

FUEL FACILITIES AND SPENT FUEL STORAGE AND TRANSPORTATION BUSINESS LINES BRIEFING

COMMISSION MEETING
MAY 25, 2021



Opening Remarks

Darrell Roberts

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



Strategic Overview of the Fuel Facilities Business Line

John Lubinski

Director, Office of Nuclear Material Safety and Safeguards

We are proactively planning for the future



Preparing to safely license new fuel types and facilities to support efforts in the operating and new reactor business lines in the areas of ATF and advanced reactors



Applying the BeRiskSmart Principle to become a more modern risk informed regulator



Leading in domestic and international forums



Using data to assist in informed decision making



Focusing on diversity and inclusion by bringing awareness through DIALOGUE and facilitated group discussions.

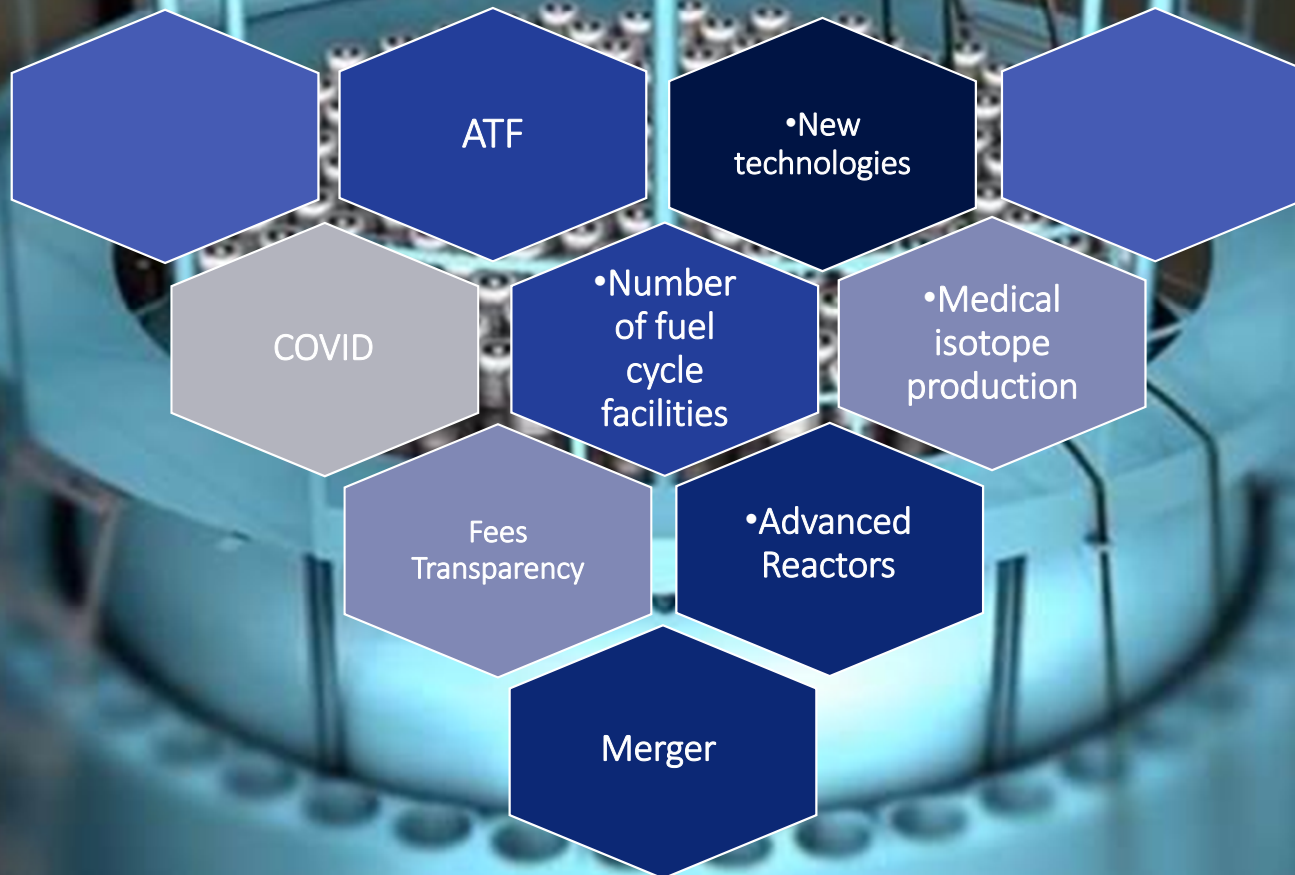


Fuel Cycle Program Current Licensing and Oversight Environment

Christopher Regan

Acting Director, Division of Fuel Management

Agility in the Rapidly Changing Environment



Safely Licensing New Technologies



ATF, advanced reactor fuel, medical isotope applications



Referencing strong, performance based, flexible regulatory framework



Utilizing Operating Experience and technical expertise



Leveraging partnerships



Proactively communicating with stakeholders

Transforming Today...

- Smarter Fuel Cycle Oversight Program
- Smarter Fuel Cycle Licensing Program: Integrating risk informed approaches into licensing procedures

...for Tomorrow

- Informed Decision Making Through:
 - Using data analytics
 - Continuous Learning



Building a Workforce for the Future



Leveraging
Strategic
Workforce
Planning



Application of
Mentoring
Programs



Knowledge
management &
Knowledge
Transfer

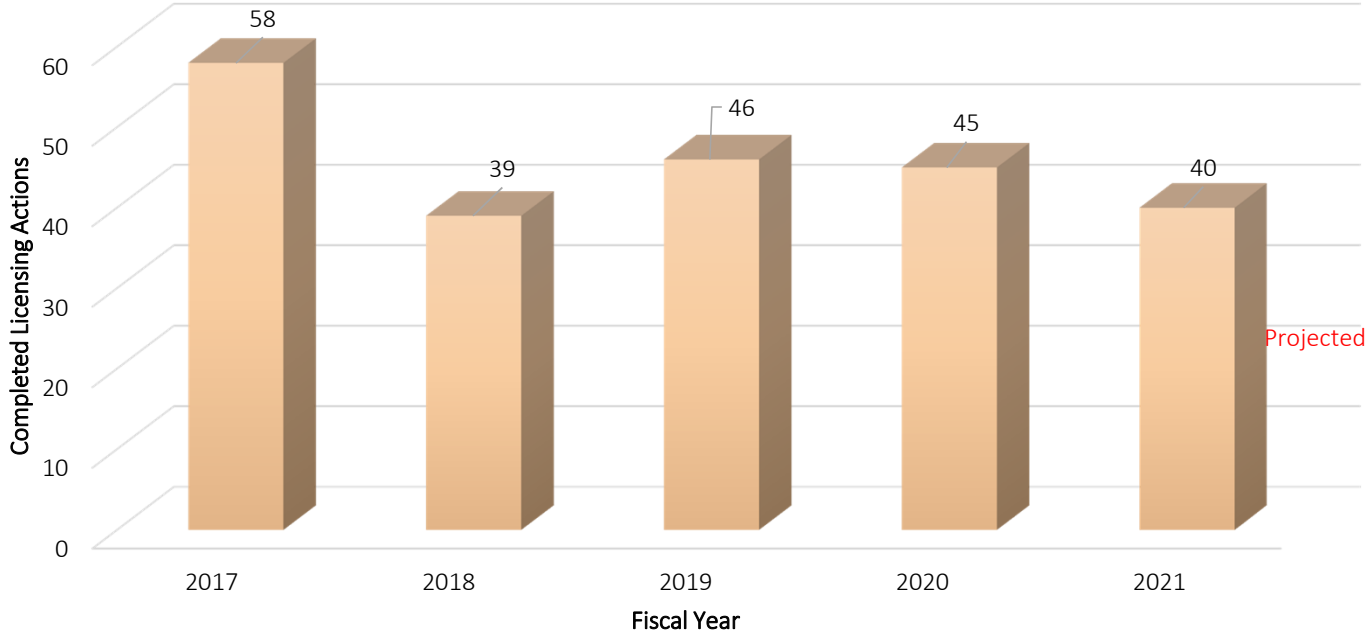


Fuel Facilities Licensing Activities – Update on the Licensing Program and Significant Licensing Actions

James Downs

Senior Project Manager, Fuel Facilities Licensing Branch,
NMSS

Number of Licensing Actions



Continuing to Safely License Fuel Facilities

Innovation in our Daily Work

- Innovative Licensing Processes
- Innovative Stakeholder Communications
- Infrastructure Enhancements and Process Streamlining





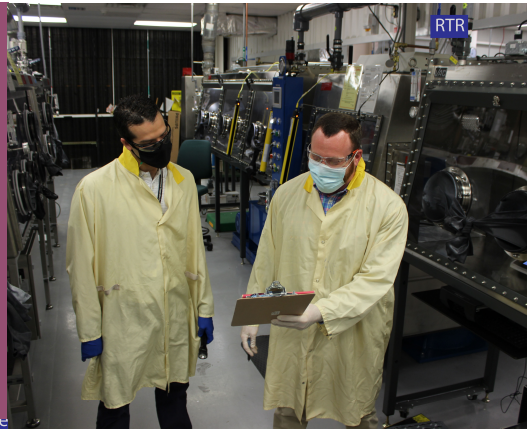
Fuel Cycle Inspection Program Activities and Implementation of the Program during the Public Health Emergency

Larry Harris

Senior Resident Inspector, Region II

Successful Implementation of the Oversight Program at Fuel Facilities

EFFECTIVE
IMPLEMENTATION
OF THE
INSPECTION
PROGRAM



STAKEHOLDER
ENGAGEMENT



APPLICATION OF
RISK INFORMED
DECISION MAKING




LOOKING
FORWARD





Proactively preparing for the oversight of existing facilities and new innovations in technology

Honeywell Metropolis Works
Centrus - American Centrifuge
SHINE Medical Technologies



Continued focus
on innovations and
enhancements in
fuel cycle
inspection

- Implementing a Smarter Fuel Cycle Inspection Program
- Streamlining inspection documentation
- Assessing lessons learned from COVID-19
- Developing Process for Low-Risk Inspection Issues

Developing our Workforce through Intentional Individual Talent Development



Knowledge management
and cross training



Preparing to take on new
inspections for classified
equipment



Material Control &
Accounting enhancements



Diversity & Inclusion



Current Activities Related to the Security of the Fuel Cycle Program

Tim Harris

Senior Program Manager, Office of Nuclear Security
And Incident Response

Continuing to Support Licensing and Oversight

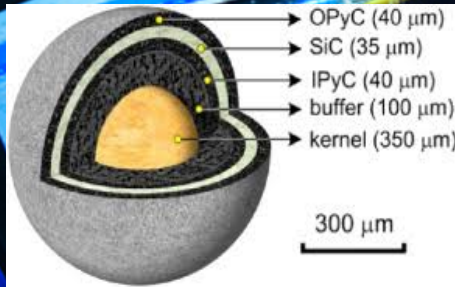
- Holistic assessment of the fuel cycle facility security inspection program to improve effectiveness and efficiency

- The complexity and diversity of fuel facility reviews requires NRC's licensing framework to be flexible and adaptable.
 - Honeywell conversion facility
 - Global Laser Enrichment
 - Authorization of classified networks at enrichment facilities



Preparing for the Future

New types of licensees and materials require appropriate focus of NRC's security program



- **Category II Security Requirements**
 - Medical isotopes facilities
 - Accident tolerant fuel
 - HALEU fuel facilities
- Stakeholder outreach
- Pre-licensing engagement
- Interagency consultation

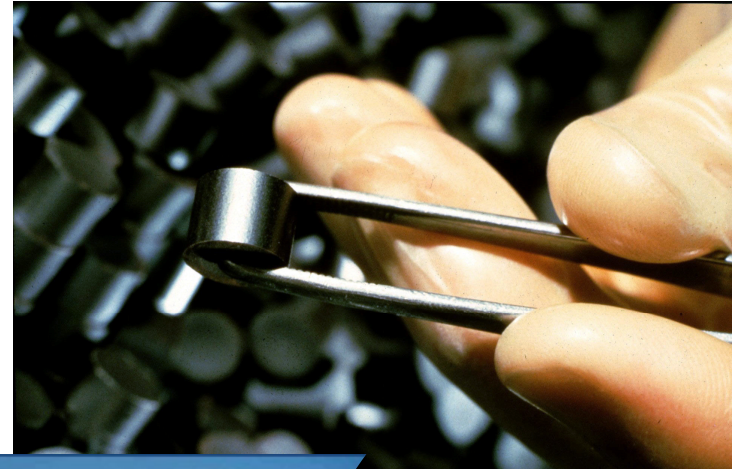
Continuing to Lead Internationally



- Advocating for an appropriate regulatory structure for the security of SNM and radiation sources
 - Bilateral physical protection assessment visits
 - International Atomic Energy Agency Nuclear Security Series development
 - Potential Revisions to *Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities* (INFCIRC 225 Revision 5)
- Review conference for Convention on the Physical Protection of Nuclear Material and its Amendment

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

The background of the slide features a large, grey, cylindrical spent fuel storage cask. The cask is positioned vertically and occupies most of the frame. It has a textured surface and a dark band around its middle. The top of the cask is slightly obscured by some green foliage. The overall scene is outdoors, with a clear sky visible in the upper portion of the image.

Strategic Overview of the Spent Fuel Storage and Transportation Business Line

John Lubinski

Director, Office of Nuclear Material Safety and Safeguards

Working together to ensure the safe, secure, and environmentally responsible use of radioactive materials and nuclear facilities.



Our
People



Internal
Stakeholders



External
Stakeholders



Regulated
Industry

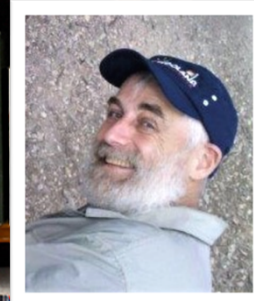


Spent Fuel Storage And Transportation Current Licensing and Oversight Environment

Yoira Diaz Sanabria

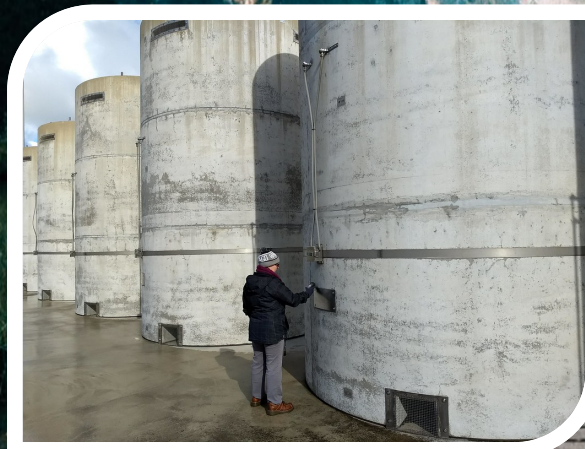
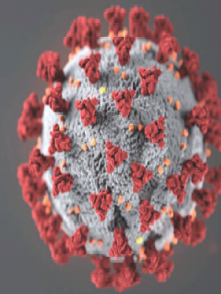
Acting Deputy Director, Division of Fuel Management

Embracing Workforce Challenges by Focusing on Our People and the Tools



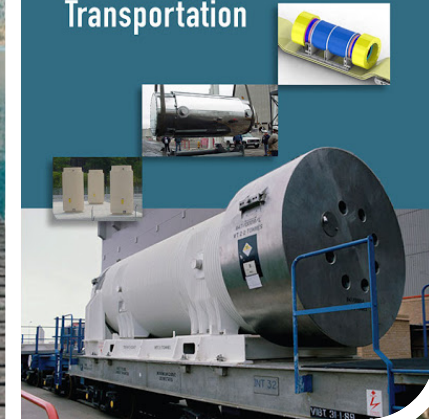
Effectively Adapting to the Changing Landscape

COVID-19 Public Health
Emergency
Oversight Activities
Assessment



U.S. NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

Safety of Spent Fuel
Transportation



Framing Our Regulatory Decisions



Using Technology to Innovate Our Program



The background of the slide features a photograph of several large, cylindrical industrial storage tanks. The tanks are arranged in a row, with some in the foreground and others receding into the distance. The tanks are light-colored, possibly white or light grey, and have a slightly weathered appearance. The sky above the tanks is a clear, pale blue. The overall scene is an industrial setting, likely a fuel storage or processing facility.

Spent Fuel Storage And Transportation Licensing Activities

Jose Cuadrado

Project Manager, Spent Fuel Licensing Branch, NMSS

Continuing to ensure safety through successful implementation of licensing and rulemaking activities

- Completed 69 licensing actions for storage and transportation.
- Supported the safety of workers at spent fuel storage sites during the pandemic.
- Support the deployment of accident tolerant fuel through transport package approvals.
- Support the transfer of spent fuel to dry storage at decommissioned sites.
- Ensured compatibility of transportation regulatory framework transportation with international standards (10 CFR Part 71 Harmonization Rule)
- Substantial Progress in CISF Licensing Reviews



Preparing for the Future and Enhancing our Program



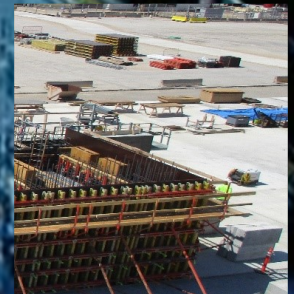
Supporting and Preparing

Future transport of accident tolerant fuel and advanced reactor fuels



Innovating

Continuing risk informing innovations for the spent fuel storage and transportation licensing program





State and Tribal Outreach related to Spent Nuclear Fuel

Allan Barker

Regional State Liaison Officer, Region III

Outreach Communications on Spent Nuclear Fuel



**Integrating with
Agency's SNF
program**



**Outreach
applicable to all
audiences**



**Future
preparations of
outreach**



**Field work
importance**

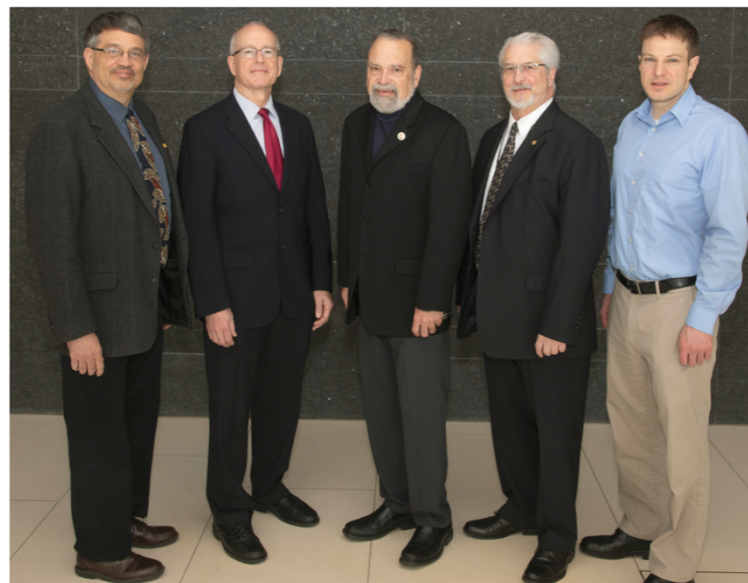


RSLO State Outreach

In accordance with program guidance

- Regional Administrator's expectations
- SL-100
- RSLO program
- Governor-appointed State Liaison Officers

Regional State Liaison Outreach



RSLO Tribal Outreach

In accordance with Tribal Policy Statement

- Commit to learn Tribal protocol
- Focus on listening, extend patience
- Serve Tribal Governments respectfully
- Native American culture extends across generations

Decade-Plus of Best Practices

- Relationship building through simple deposits.
- When you care relationships can form.
- 12 years of Tribal government outreach power point presentation never used.
- Be proactive to serve not reactive to address.
- What does success look like?
- Capture next decade of best practices.





Innovation and Transformation in the Environmental Review Process

Jessie Quintero

Chief, Environmental Review Materials Branch

Key Messages



The Environmental Center of Expertise (ECO) has been successfully operating and has accomplished a significant amount of mission-related work.



The EnvCOE continues to innovate and transform through consolidation and staff-initiated efforts.



Outreach and engagement remains an important aspect of the environmental review process and the ECO continues to adjust our approaches based on COVID.

Innovation and Transformation

The ECOE continues to look for ways to improve its processes and documents.

➤ Environmental Toolbox

“Living” Sharepoint site with guidance on environmental reviews and consultations.

➤ NEPA Handbook

“Static” document that provides an overview of environmental reviews at the NRC.

➤ Consolidated Qualification Program

General and role- and resource-specific training modules



➤ Transformation Team

Staff-initiated effort to improve review process

➤ Rulemakings

Staff-initiated rulemakings on 10 CFR Part 51 regulations



Public Engagement and Outreach in NEPA

Engaging with affected communities, Tribes, and the general public is an essential part of the NRC's environmental review process.



NEPA public meetings



Tribal Consultation



Environmental Justice

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