



# Strategic Overview of the Decommissioning and Low-Level Waste and Nuclear Materials Users Business Lines

Commission Meeting  
January 26, 2023



# Dan Dorman

Executive Director for Operations  
Decommissioning and Low-Level Waste  
Business Line

# DLLW Presenters

Robert Lewis

- Deputy Director, Office of Nuclear Material Safety and Safeguards

Jane Marshall

- Division Director, Division of Decommissioning, Uranium Recovery, and Waste Programs, NMSS

Shaun Anderson

- Branch Chief, Division of Decommissioning, Uranium Recovery, and Waste Programs, NMSS

Douglas Mandeville

- Senior Project Manager, Division of Decommissioning, Uranium Recovery, and Waste Programs, NMSS

Stephanie Anderson,

- Senior Health Physicist, Region IV



# Robert Lewis

Deputy Director

Office of Nuclear Material Safety and  
Safeguards

# Responsibilities of the Decommissioning and Low-Level Waste Business Line

- Licensing and Oversight for Decommissioning Reactors and Materials Licensees
- Licensing and Oversight of Uranium Recovery Facilities
- Low-level Radioactive Waste Program
- Waste Incidental to Reprocessing (WIR)
- DOE/Naval Reactors decommissioning of the Surface Ship Support Barge





# Workforce Drivers

- Recruiting, Developing, and Retaining our Workforce
- Strategic Workforce Planning for Specific Technical Expertise (e.g., Health Physicists)
- Ensuring a Strong Organizational Culture

# Workload Drivers

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- Accelerated Reactor Decommissioning
- Uranium Fuel Supply



# Innovations

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- Risk informing
- Technologies applied to decommissioning

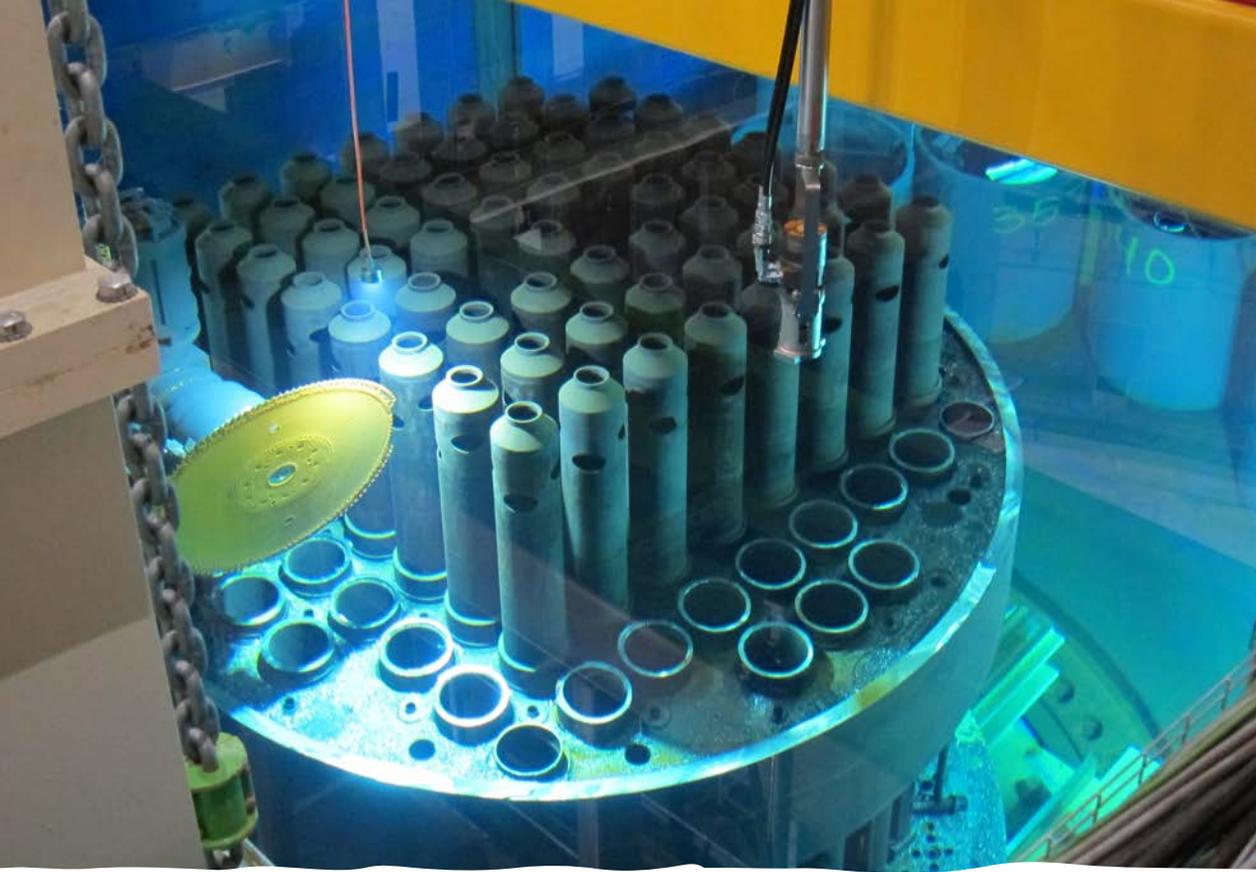




# Jane Marshall

Division Director

Division of Decommissioning,  
Uranium Recovery, and Waste  
Programs



# Meeting our Mission and Preparing for the Future

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**Public Outreach and International Engagements  
are a Priority**



**Leveraging the Use of Technology and Data in  
DLLW Licensing and Oversight Programs to  
Facilitate Data Driven Decision Making**



# Shaun Anderson

Branch Chief

Reactor Decommissioning Branch  
Division of Decommissioning, Uranium  
Recovery, and Waste Programs

# Managing the Workload

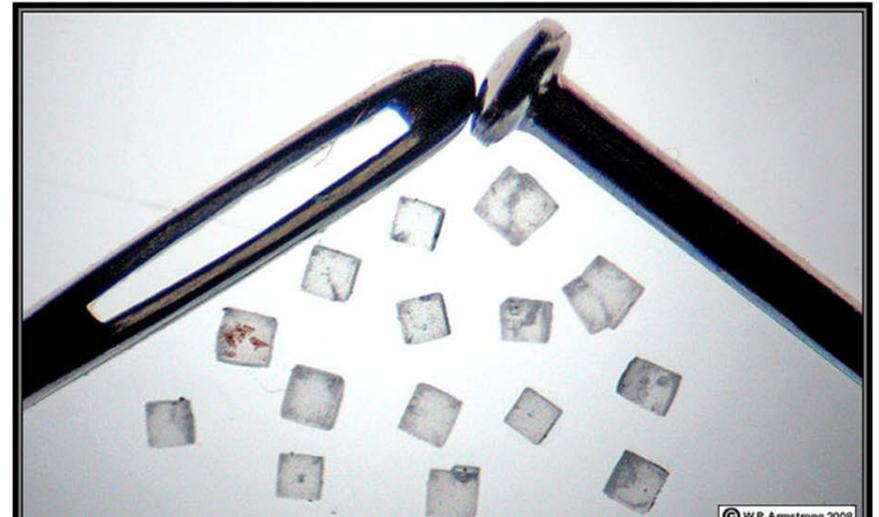
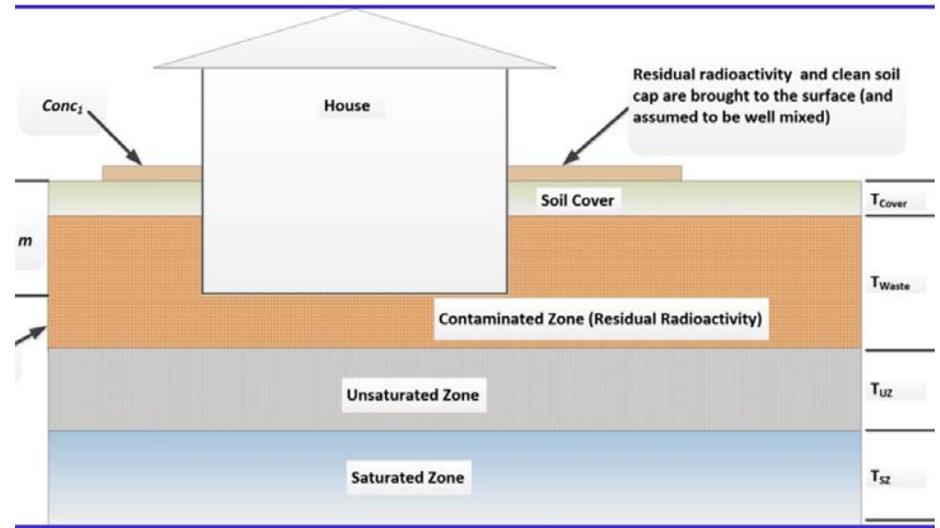
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- Building a Strong and Diverse Workforce:
  - Strategic Schedule Planning
  - Strategic Workforce Planning
  - Training and Qualification



# Path Forward for the Decommissioning Program

- Accountability and transparency throughout the decommissioning process:
  - Guidance
  - Licensee and Stakeholder Engagement





# Douglas Mandeville

Senior Project Manager

Uranium Recovery Materials  
Decommissioning Branch

Division of Decommissioning,  
Uranium Recovery, and  
Waste Programs

# Uranium Recovery Decommissioning Process

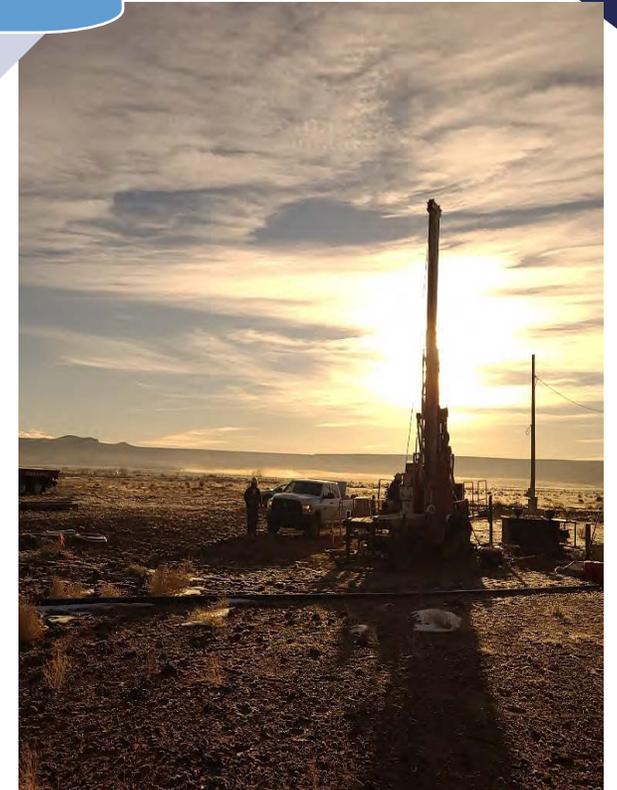
Decommissioning

Long-Term Care  
Fee  
Determination

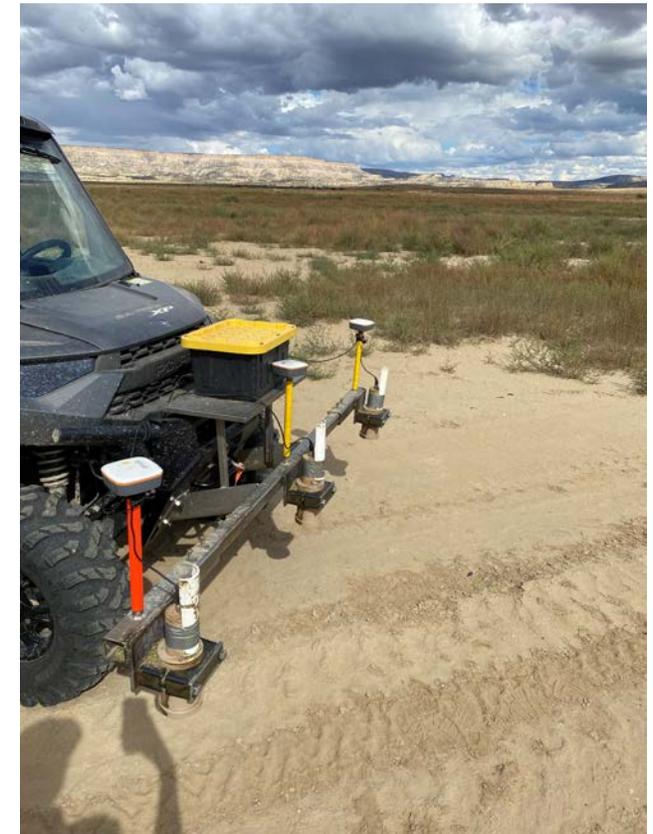
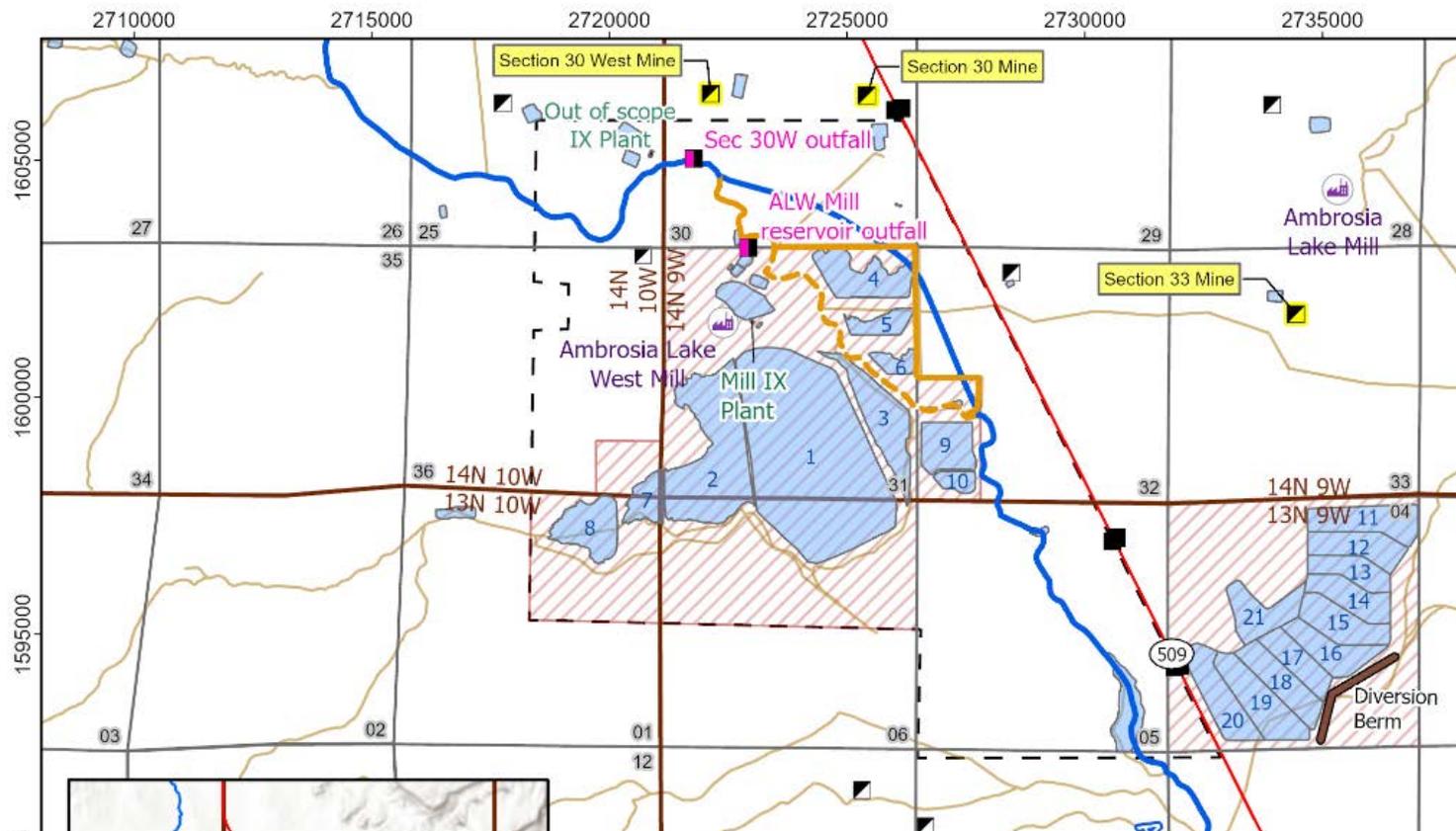
Long-Term  
Surveillance Plan

License  
Termination

Long-Term Care

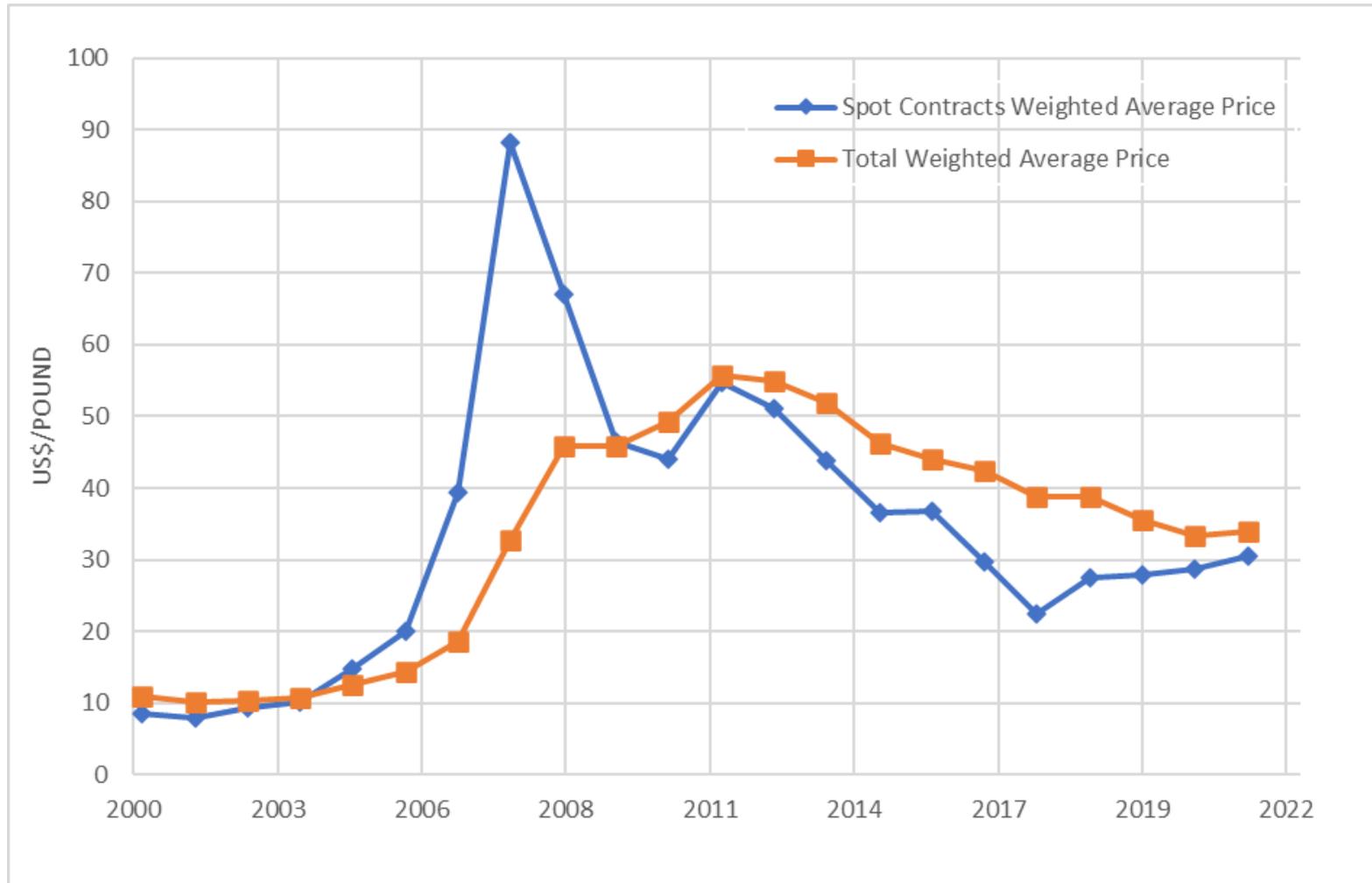


# Best Practices for Effective Decommissioning of Uranium Recovery Facilities



# Leading the Path into the Future

## Uranium Price History 2000-2021





# Stephanie Anderson

Senior Health Physicist

Region IV

# Consistency in Decommissioning Inspection Programs

Active Hiring

Cross  
Qualification

Reactor  
Decommissioning  
Inspector

Material  
Decommissioning  
Inspector

Decommissioning  
Inspector

Knowledge  
Transfer





## Risk-Informed, Performance Based Decommissioning Inspection Oversight Guidance

### IMC 2561

“Decommissioning Power  
Reactor Inspection  
Program”

### IMC 2602

“Decommissioning Fuel Cycle,  
Uranium Recovery, and  
Materials Inspection Program”

### IMC 2801

“Uranium Recovery and  
11e.(2) Byproduct Material  
Facility Inspection Program”



# Dan Dorman

Executive Director for Operations  
Decommissioning and Low-Level  
Waste Business Line



# Strategic Overview of Nuclear Materials Users Business Line

Commission Meeting  
January 26, 2023



# Dan Dorman

Executive Director for Operations  
Nuclear Materials Users

# Nuclear Materials Users

## Robert Lewis

- Deputy Director, Office of Nuclear Material Safety and Safeguards

## Kevin Williams

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

## Huda Akhavannik

- Intergovernmental Liaison Project Manager, State Agreement and Liaison Programs Branch, NMSS

## Joseph Nick

- Special Assistant, Division of Radiological Safety and Security, Region I

## Melissa Ralph

- Director, Division of Resource Management and Administration, NMSS



# Robert Lewis

Deputy Director

Office of Nuclear Material Safety and  
Safeguards

# Workforce Drivers

- Need for Health Physics Professionals
- Sharing Resources Across Headquarters and Regions





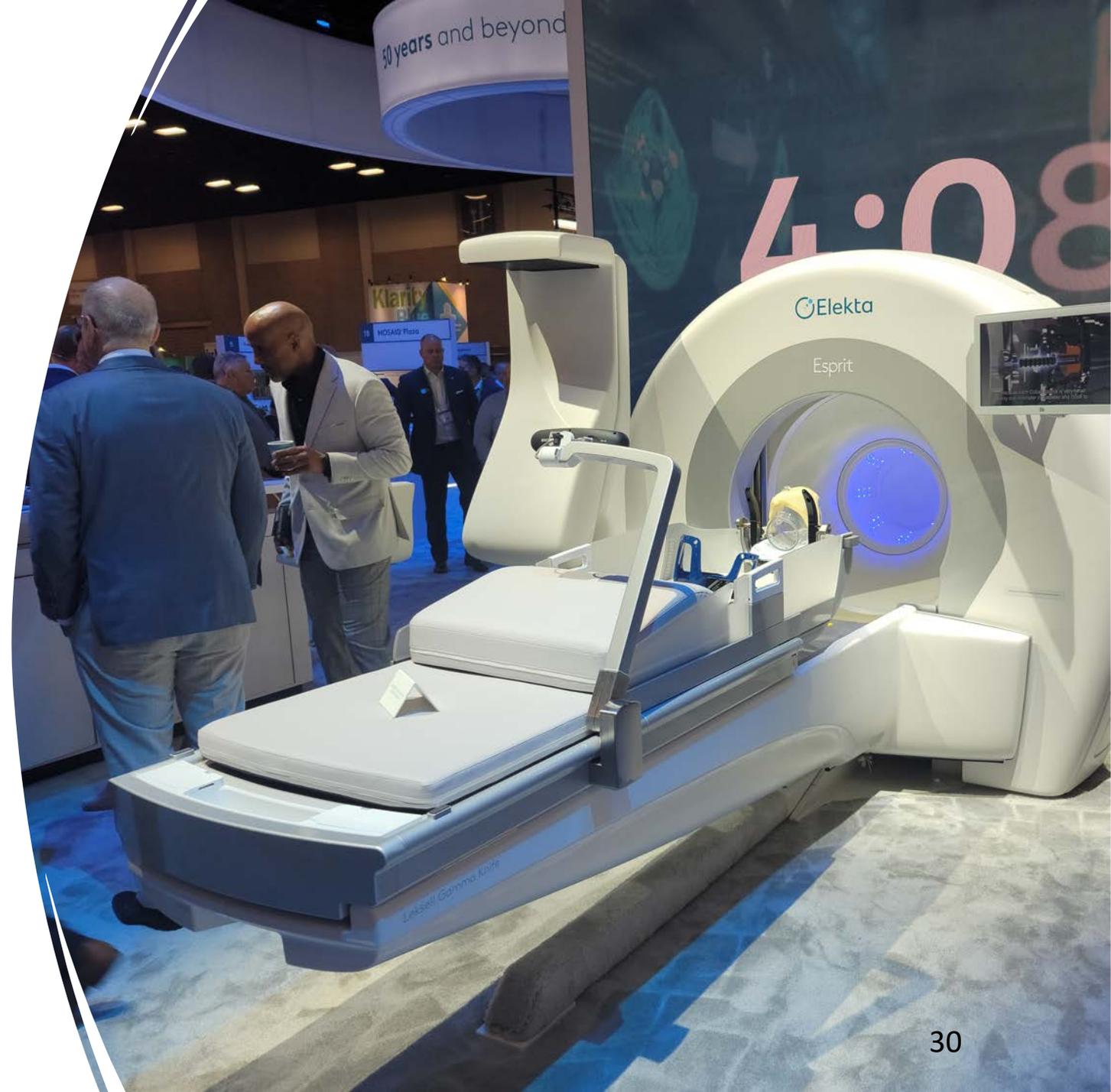
## Workload Drivers

- Source Security
- Pace of Medical Technology
- Increased Engagement
  - Agreement States
  - Tribal Nations

# Innovations

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- Investing in Technology
- Assessed Strategy for Increasing Number of Agreement States





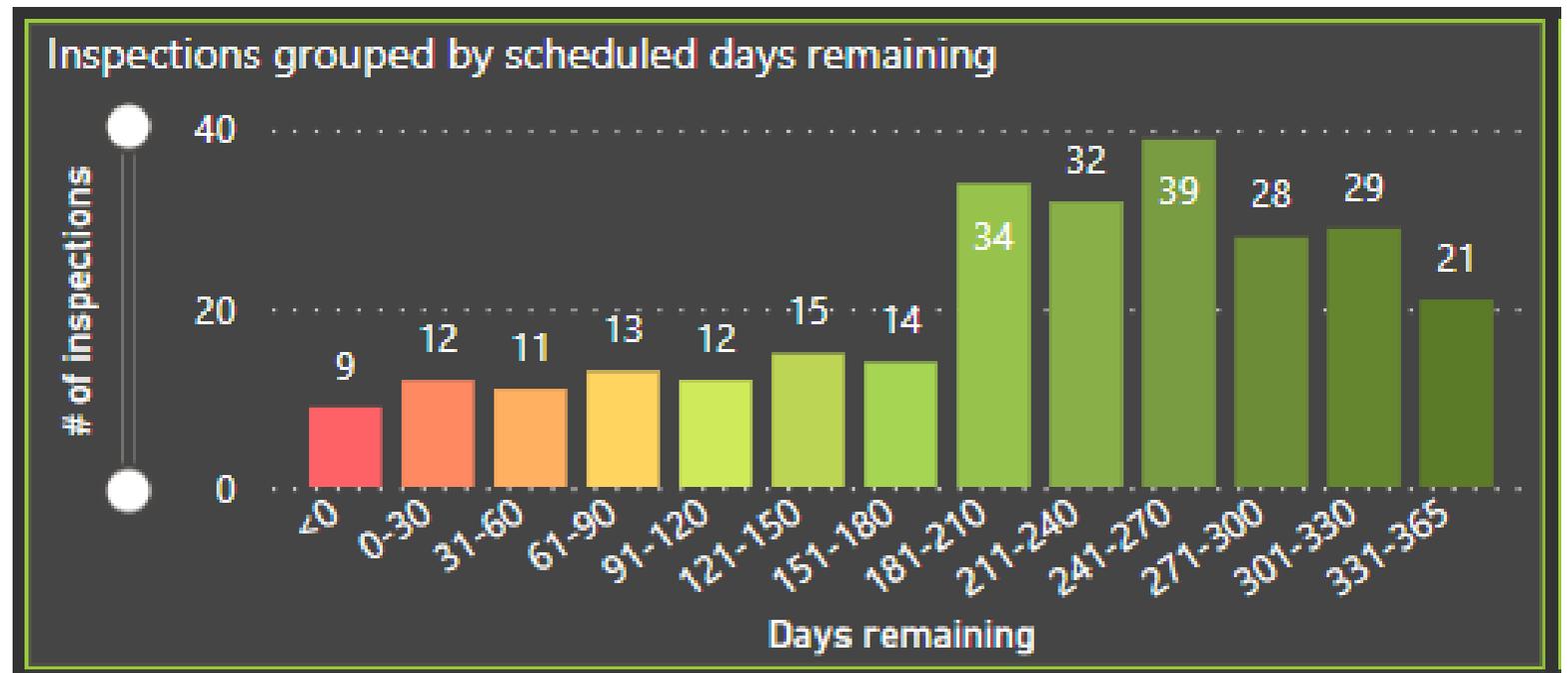
# Kevin Williams

Division Director

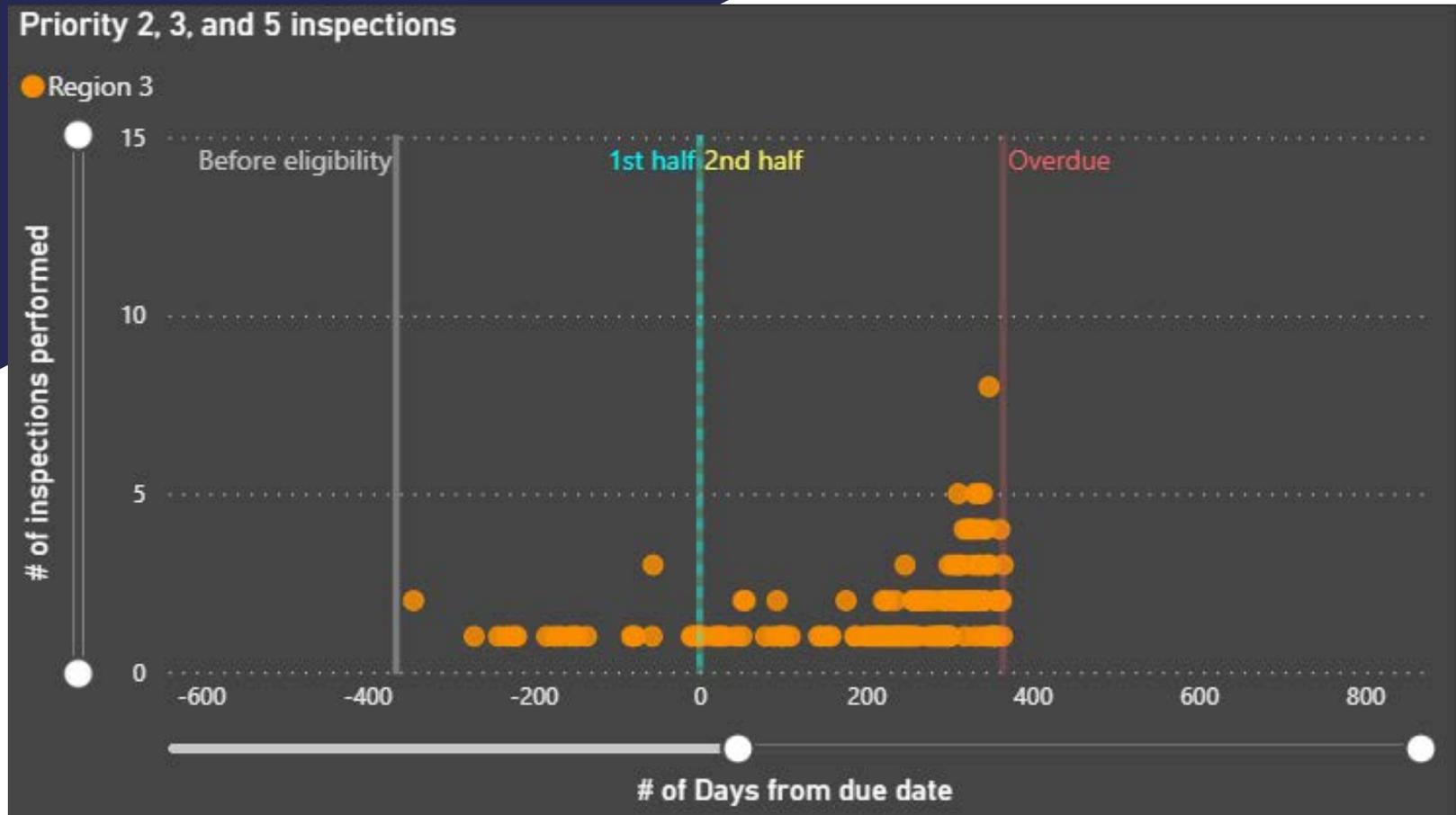
Division of Materials Safety,  
Security, State, and Tribal  
Programs



# Dashboards to Assist with Planning and Follow Up



# Tracking Inspections



# Assuring the Security of Radioactive Sources

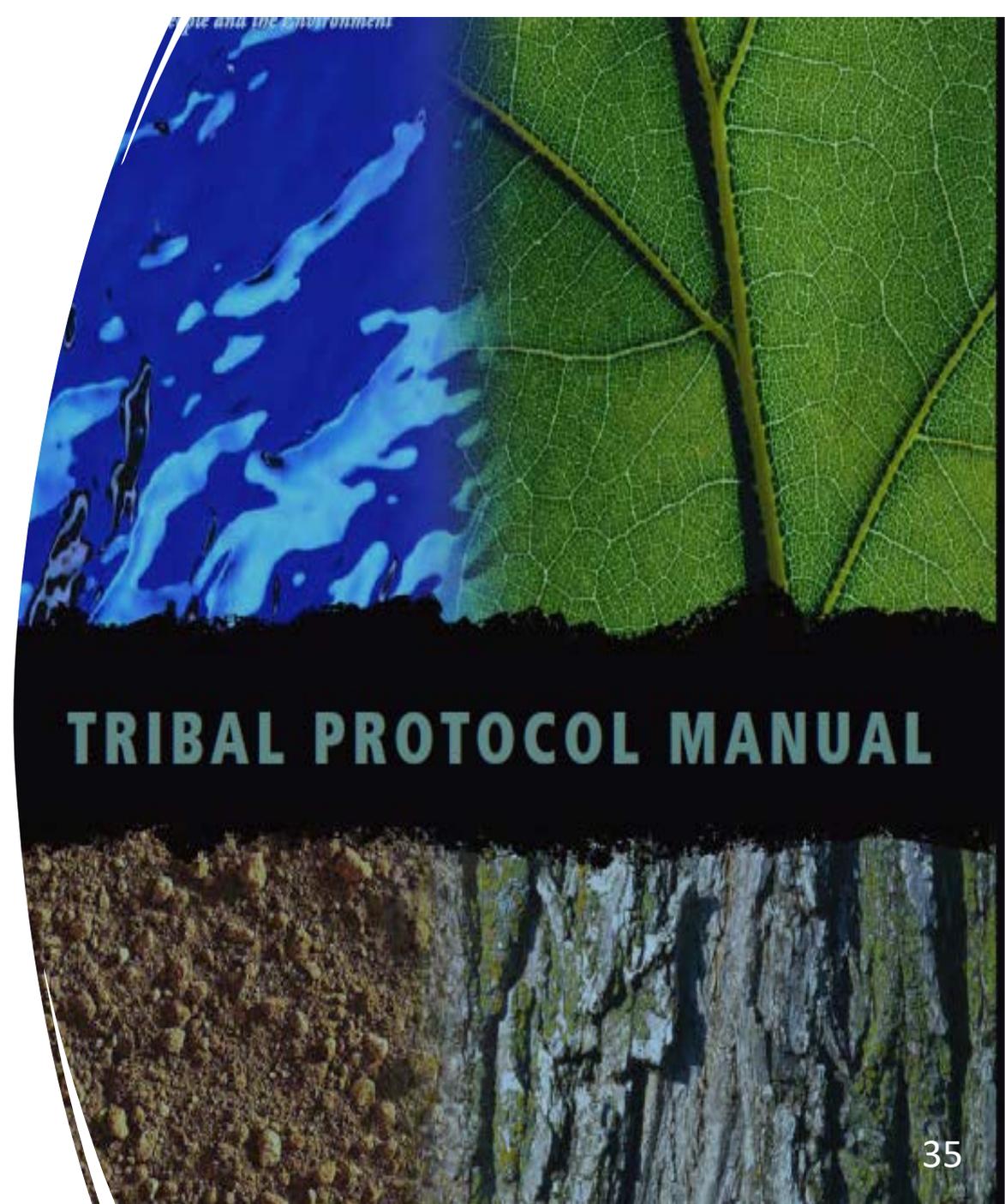


- Rulemaking for Category 3 Source Security
- NRC and Agreement States Evaluate the Capability of the Applicant/Licensee to Manage their Sources Safely and Securely
- Licensing Verification Process

# Enhancing Tribal Nations Engagement

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- SA-700 Handbook for Processing an Agreement Procedure
  - Early engagement with Tribal Nations
- Internal Tribal video to Highlight the Work to Engage and Implement the Tribal Policy Statement
- Leveraging the Tribal Radioactive Materials Transportation and Nuclear Energy Tribal Working Group



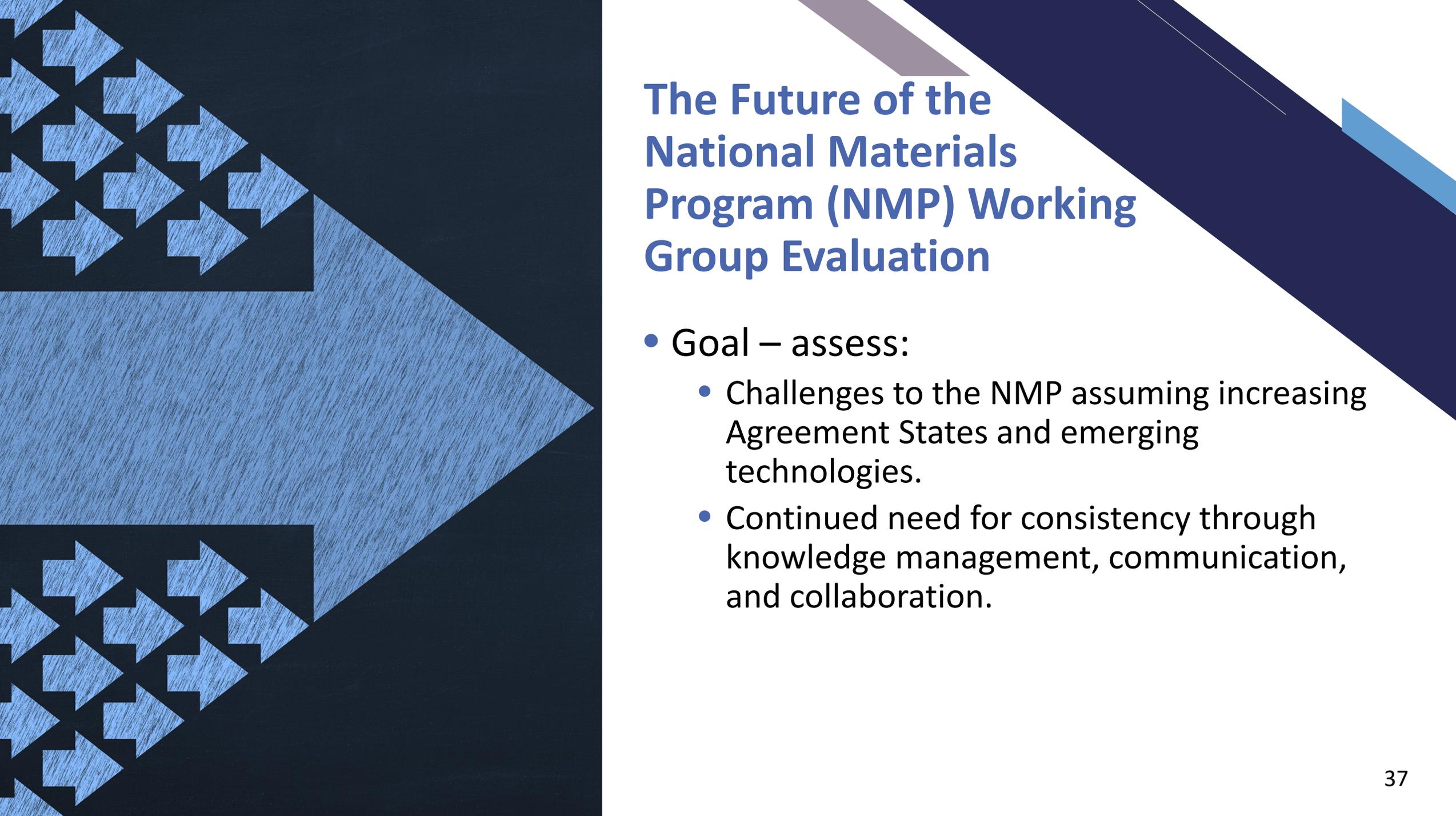


# Huda Akhavannik

Intergovernmental Liaison  
Project Manager

State Agreement and Liaison  
Programs Branch

Division of Materials  
Safety, Security, State, and  
Tribal Programs



# The Future of the National Materials Program (NMP) Working Group Evaluation

- Goal – assess:
  - Challenges to the NMP assuming increasing Agreement States and emerging technologies.
  - Continued need for consistency through knowledge management, communication, and collaboration.

# Impacts to Program Elements Affect the NRC and Agreement States Differently

1. Program Organization	7. Information Exchange
2. Program and Staff Funding	8. Regulatory Requirements
3. Rulemaking	9. Licensing
4. Reciprocity	10. Training
5. Inspection	11. Integrated Materials Performance Evaluation Program (IMPEP)
6. Events and Allegations	

# The NMP Should Continue to Focus on Consistency and Appropriate Resource Planning

- Working group recommendations:
  - Keep the current structure of the NMP with increased focus on consistency.
  - Support knowledge management, collaboration, communication, and resource planning.
  - Continued focus on outreach activities.
- Working group recommendations will be documented in a memo to NMSS and staff plans a Commission paper in Spring 2023.

# Our Working Group

Huda Akhavannik,  
NRC/NMSS,  
Co-Chair

Auggie Ong,  
OAS/NH,  
Co-Chair

Michelle Beardsley,  
NRC/NMSS,  
Alternate Co-Chair

Duncan White,  
NRC/NMSS,  
Advisor

Leira Cuadrado,  
NRC/NMSS,  
Member

Keisha Cornelius,  
OAS/OK,  
Member

Tracy Jue,  
OAS/CA,  
Member

Zubaida Gulshan,  
OAS/CA,  
Member

Brian Harris,  
NRC/OGC,  
Attorney

Farrah Gaskins,  
NRC/RI,  
Member

Jenni Dalzell,  
NRC/RIII,  
Member

Sara Forster,  
NRC/RIII,  
Member

Randy Erickson,  
NRC/RIV,  
Member

Allyce Bolger,  
NRC/RIV,  
Member



# Joseph Nick

Special Assistant  
Division of Radiological Safety  
and Security, Region I

# Success in Hiring New Staff!

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- Sharing Posting Information/Joint Job Postings
- Coordination Between Regions & NMSS
- Advertising with HPS and other Organizations



## Training and Knowledge Management Is a Continued Focus Area



## NRC Sponsored Training

- Health Physics
- Medical
- Regulatory Skills
- Uranium Recovery
- Industrial/Commercial
- Decommissioning



Collaboration Across  
the NMP

- Sharing Expertise Across Working Groups
- Developing Methods to Share Resources for Licensing and Inspection Actions



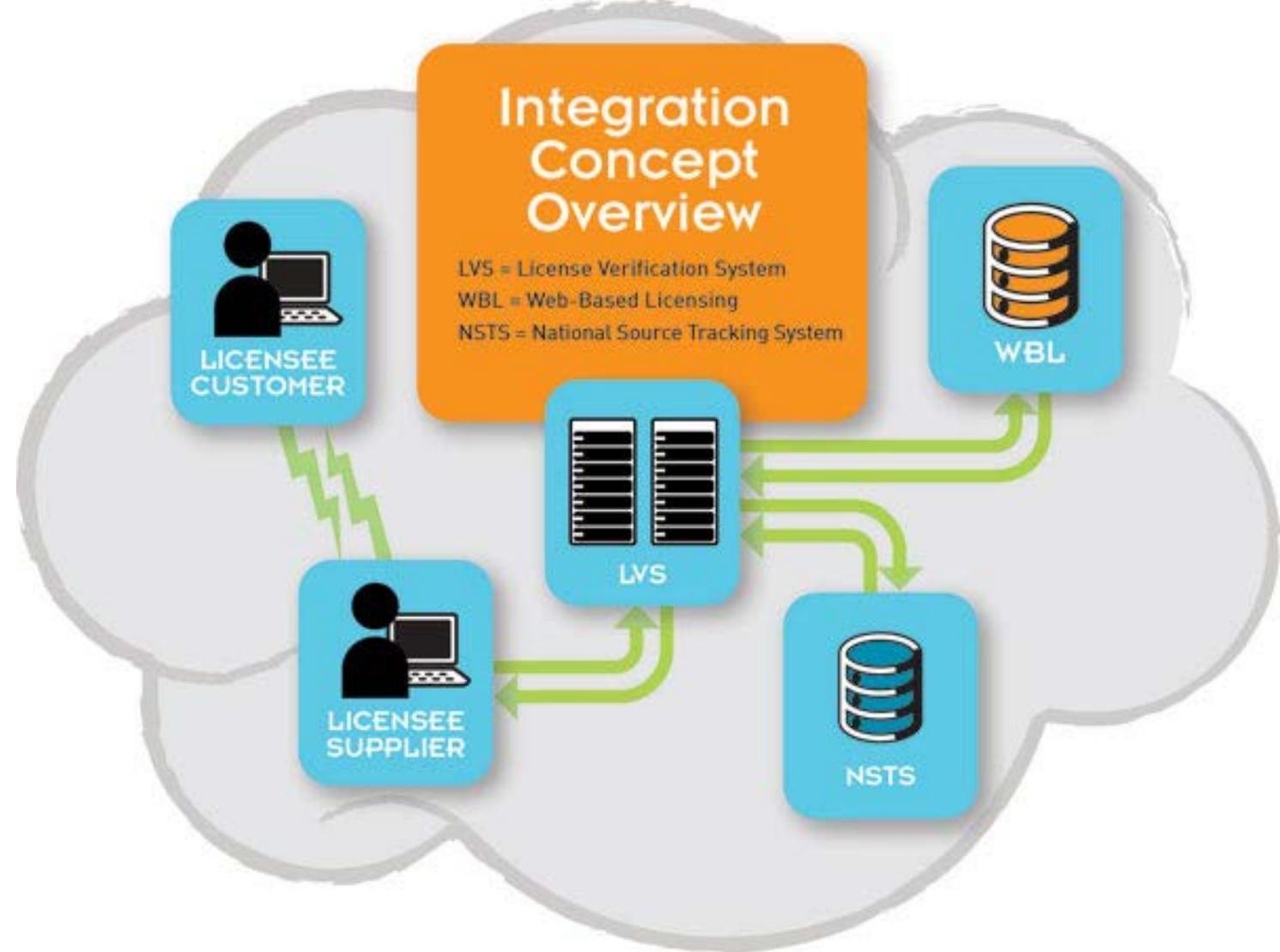
# Melissa Ralph

Division Director

Division of Resource  
Management and Administration

## What is Integrated Source Management Portfolio (ISMP)?

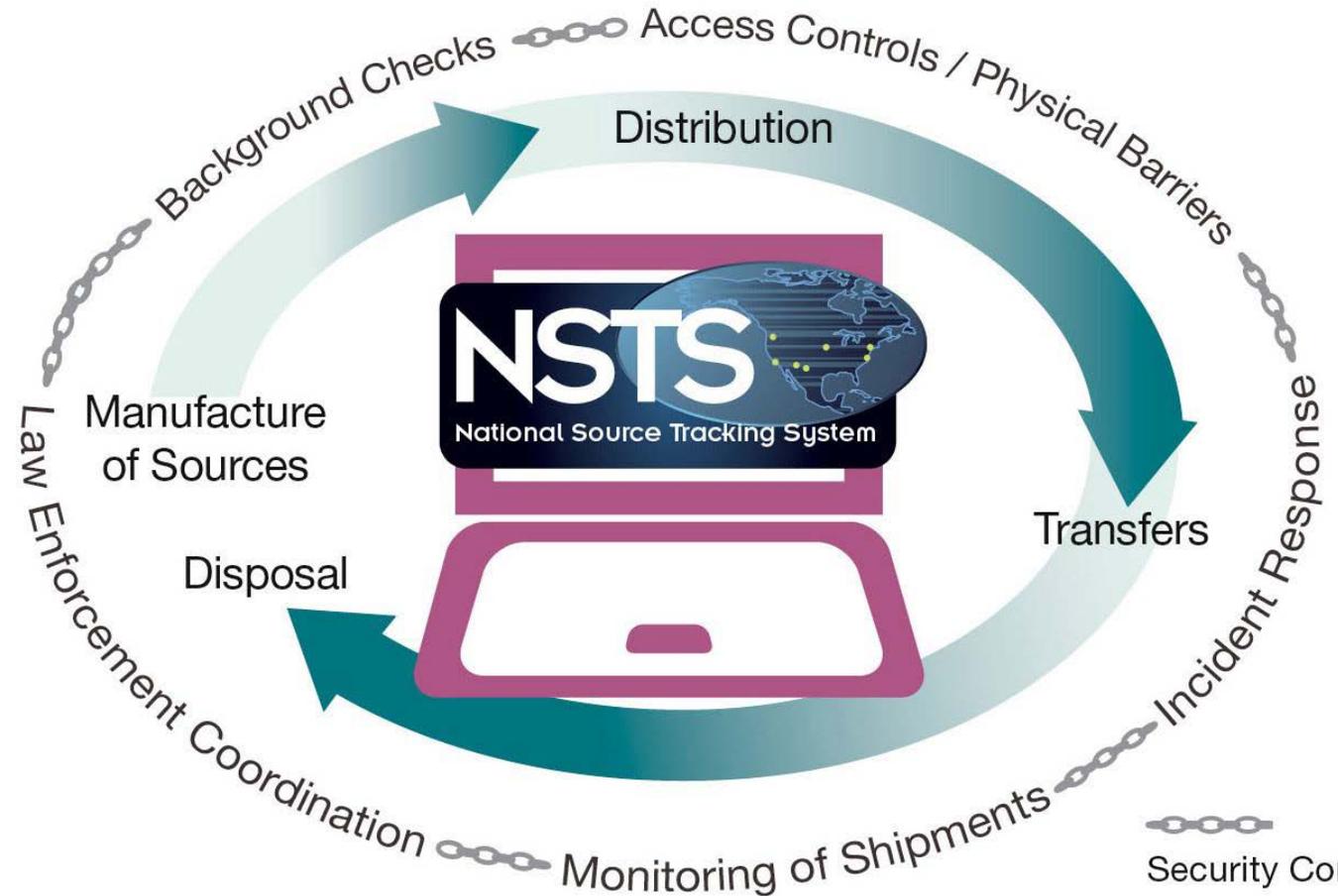
- ISMP is a set of information technology tools that supports the Radioactive Materials Security Program and related radioactive materials licensing and tracking activities of the NRC.



# Life-Cycle Approach to Source Security

## The National Source Tracking System (NSTS)

- The NSTS is a major security initiative of the NRC to track high-risk radioactive sources from the time they are manufactured or imported through the time of their disposal or export, or until they decay.



Security Controls

## The License Verification System



- The License Verification System serves as a "national verification system" to ensure that only authorized licensees obtain radioactive materials in authorized amounts.

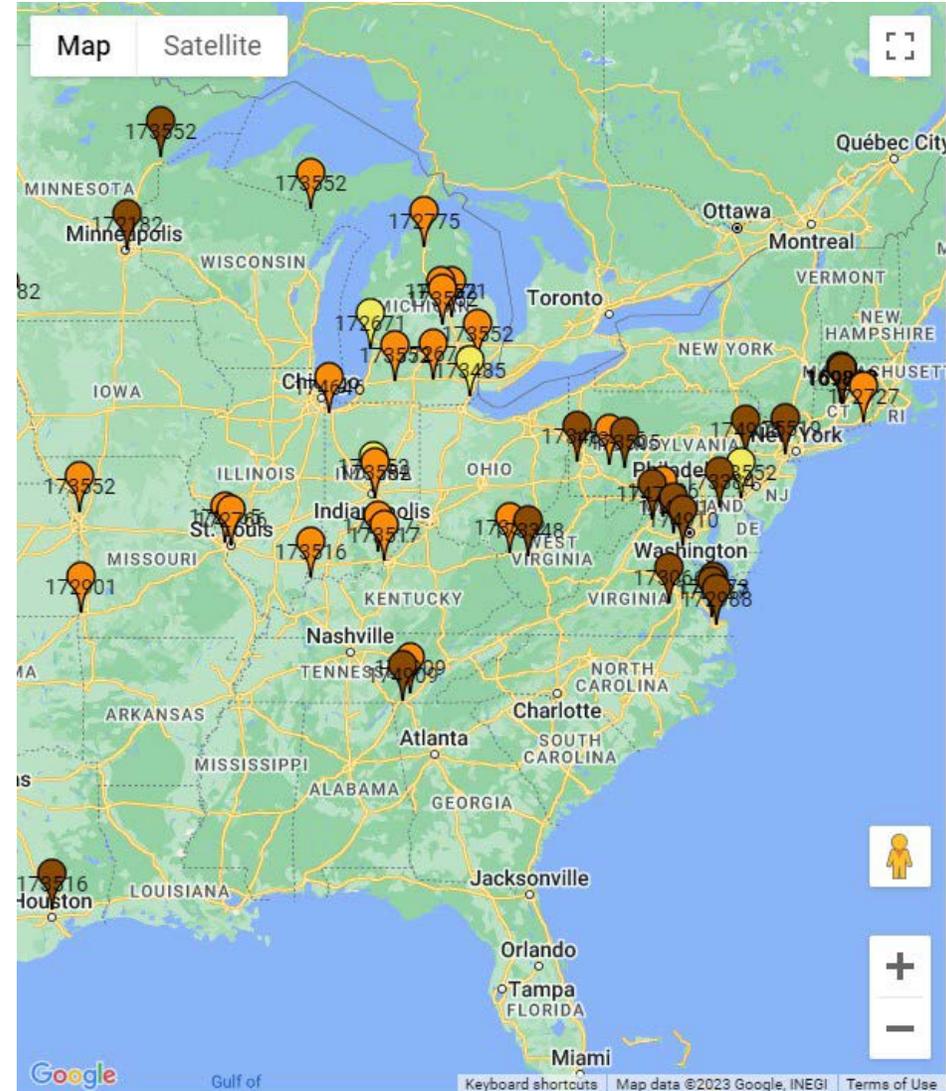
## The Web-Based Licensing System



- The Web-Based Licensing system is a materials licensing system that supports the NRC and Agreement States in managing the licensing information of businesses that use radioactive materials.

# ISMP Modernization Accomplishments

- Inspection Planning (Byproduct Materials Licenses)
- Generation of Inspection Reports
- WBL to ADAMS Interface



📍 Previously Inspected Location   🟡 License Location of Use or Storage   🟤 License Contact Location

# ISMP Modernization Efforts In Progress

- Expanding and improving interfaces for licensees:
  - Form submission for new byproduct material license and amendment applications – modern online submission with real-time communication between the NRC reviewer and the applicant.
  - Online submission of NSTS transaction reports (e.g., transfer, receipt, manufacture) — improved data validation which would result in faster processing time and reduced staff effort to correct submission errors.

# ISMP is Vital to the Effective Program Management in Four Materials and Waste Business Lines

- ISMP Modernization Efforts:
  - Support Project Management
  - Provide Transparency
  - Facilitate Data Analytics
  - Enable Data-Driven Decision Making



# Dan Dorman

Executive Director for Operations  
Nuclear Materials Users

# Acronyms

- BIA- Bureau of Indian Affairs
- BLM- Bureau of Land Management
- DLLW- Decommissioning and Low-Level Waste
- DOE -Department of Energy
- DOI- Department of the Interior
- DOJ- Department of Justice
- EMT- Emerging Medical Technology
- EPA- Environmental Protection Agency
- ISMP- Integrated Source Management Portfolio
- LTP- License Termination Plan
- MARSSIM- Multi-Agency Radiation Survey and Site Investigation Manual
- NMP – National Materials Program
- PSDAR- Post Shutdown Decommissioning Activities Report

# Acronyms (Cont.)

- SWP- Strategic Workforce Planning
- WBL- Web-Based Licensing
- WIR- Waste Incidental to Reprocessing