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# POLICY ISSUE

## (Information)

March 28, 2024

SECY-24-0026

FOR: The Commissioners

FROM: Scott A. Morris  
Acting Executive Director for Operations

SUBJECT: ACHIEVING TIMELY COMPLETION OF LICENSE RENEWAL SAFETY AND ENVIRONMENTAL REVIEWS (LICENSE RENEWAL ROADMAP)

### PURPOSE:

The purpose of this paper is to respond to Staff Requirements Memorandum (SRM) M231102, "Staff Requirements – Strategic Programmatic Overview of the Operating Reactors and New Reactors Business Line," dated December 11, 2023 (ML23345A214). This paper provides the U.S. Nuclear Regulatory Commission (NRC) staff's roadmap to ensure the license renewal (LR) program conducts timely and predictable reviews and achieves the goal of 18-month reviews.

### SUMMARY:

The NRC staff's objective is to conduct its safety and environmental LR reviews in a timely, predictable, and efficient manner, consistent with the Principles of Good Regulation. This License Renewal Roadmap highlights the steps needed to ensure the staff conducts timely and predictable reviews, including coordination with prospective future applicants, to accomplish 18-month reviews while reducing overall staff resources necessary to complete the reviews. This goal will be achievable in fiscal year (FY) 2026.

This paper outlines a multi-faceted approach, including assumptions and uncertainties, to provide reasonable assurance of safety while streamlining NRC's review of LR applications, including ensuring these reviews are both timely and cost-efficient. Over the last few years, for applications that rely on a License Renewal Generic Environmental Impact Statement (GEIS), the NRC has been more predictable in establishing and achieving schedules for initial LR and

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subsequent license renewal reviews (SLRs) targeting 18-24 months and approximately 23,000 hours.<sup>1</sup>

Beginning in April 2024, with the implementation of the elements of the License Renewal Roadmap discussed in this paper, the staff expects the resources needed to complete initial LR and SLR reviews will decrease. Ongoing efforts to enhance the LR process have resulted in a reduction of recent acceptance review estimates to approximately 19,000 hours, and staff anticipates further reductions with the implementation of this roadmap. However, due to the surge in workload resulting from receiving more applications than were anticipated and budgeted, and the number of SLR environmental reviews that were unable to leverage the 2013 LR GEIS, the staff expects the schedules for these reviews will remain between 18-24 months for the immediate future.

Starting with applications received in FY 2026, the staff expects even lower resource estimates for each review and will target 18-month review schedules to be the baseline for both initial LR and SLR applications. By that time, the staff will have collected sufficient data to identify a revised generic resource estimate for future reviews. This revised generic resource estimate, and the 18-month review schedule target, will be leveraged to develop application-specific initial LR and SLR review schedules that consider a facility's risk and safety insights, operating experience, and application quality.

The staff will update the Commission on the implementation of the License Renewal Roadmap through a publicly available dashboard by August 2024.

#### BACKGROUND:

At a Commission briefing held on April 26, 2017, the NRC staff communicated that it could complete an optimized review of a high-quality, uncontested SLR application within 18 months, subject to an applicant's submission of timely and sufficient responses to requests for additional information (RAIs) and given a balanced staff workload (ML17116A208). This goal did not reflect actual review schedules at that time, but rather an aspiration for future reviews. Throughout the history of LR, only four reviews have been completed within 18 months of acceptance.<sup>2</sup> For each application, the staff provides a project-specific schedule at the time of

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<sup>1</sup> Reviews to which these schedules and resources are applicable are Turkey Point, Peach Bottom, Surry, North Anna, Point Beach, Oconee, St. Lucie, and Comanche Peak. The SLR applications for Monticello and VC Summer are not relying on a LR GEIS and therefore, are not included in the estimates for schedules and resources. The staff will continue to implement process improvements to achieve efficiencies for these reviews.

<sup>2</sup> The four reviews completed within 18 months of acceptance were for the initial LRs for Arkansas Nuclear One, Unit 1 (June 2001), Monticello Nuclear Generating Plant, Unit 1 (November 2006), and River Bend Station, Unit 1 (December 2018), and for the SLR for Peach Bottom Atomic Power Station, Units 2 and 3 (March 2020). The River Bend review leveraged efficiencies from previous reviews.

In 2017, using the River Bend review as a model and applying its 20 years of experience reviewing LR applications, the NRC staff developed a robust, streamlined, and efficient 18-month review process for SLR applications (ML17116A208). This process involved increased use of telecommunications, streamlined audits, elimination of redundant inspections, and early development of the safety evaluation and environmental impact statement.

The NRC staff issued subsequent renewed licenses for Peach Bottom Atomic Power Station, Units 2 and 3 within 18 months on March 5, 2020. The review involved a high-quality application with minimal technical issues, sufficient responses to RAIs, and adequate staff resources.

acceptance based on the quality of the application and the availability of staff resources. The staff strives to achieve these schedules but occasionally encounters challenges during a review such as technical complexities, emergent operating experience, or other unforeseen challenges that impact the initial forecasted completion date.<sup>3</sup>

To date, the NRC has issued initial renewed licenses for 94 units. The NRC staff is currently reviewing four initial LR applications (for Comanche Peak Nuclear Power Plant, Units 1 and 2; Perry Nuclear Power Plant, Unit 1; Diablo Canyon Power Plant, Units 1 and 2 (Diablo Canyon); and Clinton Power Station, Unit 1).

As of March 2024, the NRC has received a total of 10 SLR applications, the first of which was submitted in 2018.<sup>4</sup> For these applications, the staff has completed seven safety reviews. The staff is currently performing the safety and environmental reviews for three SLR applications (for Monticello Nuclear Generating Plant, Unit 1; Virgil C. Summer Nuclear Station, Unit 1; and Browns Ferry Nuclear Plant, Units 1, 2, and 3). Additional environmental reviews are ongoing for Turkey Point, Nuclear Generating Units 3 and 4 (Turkey Point); North Anna Power Station, Units 1 and 2; and Oconee Nuclear Station, Units 1, 2, and 3 (Oconee). Three more environmental reviews for plants with completed safety reviews are expected to resume upon completion of the LR GEIS rulemaking. The NRC staff submitted the final LR GEIS rulemaking package for Commission consideration on February 21, 2024. Appendix A (enclosure 1) contains more information on the LR reviews received since January 2018 and future submittals.

Historically, the NRC has budgeted for three LR applications per year, to be conducted on a staggered basis. The recent significant increase in the number of LR applications has created a surge of work that had to be divided among existing resources, resulting in the staff establishing schedules for current reviews that were estimated to be between 18 and 24 months for each review,<sup>5</sup> rather than the goal of 18 months.

Appendix B (enclosure 2) contains additional background information on the staff's approach to LR application reviews.

## DISCUSSION:

### License Renewal Roadmap

As stated above, the License Renewal Roadmap highlights the staff's plan to ensure the staff conducts timely and predictable reviews by making enhancements to streamline LR reviews and improve processes.

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<sup>3</sup> For example, multiple complex and outstanding technical issues arose late in the safety review for Oconee Nuclear Station, Units 1, 2, and 3, requiring a schedule extension (ML22094A190). On the environmental side, while the staff's technical and environmental reviews for Surry Power Station, Units 1 and 2 were completed on schedule, issuance of the license renewal was delayed significantly pending approval from the Commonwealth of Virginia for the applicant's Coastal Zone Management Act certification (ML21098A261).

<sup>4</sup> The Surry Power Station, Units 1 and 2 (Surry) subsequent renewed licenses were issued on May 4, 2021.

<sup>5</sup> As indicated in appendix A, several review schedules have been extended to accommodate additional environmental review in accordance with Commission decisions from February 2022, including Commission Orders CLI-22-02 and CLI-22-03.

- For the safety review, the staff will implement the Tiered Approach in appendix C (enclosure 3) to tailor the level of staff's review and will execute process improvements described in appendix D (enclosure 4).
- For the environmental review, in addition to the ongoing work related to the 2024 update to NUREG-1437, Revision 1, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," issued June 2013 (LR GEIS), and evaluation of the new National Environmental Policy Act (NEPA) requirements set forth in section 321 of the Fiscal Responsibility Act (FRA), the staff will implement process the improvements to increase efficiency described in appendix E (enclosure 5).

The staff is actively applying lessons learned from each LR review to ongoing and future reviews. Completed process enhancements have already led to efficiency gains, as noted in appendices D and E, and the staff continues to pursue additional enhancement opportunities.

Based on these enhanced review approaches, which are adapted from new and advanced reactor reviews, the NRC staff is committed to completing the review of initial LR and SLR applications in 18 months while using substantially fewer staff hours when compared to the acceptance review estimates provided in FY 2020, FY 2021, and FY 2022.<sup>6</sup> The License Renewal Roadmap also includes the staff's engagement with the industry to coordinate staggering the timing of application submittals to support 18-month reviews.

### Safety Review

In 2023, the NRC staff formally began to explore additional ways to improve the LR process, while seeking input from the industry and other stakeholders. Based on these efforts, the staff is implementing the three-phase approach listed below and detailed in appendix D.

- Phase 1, Process Improvements (appendix D, table 2), comprises seven initiatives targeted for full implementation by March 2024. In this phase, the staff identified best practices from new and advanced reactor reviews that have contributed to timely and cost-effective safety decisions, while also providing reasonable assurance of adequate protection of human health and safety in our licensing decisions, such as right-sizing and monitoring review hours, optimizing audits to resolve issues and reduce the number of RAIs for the safety finding, and improving project management practices.
- Phase 2, the Tiered Approach, is discussed in detail below. The staff expects to implement the Tiered Approach starting in April 2024. As the staff gains experience with the Tiered Approach, lessons learned will be used to modify the process.
- Phase 3, Additional Process Improvements (appendix D, table 3), involves restructuring audits and streamlining the safety evaluation, while improving efficiency using information technology. The staff expects to complete this final phase by December 2024.

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<sup>6</sup> From FY 2020 through FY 2023, the staff issued acceptance letters for six applications, for which the average estimate was 23,200 hours (ML20258A284, ML21006A417, ML21194A245, ML21246A091, ML22297A007, and ML23047A175).

The Tiered Approach tailors the level of the NRC staff's review of each technical area of the LR application. This approach considers several characteristics of aging management programs (AMPs) and time-limited aging analyses to establish a generic determination of the appropriate level of review for each technical area. These levels may be subsequently adjusted on a plant-specific basis.

The level of review refers to the degree to which the NRC staff independently verifies the information in the application, examines operating experience, and reviews engineering analyses, plant procedures, inspection results, and other documentation. These activities support the technical assessment and finding on the adequacy of the proposed approach to manage the effects of aging. As described in greater detail in appendix C, the level of review determination relies on:

- Incorporating risk insights:

Following the general framework of NRC Office Instruction LIC-206, "Integrated Risk-Informed Decision-Making for Licensing Reviews," dated June 6, 2019 (ML19031C861), the staff is developing a process to leverage probabilistic risk assessment information in combination with traditional engineering factors to determine the appropriate level of staff review. Incorporating risk insights as a part of the staff's technical review will enable better allocation of resources to areas that are more safety significant and streamline the review in areas that are of low safety significance.

- Leveraging operating programs:

NUREG-2191, "Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report," issued July 2017; frequently credits existing plant programs that rely on well-established and accepted industry standards. In some cases, these programs are subject to NRC oversight outside of the LR framework. The NRC staff will document these existing industry practices and develop expectations for using this information to establish the appropriate level of review. By also crediting operating programs, the staff recognizes the holistic nature of LR and will improve the overall efficiency of the review.

- Leveraging previous reviews:

Past LR reviews have credited industry programs that were previously found to be generically acceptable, as defined in the GALL-SLR Report. The NRC staff will extend this framework to more explicitly define a review process that considers approved approaches from prior renewal reviews that do not need to be revisited to support an application-specific finding, such as an AMP from the initial renewal of the same reactor site or an approved AMP from elsewhere in a company's reactor fleet. By leveraging previous reviews, the staff will ensure that duplicative resources are not expended to conduct a review that has already been completed and remains valid for the current application.

- Leveraging NRC and industry operating experience with aging management:

Reviewing SLR applications provides the opportunity to recognize effective, well-established AMPs as well as acknowledge areas for improvement and the inherent uncertainties that exist in long-term materials performance. The staff will develop

guidance on how to leverage insights from operating experience to establish a balanced level of review for capitalizing on efficiencies and considering new lessons.

- Consistency with NRC guidance documents:

Consistency with NRC guidance documents, such as the GALL-SLR Report, minimizes the need to review common technical issues on a plant-specific basis and contributes to a more appropriate level of the staff's technical review. Leveraging these generically acceptable approaches, including referenced topical reports and consensus codes and standards, has been and will continue to be the foundation for efficient reviews and a reduction of the staff hours required. The staff is currently revising the GALL-SLR Report and NUREG-2192, "Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants." The revisions are expected to be issued in early 2025.

In February 2024, the staff engaged with external stakeholders to finalize the Tiered Approach concept. The active involvement of the industry was critical to the development of this new approach.<sup>7</sup> In April 2024, the staff will begin applying the Tiered Approach to ongoing (as appropriate) and future reviews of both initial LR and SLRs.

### Environmental Review

For the first three SLR applications, the staff completed the associated environmental reviews within the 18-month review goal. The staff established this baseline review period for an application that contained minimal technical issues and for which timely and sufficient applicant responses to RAIs were provided. This baseline period was derived from the limited data points available prior to the February 2022 Commission decisions<sup>8</sup> that directed additional environmental review. For those plants affected by the Commission's orders, the review duration shown for site-specific environmental reviews in appendix A is not representative of the schedule that will be required for a future SLR. On February 21, 2024, the staff submitted to the Commission for its review an update to NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants (LR GEIS)," that will fully support one-term of SLR, if the LR GEIS and final rule<sup>9</sup> are approved. The ability to incorporate by reference the generic findings in the LR GEIS for SLR environmental reviews will support the staff's efforts to return to targeting an 18-month review goal.

In addition, the staff is evaluating the new NEPA requirements set forth in section 321 of the FRA and how they affect the NRC's environmental review regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 51 and related guidance, processes, and policy. The staff plans to provide a notation vote paper to the Commission in May 2024 that will include options

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<sup>7</sup> The NRC staff held public meetings to discuss LR efficiencies on August 18, 2023 (ML23256A290), October 31, 2023 (ML23317A058), January 11, 2024 (ML24024A227), and February 13, 2024 (ML24057A028).

<sup>8</sup> In Order CLI-22-2, the Commission set forth the rationale for its conclusion that 10 CFR 51.53(c)(3) only applies to an initial license renewal applicant's preparation of an environmental report and that the LR GEIS did not address subsequent license renewal. In Order CLI-22-3, the Commission provided direction for open subsequent license renewal proceedings and offered different options for review.

<sup>9</sup> SECY-24-0017, "Final Rule – Renewing Nuclear Power Plant Operating Licenses – Environmental Review" (ML23202A179)

and recommendations for addressing the new requirements. While this effort may provide options to explore for future efficiencies, implementation of the FRA requirements is not in and of itself an automatic efficiency gain. For example, implementing the new page limits specified in the FRA has required a near-term increase in resources to identify means to reduce page counts and develop updated templates. In other cases, such as the 24-month requirement for Environmental Impact Statement (EIS) issuance, there is no anticipated benefit because the staff had already been pursuing shorter review schedules for all current initial LR and SLR reviews. In this paper, the staff did not calculate or include any potential efficiency gains or impacts that may result from the FRA policy recommendations or future Commission direction.

Furthermore, the staff plans to continue several ongoing environmental review enhancement efforts to streamline its reviews for both initial LRs and SLRs. These efforts are aimed to increase efficiencies across many facets of the EIS development process. Of note, the staff has streamlined the EIS development process by improving access to additional information using hybrid audits and through the expanded use of requests for confirmatory information (RCI)<sup>10</sup> versus RAIs; expanded use of “incorporation by reference” to eliminate duplicative information across the EIS chapters; and the application of an agile methodology to balance workload planning across the multiple applications under review.<sup>11</sup> The staff has also made improvements to administrative processes such as streamlining the pre-publication reviews of the draft EIS and using information technology to improve comment processing. If the updated LR GEIS is approved by the Commission, the staff will be able to fully leverage its generic findings for SLR EISs. The staff will also continue to apply its extensive experience, including past reviews that remain valid for the current application, to determine the scope of review and focus on site-specific issues and new and significant information. Coupled with the process efficiencies noted above, the staff ultimately expects to be able to manage a greater number of applications within a predictable 18-month schedule along with an overall reduction in staff review hours. The staff will evaluate and quantify these additional efficiency gains if/when the LR GEIS is approved and implemented and data from future reviews is compared to the baseline established for SLR environmental reviews completed prior to February 2022. Additional information on process improvements is discussed in detail in appendix E.

### 18-Month Review Schedule

#### *Current Staffing Considerations*

The NRC staff has encountered significant variables regarding staffing and resources over the past two years of LR reviews. While maintaining the focus on safety and ensuring that reasonable assurance of adequate protection is paramount, there have been challenges balancing the workload:

- The staff’s level of experience plays an integral role in the LR and SLR application review schedule. The NRC has been actively hiring, and a portion of staff performing LR

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<sup>10</sup> An RCI is a unique type of request for information used when the staff has identified specific non-docketed information that is necessary to support a regulatory finding during the review. To verify or confirm its understanding of the information related to the application, rather than issue an RAI, the staff requests that the applicant confirm that the staff’s understanding of the information is complete and accurate. Staff and industry feedback indicates that the use of RCIs has reduced the staff resources needed to develop information requests and the applicant resources expended in responding to those requests.

<sup>11</sup> The agile methodology, described in appendix E, enables the NRC staff to identify periods of overlapping priorities and ensure schedule flexibility around fixed milestones.

reviews are relatively new. The qualification program for new reviewers leverages the NRC's knowledge management program (e.g., competency-based qualifications, apprenticeships, desk guides) to facilitate these individuals becoming more proficient as expeditiously as possible.

- The technical staff members involved in both LR safety and environmental reviews are shared across multiple business lines, including operating reactors and new and advanced reactors. Consequently, the schedule and timeliness of LR reviews have at times been impacted by other, more urgent, higher-priority reviews.
- Throughout the development of recent initial LR and SLR EISs, certain resource areas as defined in appendix E have emerged as critical paths due to contested hearings, high volumes of public comments, technical complexities, or other emergent issues. These resource areas remain a critical need for staffing, with only 1 to 2 qualified technical reviewers in each area. Addressing these needs is a top priority given the high concurrent workload; however, it remains a challenge to find experienced technical staff with a demonstrated ability to perform high-quality environmental reviews and address complex and novel issues.
- Additionally, the review schedule for completion of initial LR or SLR is often impacted if a review has adjudicatory activity, as the same staff support licensing actions and adjudicatory activity. Although the submission of an intervention petition may not necessarily impact the schedule, but hearings that are granted may impact the review time. In addition, during periods of high adjudicatory activity, even uncontested cases, other lower priority reviews will be impacted, including the review of routine draft environmental and safety LR documents and guidance documents.

Recognizing these challenges, the staff has examined budget, staffing, qualification plans, and contractor support needs to aid in achieving the 18-month review schedule target. The staff is currently hiring to meet future resource needs based on applicant letters of intent and is actively qualifying new employees to ensure the environmental review staff is sufficiently proficient to reach a level of capacity commensurate with the workload. The staff also plans to continue using contractor support to expand access to critical subject matter experts.

#### *Staffing to Support an 18-Month Review Schedule*

The staff intends to achieve an 18-month schedule for initial LR and SLR reviews beginning with applications submitted in October 2025 (the beginning of FY 2026). The NRC staff performed a calculation for the hypothetical situation where staffing is the only factor in order to determine the number of FTE required to achieve consistent 18-month review schedules using the currently expected submittal schedule for LR applications. Appendix F (enclosure 6) provides a detailed analysis.

The results of the NRC staff's analysis show a near-term "peak" and a later "valley," confirming that the increase in workload has already begun. The valley may suggest some licensees have not determined when (or if) they will seek a SLR and as such, have not informed the NRC of their intentions. The peak is well above the current budgeted staffing levels. Hiring and training to staffing levels that would support the near-term peak would be extremely challenging. Rapidly identifying candidates with the necessary qualifications and skills and hiring them in time to address the current surge in LR work is likely not feasible because of the competitive job market

for the necessary skills and the need to train new employees to conduct efficient and timely reviews.

The staff explored the option of contracting as an interim measure to support the peak. Unfortunately, the establishment of a new contract and the training of contractor personnel (who have not previously conducted LR reviews) would require significant staff resources and time that could be more effectively applied to ongoing reviews. Agency experience shows that new contractors are not able to immediately provide high-quality inputs that are ready for use in staff safety and environmental reviews. Therefore, the staff determined that hiring and contracting are not efficient strategies to address the near-term peak in LR workload.

Given the above, the staff does not anticipate being able to achieve 18-month review schedules for near-term applications (i.e., those received prior to the beginning of FY 2026). These application reviews may still require up to 24 months to complete. However, the staff is confident that once it works through the near-term peak, and realizes the efficiencies outlined in the License Renewal Roadmap, the staff will be able to establish and achieve 18-month review schedules starting with applications received in FY 2026. Beginning with the FY 2026 request, the staff will develop future budgets for Commission consideration that are consistent with 18-month schedules.

### Staggering Future Submittals

This paper describes several NRC staff approaches to enhance efficiency and timeliness of LR reviews. However, the schedule needed to complete these reviews in a timely manner is at least partially dependent on industry actions. In addition to providing advance notice of their licensing plans and submitting high quality applications, and providing timely responses to RAIs and RCIs, the staff has proposed to the industry that NRC resources and schedules can be optimized if the industry “self regulates” their submittals to one application every 3 months. Staggering was leveraged informally for initial LRs but has not yet been implemented for SLRs. This approach was successful in the staff’s review of the National Fire Protection Association 805, “Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants,” licensing reviews.<sup>12</sup> Staggering the application submittals minimizes staffing constraints and allows staff experts to complete key activities on one review then transition efficiently to the next review. Staggering applications also supports the staff “front loading” LR reviews to conduct critical audits that scope the overall review effort and allow for efficient and early application of the Tiered Approach. Sequencing new applications in this manner would likely not have a significant impact on the continued safe operation of the reactor fleet given most SLR applications are submitted more than a decade before the end of the existing authorized operation period. Industry alignment on this approach will greatly facilitate efficient staff reviews.

Expiration dates of current licenses are not the only consideration informing a potential applicant’s timing of submitting a LR application. Although the NRC is focused on safety rather than market conditions, the staff acknowledges that business decisions may be made based on LR status and that the timing of those decisions varies by applicant. The NRC encourages the industry to coordinate its submittals of initial LR and SLR applications to support the mutual

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<sup>12</sup> SRM-SECY-11-0033, “Staff Requirements – SECY-11-0033 - Proposed NRC Staff Approach to Address Resource Challenges Associated with Review of a Large Number of NFPA 805 License Amendment Requests,” (ML111101452).

benefit of the NRC and its licensees. The staff takes no position on the order of future submittals, but strongly advocates an interval of 3 months between applications.

Using the budget model described in appendix F, the NRC staff analyzed the resource needs for a representative year in which LR applications are staggered every 3 months and are scheduled for 18-month reviews. At any given time, there would be six applications under review, each at a different stage. The analysis was also performed for 2, 4, and 5 months between applications. The staff determined that the 3-month option is an optimal balance of agency workload and industry need.

#### COMMITMENTS:

	<b>Commitment</b>	<b>Date</b>
1	Implementation of License Renewal Roadmap	
1a	Safety Review	
	<ul style="list-style-type: none"> <li>• Phase 1: Process Improvements</li> </ul>	March 2024
	<ul style="list-style-type: none"> <li>• Phase 2: Tiered Approach</li> </ul>	April 2024
	<ul style="list-style-type: none"> <li>• Phase 3: Additional Process Improvements</li> </ul>	December 2024
1b	Environmental Review: Process Improvements	Ongoing based on lessons learned
2	Launch of public dashboard of updates to the License Renewal Roadmap	August 2024
3	Issuance of updates to GALL-SLR Report and NUREG-2192	February 2025

#### CONCLUSION:

The NRC staff is dedicated to ensuring the safety of nuclear power plants and strives to maintain timely, predictable, and efficient initial LR and SLR reviews consistent with the Principles of Good Regulation. With the implementation of the License Renewal Roadmap, the staff will enhance and streamline existing processes such that initial LR and SLR reviews will be completed in less time with substantially fewer staff review hours. Once the LR GEIS rulemaking and related environmental reviews have been completed, an 18-month review period should be achievable. An industry commitment to stagger initial LR and SLR application submittals to no more than one application every 3 months will greatly facilitate 18-month reviews.

As the NRC staff works to improve its processes to meet its original goal of completing LR reviews within 18 months, the staff will launch a public dashboard to provide updates on the License Renewal Roadmap by August 2024. Meanwhile, the staff will continue to work with the industry, including conducting public meetings, to support implementation of the activities identified in the License Renewal Roadmap.

As discussed above, while the staff did not consider any potential efficiency impacts that may result from the FRA policy recommendations (or related future Commission direction) as part of its development of the License Renewal Roadmap, the staff continues to separately evaluate the new NEPA requirements set forth in section 321 of the FRA.

RESOURCES:

Appendix F (nonpublic) includes an estimate of the resources required to support LR reviews.

COORDINATION:

The Office of the Chief Financial Officer reviewed this paper for resource implications and has no objections. The Office of the General Counsel reviewed this package and has no legal objection.

**SCOTT  
MORRIS**

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Scott A. Morris  
Acting Executive Director of Operations

Enclosures:

1. Appendix A: Status of Reviews and Future Submittals
2. Appendix B: License Renewal Background
3. Appendix C: Safety Review: The Tiered Approach
4. Appendix D: Historical and Current Efforts to Streamline License Renewal Safety Reviews
5. Appendix E: Environmental Review: Schedule Analysis and Considerations
6. Appendix F: Staffing Calculations for an 18-Month Review

SUBJECT: ACHIEVING TIMELY COMPLETION OF LICENSE RENEWAL SAFETY AND ENVIRONMENTAL REVIEWS (LICENSE RENEWAL ROADMAP)  
 DATED: MARCH 28, 2024

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