# ADVANCE Act Section 505 Nuclear Licensing Efficiency

## NRR Initiatives Workshop

**May 22, 2025**

# Meeting Logistics

- Comment gathering public meeting with designated question and answer sessions
  - Meeting notice dated April 23, 2025 (ML25113A087)
  - Meeting materials are available at https://www.nrc.gov/pmns/mtg?do=details&Code=20250528Teams Webinar Operation
  - Attendees' mics & cameras and meeting chat feature are disabled
  - During the Q&A sessions, use Teams' "raise hand" feature, and NRC staff will enable you to unmute your mic
  - In-person attendees must disable/mute their laptop mics & speakers

If attendees would like their names listed in the publicly available meeting summary attendance record, please email NRC staff listed on the meeting notice.

# Agenda
### (times are approximate)

| Time | Topic |
| --- | --- |
| 9:00 AM | Introductions |
| 9:05 AM | Opening Remarks |
| 9:10 AM | Overview of Section 505 and NRR Initiatives |
| 9:25 AM | Pre-Application Engagement |
| 10:30 AM | Draft SE with Holes & Supplemental Information |
| 11:30 AM | Break |
| 1:00 PM | Streamlining Safety Evaluations |
| 2:05 PM | Data Tools for Driving Efficiency |
| 3:10 PM | LIC-206 |
| 4:15 PM | Open Discussion |
| 4:55 PM | Closing Remarks and Adjourn |

# Opening Remarks from Core Team

- NRC ADVANCE Act Core Team
  - Sabrina Atack, Special Assistant for ADVANCE Act
  - Luis Betancourt, Executive Technical Assistant
  - Jessica Hammock, Executive Technical Assistant
  - Aaron McCraw, Sr. Communications Specialist

- ADVANCE Act Section 505 – Nuclear Licensing Efficiency
  - One part of NRC's overall implementation of the ADVANCE Act.
  - NRC's public website has additional information about our overall implementation of the Act and plans for other upcoming and past public meetings related to the Act (QR codes on later slide)
  - Use the "Contact Us" form on the website for general questions, comments, and ideas on the ADVANCE Act (Later slide)

# NRC Mission Statement

The NRC protects public health and safety and advances the nation's common defense and security by enabling the safe and secure use and deployment of civilian nuclear energy technologies and radioactive materials <u>*through efficient and reliable licensing*</u>, oversight, and regulation for the benefit of society and the environment.

# ADVANCE Act, Section 505

- ADVANCE Act, Section 505 Provisions
    1) establish techniques and guidance for evaluating applications for licenses for nuclear reactors to support efficient, timely, and predictable reviews of applications for those licenses to enable the safe and secure use of nuclear reactors;
    2) maintain the techniques and guidance by periodically assessing and, if necessary, modifying those techniques and guidance; and
    3) obtain approval from the Commission if establishment or modification of the techniques and guidance involves policy formulation.

# Preapplication Engagement

- Vital to the efficiency, predictability, and timeliness of licensing reviews

- Allows for the review and pre-approval of topics prior to an application

- Promotes the resolution of challenging technical topics to prevent in schedule delays

*NRC staff are always open to suggestions to increase the efficiency and effectiveness of pre-application engagement.

# Division of Operating Reactor Licensing Pre-Application Meeting Guide

- NRC staff job aid that captures how we currently do work

- Recommends tools and best practices

- Describes mechanics of setting up, conducting, and summarizing a meeting

- Contains checklists and templates

# Considerations for When to Have a Preapplication Meeting

## When to Have a Meeting

- technically complex, unique, significant scope

- significant changes from licensing basis

- deviations from NRC-approved or accepted methods, precedents, or review standards

- substantive fleet actions

- first-of-its-kind or new analytical approaches

- risk-informed applications

- digital instrumentation and control related

- power uprate amendments

## When Not to Have a Meeting

- several precedents or an approved TSTF traveler with no significant deviations

- no complex or unique issues

- insufficient time to incorporate NRC staff feedback

- lack of preparedness for substantive discussion (e.g., proposal is conceptual and lacks details, or no presentation material)

# Preapplication Meeting – Early Engagement

- Goal – Consistency in the quality of dialogue at the pre-application meeting
  - Licensee communicate scope of requested action in sufficient detail with PM
  - PM generate tasking to solicit input from staff
  - Staff develop customized feedback and make publicly available
  - Licensee consider staff input in the development of their presentation
  - Slides are available to staff in advance of meeting

# Preapplication Meeting – Potential Metrics

- Goal – Quantitative measurement of individual pre-application meeting effectiveness
  - Operating reactors – Number of actions that are non-accepted or non-accepted with opportunities to supplement
  - Operating reactors – Key issues identified at the PAM as documented in the meeting summary
  - New/advanced reactors – Number of hours expended by staff prior to docketing of application

# Prospective Applicant Guide

- Set of new webpages that contain basic information for prospective applicants with no previous NRC interactions.
https://www.nrc.gov/reactors/new-reactors/advanced/new-app.html

- Provides general administrative information, application guidance, and topics the NRC would like prospective applicants to identify prior to contacting the NRC.

- Goal is to increase early-interaction efficiency for prospective applicant and the NRC staff.

# Q&A

# Draft Safety Evaluation (SE) with Holes and Supplemental Information

Derek "Rick" Scully

Safety and Plant Systems Engineer

Containment and Plant Systems Branch

Division of Safety Systems

# Team Goals/Composition

In support of Section 505 of Advance Act:

- Team created to look at improving efficiencies:
  - Taking holistic approach (RPS, Overall Schedule, etc.)
  - Draft SE with Holes development
  - Use of Supplemental Information gathering tools
    - Request for Additional Information (RAI)
    - Request for Confirmatory Information (RCI)
    - Regulatory Audits

- Team Composition
  - Various Business Lines
  - Branch Chiefs
  - Technical Staff
  - Project Management Staff

# Draft SE with Holes

- Several NRR Office Instructions discuss development of "Draft SE with Holes" before requesting additional information

- Reinforced via recent licensing efficiencies memorandum

- To carry out this expectation, the R-LEAP team:
  - Added RPS Milestones to support concept
    - Internal Alignment Meetings
    - Draft SE with Holes Developed
  - Evaluated Overall Schedule
  - Defined "Draft SE with Holes" and its purpose
  - Developing guidance
    - Includes examples
    - Connection to RAIs/RCIs/Audits
  - Conducting "Rollout Sessions" with staff

# Goals of "Draft SE with Holes" Initiative

- To begin early development of the safety evaluation and identify gaps/missing information in the application needed to make a required safety finding,

- To maximize schedule certainty while also potentially decreasing the length of the review schedule and amount of resources needed to complete the review,

- To avoid issuing RCIs/RAIs that are not needed to make a regulatory finding,

- To minimize the chance that information needs are missed while drafting initial RAIs, RCIs, or audit questions (i.e., ensure no requirements are missed),

- To minimize the chance that additional information needs (i.e., late RAIs, and RCIs) are identified after the due date for RAI, RCIs, has passed that may extend the duration of the review,

- To avoid duplicative effort and minimize rework,

- To identify if an audit is needed/what information is needed during an audit, and

- To confirm that all technical areas in the submittal are evaluated.

# RAIs/RCIs

- Developing RAI/RCI guidance
  - Best practices as to when to use each
  - Reinforce "3 part" structured construction of questions
  - Job Aid/Desk Guide being developed
  - Ensuring Office Procedures accurately reflect current practices
- Performing Roll Out Sessions with Staff
  - Interactive
  - Business Line Specific

# Regulatory Audits

- Developing Audit Best Practices
  - Discuss different "types" of Audits
  - How Audits can be used for different business lines/projects
  - How Audits/RAIs/RCIs can be used together
  - Job Aid/Desk Guide being developed
  - Ensuring Office Procedures accurately reflect current practices
- Performing Roll Out Sessions with Staff
  - Interactive
  - Business Line Specific

# Issues that Challenge Schedule

- Licensee controlled issues:
  - Quality of Applications/Submittals
  - RAI/RCI Response Time
  - Timely Scheduling of RAI/RCI Clarification Calls
  - Quality of RAI/RCI Responses

**RAI Response Time**

- 58%
- 10%
- 17%
- 15%

- 30 Days or Less
- 31-35 Days
- 36-45 Days
- 46 Days or More
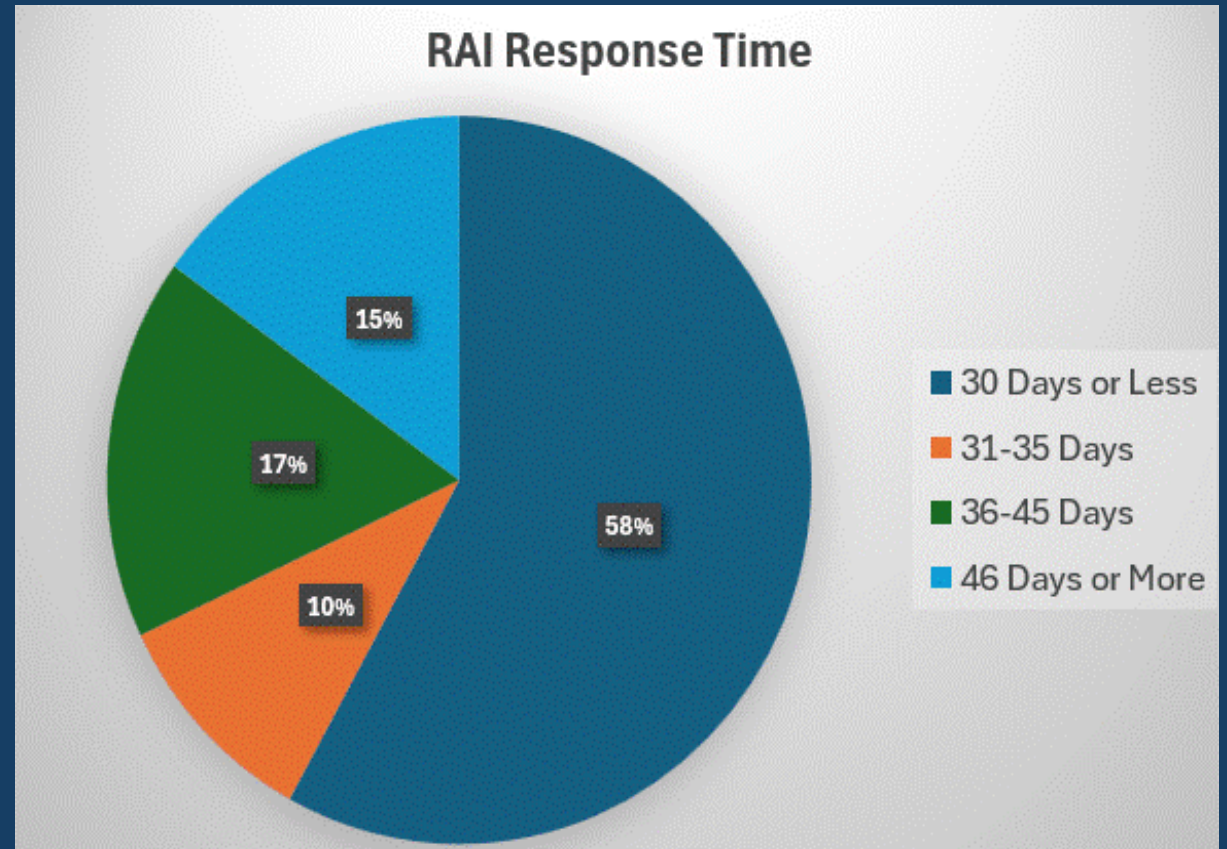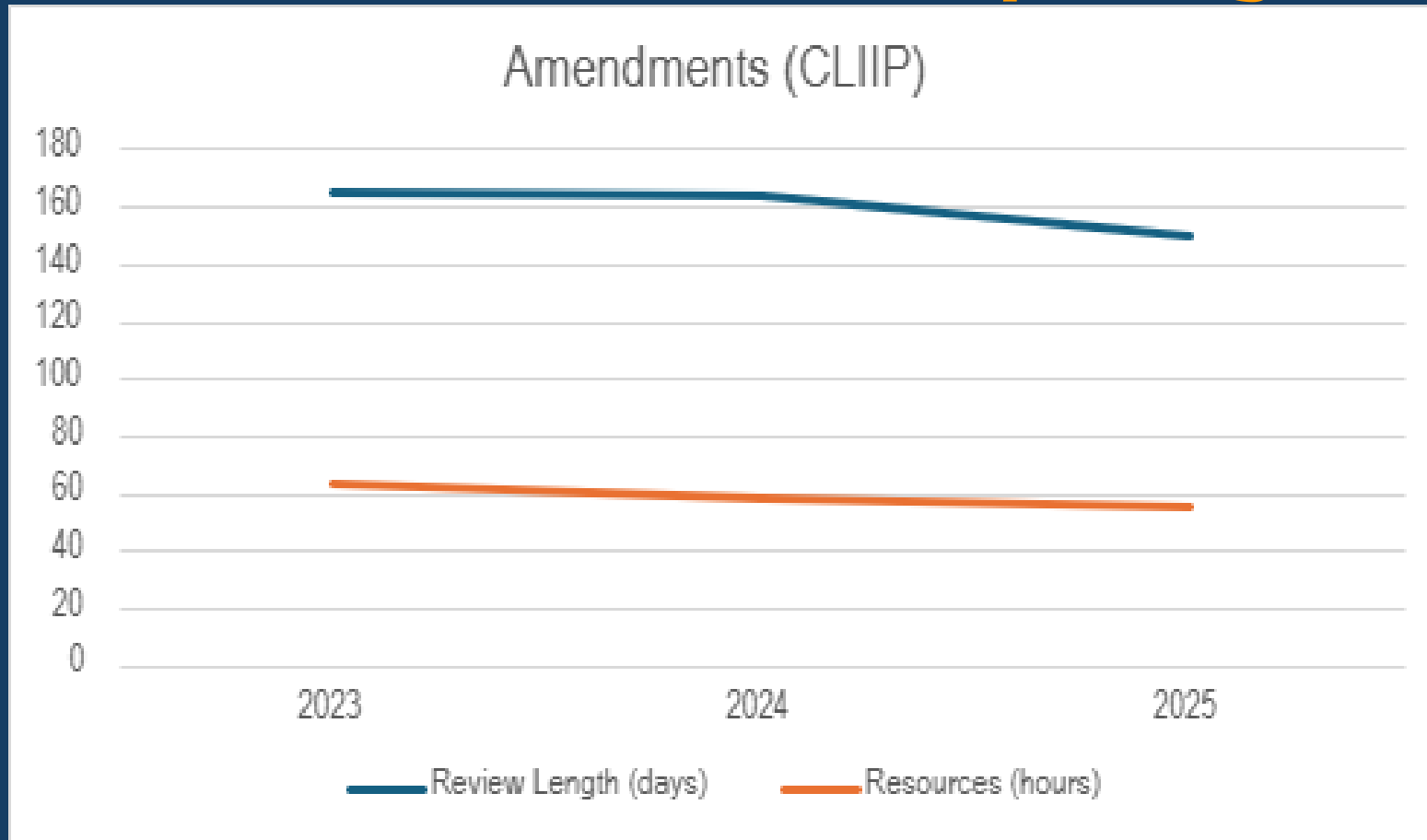
# Q&A

# Break

# Data Tools Driving Efficiency

18% reduction in schedule
6% reduction in staff hours

This is the power of Data and Metrics to Modify Behavior

# Data Tools Driving Efficiency – Data Stories

- Metric for estimated completion schedule is 80% of reviews completed between 75% and 115% of the estimated schedule

- Missed last quarter:
  - 34% of the licensing actions in FY25 Q2 (Jan-Mar) were outside the band
  - Of the 34%, 31 reviews were completed in less than 75% of the estimated schedule and 2 reviews were completed in greater than 115% of the estimated schedule
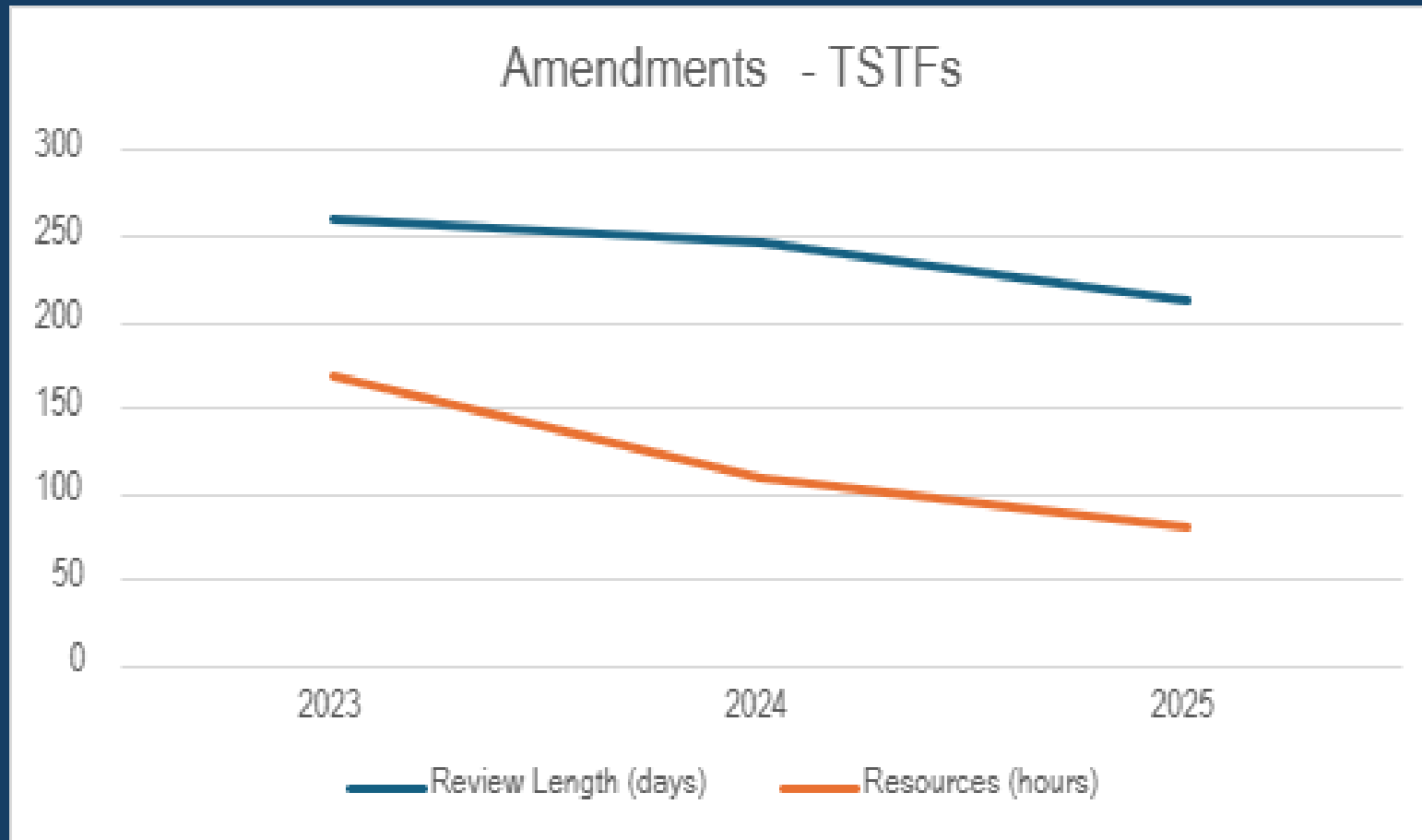
# Data Tools Driving Efficiency – Data Stories
# Are we improving?



Amendments (CLIIP)

Review Length (days)    Resources (hours)

9% reduction in number of days to complete the review

11% reduction in number of hours to complete the review

Trends for Repeatable Reviews

# Data Tools Driving Efficiency – Data Stories
# Does the number of Review Hours Increase with longer Schedules?



Amendments (non -TSTF)

Review Length (days) — Resources (hours)

15% reduction in number of days to complete the review

18% reduction in number of hours to complete the review
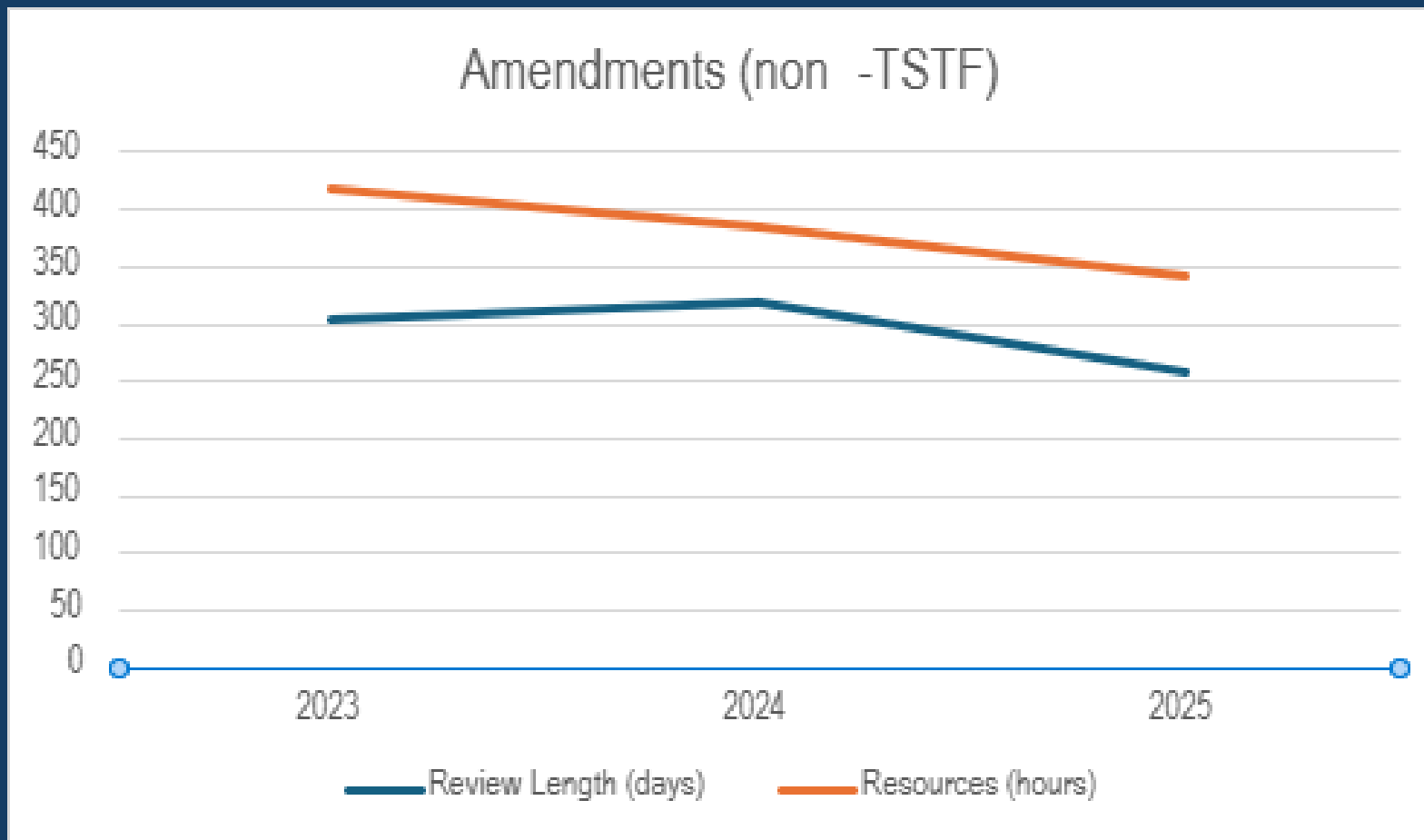
29

# Data Tools Driving Efficiency – Data Stories
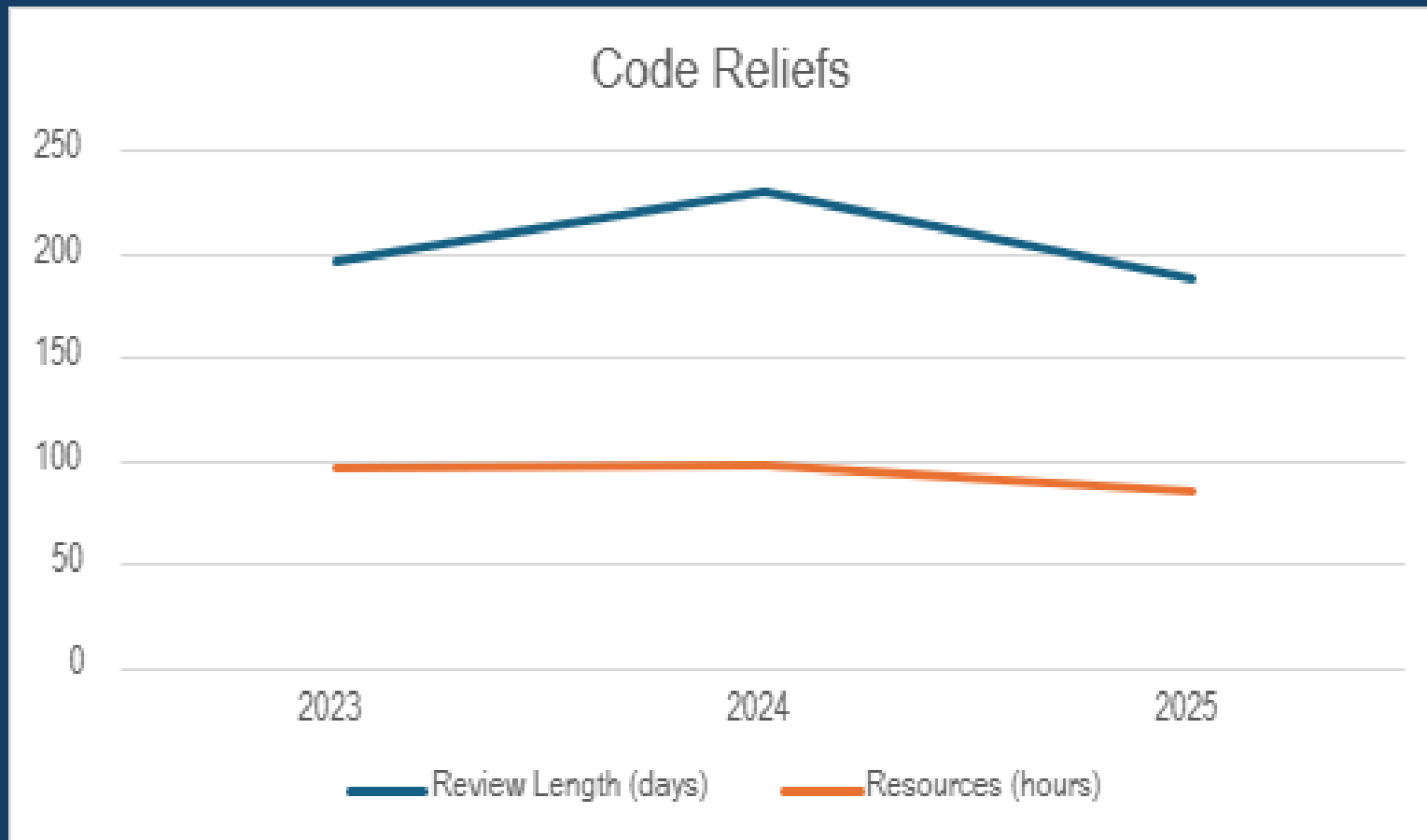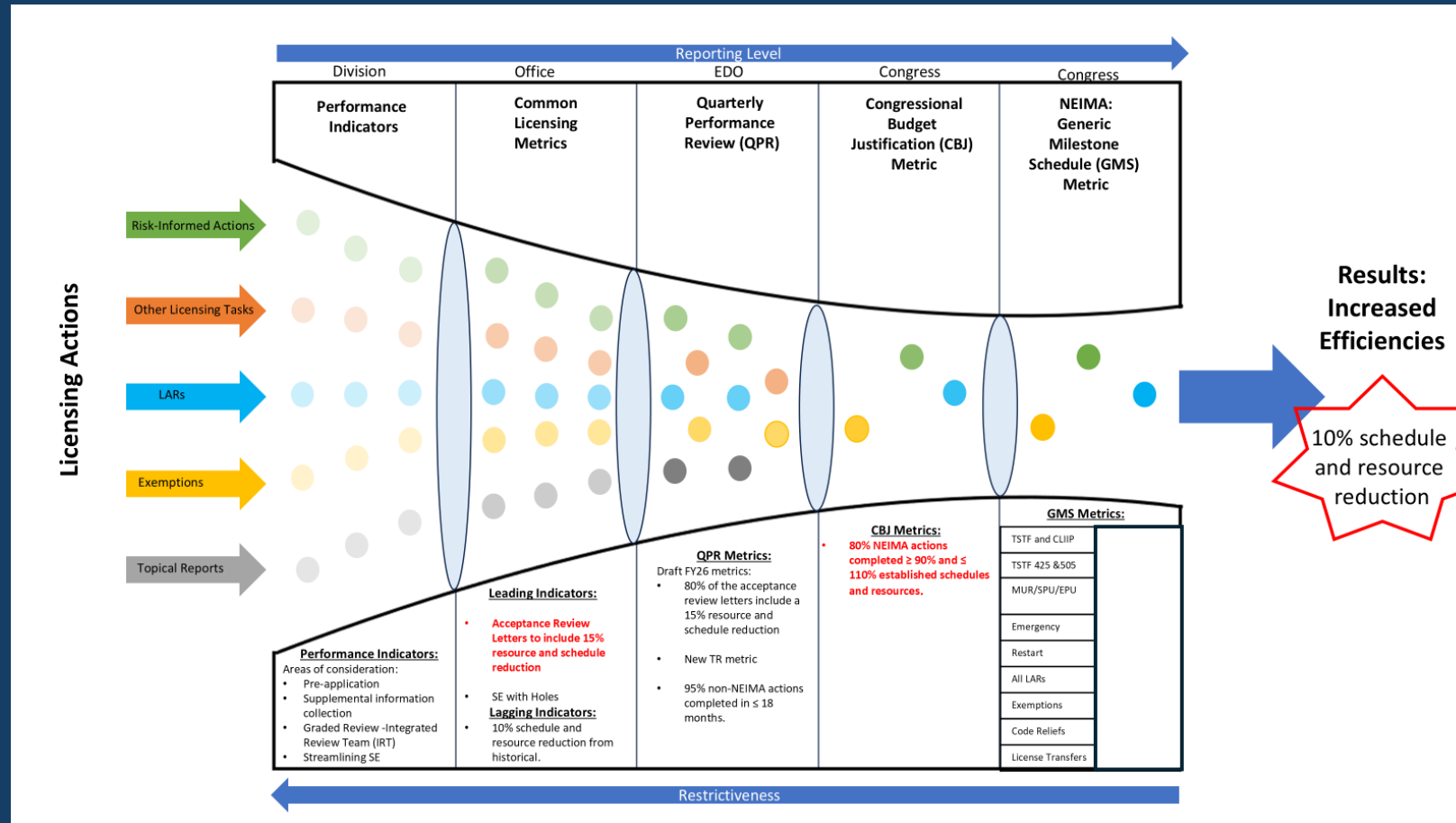## Does the number of Review Hours Increase with longer Schedules?



8% reduction in number of days to complete the review

11% reduction in number of hours to complete the review

# Data Tools Driving Efficiency – Metrics

# Data Tools Driving Efficiency – Leading & Lagging Indicators

- A new 10% reduction metric is being implemented with the goal of driving a 10% decrease in both licensing action schedules and resources.

- Acceptance review validation

- Draft Safety evaluation
  - The SE with Holes milestone should help prevent additional rounds of RAIs by identifying all the areas in need of additional information.
  - The SE with Holes milestone will also shorten the schedule for licensing actions where RAIs are not needed.

# Data Tools Driving Efficiency – Workload Management



**NEIMA Reporting**
**Active Actions for All Licensing Programs**

Actions "At Risk"

Select Division (All)
Select Branch (All)
Non-NEIMA Actions
Return to Overview

| EPID Title | Division | Project Age Today | Estimated Completion Date (Corrected) | Generic Milestone Schedule (GMS) Date | Estimated Completion Schedule | Generic Milestone Schedule | Estimated Schedule Utilization [75% - 115%] | Resource Utilization [<125%] |
|---|---|---|---|---|---|---|---|---|
| | DNRL | 3.42 months | 4/30/2025 | 1/31/2027 | ✗ | ✓ | ✗ | ✓ |
| | DANU | 7.33 months | 4/30/2025 | 10/4/2026 | ✗ | ✓ | ! | ✓ |
| | DORL | 10.45 months | 5/16/2025 | 7/1/2026 | ! | ✓ | ✓ | ✓ |
| | DANU | 6.24 months | 5/16/2025 | 11/6/2026 | ! | ✓ | ✓ | ✓ |
| | DORL | 5.72 months | 5/22/2025 | 11/22/2026 | ! | ✓ | ✓ | ✓ |
| | DORL | 11.53 months | 5/27/2025 | 5/29/2026 | ! | ✓ | ✓ | ✓ |
| | DORL | 11.56 months | 5/28/2025 | 5/28/2026 | ! | ✓ | ✓ | ✓ |
| | DORL | 11.56 months | 5/28/2025 | 5/28/2026 | ! | ✓ | ✓ | ✓ |
| | DORL | 4.60 months | 6/9/2025 | 12/26/2026 | ! | ✓ | ✓ | ✓ |
| | DORL | 11.10 months | 6/11/2025 | 6/11/2026 | ! | ✓ | ✓ | ✓ |
| | DANU | 3.06 months | 6/11/2025 | 2/11/2027 | ! | ✓ | ✓ | ✓ |
| | DORL | 5.06 months | 6/12/2025 | 12/12/2026 | ! | ✓ | ✓ | ✓ |
| | DORL | 10.55 months | 6/18/2025 | 6/28/2026 | ✓ | ✓ | ✓ | ! |
| | DORL | 7.69 months | 6/23/2025 | 9/23/2026 | ✓ | ✓ | ✓ | ! |

# Data Tools Driving Efficiency – Milestone Tracking
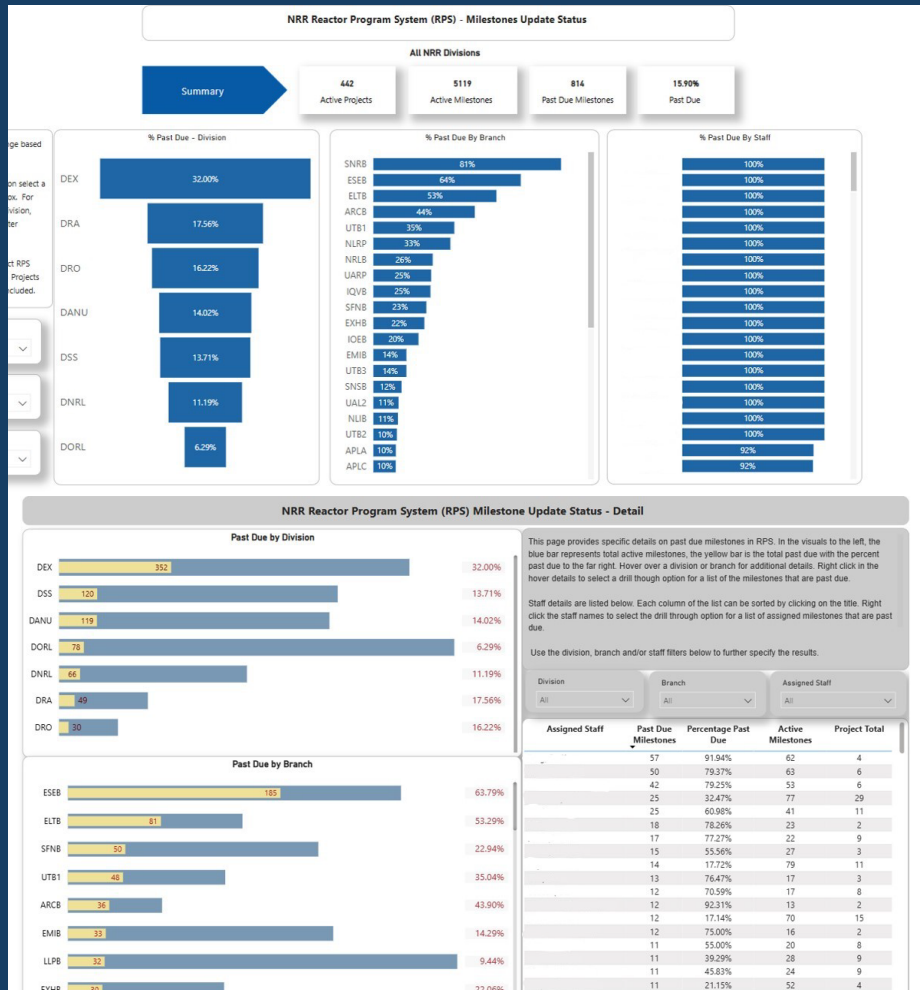


- Used as an accountability tool
- Indicates where milestones are missed.
- This shows that a milestone may be missed or data was not updated.
- Used in conjunction with the Data Stewards, the open milestone dashboard helps to maintain accurate data or may indicate reviews that are experiencing challenges.

# Data Tools Driving Efficiency – 6 Factor Formula

- We analyzed licensing actions complete within the last 5 years to compare project aspects that result in higher project schedule and resource utilization.

- Determined 6 factors that historically increase the resource and schedule utilization:
  - number of RAIs,
  - number of RAI rounds,
  - number of associated branches,
  - number of associated documents, number of milestone date changes, and number of milestones completed after their initially scheduled date.

- This allows us to shift focus to projects with potential overages earlier in project life.

# Data Tools Driving Efficiency – EASE Tool
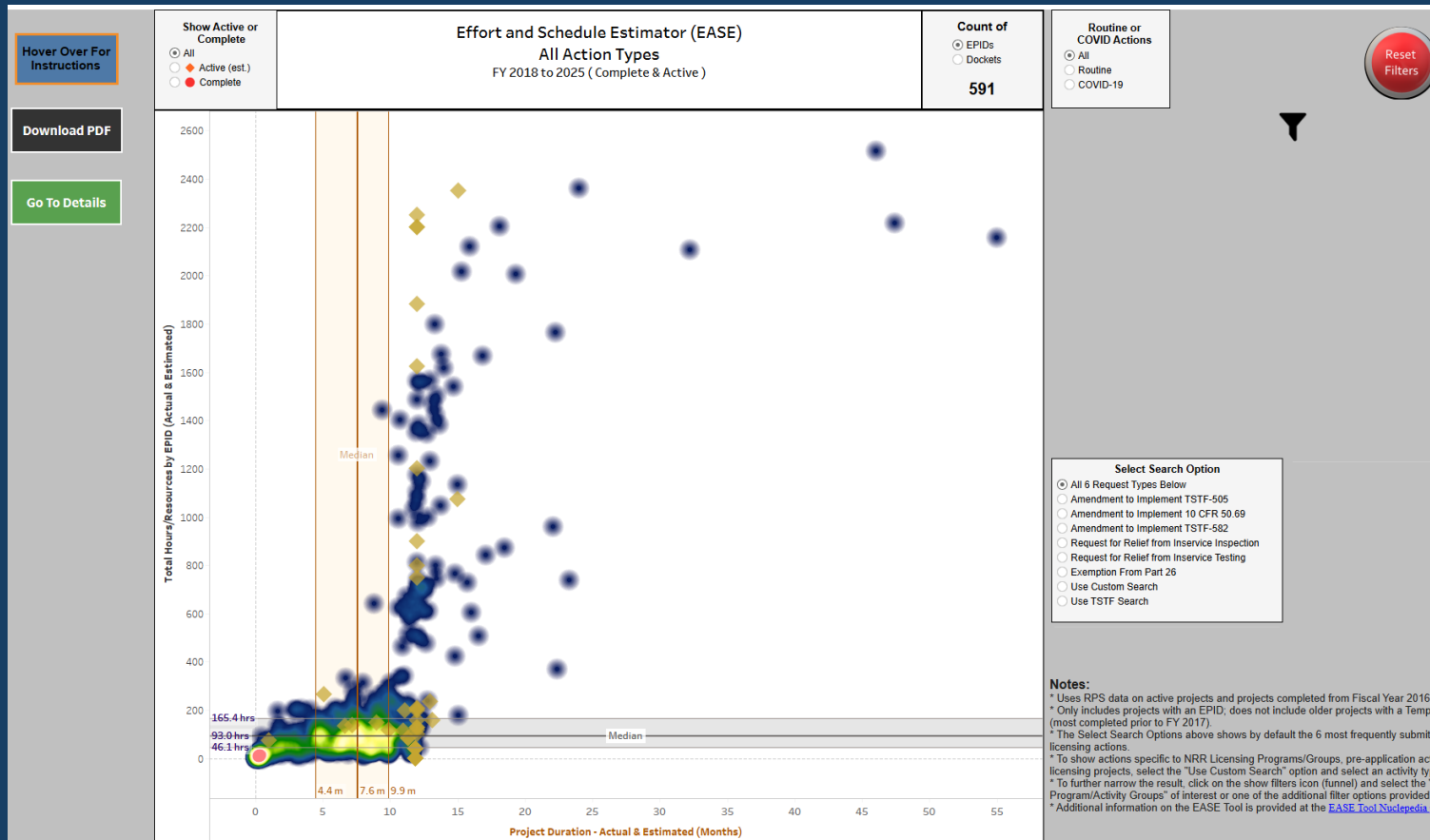


- The EASE Tool provides a resource for project managers and technical reviewers to find precedence, estimate resources, and estimate schedules.
- The tool contains easy to use search functions and outputs a list of similar projects with data and links to RPS.

# Data Tools Driving Efficiency – Fee Estimator
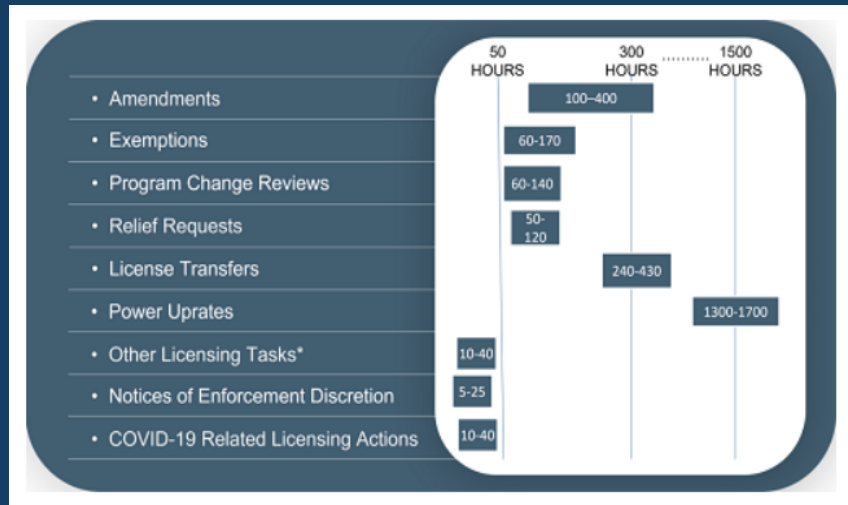




The Fee Estimator tool uses data similar to that shown in the EASE tool. This tool gives a range of expected resources that a licensing action can be expected to take.

The broader categories can be selected in order to give more specific bands based on the planned licensing action. (Example: License Amendments)
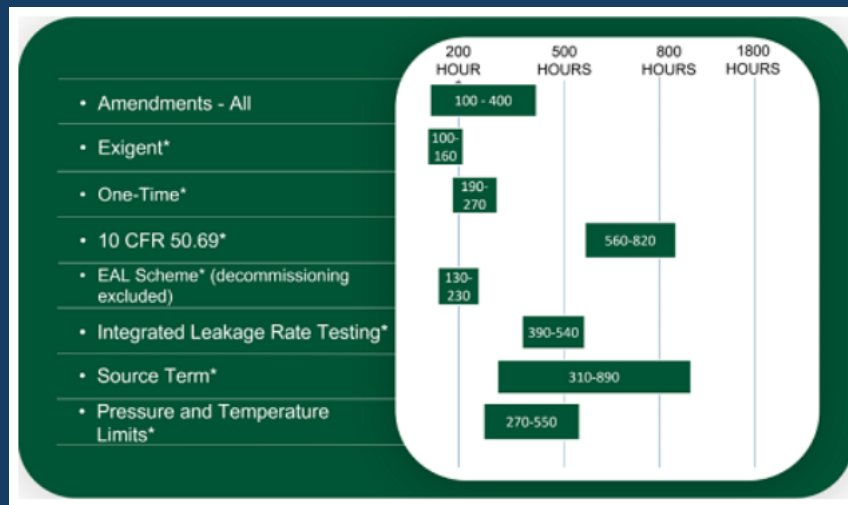
This allows for greater regulatory certainty to licensees when planning licensing action requests.

# Q&A

# Break

# Streamlining SEs

- BLUF: We plan on initiating an SE streamlining effort and would like your feedback on what we should focus on moving forward.

- History: There have been efforts in the past, such as "The SE streamlining team," and later "SE harmonization," that are related to streamlining SEs. Aspects of these efforts are intended to be codified in LIC-101, along with results of the ADVANCE Act initiatives.

- Each Office/Division has existing means to train their staff on writing SEs, but our next step is to figure out a way to streamline the production of the SE.

# Streamlining SEs History – Operating Reactor Licensing

- SE streamlining resulted in and addition to LIC-101: " A template for a typical SE and instructions for preparing an SE is provided in the DORL boilerplates under ADAMS Package Accession No. ML20136A161."

- SE harmonization efforts did not result in a consistent SE format across licensing actions; however, several improvements resulting from the efforts are planned for office instructions .

- eSE: An example of a streamlined SE for non-proprietary proposed alternatives.

| Proposed Harmonized SE Template Sections | Applicable to License Amendment Safety Evaluation? | Applicable to Topical Report Safety Evaluation? | Applicable to 50.55a Request Safety Evaluation? |
|---|---|---|---|
| Table Of Contents | Optional | Optional | Optional |
| 1.0 Introduction | Yes | Yes | Yes |
| 2.0 Evaluation Criteria | Yes | Yes | Yes |
| 3.0 Technical Evaluation | Yes | Yes | Yes |
| 4.0 Limitations and Conditions | No | Yes, when there are limitations and conditions on the use of the of the topical report | No |
| 5.0 Emergency Situation | Yes, when emergency situations exist or are invoked | No | No |
| 6.0 Exigent Circumstances | Yes, when exigent circumstances exist or are invoked | No | No |
| 7.0 Final No Significant Hazards Consideration | Yes, when (1) a hearing is requested, (2) action is an emergency or exigent amendment, or (3) the amendment will be issued prior to the expiration of the hearing request period | No | No |
| 8.0 State Consultation | Yes | No | No |
| 9.0 Disposition of Public Comments | Yes, when NRC receives applicable comments | No | No |
| 10.0 Environmental Consideration | Yes | No | No (*May change with rulemaking) |
| 11.0 Conclusion | Yes | Yes | Yes |
| 12.0 References | Optional | Optional | Optional |
| 13.0 Abbreviations | Optional | Optional | Optional |
| 14.0 Principal Contributors | Yes | Yes | Yes |

# Streamlining SEs – Questions for Discussion

- Cover Letters: Staff has traditionally leaned towards some type of cover page because packaged documents need something to tie them together.
  - Do you have suggestions on the best way to package licensing actions (letter, form, something else)? Issues with eSEs?

# Streamlining SEs – Questions for Discussion

- Regulatory Evaluation: Staff has considered using only bulleted lists of review criteria instead of narratively describing how or why the review criteria are applicable.
    - Do you have feedback on this type of format change?
    - Do you have other suggestions for the regulatory evaluation section?

# Streamlining SEs – Questions for Discussion

- Technical Evaluation:
  - Organizational considerations: Does industry have preferences?
    - Mirroring licensee's application
    - By evaluation criteria
    - Grouping related changes
  - Improving regulatory finding components
  - Reducing long quotes and RAI history
  - Use of bullets to summarize regulatory findings

# Streamlining SEs – Advanced Reactors

- Streamlining perspectives
  - Templates and content guide contain streamlining guidance
    - Concise, clear, and consistent
    - Safety-focused commensurate with risk or safety significance
  - SE templates are further developed as draft SEs for review use at the beginning of new licensing application reviews (e.g., TerraPower Kemmerer 1 and X-energy Long Mott Generating Station construction permit applications)

# Q&A

# Break

**Agenda**

Four-Pronged Approach and Expanding the Use of LIC-206 (Graded Review Approach)

ADVANCE Act, Section 505 Public Workshop

May 22, 2025

*Accelerating Licensing, Anchored in Safety*

**Four-Pronged Approach**:
- Meena Khanna, Acting Director, DRA

**Proposed Graded Approach**:
- John Hughey, Reliability and Risk Analyst, DRA
- Ed Miller, Project Manager, DORL
- Brian Lee, Sr. Safety and Plant Systems Engineer, DSS

**Four-Pronged Approach for Conducting Efficient Operating Reactor Licensing Reviews, While Maintaining a Safety Focus**

(I) Approach to grade operating reactor licensing reviews (Updates in LIC-206, Appendix C) (DORL Handbook)

(II) Best Practices and Process Efficiencies (NRR staff and licensees)

(III) Roles and Responsibilities (for all levels of NRR Staff and Management)

(IV) Expectations and Contributions to Ensure Success

# BLUF – Proposed Graded Review Approach

- A Tiger Team of staff from the technical divisions in NRR, led by DRA, in partnership with DORL, is **proposing a new graded review process for the operating reactor licensing action reviews**. **We are seeking industry and public feedback on this proposed approach**.

- This process will be documented in an **update to LIC-206, "Integrated Risk-Informed Decision-making for Licensing Reviews," Appendix C and the DORL Handbook** (planned for  Summer 2025).

- **The new graded review process will be applied to all technical reviews for license amendment requests, exemption requests, and relief requests, but will exclude LR/SLR and EPU reviews, with the NRR 15% review hours reduction and schedule metric/backstop (planned for implementation in Fall 2025).**

- **With implementation of the 4-pronged approach, including the graded review approach, staff expect to see further efficiencies and reductions to review hours and schedules, <u>beyond</u> the NRR 15% review hours reduction and schedule metric.**

- This is <u>one of the many</u> initiatives that are underway, **to best position the office in meeting the mandates of the ADVANCE Act, Section 505; the recent executive orders; as well as our new mission statement, in conducting our licensing reviews in an efficient manner, while still ensuring that our safety focus is met.**

# LIC-206 App. C Draft–Individual Technical Reviewer (TR) Checklist/ Review Grading Tool

## TR CHECKLIST

A. **Have design-basis or licensing-basis values OR assumptions changed?**

Y ☐    N ☐    NA ☐

The staff should focus the review of a proposed amendment on the changes to the licensing or design basis of the plant. If there are no changes to the design or licensing basis in a specific technical area, and the impact on risk is negligible, the staff may de-emphasize or limit the review of the proposed amendment in that technical area.

Design basis values or assumptions changed?
or
Change in how regulations are met?

— Y → Is the change risk significant?
or
Large change in margin or defense-in-depth?
or
Near regulatory limits?

— N → Limited Review

— Y → Approved precedent and follows precedent?
or
Using NRC-approved methodologies with no deviations?

— N → Comprehensive Review
or
Assume Higher Resources Needed

— N → Limited/Typical Review

— Y → Typical/Comprehensive Review

**Figure 2:** Review Type Determination Flowchart

**(Example LIC-206 App. C TR Checklist Item)**

The TR Checklist/Grading tool will be applied by each technical reviewer for their assigned scope of review in RRPS. Note, Figure 2 is an abbreviated set of criteria and does not include all the details provided in the draft LIC-206 update, which are also included in the following slides.

# Proposed Graded Approach - Criteria

| Checklist Result | How to review | Why | Sched | Hours |
|---|---|---|---|---|
| **Limited Review** | Administrative review. Most hours should be spent during acceptance review. Very streamlined SE. | If there are minimal to no design or licensing basis values/assumptions changed and impact on risk is negligible, or no change in how the regulations are met, then very minimal review hours should be needed to disposition the review. This would likely be an administrative only change to meet this requirement. | TBD | TBD |

# Proposed Graded Approach – Criteria, Cont'd.

| Checklist Result | How to review | Why | Sched | Hours |
|---|---|---|---|---|
| Limited/Typical Review | Very streamlined review. Use risk-insights. | If the change is consistent with an approved past precedent with no, to very limited, non-substantive departures, is not risk significant, and is not near a regulatory limit, or is a routine amendment with a small increase in risk that is controlled through adequate safety margins or mitigation strategies, this should be a very streamlined review. | TBD | TBD |

# Proposed Graded Approach – Criteria, Cont'd.

| Checklist Result | How to review | Why | Sched | Hours |
|---|---|---|---|---|
| Typical / Comprehensive Review | Limit to site-specific aspects; limit/eliminate confirmatory analyses etc. Use IRT. | If the application follows an approved precedent or uses an NRC-approved methodology without deviation, this review should only be looking at site-specific aspects of the request. Should limit or spot check confirmatory analyses. | TBD | TBD |

# Proposed Graded Approach – Criteria, Cont'd.

| Checklist Result | How to review | Why | Sched | Hours |
|---|---|---|---|---|
| Comprehensive Review | Set hours based on Project Manager and Technical Reviewer input; and an Integrated Review Team will be required. | These are the reviews that staff need to focus our efforts and review. These types of reviews are associated with those that are of a first of a kind, or a major change to the reactor design operation or licensing basis, or deviate substantively from past precedent and approved methodologies, and involves increased levels of risk/safety significance. | TBD | TBD |

# LIC-206 App. C Draft – Case Study: Diablo Canyon Integrated Leak Rate Test (ILRT) License Amendment Request (LAR)

| Plant Name | Amendment Issued | SE Pages | Staff Hours | Months |
|---|---|---|---|---|
| Braidwood | 9/10/2020 | 32 | 671 | 10 |
| Wolf Creek | 12/7/2020 | 18 | 479 | 6 (Outage Need) |
| Shearon Harris | 12/8/2020 | 43 | 543 | 11 |
| Palo Verde | 12/22/2021 | 26 | 441 | 10 |
| Callaway | 9/25/2023 | 33 | 549 | 9 |
| Salem | 5/29/2024 | 32 | 390 | 10 |
| Diablo Canyon | 3/27/2025 | 19 | 279 | 6 |

# LIC-206 App. C Draft – Case Study: Diablo Canyon ILRT LAR, Cont'd.

| Plant Name | Amendment Issued | SE Pages | Staff Hours | Months |
|---|---|---|---|---|
| Braidwood | 9/10/2020 | 32 | 671 | 10 |
| Wolf Creek | 12/7/2020 | 18 | 479 | 6 (Outage Need) |
| Shearon Harris | 12/8/2020 | 43 | 543 | 11 |
| Palo Verde | 12/22/2021 | 26 | 441 | 10 |
| Callaway | 9/25/2023 | 33 | 549 | 9 |
| Salem | 5/29/2024 | 32 | 390 | 10 |
| Diablo Canyon | 3/27/2025 | 19 | 279 | 6 |

# Next Steps

**Upcoming Meetings and Deliverables:**

- Summer 2025: Public Workshop with Industry on Graded Review Approach

- Late Summer 2025: Workshops with NRR staff to Implement Graded Review Approach

- Fall 2025: Issue LIC-206 Update and Implement Graded Review Approach/Process

# Q&A

# Break

# Be Engaged!



NRC's public information site for ADVANCE Act updates

- Info on public meetings related to the Act

- Status tracker

- Documents and deliverables related to the Act as they are made publicly available

# Closing Remarks

# Abbreviations

- 10 CFR 50.69 – Title 10 of the *Code of Federal Regulations*, Section 50.69
- AI – artificial intelligence
- DI&C – digital instrumentation and controls
- FTE – full-time equivalent
- GALL – generic ageing lessons learned
- IEEE – institute of electrical and electronics and engineers
- ISG – interim staff guidance
- KM/KT – knowledge management/knowledge transfer
- LEPT – licensing efficiency, predictability, and timeliness
- M-LEAP – Materials Licensing Efficiencies and Processes
- NEI – Nuclear Energy Institute
- NFPA – National Fire Protection Association

- NMSS – Office of Nuclear Material Safety and Safeguards
- NRR – Office of Nuclear Reactor Regulation
- PRA – probabilistic risk assessment
- RAI – request for additional information
- RCI – request for confirmation of information
- RIDM – risk-informed decision-making
- RIPE – risk-informed process for evaluations
- R-LEAP – Reactor Licensing Efficiencies and Processes
- RPS – Reactor Program System
- SE – safety evaluation
- (S)LR – (subsequent) license renewal
- SRP – standard review plan
- WBL – Web-Based licensing