Public meeting to discuss possible efficiencies on the Subsequent License Renewal review

Lauren Gibson, John Wise

February 13, 2024

Overall Objective for License Renewal

- <u>Objective:</u> Maintain **timely**, **predictable**, and **efficient** license renewal reviews, with a focus on **safety**.

- Close engagement + collaboration with industry is imperative to success

The Tiered Approach: Tailoring the Level of Staff's Safety Review

Staff Requirements Memorandum (SRM-M231102): License Renewal Roadmap (ML23345A214)

Incorporating Risk Insights

Leveraging Operating Programs

Leveraging Previous Reviews

Leveraging NRC/Industry Operating Experience with Aging Management

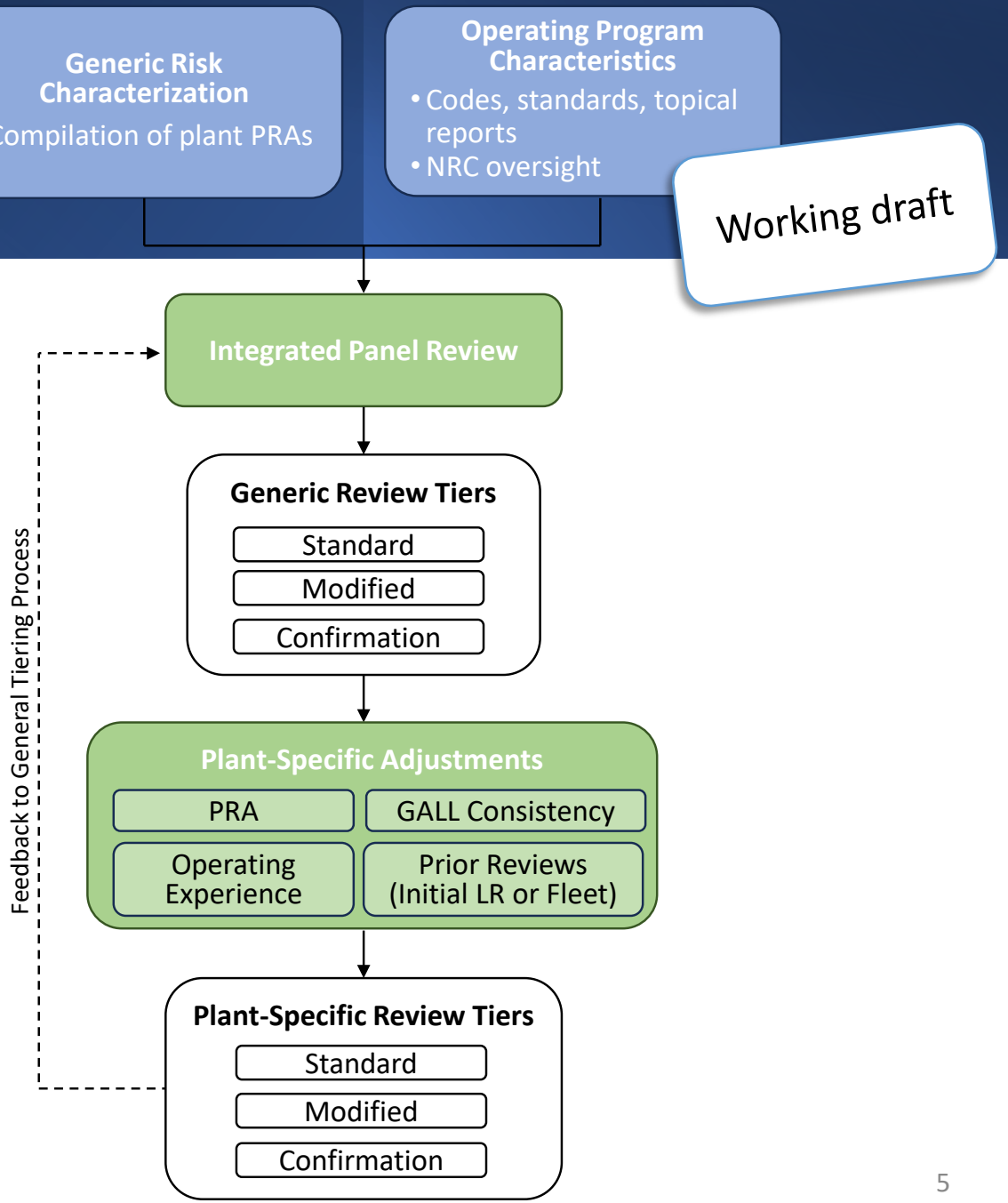
Consistency with NRC Guidance Documents

Tiers of Review

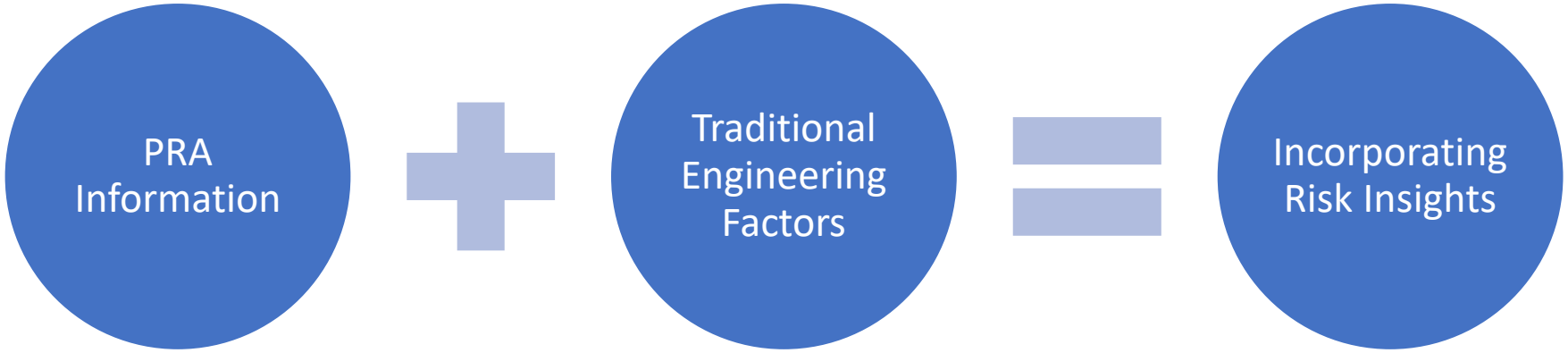
Working draft

Standard (High)	Modified (Medium)	Confirmation (Low)
• Application • Operating experience • AMP and TLAA basis documents • Engineering analyses • Implementing procedures • Inspection and test results • Corrective actions	• Application • Operating experience • AMP and TLAA basis documents [Discretion to review key details in other plant documents]	• Application • Operating experience [Discretion to confirm key details in basis documents] *For previously approved AMPs, a focus on gaps and new information
AMP or TLAA weighing factors		
High risk/safety significant SSCs	Medium risk/safety significant SSCs	Low risk/safety significant SSCs
Limited or no reference to widely accepted standards	GALL-SLR recommends significant augmentation of industry standards	Mature plant programs with high degree of standardization
No or minimal NRC oversight/visibility	Moderate NRC oversight/visibility	Robust NRC oversight/visibility
No prior reviews	Relies on some aspects of previous reviews	Fully leverages previous reviews (initial license reviews or fleetwide programs)
Plant-specific AMPs or a high number/significance of exceptions to GALL-SLR	Limited GALL-SLR inconsistencies	Full GALL-SLR consistency
Recent, novel, or reoccurring operating experience of degradation	Operating experience shows average trends	Absence of unexpected operating experience of degradation; or shows positive trends
TLAAs dispositioned with calculations: 10 CFR 54.21(c)(1)(i or ii)	TLAAs that are dispositioned with an AMP: 10 CFR 54.21(c)(1)(iii)	

Tiering Process



Incorporating Risk Insights



- Follows general framework of LIC-206, "Integrated Risk-Informed Decision-Making for Licensing Reviews"
- NRC to enhance its current review process to develop a clear, comprehensive, and predictable methodology to determine the depth of review.

NRC will continue to invite applicants to voluntarily make PRA information available – supplementing NRC's own information

Leveraging Operating Programs

- NRC to enhance its current review process to more fully leverage operating programs to determine the appropriate level of review:
  - Operating programs cited by GALL-SLR
  - Mature, existing plant programs/activities that are captured by NRC oversight

- Additional training will be provided to technical staff on the inspection and oversight process, for a holistic understanding of how existing NRC processes complement the license renewal application review.

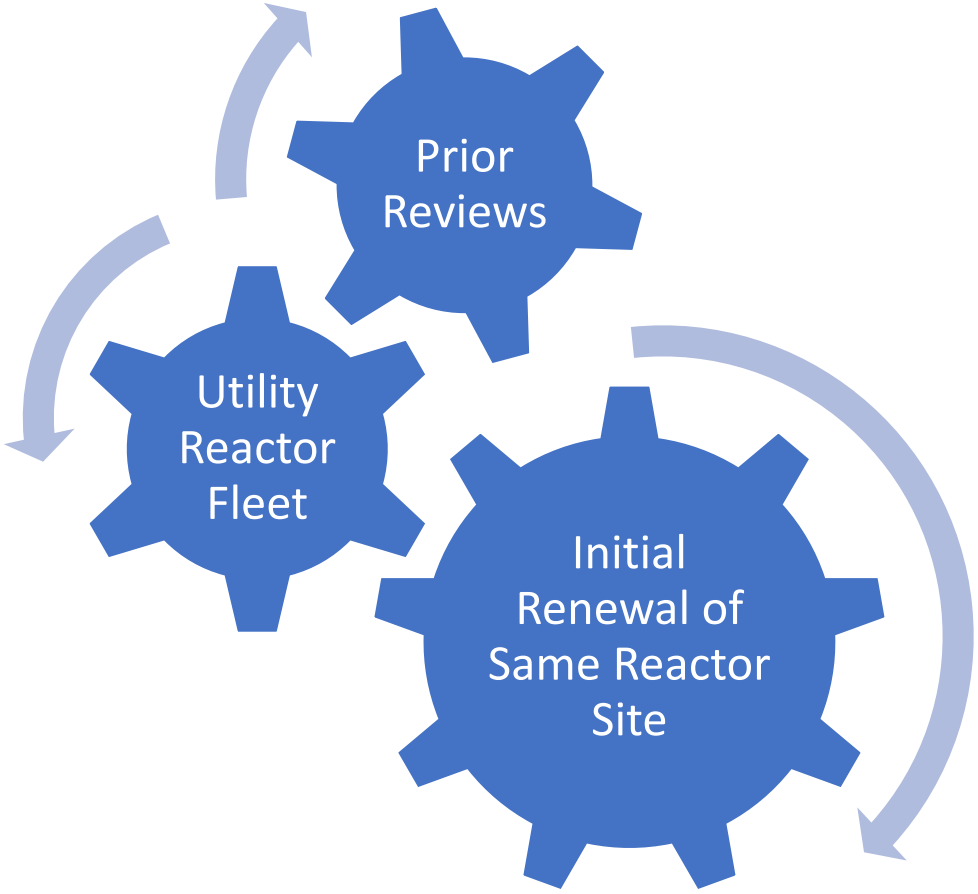
NRC welcomes information exchanges with industry and applicants to discuss controls and oversight of applicable programs.

Leveraging Previous Reviews

- Leveraging previous reviews can aid the staff in conducting a more efficient review, if there is no adverse operating experience.
  - Initial License Renewal
  - Fleetwide Programs / Sister Plants

- Allows for greater focus:
  - Operating Experience
  - Unique Site-Specific Considerations
  - Changes to aging management approaches since prior review

Efficiency will be aided by providing NRC with a roadmap between the prior and current proposal (e.g., mark-ups to prior AMP documentation)



Leveraging NRC/Industry Operating Experience with Aging Management

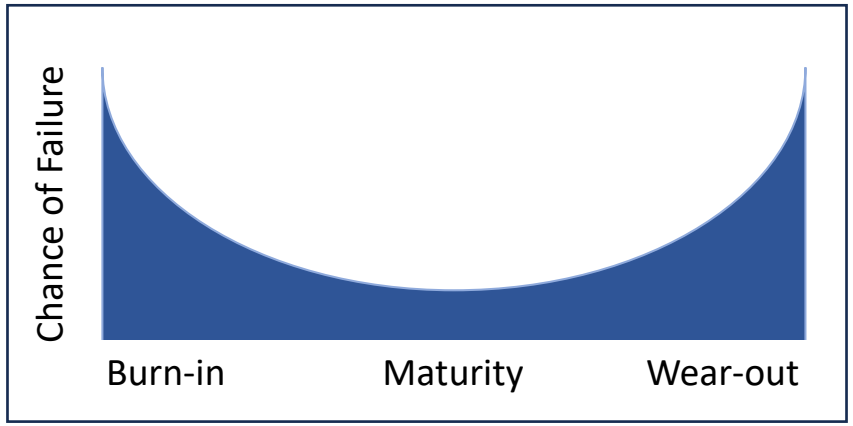


Figure: Bathtub curve

Ensure applications are promptly updated to reflect new information (NRC RIS 2014-06, Rev 1)

Plant-Specific Operating Experience

- Review of plant-specific operating experience remains a very important aspect of the staff's technical review.
- The operating experience can aid the staff in determining the proper tier of review.

Generic Operating Experience

- Consistent communication and awareness of generic operating experience across plants can contribute to a more efficient review process.
- Staff will leverage international regulatory best practices and operating experience.

Consistency with NRC Guidance Documents / Topical Reports

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

NUREG-2191, Vol. 2

Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report

Final Report

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

NUREG-2192

Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants

Final Report

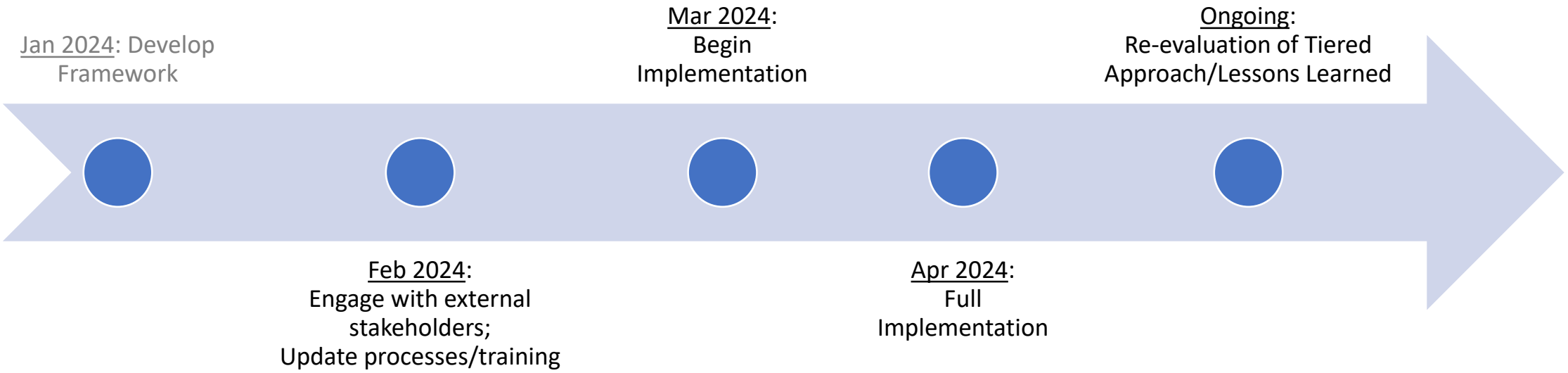
Topical Reports

The U.S. Nuclear Regulatory Commission (NRC) sponsors a Topical Report Program to increase the efficiency of the licensing process and reduce the burden on licensees. For this program, the NRC staff reviews reports on safety-related topics, which the industry proposes to publish for use in the licensing process by other agency licensees.

The functions and format of the electronic audit portal can impact the staff's efficiency of confirmation of consistency

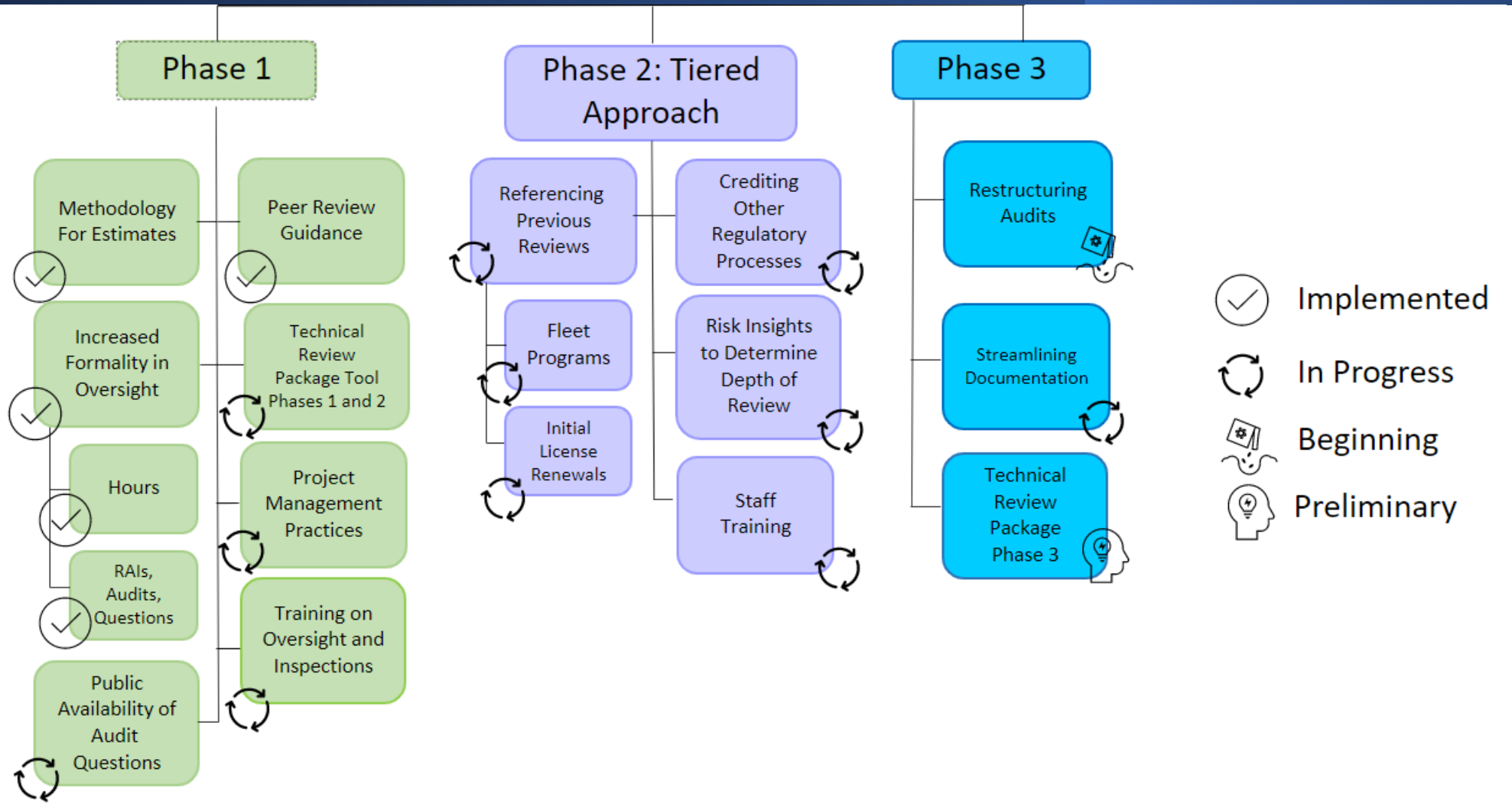
- Consistency with NRC's generic guidance or approved topical reports can aid the staff in streamlining their technical review.
- The NRC staff is currently updating the GALL and SRP for SLR.
- Topical reports continue to be reviewed and approved for use.
  - MRP-227, Revision 2, "Pressurized Water Reactor Internals Inspection and Evaluations Guideline"
  - BWRVIP-315, "Reactor Internals Aging Management Evaluation for Extended Operations"

Timeframe for Tiered Approach



Note: The Tiered Approach schedule cited above is a **DRAFT** and **subject to change.**

SLR Efficiencies Project



Questions?