerant fuel, and advanced reactors licensing activities



Fuel Cycle Inspection Program Activities

LaDonna Suggs, Director
Division of Fuel Facility Inspection,
Region II

Focusing on the Mission and Stakeholder Outreach

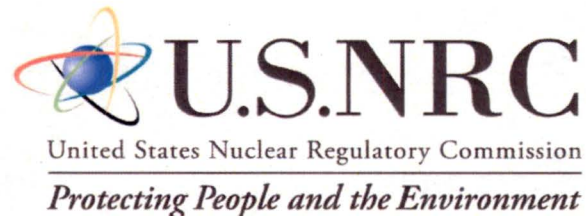


Enhanced Inspection Processes and Optimized Organizational Effectiveness

- Enhanced the core inspection program
 - Developed a focus area matrix
 - Shifted annual fire protection and operations to resident inspectors
 - Improved the *Licensee Performance Review* process
- Implemented reorganization aligning with agency goals and improving staff-to-supervisor ratio

Sharpening the Saw

- Leveraging cross-office Communities of Practice and information technology
- Bolstering support of inspector cross-qualification in multiple business lines
- Collaborating with the Program Office to implement strategies to address challenges and identify areas of transformation



International Atomic Energy Agency Safeguards Activities Updates

James Rubenstone, Chief
Material Control & Accounting Branch,
Division of Fuel Cycle Safety, Safeguards,
and Environmental Review,
NMSS

Implementing International Safeguards at NRC-Licensed Facilities

- U.S. agreements with IAEA and our nuclear trading partners provide for safeguards commitments at NRC-licensed facilities
- NMSS works closely with other NRC Offices and with our interagency partners
- NMSS manages the NRC support for and use of NMMSS

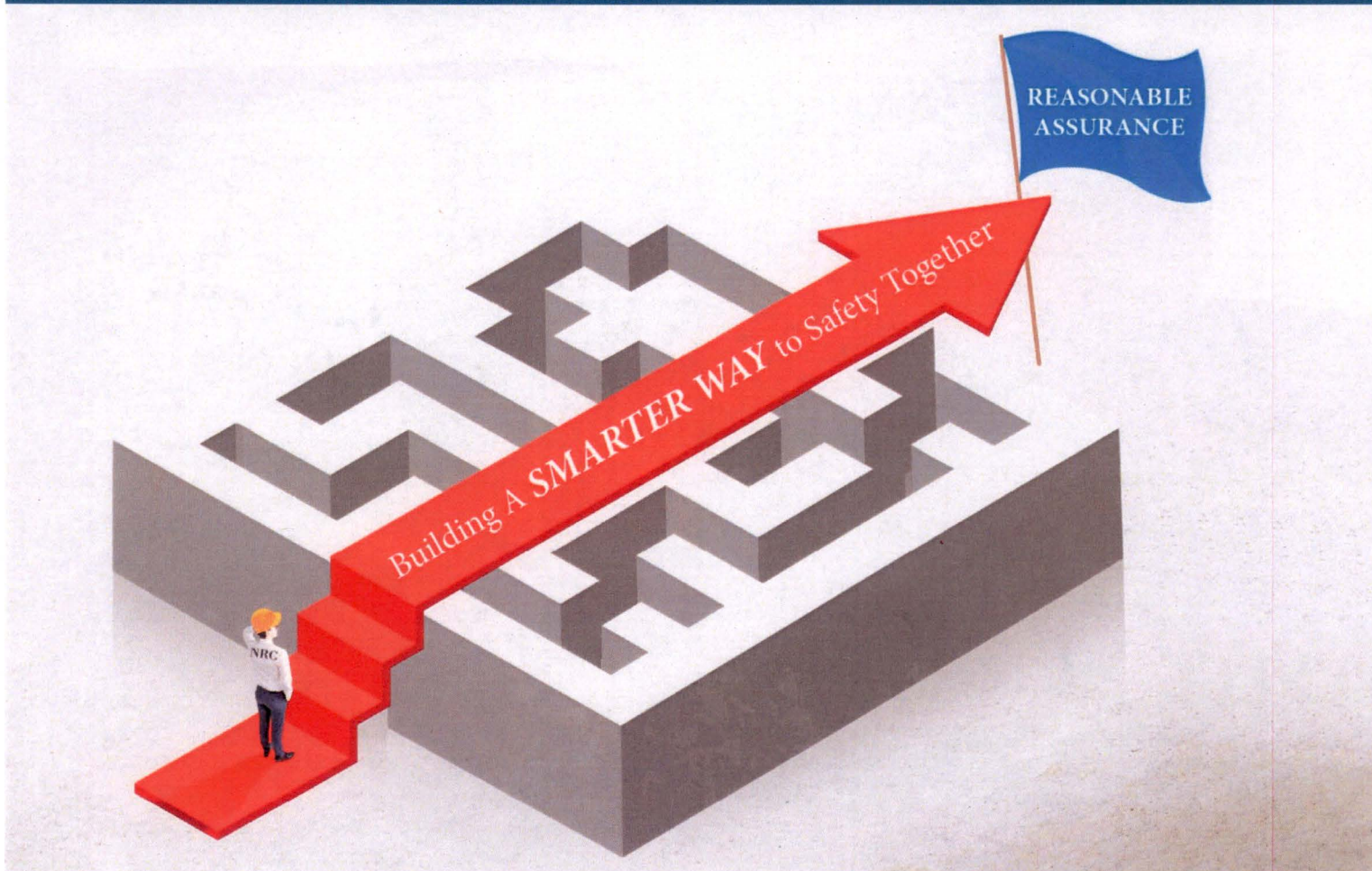
Achieving the U.S.-IAEA Caribbean Territories Safeguards Agreement

- Fulfills U.S. commitments with the IAEA to report on nuclear material in the U.S. Caribbean Territories
- All affected licensees reported as required
- U.S. provided the initial report to IAEA on schedule in August 2018

Readiness to Address Brexit Impacts on U.S.-U.K. Nuclear Trade

- U.S. nuclear trade with Euratom countries (including U.K. and 27 others) is under an Agreement for Nuclear Cooperation (123 Agreement)
- Interagency and NRC goal is to minimize the disruption of U.S.-U.K. trade in nuclear material and equipment in the event of Brexit

TRANSFORMING THE NRC



Questions



Nuclear Materials Users Business Line

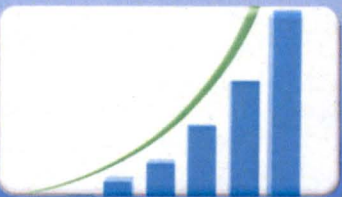
Steven West

Deputy Executive Director for Materials, Waste,
Research, State, Tribal, Compliance,
Administration and Human Capital Programs

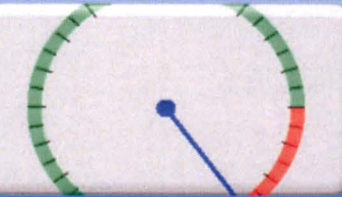
Strategic Focus Areas Driven by Innovation and Transformation



Re-evaluating roles and responsibilities within the National Materials Program



Improving the efficiency of IMPEP program and processes



Risk-informing the oversight process



Preparing for emerging medical technologies

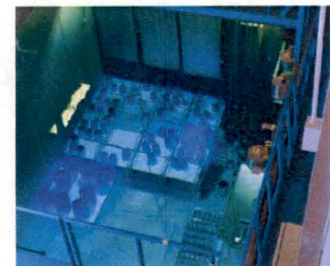


Overview of Nuclear Materials Users Business Line

John Lubinski, Director
Office of Nuclear Material Safety
and Safeguards

Ensuring Safety Over a Broad Range of Activities

- Our work supports the safe and beneficial use of radioactive material in medical, industrial, and academic applications
- We oversee more than 2500 materials licenses



Prioritizing our Work to Meet Our Mission in a Changing Environment

- Effective implementation of programs related to inspection and licensing, State and Tribal coordination, and source security
- Complete review of the State of Vermont Agreement State application
- Assess the roles and responsibilities within the National Materials Program
- Prepare for new medical technologies

Utilizing risk insights to inform our regulatory activities

Reasonable assurance of adequate protection through updating:

- inspection manuals and inspection procedures, and
- rules to be more informed by risk and support the use of new technologies





Status of the National Materials Program

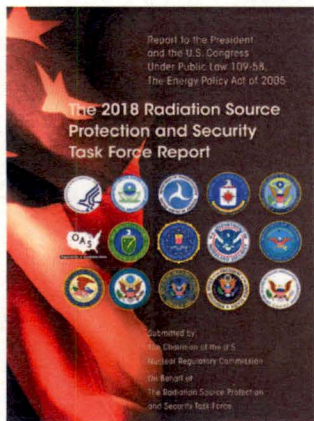
Andrea Kock, Director
Division of Materials Safety, Security, State,
and Tribal Programs

Mission Focused in a Changing Environment

- Coordinating with the Food and Drug Administration on emerging medical technologies
- Working collaboratively with Agreement States to:
 - ensure a common understanding of the program;
 - prioritize activities; and
 - evaluate roles and responsibilities under the National Materials Program

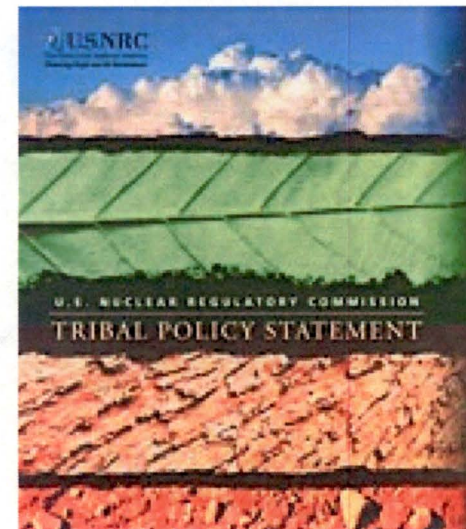
Ensuring Effective Source Security through Coordination

- Ensuring infrastructure for source security remains robust
 - Completion of the Radiation Source Protection Task Force quadrennial report
 - Comprehensive review and response to the Government Accountability Office report on source security
 - Evaluation of Category 3 source security



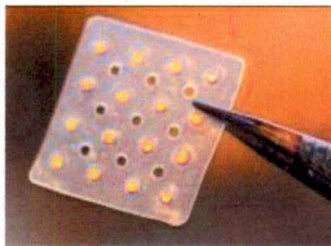
Effective Implementation of the Tribal Policy Statement

- Continued outreach to tribes
- Completed the Tribal Protocol Manual
- Made significant enhancements to the Tribal Program



Enabling the Safe Use of Emerging Medical Technologies

- Flexible regulatory framework supports efficient review of new technologies
- We are effectively engaging our stakeholders to evaluate existing training and experience requirements due to an increased use of new radiopharmaceuticals



CivaSheet

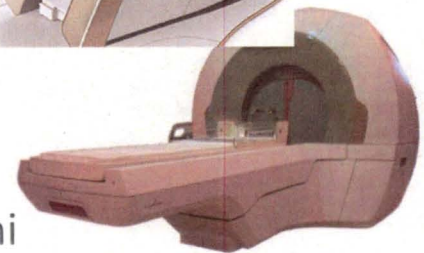


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GammaPod



Masep Infini





Integrated Materials Performance Evaluation Program (IMPEP) Trends and Agreement States Program Topics

Paul Michalak, Chief
Agreement State and Liaison Programs Branch

IMPEP Continues to be Effective and Performance is Strong

- There is strong Agreement State participation in IMPEP reviews and team member training
- Most programs evaluated in 2018 were determined to be adequate and compatible
- All four regional materials programs were found adequate
- Overall NRC and Agreement State performance indicates public health and safety are protected



Ensured the Effectiveness and Efficiency of IMPEP

- Completed a focused self-assessment of IMPEP
- Finalized a revision to the primary guidance document used in IMPEP
- Established a group to examine streamlining the IMPEP process
- Implemented an annual IMPEP team leader workshop to maintain review consistency

Addressing Areas of Interest to the Agreement States

- The NRC has successfully met the training needs of the Agreement States
- There is active participation of Agreement States in National Materials Program activities
- We are further integrating the Agreement States into the rulemaking process

Wyoming is now the 38th Agreement State

- Wyoming Agreement became effective on September 30, 2018
- Transfer of all agency records related to the agreement is completed
- June 2019 meeting scheduled with the State to discuss program implementation status

Significant Progress on Vermont Agreement State Application

- Vermont's radioactive materials regulations were approved in January 2019
- Vermont submitted its formal application to become an Agreement State
- Working with Vermont to complete the Agreement process with an effective agreement date of October 1, 2019

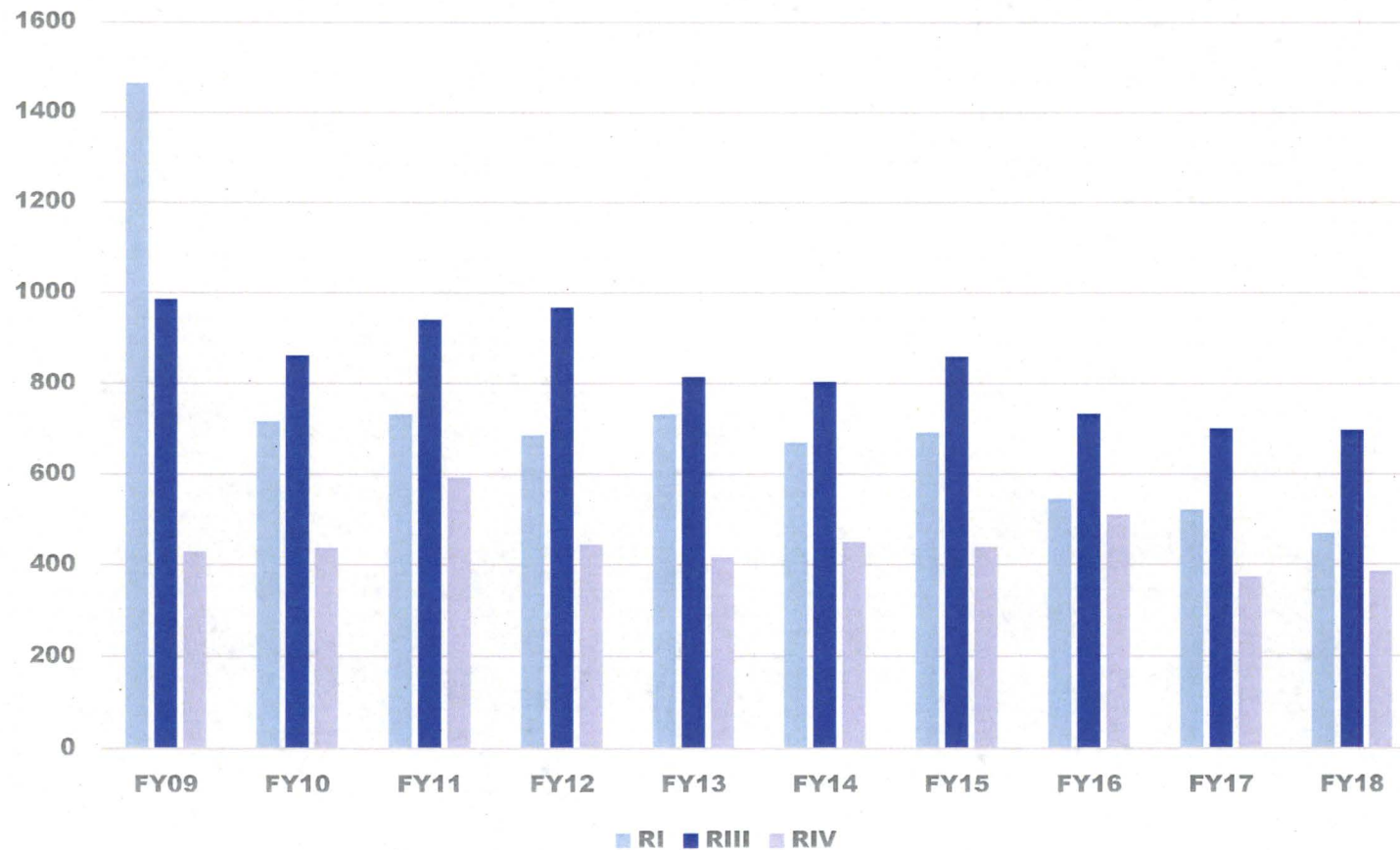


Regional Materials Licensing and Inspection Program Activities

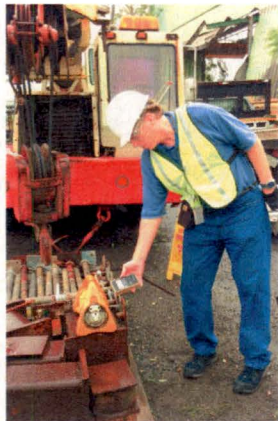
Joseph L. Nick, Deputy Director
Division of Nuclear Materials Safety, Region I

Licensing Trends

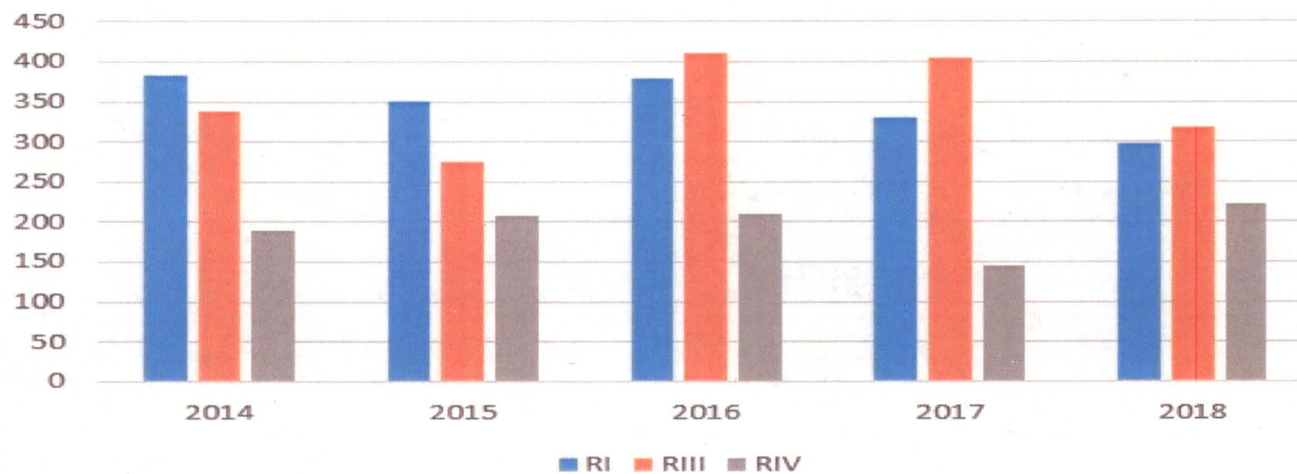
Licensing Actions Completed in the Regions



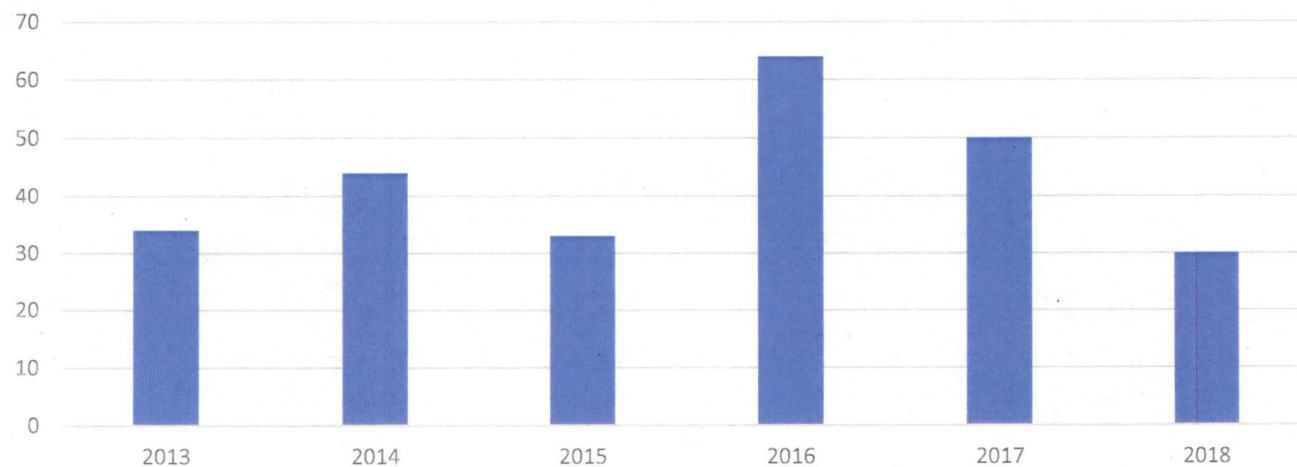
Inspection and Enforcement Trends



Inspection Totals by Fiscal Year



Number of Escalated Actions



Regional Licensing and Inspection of New and Emerging Technologies

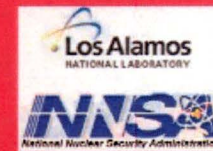


| Radionuclide | Physical Half-Life (days) ¹ |
|--------------|--|
|--------------|--|

Value-Added Safety Accomplishments



Source Collection and Threat Reduction Program **SCATR**



Do You Have Unwanted Sources?

The SCATR Program:

- ✿ Solicits registration of any radium and other non-transuranic radioactive material acceptable for commercial disposal
- ✿ Establishes collection campaigns with assistance of radiation control agencies, user groups and certain manufacturers
- ✿ Assists in funding disposition of collected materials
- ✿ Notifies owners of other opportunities for disposition as they arise

Register Them at <http://osrp.lanl.gov>



Sources eligible for the Off-Site Recovery Project and/or the SCATR Program should be registered at <http://osrp.lanl.gov>



For more information about CRCPD assistance, see www.crcpd.org/StateServices/SCATR.aspx



Register Your Sources Now!

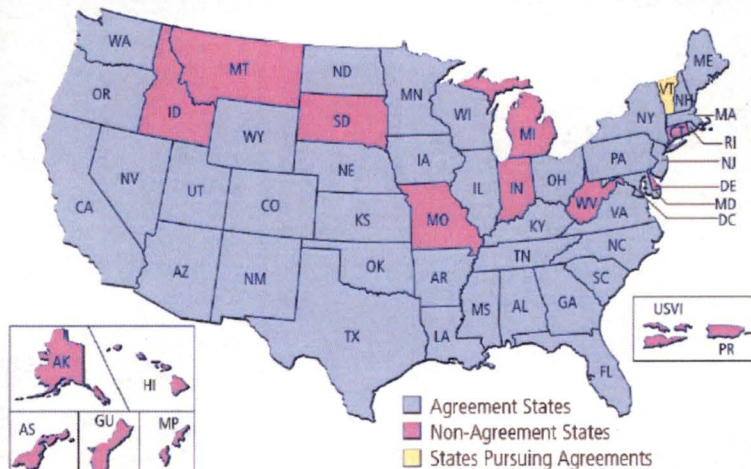
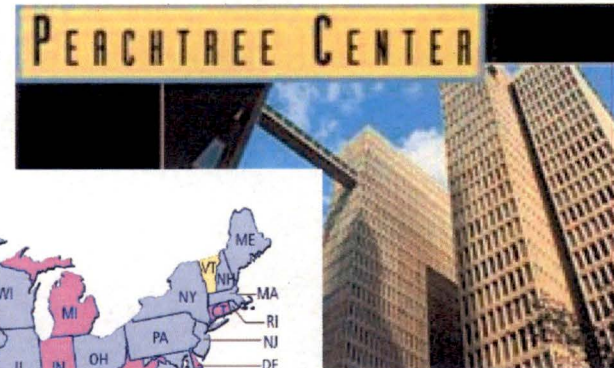
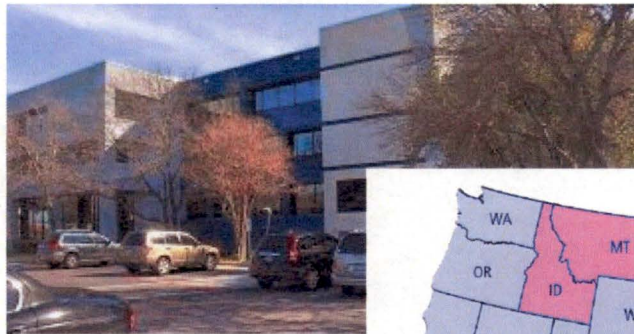


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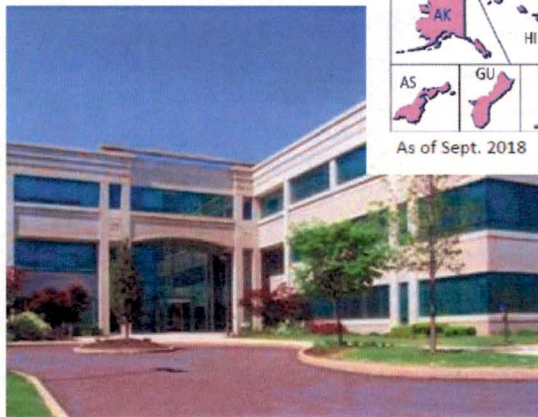
- National Nuclear Security Administration
- Los Alamos National Laboratory
- Conference of Radiation Control Program Directors, Inc.

4/11

Regional Coordination and Teamwork



As of Sept. 2018



Looking Forward



Modern risk-informed
regulator



Enhanced partnership with
the Agreement States



Accomplishing our mission
in smarter ways

Acronyms

- ACMUI – Advisory Committee on the Medical Uses of Isotopes
- CER – Cumulative Effects of Regulation
- DFFI – Division of Fuel Facility Inspection
- Euratom – European Atomic Energy Community
- FCSE – Division of Fuel Cycle Safety, Safeguards, and Environmental Review
- FTE – Full Time Equivalent
- FY – Fiscal Year
- IAEA – International Atomic Energy Agency
- IMPEP – Integrated Materials Performance Evaluation Program
- NMMSS – Nuclear Material Management and Safeguards System
- NMSS – Office of Nuclear Material Safety and Safeguards
- RIC – Regulatory Information Conference
- SA – State Agreements Procedure Series