Public Meeting with the Nuclear Energy Institute Regulatory Issues Task Force November 10, 2021

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AGENDA

Time	Topic	Speaker
9:00 am –9:10 am	Introductions/Opening Remarks	NRC, NEI
9:10 am – 9:50 am	Licensing actions/review of metrics: • COVID-19 exemptions/licensing action support • Update on licensing metrics and actions • Update on the NRC's workload management tools and prediction capabilities	NRC
9:50 am – 10:00 am	Update on SRP Modernization Effort	NRC
10:00 am – 10:15 am	Feedback on the use of FLEX in licensing submittals	NRC, NEI
10:15 am – 10:45 am	Update on RIPE and discussion on exclusions	NRC, NEI
10:45 am – 11:00 am	Lessons learned from implementation of the VLSSIR process	NRC, NEI
11:00 am – 11:15 am	Break	
11:15 am – 11:30 am	Best practices for communicating with the NRC during potential NOED/Emergency Amendment situations	NRC, NEI
11:30 am – 11:45 am	Early feedback for 2022 RIC and other regulatory interactions	NRC, NEI
11:45 am – 11:55 am	Opportunity for public comments	Members of the Public
11:55 am – 12:00 pm	Closing remarks	NRC, NEI
12:00 pm	Adjourn	

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Introductions and Opening Remarks

Mike King
Deputy Office Director for Reactor Programs
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission

Brett Titus
Technical Advisor
Nuclear Energy Institute

Licensing Actions/Review of Metrics:

COVID-19 Exemptions/Licensing Action Support

Update on Licensing Metrics and Actions

Update on the NRC's Workload Management Tools and Prediction Capabilities

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Modernizing Our Licensing Program

Caroline Carusone, Deputy Director
Ed Miller, Project Manager
Doug Broaddus, Sr. Project Manager
Annie Mayer, Technical Assistant
Division of Operating Reactor Licensing, NRR

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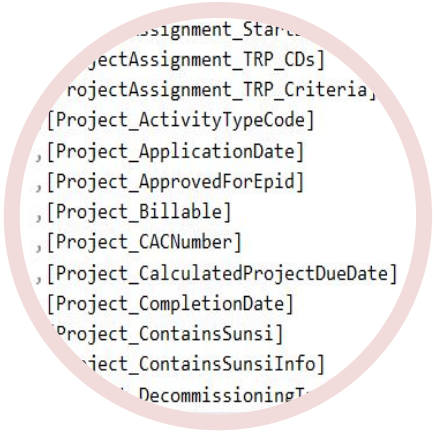
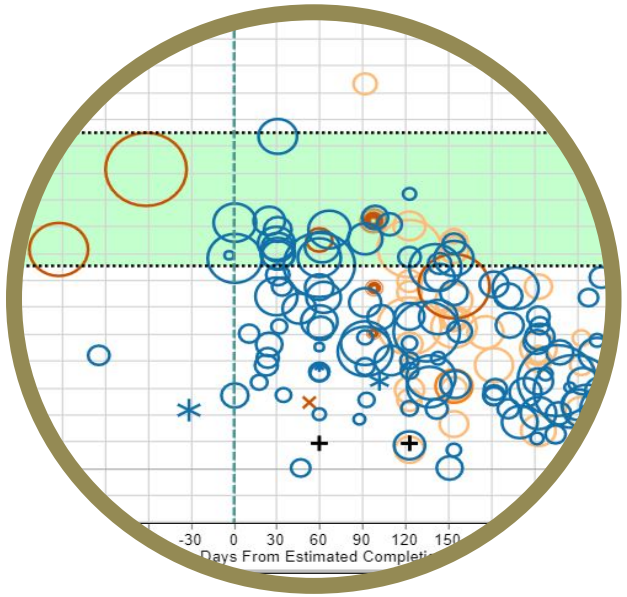
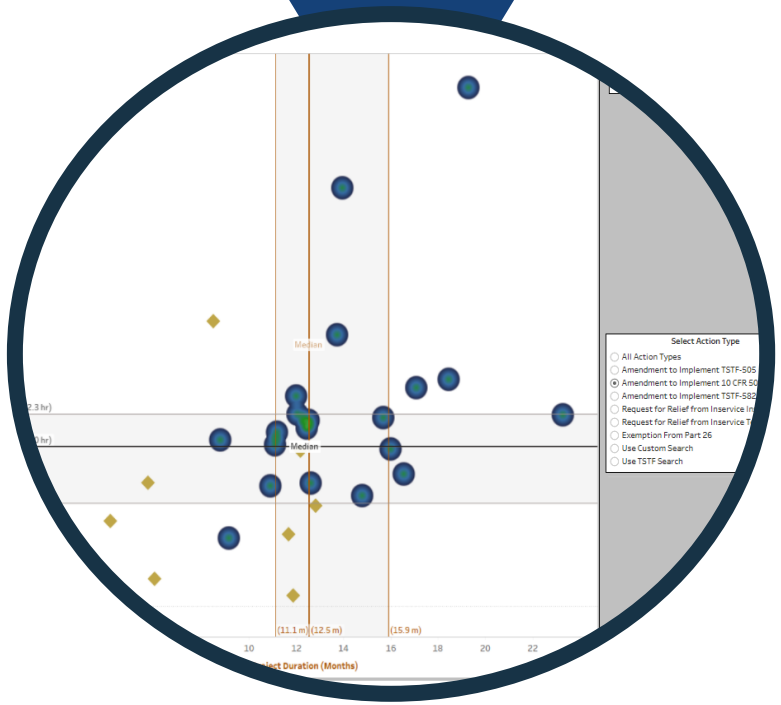
Expanding Use of Data and Business Tools



Data **intake** architecture and access



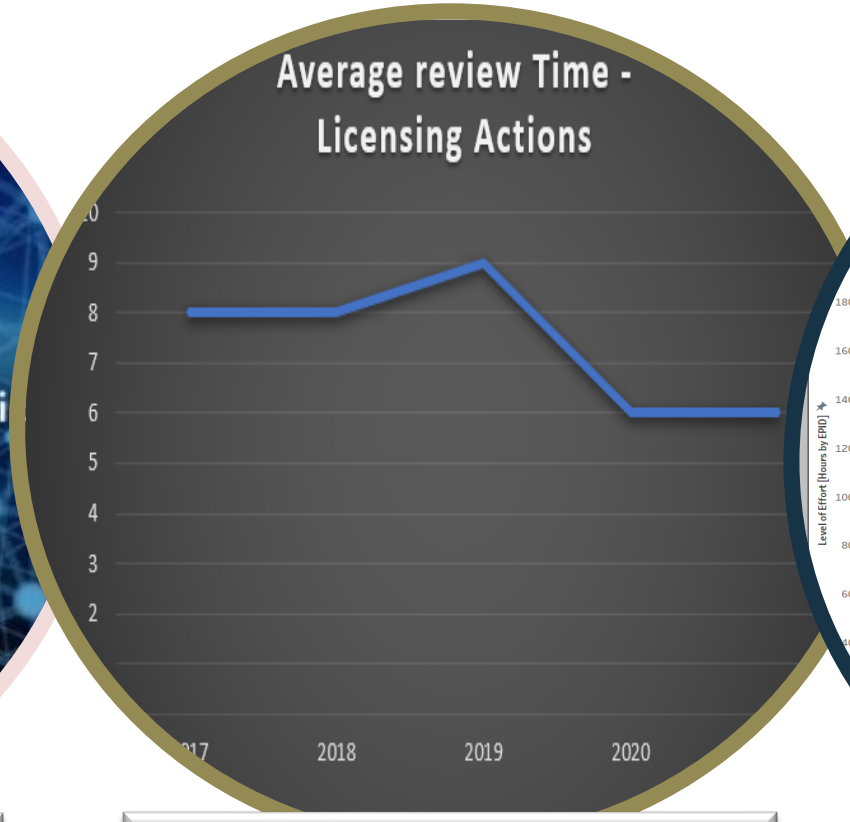
Data visualization to track **performance** and understand resource impacts



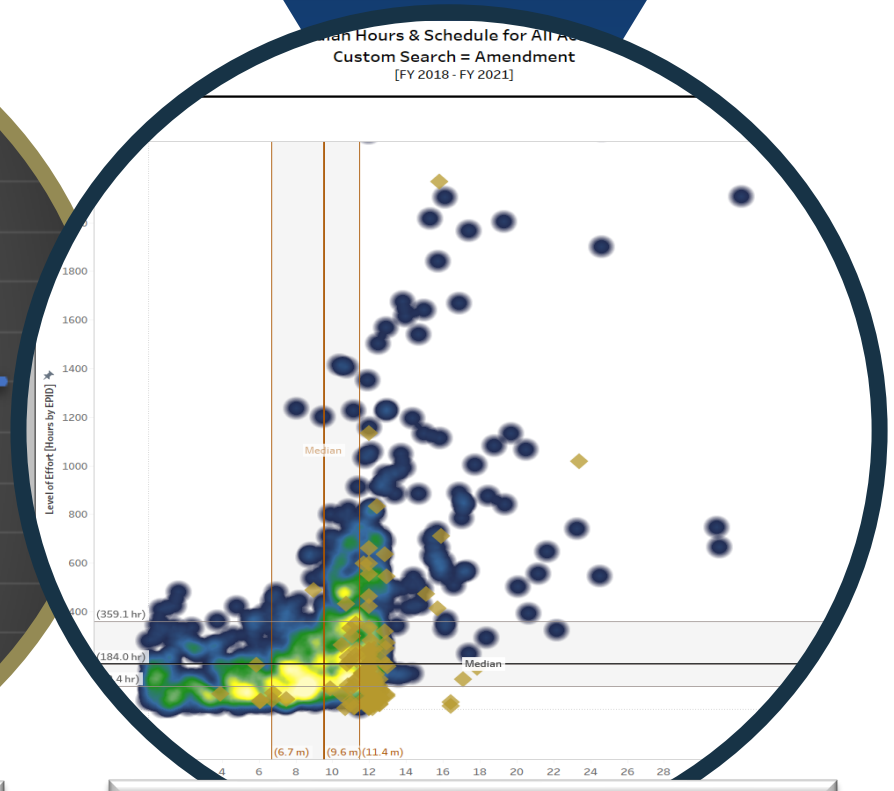
Trends analysis to **predict** and plan for the future

Early Returns on Data Modernization Efforts

Intake: Web-Based Relief Request Portal



Performance: Integrated Workload Management Tools



Prediction: Licensing Action Precedent Analysis

Significant COVID-19 Related Activities and Accomplishments

Continued Prompt Actions in Response to COVID-19 Public Health Emergency (PHE)

Opportunities for public and industry engagement were effective

Collective Contributions Across the Agency Enabled Mission Success

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COVID-19: Next Steps

Licensing Needs More Normalized (Case-by-Case Submittals)

Continue Engagement on Potential Regulatory Requirements that may Pose Challenges

Licensees should maintain continued vigilance for upcoming licensing needs

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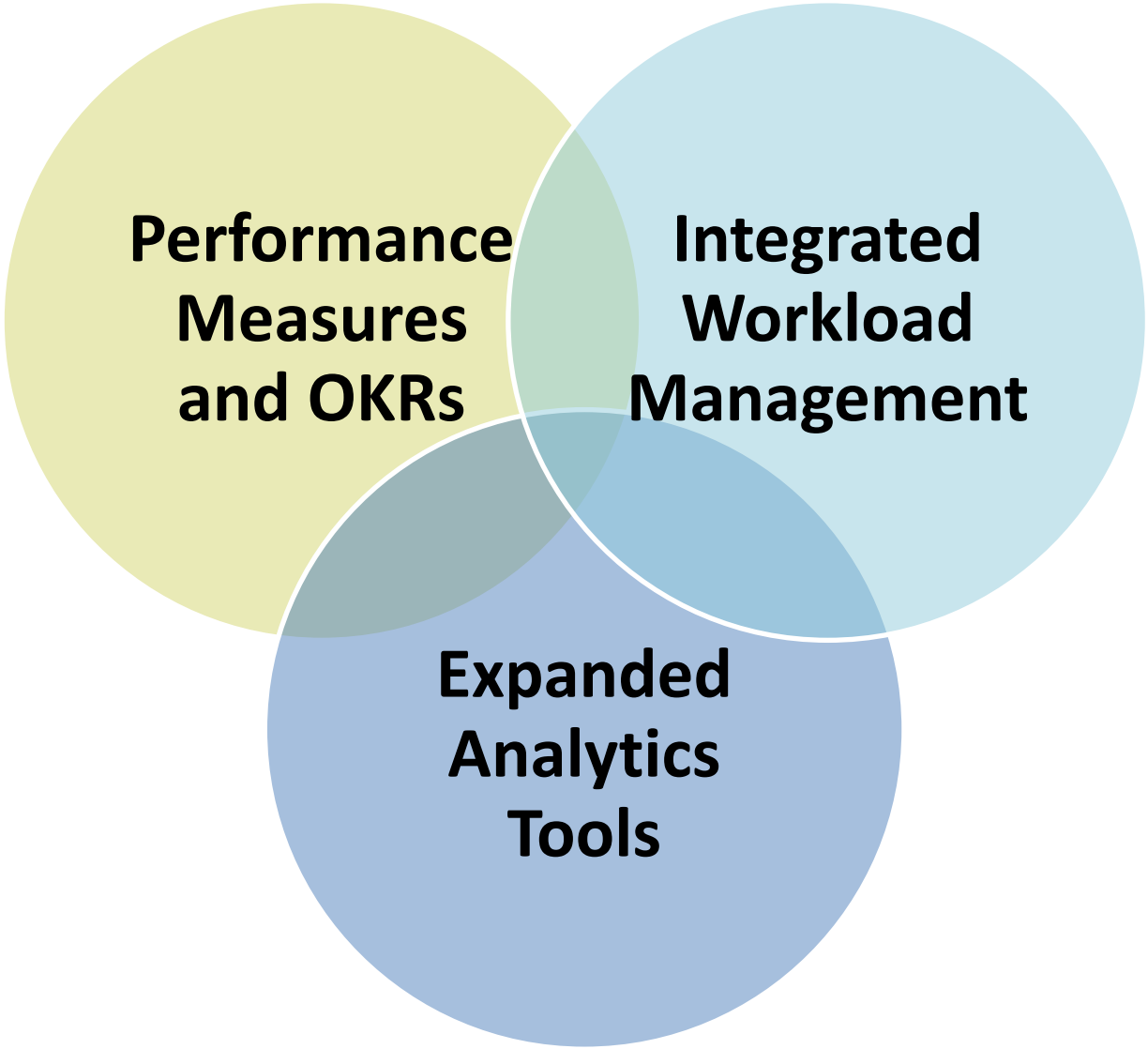
Integrated Approach to Support the Licensing Workload



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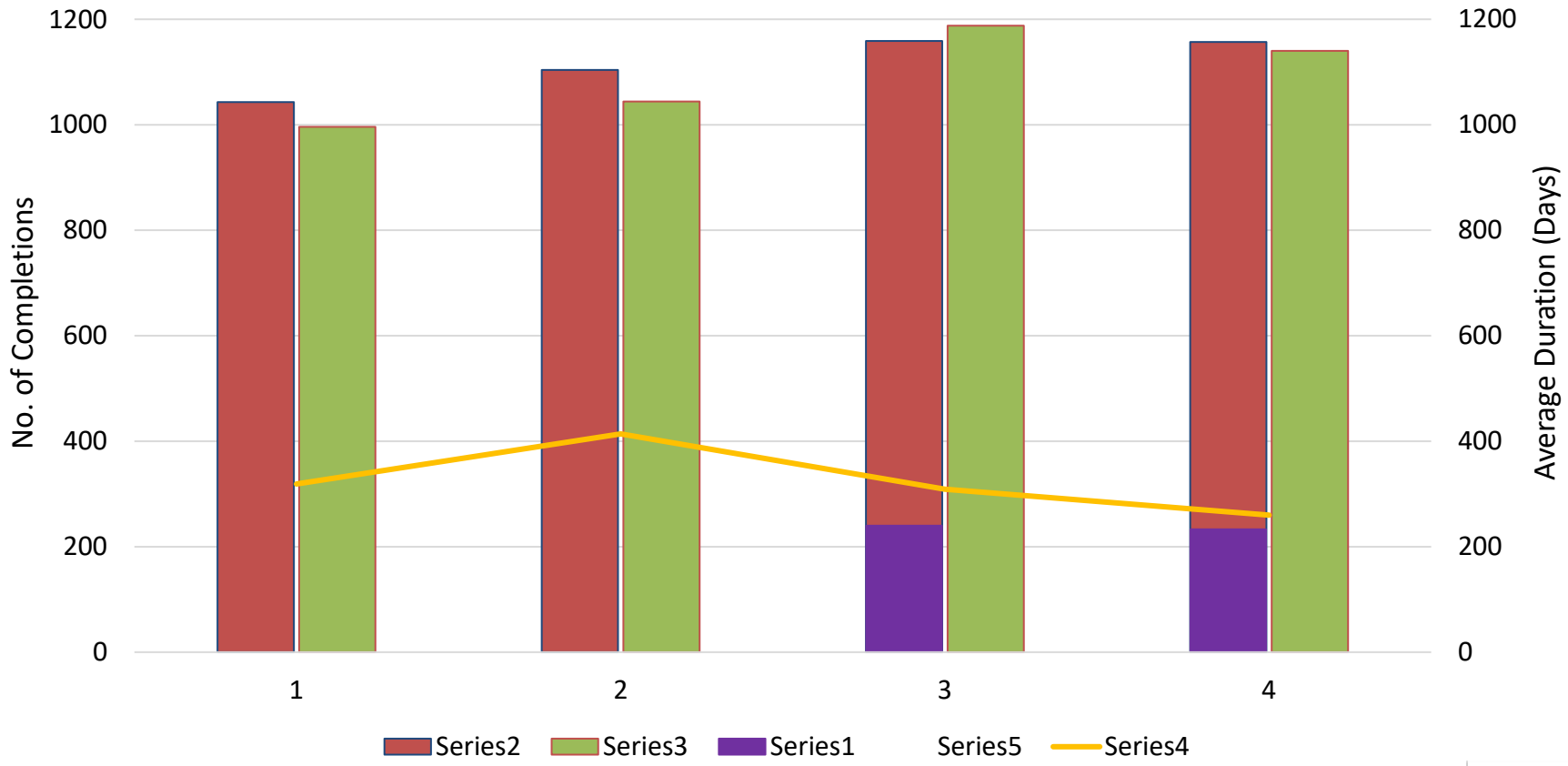
Continued Performance Gains in FY 2021



Demonstrated Performance

High Level Measures

Agency Level Measures

- NEIMA Generic Milestone Schedule (GMS) Goal: 100% Completed w/in the GMS (2-years for most actions)
  - **100% for FY 2021**
- 2 Year Timeliness Goal: 100% of Licensing Actions (LA) and Other Licensing Tasks (OLT) Completed w/in 2 years
  - **100% for LAs, 97% for OLTs in FY2021**
  - All Steam Generator Tube Inspection Reports Are Up-To-Date

Office Level Measures

- 1-Year Timeliness – 90% of LAs & OLTs Completed in 1 year
  - **97% for FY 2021** (Combined LA & OLT)
- 90% of licensing actions completed have actual hours within 125% of the estimated hours communicated to the applicant
  - **97% for FY 2021**
- 95% of Acceptance Reviews completed w/in 25 working days
  - **>99% for FY 2021**

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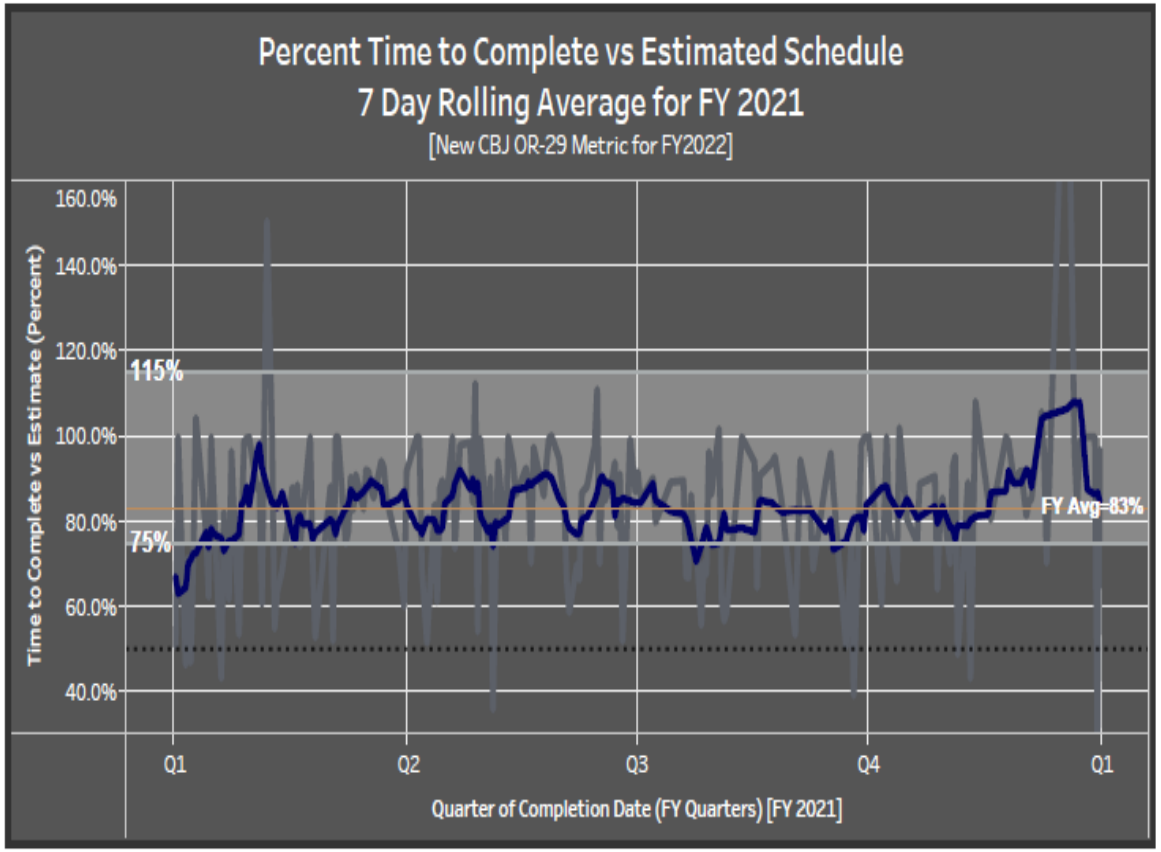
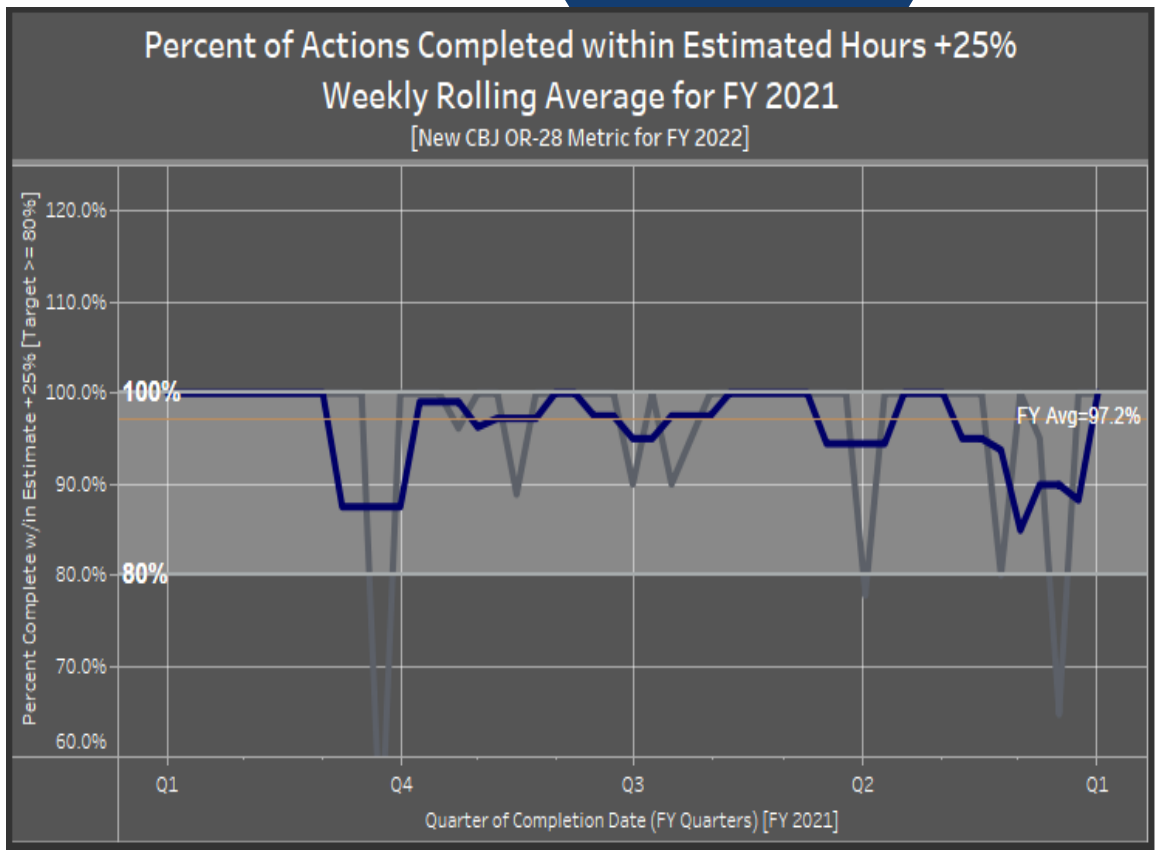
New Agency Level Performance Measures

Applicable in Fiscal Year 2022





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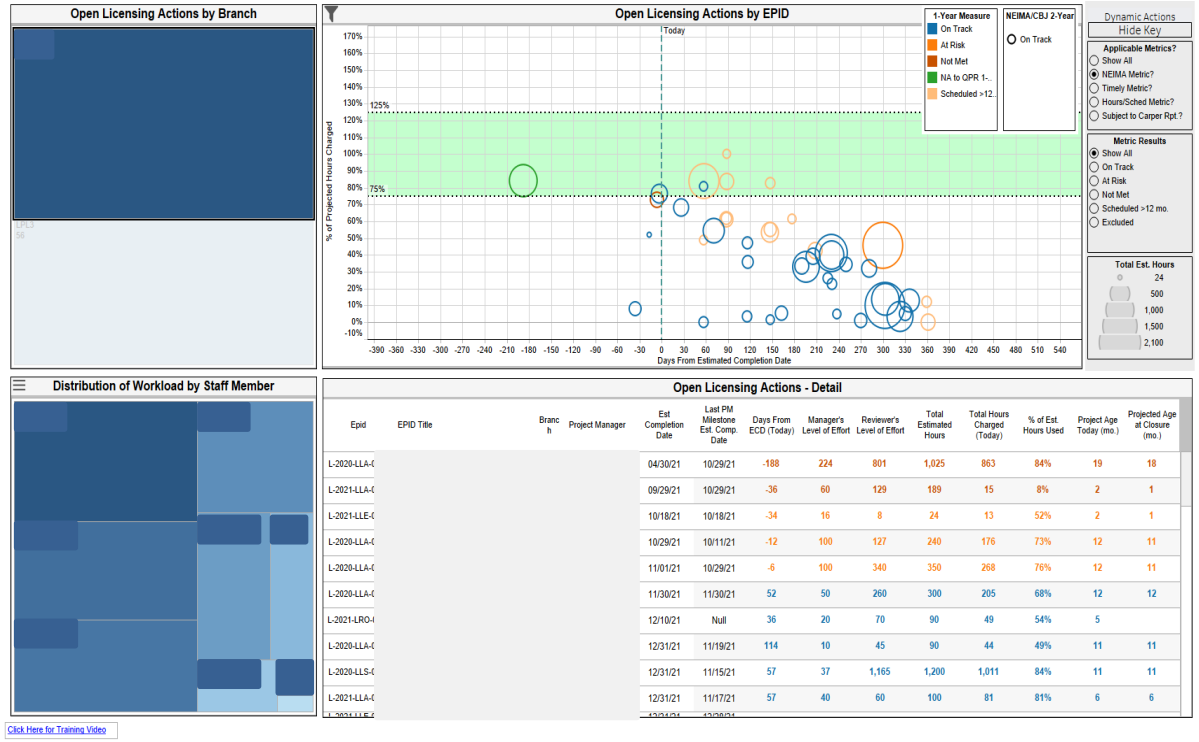
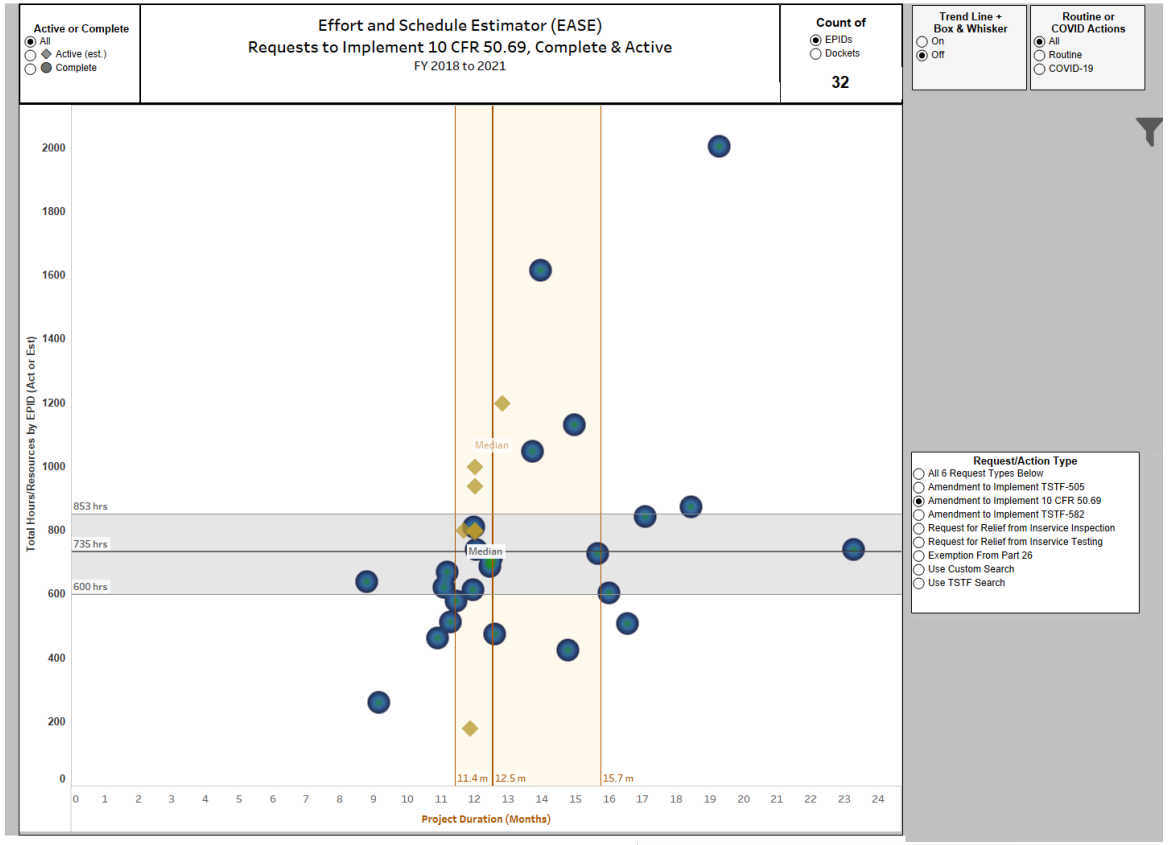
Tools for Tracking Performance and Refining Estimates





Operating Reactor Licensing Resource Estimator Tool

Coming Soon to the NRC Public Website

Near Term …Future Capability

Operating Reactors Business Line Fee Estimates

(April 2020)

The table below offers resource estimates for licensing activities for the operating reactors business line. This information is being offered to enhance stakeholder awareness of the costs associated with these services. Actual costs may vary depending on the specific circumstances.

The estimated hours shown in this chart represent NRC professional staff hours associated with project management and engineering review. The distribution of time among professional staff members (job categories) working on a project vary within each activity and from project to project. However, a single professional hourly rate is applied to all hours regardless of which professional staff contributed these hours. Indirect costs are included in the applied hourly rate as published in the current NRC Fee Rule. The average, high, and low estimates of hours shown in this chart are only intended to provide an approximate estimate of the total cost of NRC work on a billable activity based upon historical data.

In addition, contractors are used to assist the NRC to complete projects. Contractors can be used to supplement NRC staff or provide a particular expertise required for the project. Similar to the hourly estimates, the average, high, and low estimates for contractor costs shown here are only intended to provide an approximate estimate of total contractor billable costs on an activity based upon historical data.

	Staff Hours*			Contractor Costs		
Licensing Action	Low Level of Effort	High Level of Effort	Average	Low Level of Effort	High level of effort	Average
Amendments - simple	5	3,217	168	$16,500***	$126,500***	$53,500***
Notices of Enforcement Discretion	7	24	12	$0	$0	$0
Exemptions	24	385	99	$17,000***	$17,000***	$17,000***
License Transfers	12	418	128	$0	$0	$0

Current State

Power Reactors

Non-Power Facilities

Medical Radioisotope Irradiation and Processing Facilities

Operating Reactors

Operator Licensing

New Reactors

Operating Reactors Licensing – Resource Estimate Tool

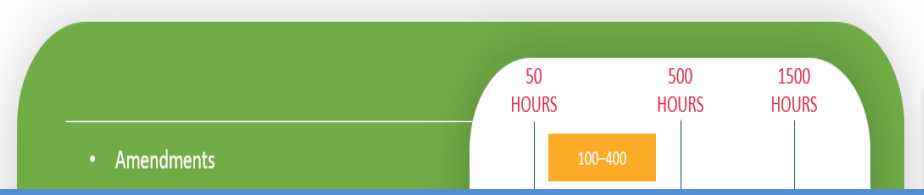
What is the Resource Estimate Tool?

Our resource estimates below are based on the whole dataset of completed licensing actions from 2018 – 2021. From analysis of this dataset, we have resource estimates based on current data, and we can see trends and outliers that inform engagement efforts with the NRC staff and the industry to have a common understanding of best practices and expectations.

- Resource Estimates by Generic Licensing Action Category
- Resource Estimates for Types of License Amendment Requests
- Resource Estimates for Types of Relief Requests
- Resource Estimates for COVID-19 Related Licensing Actions

Resource Estimates by Generic Licensing Action Category

Our resource estimates ….



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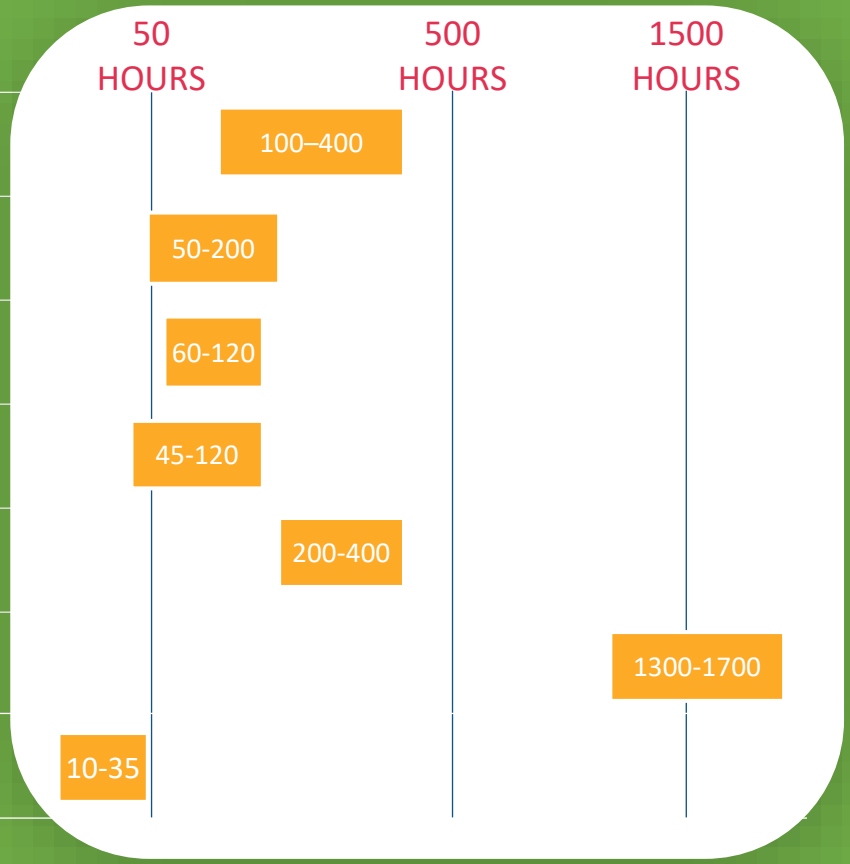
Generic Licensing Action Estimates
(interactive – click through and return)

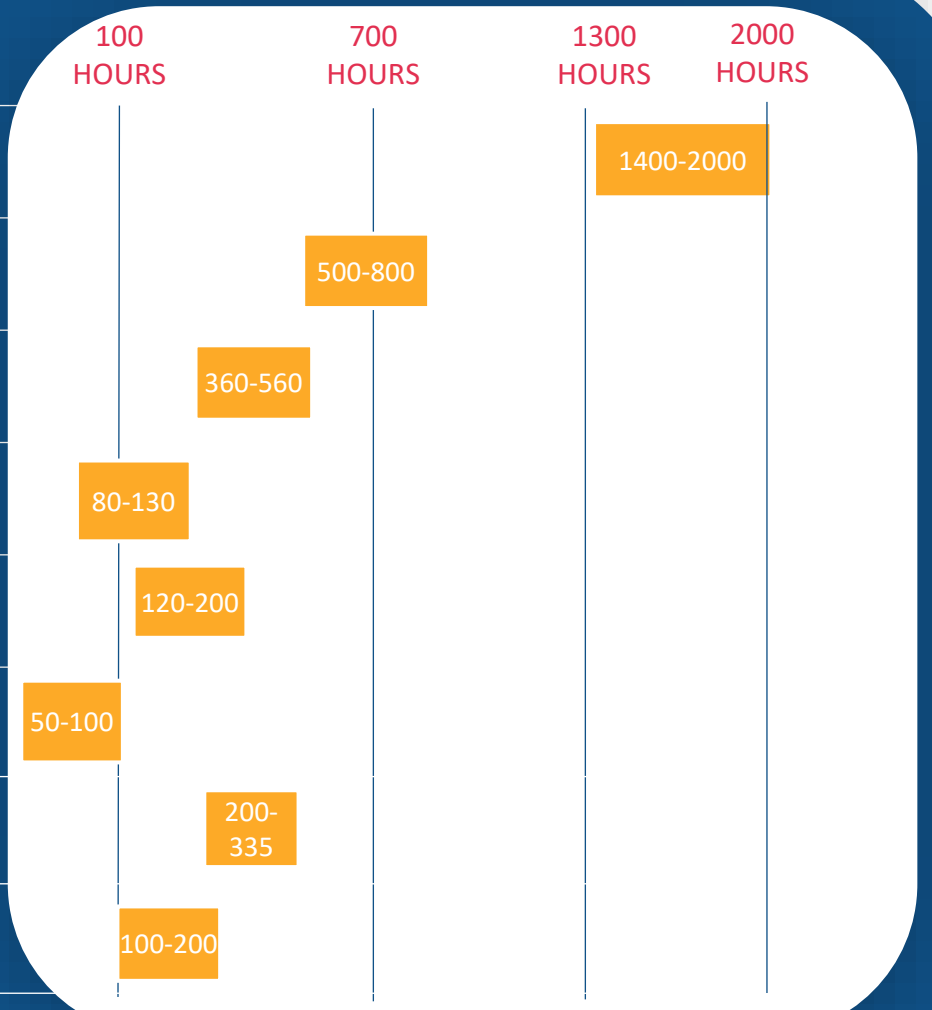
- Amendments
- Exemptions
- Program Change Reviews (e.g., QA)
- Relief Requests
- License Transfers
- Power Uprates (MUR)
- COVID-19 Related Licensing Actions



*All estimates are +/- 25% from median, Data 2018-2021. COVID-19 related licensing actions are included in a separate category and excluded from averages.
**Not all estimates to scale in this mock-up.

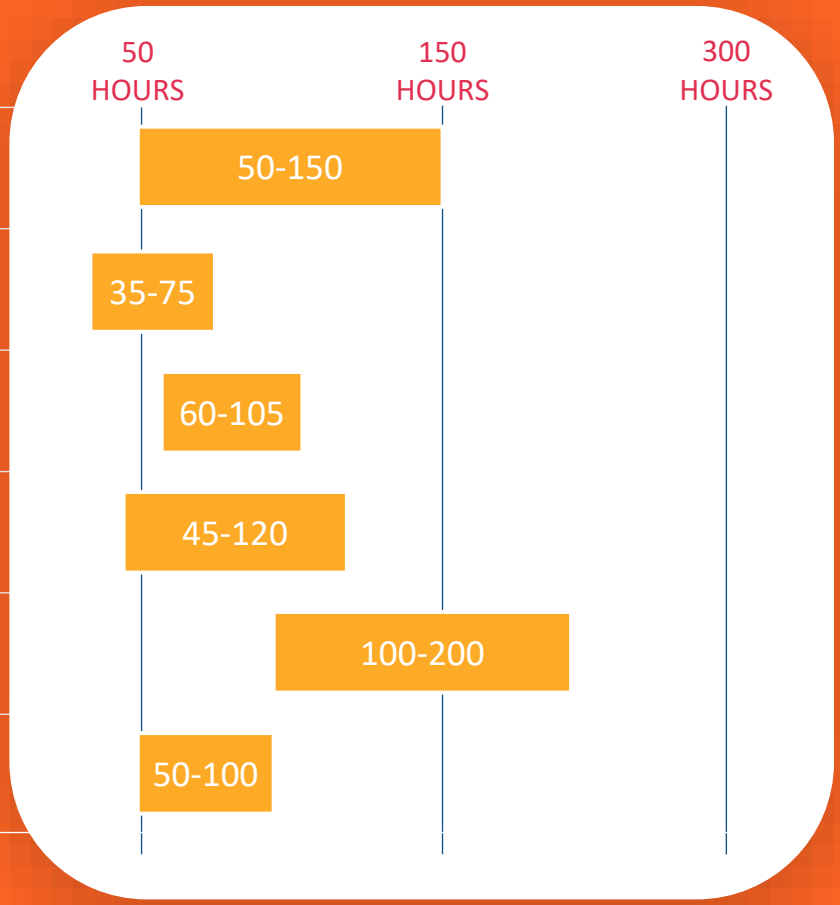
License Amendments

- TSTF-505 – Risk-Informed Extended CTs
- Adoption of 50.69 – Risk-Informed Categorization Of SSCs
- TSTF-425 – Surveillance Freq Control Program
- TSTF-582 – RPV WIC Enhancements
- TSTF-564 – Safety Limit MCPR
- Reviews under the Consolidated Line-Item Improvement Program (CLIIP)
- One-Time TS Changes (may not be whole population – keyword search)
- Exigent Amendments (may not be whole population – keyword search)



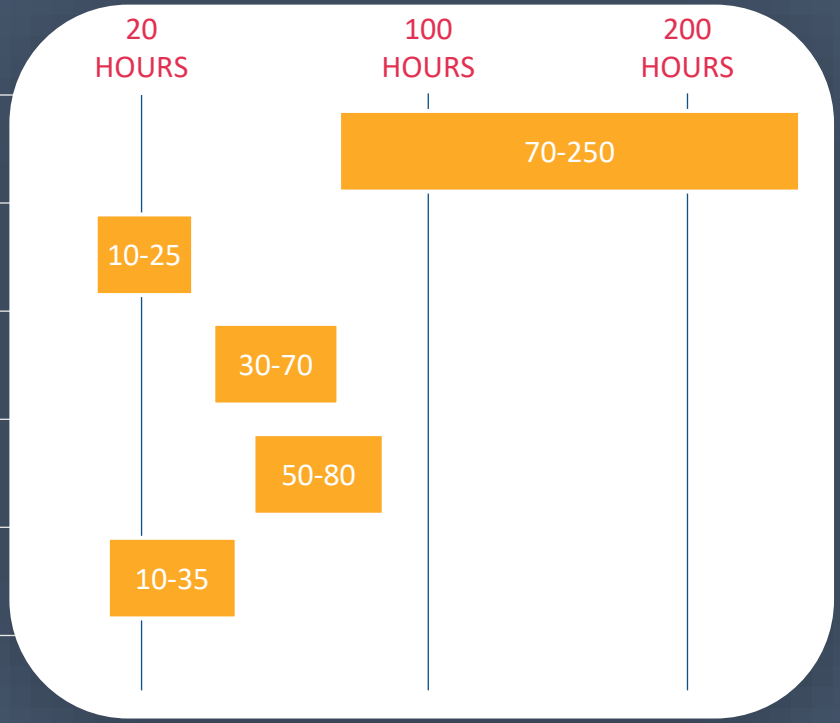
Relief Requests

- Inservice Inspection
- Inservice Testing
- Code Case N-729-4 – Alt Exam Reqmts for RV Upper Head Nozzle Welds
- Relief Requests
- ISI Impracticality
- Code Case N-513-4 – Temp Acceptance of Flaws in Moderate Energy Piping



COVID-19 Related Actions

- License Amendments
- Exemptions
- Relief Requests
- QA Plan Change
- Overall Average



*Temporary exemptions during the COVID-19 pandemic are part of a framework that includes standardized templates, roll-up Federal Register Notices, licensee compensatory actions, etc.

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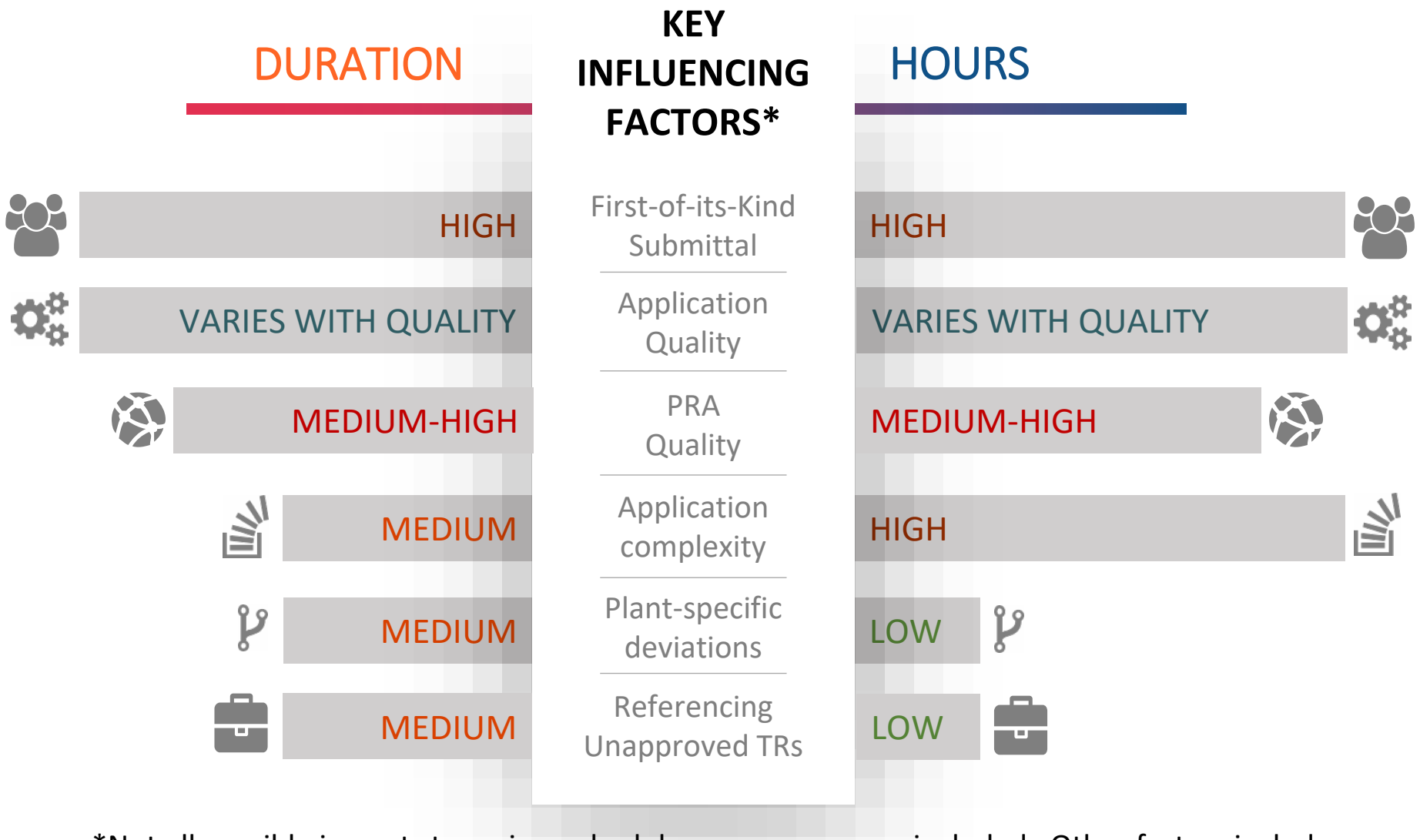

*Not all possible impacts to review schedule or resources are included. Other factors include prioritization, fleet vs single submittal, licensee need date, responsiveness to RAIs, etc. Examples of positive influencing factors not shown here but will be included: CLIIP reviews, high quality PRA, referencing approved topical reports (TRs)

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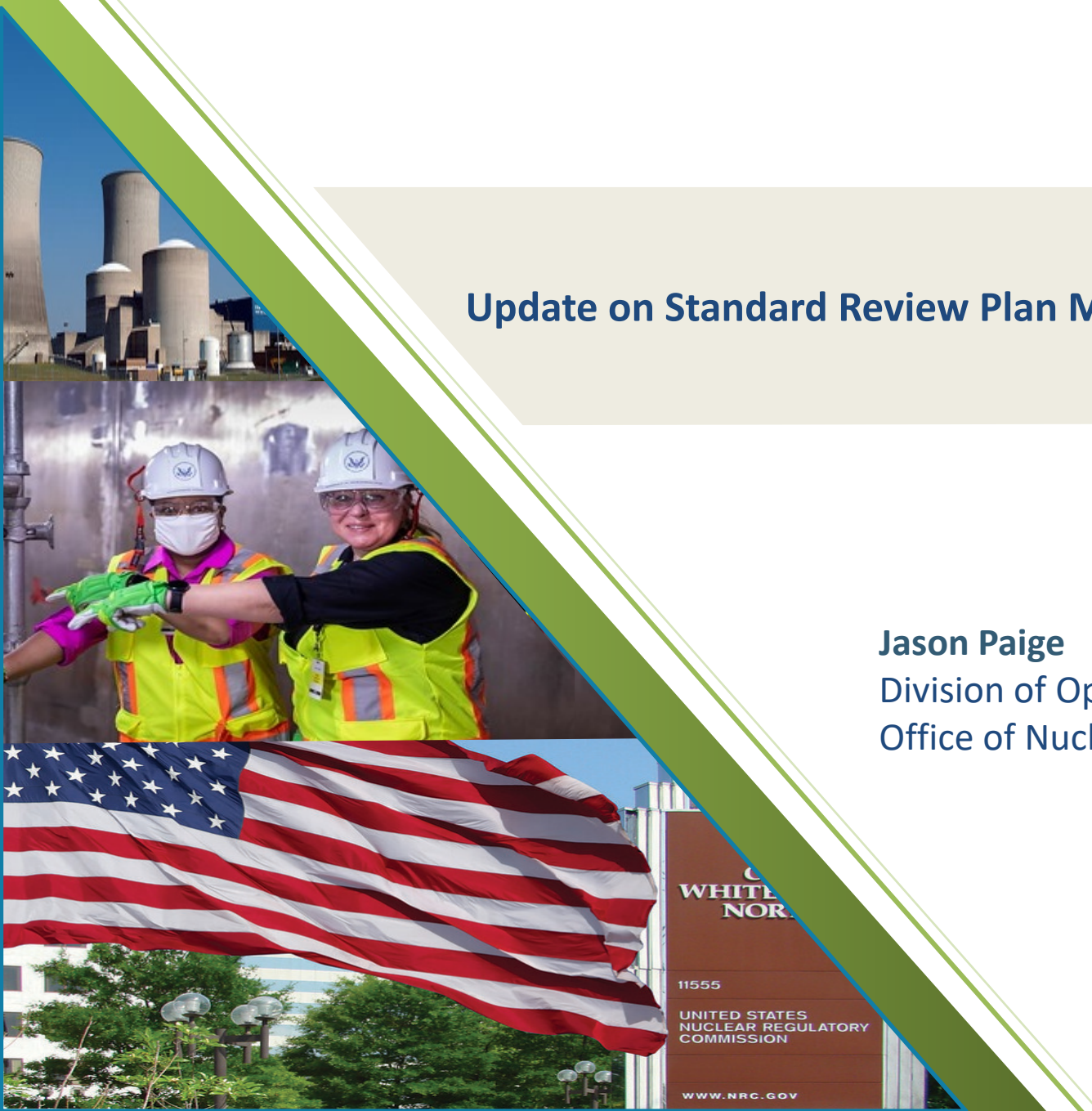
Questions



Update on Standard Review Plan Modernization Effort

Jason Paige
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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Refresher: SRPMod Purpose

- **Focus on What's Important to Safety**
  - Guidance focused on requirements
- **Clear, Concise Guidance for Completing Reviews**
  - Clarity on application details
- **Improve Quality of NRC Review Products**
  - RAIs
  - Safety Evaluations
- **Consistency on Using Risk-Insights and Engineering Judgement**
  - Capture Best Practices
- **SRP Issue vs. Training Issue**
  - Not every section will need extensive revising

Refresher: SRPMod Objectives

Emphasize

Emphasize Expectations for Reasonable Assurance of Adequate Protection

- Rebranding “Introduction” to “General Review Principles”
- “General Review Principles” will provide guidance on completing reviews

Focus

Focus on Regulatory Requirements

- Reformatting sections
- Align specific acceptance criteria and findings to the applicable requirements
- Remove extraneous information
- Incorporate ISGs, BTPs information

Empower

Empower the Staff to Consistently Use Risk-Insights and Engineering Judgment

- Reference PRA Policy Statement and SRM-SECY-17-0112
- Integrate risk guidance: LIC-206 and Be riskSMART
- Reference AEA on the use of engineering judgement

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Under Review

- **Currently 72 SRP Sections Being Modernized**
  - Chapters Represented: 2, 3, 4, 5, 6, 8, 9, 10, 15, & 16
- **PNNL Supporting Staff with Modernizing SRP Chapter 16**
  - Identified based on PNNL's familiarity with the chapter
  - PNNL will capture lessons-learned on the SRPMod process
- **Submitting Draft Modernized SRP Sections in Batches for OMB Review**
  - OMB's "major rule" determination under Congressional Review Act (CRA)
  - A batch will include ~10-20 SRP sections per CRA summary
  - First batch to be submitted approximately in December 2021

What's Next?

Next Steps:

- **Submit 1st Batch of SRP Sections for OMB's "Major Rule" Determination**
  - 1st batch submitted: ~December 2021
  - Sections 2.4.2, 3.3.1, 3.4.1, 3.5.1.4, 5.4.6, 6.2.2, 6.2.4, 6.2.6, 6.4, 9.1.2, 9.2.1, 9.2.2, 9.4.1, 10.2, 10.4.1, & 16.0

- **Pilot Modernized SRP Sections**
  - Issue sections for "use and public comment" after OMB's review

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Feedback on the Use of FLEX in Licensing Submittals

Mihaela Biro
Division of Risk Assessment
Office of Nuclear Reactor Regulation

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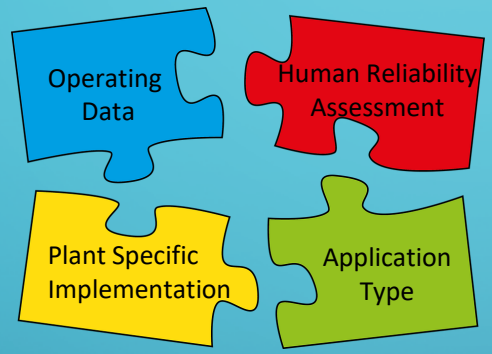
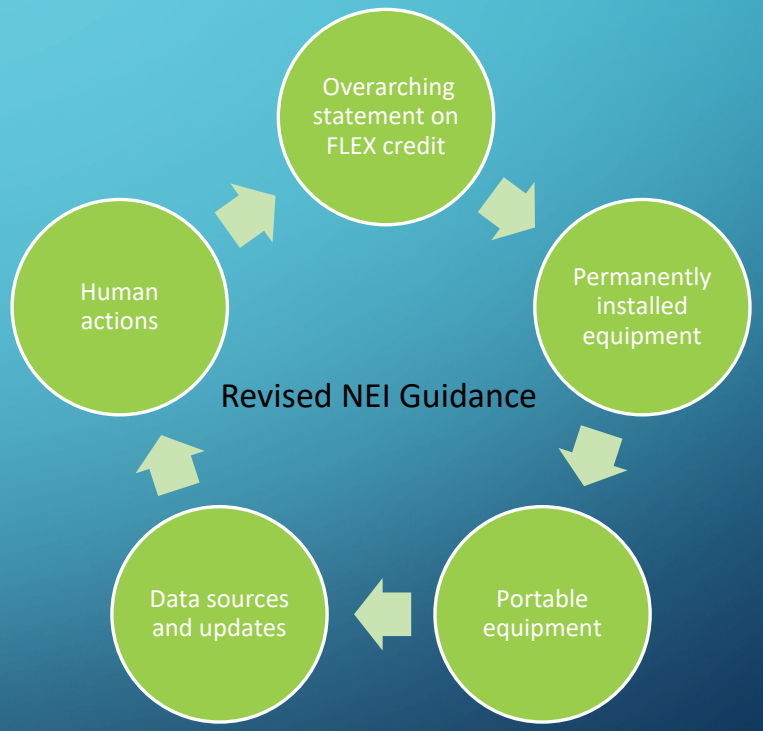
Can FLEX Credit in PRA Impact Regulatory Decision?



- RG 1.174 & RG 1.200: staff reviews PRA key assumptions
- Failure data and some operator actions are potential areas of uncertainty for FLEX credit in PRA

Treatment of FLEX Credit in Risk-informed License Amendment Requests (LARS)

- NRC memo dated May 30, 2017, (ML17031A269), documented staff concerns on FLEX credit in PRA
- Most risk-informed LARs take credit for FLEX
- Variety of meetings with industry
- Revised NEI guidance



Observations/Next Steps

Adherence to NEI guidance on LAR information on FLEX credit continues to be mixed

Staff will continue to gather and review information on FLEX using audits and requests for additional information:

- 9 applications for TSTF-505, and
- 7 applications for 50.69 are under review

Staff is developing a revision to the NRC memo dated May 30, 2017. Revision will incorporate new developments:

- PWROG report on equipment reliability
- EPRI report on HRA

Update on Risk-informed Process for Evaluations (RIPE)

and Discussion on Exclusions

Antonios Zoulis
Division of Risk Assessment
Office of Nuclear Reactor Regulation

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EMBARK
VENTURE STUDIO

Risk-informed Process for Evaluations

Antonios M. Zoulis, NRR/DRA

RIPE Exclusions

Technical Specifications

Emergent Repairs

NRC-identified or licensee-identified

Current phase will focus on Reactor Safety

SECURITY

EP

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What's Next?

- First RIPE submittal expected from Palo Verde in FY22
  - Partial Exemption from 10CFR50.62(c)(1) (ATWS rule) to remove diverse auxiliary feedwater actuation system (DAFAS)
  - Pre-submittal meeting held on September 1, 2021
  - Integrated Decision-Making Panel in late September 2021
- Evaluate lessons-learned from initial submittals
- Expand RIPE to allow Technical Specifications changes
- Continue working with PWROG on RIPE-G generic process
  - Conducted public meeting October 14, 2021
- Any other applications?

Questions?

Send additional feedback or questions to:
Antonios.Zoulis@nrc.gov

Lessons Learned from Implementation of the Very Low Safety Significance Issue Resolution (VLSSIR) Process

Alex Garmoe
Division of Reactor Oversight
Office of Nuclear Reactor Regulation

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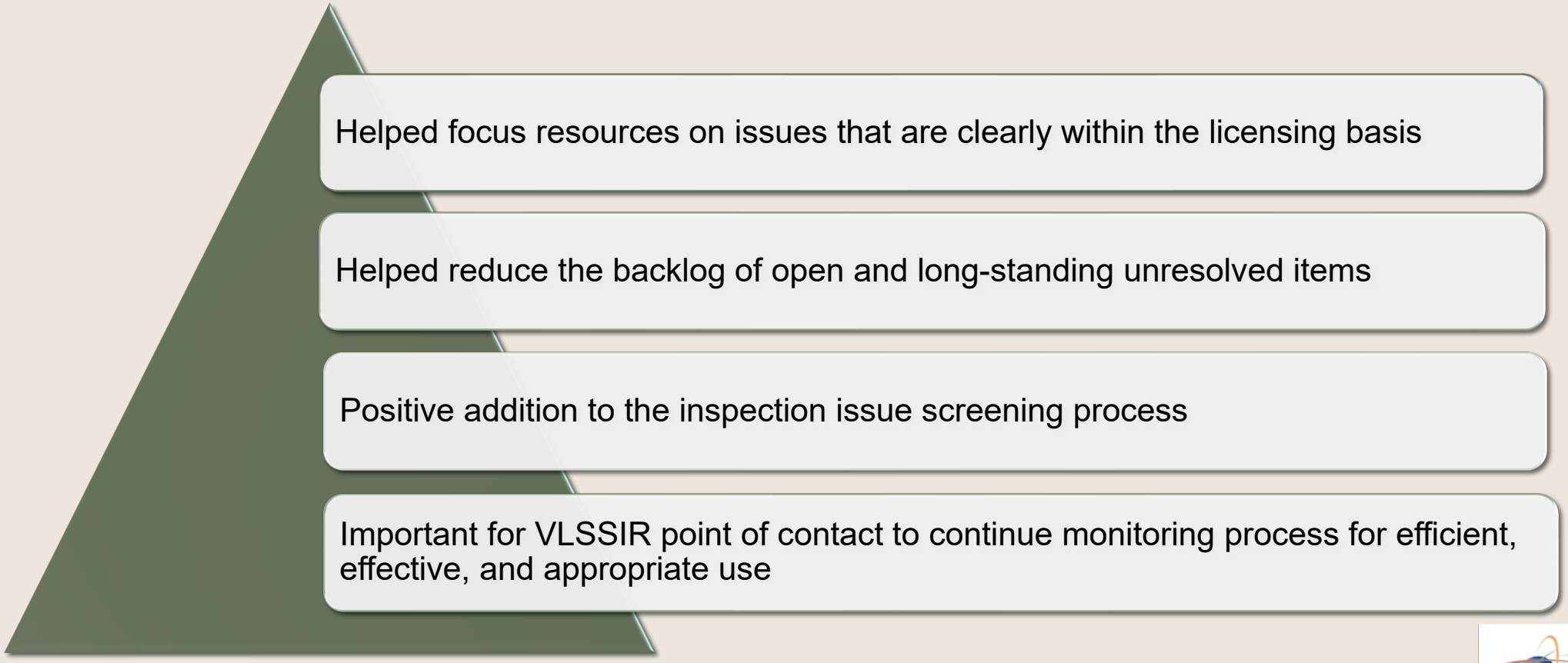
VLSSIR Status

- Process implemented in January 2020 via revisions to IMC 0612 Appendix B and IMC 0611
- Filled a narrow gap in risk-informed treatment of inspection issues (those items for which the licensing basis application is not clear and not easily determined)
- Effectiveness review completed in March 2021 found that VLSSIR meets intended objectives
- Seven issues closed to VLSSIR in 2020 and three to the date in 2021
- Program office continuing to oversee efficient, effective, and appropriate use of VLSSIR process

VLSSIR Items Closed in 2021

McGuire	Capability of Diesel Building Ventilation System to Withstand the Effects of a Tornado
Hatch	Capability of Diesel Building Ventilation System to Withstand the Effects of a Tornado
Palo Verde	Change to Emergency Plan in 1994 Relative to Emergency Response Organization (ERO) Augmentation Timelines

Lessons-learned from VLSSIR Implementation



Break

Best Practices for Communicating with the NRC During Potential NOED/Emergency Amendment Situations

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Early Feedback for 2022 Regulatory Information Conference and other Regulatory Interactions

Milton Valentin
Division of Risk Assessment
Office of Nuclear Reactor Regulation

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RIC HYBRID 2022

U.S. Nuclear Regulatory Commission
34th ANNUAL REGULATORY INFORMATION CONFERENCE

MARCH 8-10, 2022
Bethesda North Marriott Hotel and Conference Center

PREPARING FOR TOMORROW

WWW.NRC.GOV #NRCRIC2022

- The 2022 RIC will have both in-person and virtual components
- The in-person component will follow all applicable safety guidelines
- Tuesday, March the 8th and Wednesday, March the 9th from 8:30 am to 4:30 pm (ET), and Thursday, March the 10th from 8:30 am to 12:00 pm (ET)
- 5-7 plenary sessions, 30 technical sessions, 16 digital exhibits
- Conference agenda and technical program currently being finalized

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Opportunity for Public Comments

Closing Remarks

Mike King
Deputy Office Director for Reactor Programs
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission

Brett Titus
Technical Advisor
Nuclear Energy Institute

Acronyms

AEA	Atomic Energy Act of 1954
ATWS	Anticipated Transient Without Scram
BTP	Branch Technical Position
CFR	Code of Federal Regulations
EP	Emergency Preparedness
EPRI	Electric Power Research Institute
FLEX	Diverse and Flexible Coping Strategies
HRA	Human Reliability Analysis
ISG	Interim Staff Guidance
LAR	License Amendment Request
NEI	Nuclear Energy Institute
NEIMA	Nuclear Energy Innovation and Modernization Act
NRC	U.S. Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulation
NOED	Notice of Enforcement Discretion
OKRs	Outcomes and Key Results
OMB	Office of Management and Budget
PRA	Probabilistic Risk Assessment
PWROG	Pressurized-Water Reactor Owners Group
RAIs	Requests for Additional Information
RIC	Regulatory Information Conference
SRP	NUREG-0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants”
TSTF	Technical Specifications Task Force

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