

# Fuel Facility Stakeholders Meeting

November 13, 2024

Public Meeting With Nuclear Energy Institute  
and Members from the Nuclear Fuel Facility Industry

**Jonathan Rowley, Project Manager**

Division of Fuel Management

Office of Nuclear Material Safety and Safeguards

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# Meeting Category and Public Participation

This is an Observation Meeting. This is a meeting in which attendees will have an opportunity to observe the NRC performing its regulatory function or discussing regulatory issues. Attendees will have an opportunity to ask questions of the NRC staff or make comments about the issues discussed following the business portion of the meeting; however, the NRC is not actively soliciting comments towards regulatory decisions at this meeting.

# Agenda – November 13, 2024

Topic	Time	Speakers
Introduction (Purpose, Rules for Meeting)	8:30 AM	Jonathan Rowley, Project Manager Division of Fuel Management (DFM)
Opening Remarks	8:35 AM	Shana Helton, Director Division of Fuel Management Office of Nuclear Material Safety and Safeguards U.S. Nuclear Regulatory Commission  Greg Core, Director Fuel Cycle Facilities Nuclear Energy Institute (NEI)
Status of Action Items from November 2023 Meeting	8:50 AM	Jonathan Rowley, Project Manager, DFM
Integrated Schedule and Supplement Updates	8:55 AM	Jonathan Rowley, Project Manager, DFM NRC Staff
Timeliness of Decommissioning Funding Plan Reviews	9:30 AM	NRC/NEI
Public Question and Answer	10:00 AM	Public
Break	10:05 AM	
ADVANCE Act	10:15AM	NEI/NRC

## Agenda – November 13, 2024 (cont.)

Topic	Time	Speakers
Public Question and Answer	12:00 PM	Public
Lunch Break	12:05 PM	
Budget Matters: Effort Factors	1:15 PM	Diana Woodyatt, DFM
Current Licensing Program Feedback and Recent Interactions	1:45 PM	Kimyata Morgan-Butler, Deputy Director DFM
Update on ISA Considerations and Designations of IROFS for Natural Phenomena Initiated Events	2:15 PM	James Downs, DFM Jonathan Marciano, DFM
Public Question and Answer	2:45 PM	Public
Break	2:50 PM	
Feedback on Public-Facing Dashboard	3:00 PM	Matt Bartlett, DFM
Report on the Industry Regulatory and Inspection Summit and Applicability to Fuel Cycle Facilities	3:30 PM	LaDonna Suggs, Director Division of Fuels, Radiation Safety, and Security Region II
Public Question and Answer	4:00 PM	Public
Recap of Action Items for the Day	4:05 PM	Jonathan Rowley, DFM Greg Core, NEI
Closing Remarks and Adjourn	4:10 PM	Shana Helton, DFM Greg Core, NEI

# Opening Remarks

**Shana Helton, Director**

Division of Fuel Management

Office of Nuclear Material Safety and Safeguards

**Greg Core, Director**

Fuel Cycle Facilities

Nuclear Energy Institute



# Division of Fuel Management



# Region II

## Division of Fuels, Radiation Safety, and Security

### ORGANIZATIONAL CHART REGION II FUEL CYCLE BUSINESS LINE

LaDonna Suggs, Director, DFRSS  
Ravi Penmetsa, Deputy Division Director, DFRSS  
Michael Greenleaf, Technical Assistant  
Jaedyn Doiley, Administrative Assistant

FUELS OVERSIGHT BRANCH 1 Branch Chief Bradley Davis	FUELS OVERSIGHT BRANCH 2 Branch Chief Eric C. Michel
<u>Nuclear Fuel Services (NFS)</u>	<u>BWXI</u>
Nicholas Peterka, Sr. Project Inspector Lindsey Cooke, Project Inspector	Noel Pitoniak, Sr. Project Inspector Chad Oelstrom, Project Inspector
Larry Harris, Sr. Resident Inspector Pamela Kruger, Administrative Assistant	Matt Doyle, Sr. Resident Inspector Evelyn Andrews, Administrative Assistant
<u>Global Laser Enrichment (GLE)</u>	<u>Framatome</u>
Leonard Pitts, Sr. Project Inspector Joseph Grice, Project Inspector	Cynthia Taylor, Sr. Project Inspector Meg Day**, Project Inspector Kelly Sullivan**, Project Inspector
<u>Urenco USA (LES)</u>	<u>Honeywell</u>
Timothy Sippel, Sr. Project Inspector Paul Startz, Project Inspector Todd Shewmaker, Project Inspector	Tom Vukovinsky, Sr. Project Inspector Gregory Goff, Project Inspector
<u>Global Nuclear Fuels - America (GNF-A)</u>	<u>Westinghouse</u>
Leonard Pitts, Sr. Project Inspector Cameron Ubben**, Project Inspector	Tom Vukovinsky, Sr. Project Inspector Justin Raudabaugh, Project Inspector
<u>Centrus Facilities (ACO-ACP, ACO-OR, ACO-HQ)</u>	<u>X-Energy</u>
Leonard Pitts, Sr. Project Inspector Joseph Grice, Project Inspector	Cynthia Taylor, Sr Project Inspector Chad Oelstrom, Project Inspector
<u>Fort Saint Vrain (FSV)</u>	
Leonard Pitts, Sr. Project Inspector Joseph Grice, Project Inspector	
<u>SHINE/Niowave</u>	
Timothy Sippel, Sr. Project Inspector	

COMMUNITIES OF PRACTICE (CoP)			
<u>INFOSEC</u>	<u>Material Control &amp; Accounting (MC&amp;A)</u>	<u>Criticality Safety</u>	<u>Radiation Safety/EP/Transportation/Env</u>
Leonard Pitts, Lead Tom Vukovinsky Noel Pitoniak Joseph Grice**	Noel Pitoniak, Lead Tom Vukovinsky Nick Peterka** Lindsey Cooke	Timothy Sippel, Lead Nick Peterka Todd Shewmaker** Kelly Sullivan**	Cynthia Taylor, Lead Gregory Goff Paul Startz Justin Raudabaugh Lindsey Cooke
<u>Fire Protection</u>			
Timothy Sippel, Lead Chad Oelstrom			

\* Currently on rotation.  
\*\* In training.



# Action Items from May 2024 Fuel Facility Stakeholders Public Meeting

**Jonathan Rowley, Project Manager**

Division of Fuel Management

Office of Nuclear Material Safety and Safeguards

# Action Items – May 2024 Stakeholders Meeting

## Action Item 1

The NRC and NEI/Industry shall exchange any meeting presentation materials at least one week prior to the scheduled meeting date.

### NRC Staff Resolution

DFM developed guidance for planning and conducting the bi-annual fuel facility stakeholders meeting. The guidance will ensure that information will be available to the public at least 7 days prior to the meetings. *(Ongoing Periodic Action)*

## Action Item 2

The NRC staff will maintain a current integrated schedule of regulatory activities chart on the NRC public website for the fuel facility stakeholders meeting.

### NRC Staff Resolution

The integrated schedule is updated at least twice a year prior to each stakeholders meeting and as needed when new items are added. *(Ongoing Periodic Action)*

## Action Item 3

The NRC will consider adding the Department of Homeland Security initiative resulting from the Cyber Incident Reporting for Critical Infrastructure Act of 2022 (CIRCIA) to the integrated schedule of regulatory activities chart. The industry acknowledges that this is not within the NRC's purview but affects the fuel cycle industry.

### NRC Staff Resolution

To maintain the clear and effective communication provided by the Integrated Schedule of Regulatory Activities, content of the chart will remain limited to activities directly under NRC's control. *(Closed)*

## Action Item 4

If requested by the industry, the NRC will host a meeting to further discuss structures as items relied on for safety.

### NRC Staff Resolution

A public meeting on integrated safety analysis consideration and designation of items relied on for safety was held on June 27, 2024. *(Closed)*

# Integrated Schedule Chart and Supplement Updates

**Jonathan Rowley, Project Manager**

Division of Fuel Management

Office of Nuclear Material Safety and Safeguards

# Integrated Schedule Chart Updates

Regulatory Activity	Revised	2021												2022												2023												2024												Comments
		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	
<b>Part 73 - Enhanced Security of SNM (SECY-19-0095)</b> Marshall Koheri/George Tartal	10/11/2024	[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												A SECY paper on this topic is anticipated to be sent to the Commission in October 2024.
<b>Part 73 - Enhanced Weapons Rulemaking (SECY-18-0058)</b> Phil Brochman	10/15/2024	[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												With the NRC's issuance of the last of three revised Reg Guides on September 10, 2024, the exemptions previously approved by the NRC on the final Enhanced Weapons rule will be expiring. These exemptions expire in either 180 days or 300 days from that date, as specified in an exemption. Licensees who obtained such an exemption should be transitioning into full compliance before then. For licensees who did not request an exemption, the original compliance date of January 8, 2024, remains in effect. Finally, enforcement guidance issued by the NRC under Enforcement Guidance Memorandum EGM-23-01 (ML23312A221) remains in effect pending the NRC's resolution of issues that require further rulemaking.
<b>Part 73 - Cyber Security Rulemaking (SECY-17-0099)</b> Irene Wu/James Downs	10/11/2024	[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												The staff is awaiting Commission direction.
<b>Integrated Low-Level Radioactive Waste Disposal Rulemaking (SECY-20-0098)</b> George Tartal/Cardelia Maupin/Priya Yadav	10/11/2024	[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												The proposed rule was sent to the Commission on May 29, 2024 via SECY-24-0045. The staff is waiting on the Commission to provide direction.
<b>Decommissioning Financial Assurance for Sealed and Unsealed Radioactive Material (PRM-30-66; NRC-2017-0159) - (SECY-19-0125)</b> Greg Trussell/Adam Schwartzman	10/11/2024	[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												The proposed rule was submitted to the Commission on July 24, 2023. Awaiting Commission direction.
<b>Final Rulemaking - Alternatives to the Use of Credit Ratings (RIN 3150-AJ92) (SECY-16-0009, SECY-20-0056)</b> Greg Trussell	10/11/2024	[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												The final rule was sent to the Commission on February 9, 2024. Awaiting Commission direction.
<b>Harmonization of Transportation Safety Requirements with International Atomic Energy Agency Standards (RIN 3150-AJ85; NRC-2016-0179) - Part 71 (SECY-16-0093 and SECY-20-0102)</b> Caylee Kenny	10/15/2024	[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												The final rule is with the Commission as of August 20, 2024. Awaiting Commission direction.
<b>Part 26 - Drug and Alcohol Testing: Technical Issues and Editorial Changes (NRC-2012-0079; RIN3150-AJ15)</b> Stewart Schneider/Brian Zaleski	10/11/2024	[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												The rulemaking plan was delivered to the Commission on July 9, 2024. Awaiting Commission direction.
<b>Regulatory Information Conference</b> Jonathan Rowley	10/11/2024	[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												Presentations for previous RIC sessions are available online.
<b>NUREG-1520 Updates</b> TBD	10/11/2024	[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												Future updates to NUREG-1520 are expected to address remaining long-term recommendation from the Smarter Licensing Program, lessons learned, and potential new fuels applications.
<b>Very Low Safety Significance Issues</b> Stephen Koenick	10/16/2024	[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												Guidance development and improvement continues as experience is gained. Staff continues to updating BKs with the memo/ISG language.
<b>Controlled Unclassified Information Program</b> Tanya Mensah	10/11/2024	[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												The NRC's plans to implement MD 12.6 are delayed. A new date will be identified by OClO after the National Security Council (NSC) Interagency Policy Committee (IPC) completes its efforts to identify Federal-wide CUI implementation challenges and proposed policy solutions. NRC's CUI public website: <a href="https://www.nrc.gov/reading-rm/cui.html">https://www.nrc.gov/reading-rm/cui.html</a>
<b>ADVANCE Act</b>		[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												[Color-coded cells]												NRC's public information site for ADVANCE Act updates: <a href="https://www.nrc.gov/about-nrc/governing-laws/advance-act.html">https://www.nrc.gov/about-nrc/governing-laws/advance-act.html</a>
		<ul style="list-style-type: none"> <li style="margin-right: 10px;">[Green] = Final Rule/Final Guidance</li> <li style="margin-right: 10px;">[Yellow] = Public Interaction</li> <li style="margin-right: 10px;">[Light Green] = ANPR Development</li> <li style="margin-right: 10px;">[Red] = Issue Draft Guidance</li> <li style="margin-right: 10px;">[Purple] = Final Report/Closure Memo</li> <li style="margin-right: 10px;">[Light Blue] = Pending Commission Action</li> <li style="margin-right: 10px;">[Blue] = Guidance Development</li> <li style="margin-right: 10px;">[Red-Black] = ANPR Issued</li> <li style="margin-right: 10px;">[Pink] = Denied by Commission</li> <li style="margin-right: 10px;">[Orange] = Marks issuance of SRM</li> <li style="margin-right: 10px;">[Cyan] = Pilot Program</li> <li style="margin-right: 10px;">[Green-Black] = Pre-rulemaking Activities</li> <li style="margin-right: 10px;">[Light Orange] = Reg. Basis/Draft Guidance</li> <li style="margin-right: 10px;">[Light Orange] = Proposed Rule/DG Development</li> <li style="margin-right: 10px;">[Pink] = Implementation</li> <li style="margin-right: 10px;">[Light Green-Black] = Non-rulemaking/NRC Activities</li> <li style="margin-right: 10px;">[Yellow-Dot] = Scheduled Meeting</li> <li style="margin-right: 10px;">[Light Green] = I = Marks issuance of SECY</li> <li style="margin-right: 10px;">[Red-Dot] = Site Visit</li> <li style="margin-right: 10px;">[Light Orange-Dot] = A = ACRS Meeting</li> </ul>																																																

# Updates to Integrated Schedule Chart and Supplement

- Updated information
  - Fuel Facility Stakeholders Meeting
    - <https://www.nrc.gov/materials/fuel-cycle-fac/regs-guides-comm.html#cumeffects>
  - Integrated Schedule (Chart)
    - ADAMS Accession Number ML24305A155
  - Integrated Schedule Supplement
    - ADAMS Accession Number ML24305A157
  - Summary of changes to previously listed activities (May – October 2024)
    - ADAMS Accession Number ML24305A156

# Timeliness of Decommissioning Funding Plan Reviews

**Kenneth Kline, Financial Analyst**  
Financial Assessment Branch,  
Division of Rulemaking, Environmental,  
and Financial Support

# Frequency of DFP Submittals

- **70.25 requires** funding for decommissioning prior to bringing material onsite and **updating the cost estimate at least every 3 years** until time of license termination (see 70.25(b)(2), **70.25(e)(2)**, 70.25(f)(2)(iii))
- **The basis for the three-year cycle is found in FR, Vol. 68, No. 192, Friday, October 3, 2003, p. 57331 -57332.** Although it would be less burdensome to require updates every 5 years as opposed to every 3 years, the NRC believes this would entail too great of a risk that cost estimates could become significantly low. The NRC's experience indicates that decommissioning cost estimates may fluctuate significantly in less than five years. Even where site conditions do not change, inflation may increase costs significantly. For example, if decommissioning costs were to rise by five percent annually (due to higher disposal costs, inflation, and/or other factors), then in only 3 years a previously accurate estimate would understate current costs by 15 percent. As a result, financial assurance would be low by the same amount. This would create an unacceptable risk of unfunded decommissioning obligations.

# Timely NRC Review & Approval

- Timeliness and efficiency of reviews and RAI process are very important to NRC
- NRC's goal is to complete these reviews in under 6 months
- Complications that can impact review time include:
  - Technical, regulatory or other complexities
  - Quality, thoroughness and timeliness of RAI responses
- NRC engages industry (both before issuing RAIs and after) to resolve challenges and develop a path forward for subsequent reviews



# Public Participation

At this time, the public is afforded an opportunity to ask questions and/or provide comments on the following topics:

- Status of Action Items
- Integrated Schedule and Supplement Updates
- Timeliness of Decommissioning Funding Plan Reviews

# Accelerating Deployment of Versatile, Advanced Nuclear Clean Energy Act of 2024 (ADVANCE Act)

**Shana Helton, Director**

Division of Fuel Management  
Office of Nuclear Material Safety  
and Safeguards

# ADVANCE Act



The ADVANCE Act of 2024 was passed with unprecedented bipartisan support and signed by President Biden in July 2024.

**PUBLIC MEETING** – On October 16, the NRC held its first public meeting on implementation of the ADVANCE Act with over 200 attendees. [ML24285A217](#)

“...focusing on efficiency through risk-informing and continuous learning—was already underway at the NRC, the ADVANCE Act will help drive that efficiency mandate forward and provide us with additional tools for execution.” – *Christopher Hanson, NRC Chair*



# Overview of the Act

- Update mission statement
- Enhance initiatives to achieve efficient, timely, and predictable license application reviews
- Assess the licensing review process for new nuclear facilities at former fossil-fuel power plant and brownfield sites
- Develop strategies for microreactors
- Continue to support international coordination
- Implement new requirements relating to nuclear fuel

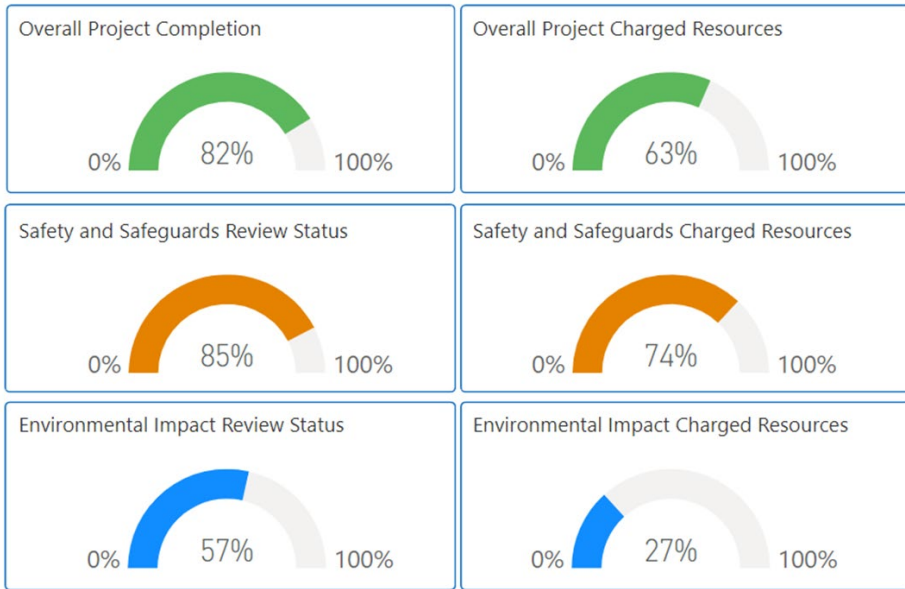
# ADVANCE Act Task Assigned to or Supported by NMSS

- Denial of Certain Domestic Licenses for National Security Purposes and export license notification – Section 102, 103
- Regulatory Requirements for Micro-Reactors - Section 208
- Manufacturing & Construction for Nuclear Energy Projects – Section 401
- Advanced Nuclear Fuel cooperation with DOE – Section 404
- Mission Alignment – Section 501
- Performance Metrics & Milestones – Section 504
- Nuclear Reactor Licensing Efficiencies – Section 505
- Improving Oversight & Inspection Programs – Section 507

# Use of Licensing Precedents

- NRC reviews each application based on its merit
- Licensing precedents can serve as review accelerators
  - Past precedents help to focus reviewer efforts
- NRC has approved applications for several new facilities
  - Staff safety evaluations are public
  - Applicants should discuss precedents and their applicability at pre-application meetings
- Targeted updates to NUREG-1520 may further improve efficiency and add clarity
  - Insights from recent regulatory reviews

# Licensing Metrics and Transparency



Dashboard last refreshed on: 10/21/2024  
Data last modified on: 10/17/2024

Other suggestions?

## Smarter Licensing

### Process enhancements

- Acceptance letters w/ schedules and cost estimates
- Alignment on scope, focus of review

### Public dashboards share real-time information about review status:

- RAI completion status
- Overall review completion status (safety, security, environmental)
- Staff level of effort / hours charged to applicant

### Communications with applicants:

- Routine status calls (>1/month)

# To Stay Informed of Progress



Follow NRC's ADVANCE Act implementation with this Dashboard



# For Upcoming and Past Meetings



For NRC's public meeting information on ADVANCE Act



## ADVANCE Act (Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy Act of 2024)



### Public Meetings

- [Upcoming Meetings](#)
- [Past Meetings](#)



### Questions, Comments, or Ideas

- [Contact Us about the ADVANCE Act](#)

# For Your Questions and Ideas



Contact us with ADVANCE Act questions, comments and ideas

A screenshot of the U.S. Nuclear Regulatory Commission (NRC) website. The page title is "Contact Us About the ADVANCE Act of 2024". The header includes the NRC logo and navigation links like "FAQ", "AGREEMENT STATES", "FACILITY LOCATOR", "WHAT'S NEW", "SITE HELP", "INDEX A-Z", "CONTACT US", and "EMAIL UPDATES". A "REPORT A SAFETY CONCERN" button and a search bar are also visible. The main content area contains a form with a "Category:" dropdown menu (currently set to "Select"), a "Question or Comment:" text area, and a "Would you like to remain anonymous?:" section with radio buttons for "Yes" and "No" (the "No" option is selected). A "Privacy Policy" link is provided at the bottom of the form.

# Effort Factors

**Diana Woodyatt, Project Manager**  
Fuel Facility Licensing Branch  
Division of Fuel Management  
Office of Nuclear Material Safety and  
Safeguards

# Effort Factors Background

- The NRC allocates annual fees to individual fuel facility licensees based on the effort/fee determination matrix developed in the FY 1999 fee rule (64 FR 31228; June 10, 1999).
- The matrix groups licensees within this fee class into various fee categories.
- The matrix lists processes that are conducted at licensed sites and assigns effort factors for the safety and safeguards activities associated with each process.
- The annual fees are then distributed across the fee class based on the regulatory effort assigned by the matrix.
- The effort factors in the matrix represent regulatory effort that is not recovered through 10 CFR part 170 fees (e.g., rulemaking, guidance). Regulatory efforts for part 170 fees are not applicable to the effort factor (such as inspections).
- There are seven fee categories:
  - High Enriched Uranium Fuel
  - Low Enriched Uranium Fuel
  - Limited Operations
  - Gas Centrifuge Enrichment Demonstration
  - Hot Cell (and others)
  - Uranium Enrichment
  - UF6 Conversion and Deconversion

# Effort Factors Processes

- Solid UF6 Metal
- Enrichment
- Liquid UF6
- HEU Down Blend
- Conversion Powder
- Pellet
- Rod/Bundle
- Scrap/Waste
- Hot Cell
- Sensitive Information

# Effort Factors Matrix Values

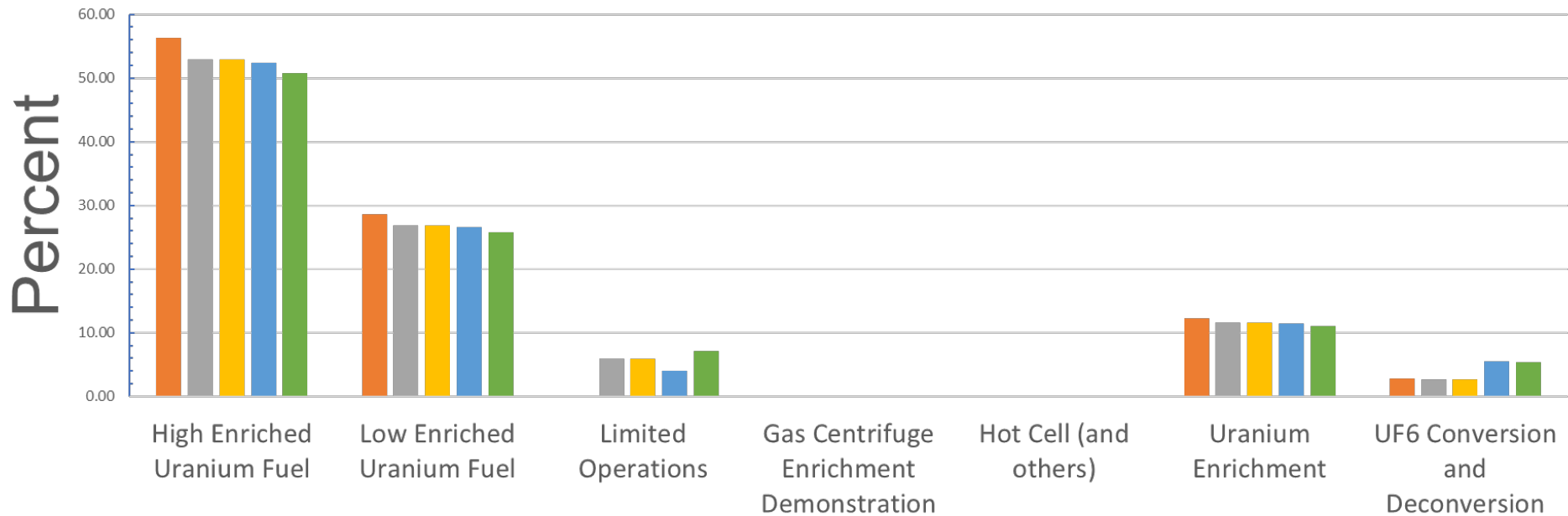
- The processes are evaluated with respect to safety and safeguards in each category according to the following values:

LEGEND	VALUE
HIGH	10
MODERATE	5
LOW	1
NONE	0

# FY 2024 Fuel Facilities Effort Factors Matrix

Facility Type (Fee Category)	Number of Licensees	Effort Factors		
		Safety (%)	Safeguards (%)	Total Safety + Safeguards (%)
High Enriched Uranium Fuel (1.A.(1)(a))	2	88 (46.6%)	91 (55.5%)	179 (50.7%)
Low Enriched Uranium Fuel (1.A.(1)(b))	3	70 (37.0%)	21 (12.8%)	91 (25.8%)
Limited Operations (1.A.(2)(a))	1	3 (1.6%)	22 (13.4%)	25 (7.1%)
Gas Centrifuge Enrichment Demonstration (1.A.(2)(b))	0	0 (0%)	0 (0%)	0 (0%)
Hot Cell (and others) (1.A.(2)(c))	0	0 (0%)	0 (0%)	0 (0%)
Uranium Enrichment (1.E.)	1	16 (8.5%)	23 (14.0%)	39 (11.0%)
UF6 Conversion and Deconversion (2.A.(1))	1	12 (6.3%)	7 (4.3%)	19 (5.4%)
<b>Total</b>	<b>8</b>	<b>189 (53.5%)</b>	<b>164 (46.5%)</b>	<b>353 (100%)</b>

# Combined Safety & Safeguards Effort Factors Percent For FY 2020-2024



## Percent each Year by Fuel Facility Category

■ 2020   
 ■ 2021   
 ■ 2022   
 ■ 2023   
 ■ 2024



# References

- 64 FR 31448; June 10, 1999.
- 85 FR 37250; June 19, 2020.
- 86 FR 32146; June 17, 2021.
- 87 FR 37197; June 22, 2022.
- 88 FR 39120; June 15, 2023.
- 89 FR 51789; June 20, 2024.
- FY 2020 - 2024 Final Fee Rule Work Papers.
- NRC Public Website Fee Rule:  
<https://www.nrc.gov/about-nrc/regulatory/licensing/fees.html>

# Questions/Comments

# Current Licensing Program Feedback and Recent Interactions

**Kimyata Morgan-Butler, Deputy  
Director**

Division of Fuel Management  
Office of Nuclear Material Safety and  
Safeguards

# Revising NUREG-1520

- Considering targeted update to NUREG-1520
- Contract funds in FY25
- New staff

# Identified Areas for Revision to NUREG-1520

- Digital Instrumentation and Controls
- Facility Clearance Process
- Decommissioning Activities
- Areas of Additional Clarity
  - Electrical
  - Natural Phenomena Hazards
  - Integrated Safety Analysis
  - Management Measures

# Early Lessons Learned with Major Amendments

We identified the importance of:

- Pre-application activities
- Draft RAI calls
- Audits or site visits
- Quality submittals
  - Avoid Request for Supplemental Information
  - Reduce level of NRC effort
- Quality information/responses to questions

# Update on the Fuel Cycle Facility Inspection Program Self-Assessment

**Benjamin Karmioli, Fuel Cycle  
Operations Engineer**  
Inspection and Oversight Branch  
Division of Fuel Management

# Progress

## Public\* Report:

- Issued on 10/30/24 (ML24242A102)
- Scope:
  - Assess fuel cycle facility inspection program
  - Assess changes implemented by the smarter inspection program (SIP)
- Results
  - Fuel cycle facility inspection program is meeting its goal of reasonable assurance of adequate protection
  - Areas of possible further enhancement were identified
  - Recommendations address these areas
  - Recommendations do not substantially impact frequencies/resource estimates as listed in IMC 2600 Appendix B
- Implementation
  - Recommendations have been prioritized and will be implemented based on a business case that considered return on investment
  - Recommendations will be considered in the context of the ADVANCE act, Section 507 response to congress

**\*Non-public report is in concurrence**



# Update on ISA Considerations and Designations of IROFS for Natural Phenomena Initiated Events

**James Downs, Acting Branch Chief**

**Jonathan Marcano, Senior Risk & Reliability Analyst**

Division of Fuel Management

# Update on ISA Considerations and Designations of IROFS for Natural Phenomena Initiated Events

- NRC staff does not require any particular engineered (e.g., building) or administrative control to be designated an IROFS independent of ISA results.
- Subpart H of 10 CFR Part 70 enables an applicant to employ a wide range of options to demonstrate reasonable assurance of adequate protection.
  - Facility-specific ISA determines IROFS per 10 CFR 70.61(e), and
  - Baseline design criteria (BDC) (70.64(a)(2)) for “new facilities and new processes at existing facilities” requires “adequate protection against natural phenomena with consideration of the most severe documented historical events for the site”
  - An applicant may use an appropriate building code to determine the NPH that need to be assessed in their ISA to demonstrate safety
- NUREG-1520 has one approach to meet the regulations. Following this approach aids in an efficient review. Other approaches may also be valid provided applicants demonstrate how that approach (which may consider the totality of the activities to meet the regulation) maintains reasonable assurance of adequate protection.

# NRC and Industry Identified Topics for Further Discussion

1. What clarification can be provided on the facility-specific scope and results of the NRC's activities from Generic Letter 2015-01?
2. What is the burden (e.g., cost, level of inspection, required management measures, reporting) associated with designating a structure as an IROFS? Are there effective ways for the NRC to reduce that regulatory burden and maintain the level of safety?
3. Is it appropriate to identify a structure designated as an IROFS as a "sole IROFS" per 10 CFR 70.65(b)(8)? What defines "degraded" for a structure designated as an IROFS?
4. How and when can satisfying the baseline design criteria in 10 CFR 70.64 (e.g., building code compliance) be used as a basis for compliance with ISA requirements in lieu of more complex analysis for NPH (e.g., seismic fragility analyses)?

# Public Participation

At this time, the public is afforded an opportunity to ask questions and/or provide comments on the following topics:

- Effort Factors
- Current Licensing Program Feedback and Recent Interactions
- Update on ISA Considerations and Designations of IROFS

# Feedback on Fuel Facility Public-Facing Dashboards

**Matt Bartlett, Senior Project  
Manager**

Fuel Facility Licensing Branch  
Division of Fuel Management  
Office of Nuclear Material Safety  
and Safeguards

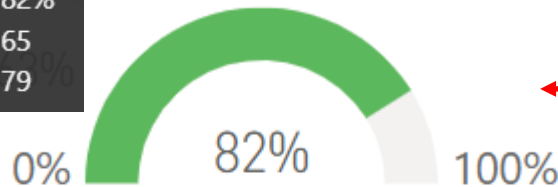
# Fuel Facility Public-Facing Dashboards

- Public-facing dashboards for all new license applications and major amendments
- Goals includes efficiency and accountability
- Designed for rapid deployment and easy to update
- Compliant with 21<sup>st</sup> Century Integrated Digital Experience Act

# Developed a New Public Facing Dashboard (LES 10 wt.% Amendment)

## Overall Project Completion

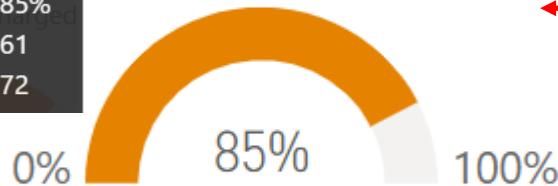
Percent of interim milestones completed 82%  
Interim milestones completed 65  
Total interim milestones 79



Overall project milestones completed.

## Safety and Safeguards Review Status

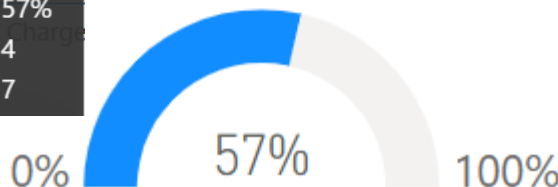
Percent of interim milestones completed 85%  
Interim milestones completed 61  
Total interim milestones 72



Safety and safeguards milestones completed.

## Environmental Impact Review Status

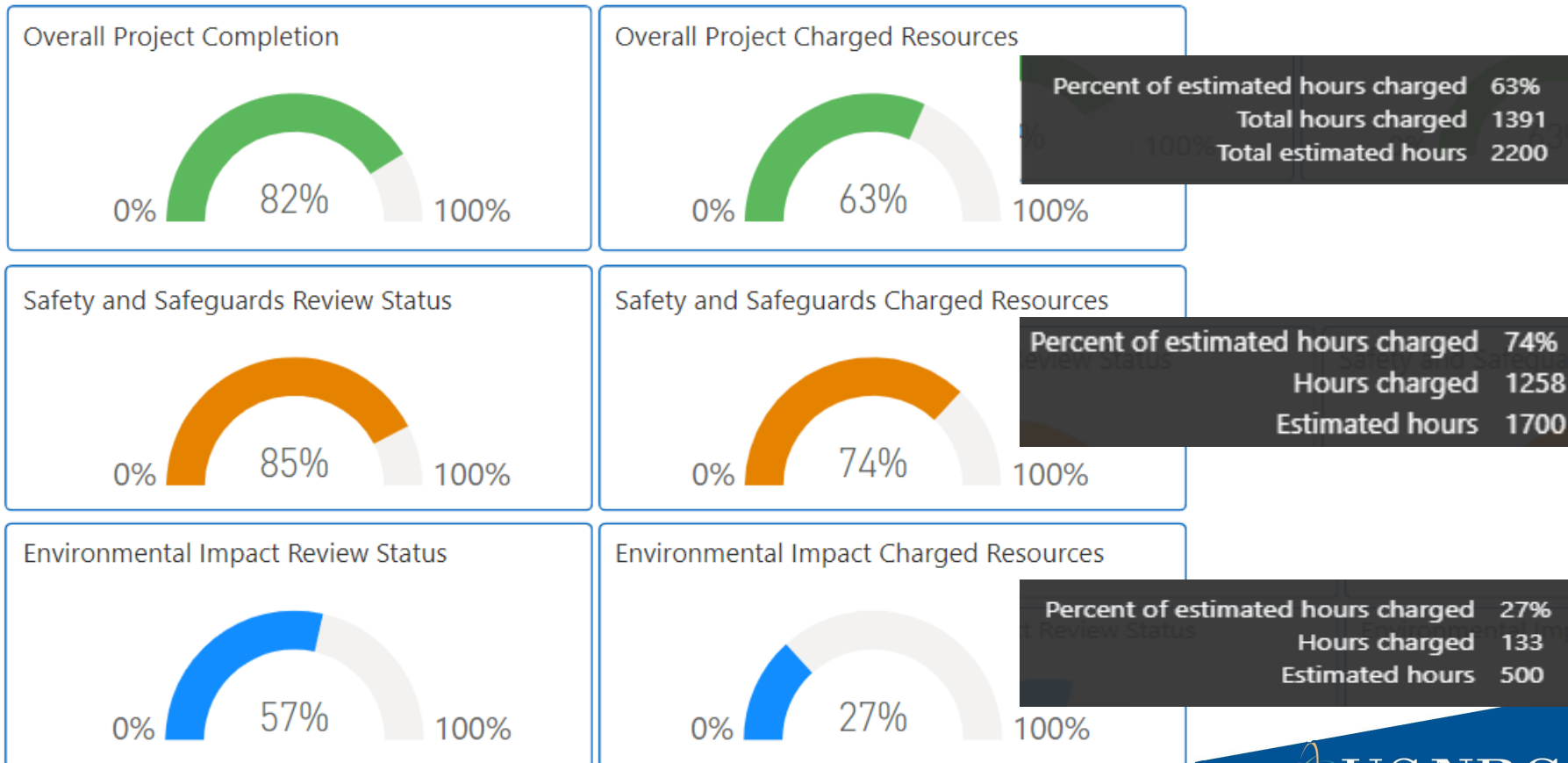
Percent of interim milestones completed 57%  
Interim milestones completed 4  
Total interim milestones 7



Environmental assessment milestones completed.

# Piloted Update for LES Dashboard – 10 wt% Amendment

The current agreed upon schedule in the acceptance of the Louisiana Energy Services, LLC – license amendment request to raise the enrichment limit to less than 10 weight percent uranium-235 (ML24052A385) dated March 1, 2024, estimated 12 months review, including the acceptance review and approximately 2,200 hours of effort to complete.



Dashboard last refreshed on: 10/21/2024

Data last modified on: 10/17/2024



# Goals of the Piloted Dashboard Update

- Promote enhanced visibility and accountability for licensing reviews.
- Provide insights on the estimated vs expended resources.
- Allow comparison between the milestone and resources graphics.

# Safety and Safeguards Status Tab

- Project Status
- Safety and Safeguards Status**
- Safety and Safeguards Schedule
- Environmental Impact Status
- Environmental Impact Schedule
- HITI
- Data Table (web)

Note: Hover over the chart data for more details



Project status is sub-divided into the major stages of the review

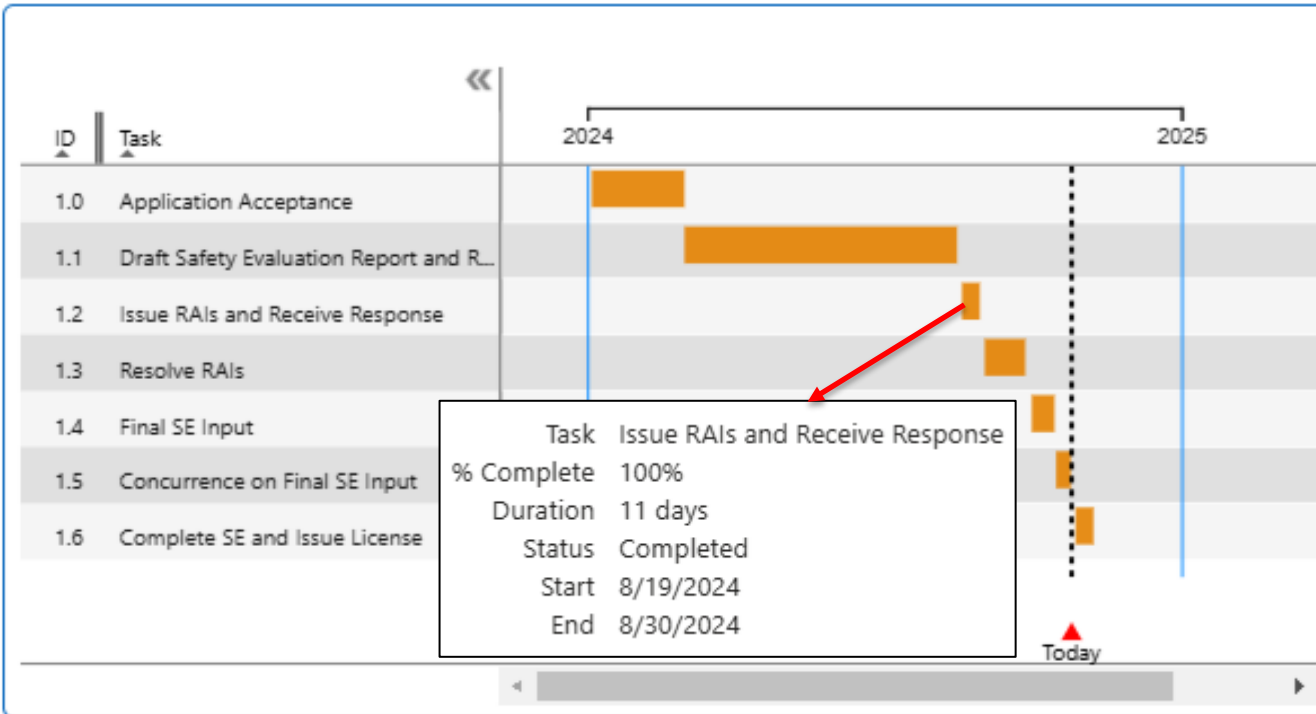
The Pop-up displays the status of the milestone

Technical Area	Status
Administration	Complete
Chemical safety	Complete
Emergency management	Complete
Environmental safety	Complete
Financial qualifications and decommissioning	Complete
Fire safety	Complete
Funding and financial insurance	Complete
General information and organization	Complete
Human factors	Complete
Management measure & quality assurance	Complete
Material control & accounting	Complete
Radiation protection	Complete
Structural and NPH	Complete
Criticality safety	Pending
ISA summary	Pending

13 out of 15 milestones completed for 87%

# Safety and Safeguards Schedule Tab

- Project Status
- Safety and Safeguards Status
- Safety and Safeguards Schedule**
- Environmental Impact Status
- Environmental Impact Schedule
- HITI
- Data Table (web)



The Gantt chart indicates the projected timeline of the review based on the established schedule in the acceptance letter

ID	Start	End	Duration	% complete
1.0	1/4/2024	3/1/2024	57 days	100%
1.1	3/1/2024	8/16/2024	168 days	100%
1.2	8/19/2024	8/30/2024	11 days	100%
1.3	9/2/2024	9/27/2024	25 days	87%
1.4	10/1/2024	10/15/2024	14 days	87%
1.5	10/16/2024	10/25/2024	9 days	0%
1.6	10/28/2024	11/8/2024	11 days	0%

Abbreviations

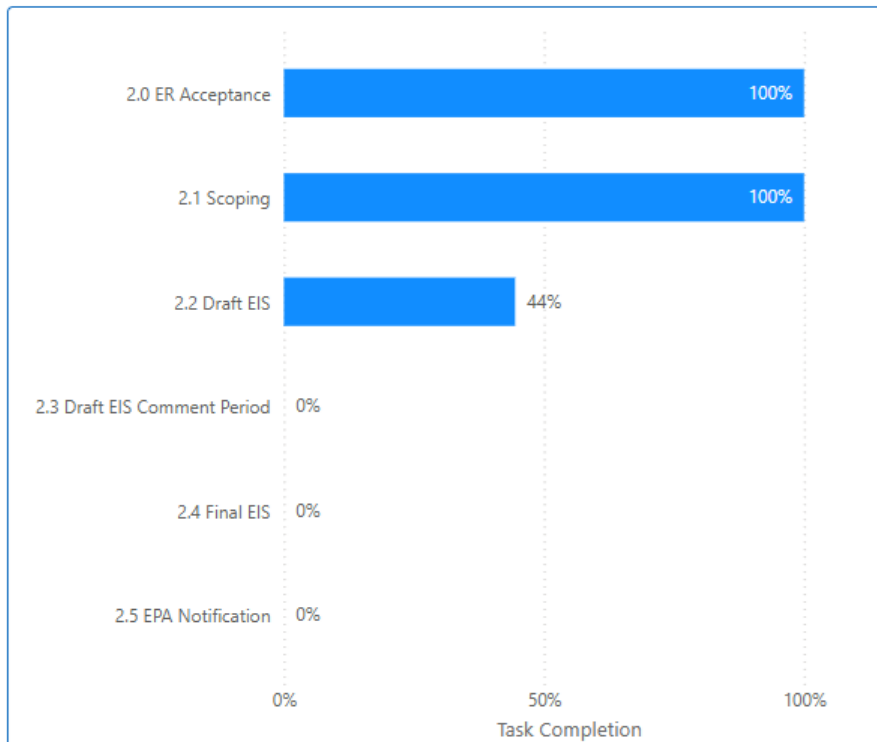
- ACRS = Advisory Committee on Reactor Safeguards
- RAI = Request for Additional Information
- SER = Safety Evaluation Report

# Environmental Impact Dashboard (Tabs 4 and 5)

## Environmental Impact Status

Project Status | Safety and Safeguards status | Safety and Safeguards schedule | **Environmental Impact status** | Environmental Impact Schedule | High Impact Technical Items | Data table (web)

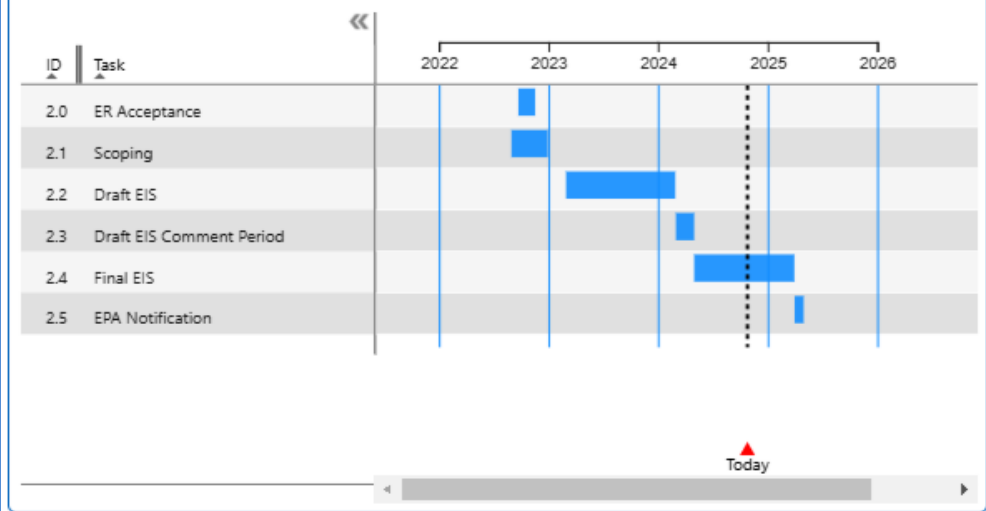
Note: Hover over the chart data for more details



## Environmental Impact Schedule

Project Status | Safety and Safeguards status | Safety and Safeguards schedule | Environmental Impact status | **Environmental Impact Schedule** | High Impact Technical Items | Data table (web)

Note: Hover over the chart data for more details



ID	Start	End	Duration	% complete	Abbreviations
2.0	9/23/2022	11/18/2022	56 days	100%	EIS = Environmental Impact Statement
2.1	8/31/2022	12/30/2022	121 days	100%	EPA = Environmental Protection Agency
2.2	3/1/2023	2/28/2024	364 days	44%	ER = Environmental Report
2.3	3/1/2024	5/1/2024	61 days	0%	
2.4	5/1/2024	3/31/2025	334 days	0%	
2.5	4/1/2025	5/1/2025	30 days	0%	

# High Impact Technical Items (HITI) Tab

[Project Status](#)
[Safety and Safeguards status](#)
[Safety and Safeguards schedule](#)
[Environmental Impact status](#)
[Environmental Impact Schedule](#)
[High Impact Technical Items](#)
[Data table \(web\)](#)

Status:  ▼

- Awaiting response
- NRC reviewing
- Resolved



The HITI tab tracks issues that are review/schedule risks.

ID	Items	Status
4.0	The XXX portion of the application had a delayed submittal. It is under NRC review.	NRC reviewing
4.1	Five requests for additional information on the criticality safety chapter needs to be resolved.	Awaiting Response

**Total items:**      **Awaiting response:**      **NRC reviewing:**      **Resolved:**

# Next Steps

- Receive feedback from stakeholders
- Evaluate if we should expand the pilot to other projects
- Evaluate if we should add additional visualizations to communicate the status of projects

# Report on the Industry Regulatory and Inspection Summit (IRIS) and Applicability to Fuel Cycle Facilities

**LaDonna Suggs, Director**  
Division of Fuels, Radiation  
Safety, and Security  
Region II

# Introduction – Background and Motivation

## Public Meeting on NRC and Industry Collaboration

### Staffing Challenges



High turnover in the NRC and industry has reduced inspection experience.

### Impact of COVID-19



Remote inspections during the pandemic disrupted hands-on training.

### Strengthening Collaboration



The summit aimed to improve mutual understanding between NRC inspectors and licensees.



# Purpose and Guidelines for the Summit

## Fostering Collaboration without Criticism

### Collaborative Learning



Aimed to align expectations without placing blame.

### Avoidance of Case Studies



Discussions focused on broad lessons, rather than individual incidents.

### Scripted Topics



Predefined topics ensured balanced discussions and thorough preparation.

# RFI Lifecycle & Managing Disagreements During Inspections

## Ensuring Effective and Smooth Coordination

### Streamlined RFI Process



Early Submission of RFIs (90 days) reduces inspection delays.

### Proactive Handling of Disagreements



Licensees are encouraged to raise concerns early to prevent escalation.

### Backfitting Concerns



NRC resolves disputes with technical and legal reviews to avoid unnecessary backfitting.

# Team Coordination and Leadership Involvement

## Ensuring Smooth Execution of Inspections

### Point of Contact



Direct coordination between licensee representatives and inspectors.

### Daily Briefings



Teams debrief to maintain alignment and resolve issues in real-time.

### Leadership's Role



Senior leadership monitors progress to address challenges early.

# Inspection Outcomes and Best Practices for Stakeholders

## Aligning on Performance and Documentation

### Non-Cited Violations (NCVs)



Minor violations do not warrant formal citations.

### Notices of Violation (NOVs)



Formal notifications for serious findings.

### Resolution of Unresolved Items (URIs)



Timely resolution prevents administrative burdens.

# Key Takeaways for Fuel Facility Licensees

## Applying IRIS Lessons

### Clear Communication



Early engagement with NRC inspectors ensures smoother inspections.

### Proactive Resolution



Addressing potential issues early minimizes delays and open items.

### Adaptation of Best Practices



Fuel facilities can benefit from lessons learned in reactor inspections.

# Conclusion – Next Steps and Future Opportunities

## Aligning on Continuous Improvement

Tailored Summit for Fuel Facilities



Consider a similar summit for Fuel Facility Stakeholders.

Enhanced Collaboration



Build stronger relationships between NRC and Licensees.

Commitment to Continuous Learning



Focus on learning and adapting best practices.

# Public Participation

At this time, the public is afforded an opportunity to ask questions and/or provide comments on the following topics:

- Feedback on Dashboard Pilots
- Report on the Industry Regulatory and Inspection Summit and Applicability to Fuel Cycle Facilities

# Recap of Action Items

**Jonathan Rowley, Project Manager**

Division of Fuel Management

Office of Nuclear Material Safety and Safeguards



# Closing Remarks

**Shana Helton, Director**

Division of Fuel Management

Office of Nuclear Material Safety and Safeguards

**Greg Core, Director**

Fuel Cycle Facilities

Nuclear Energy Institute