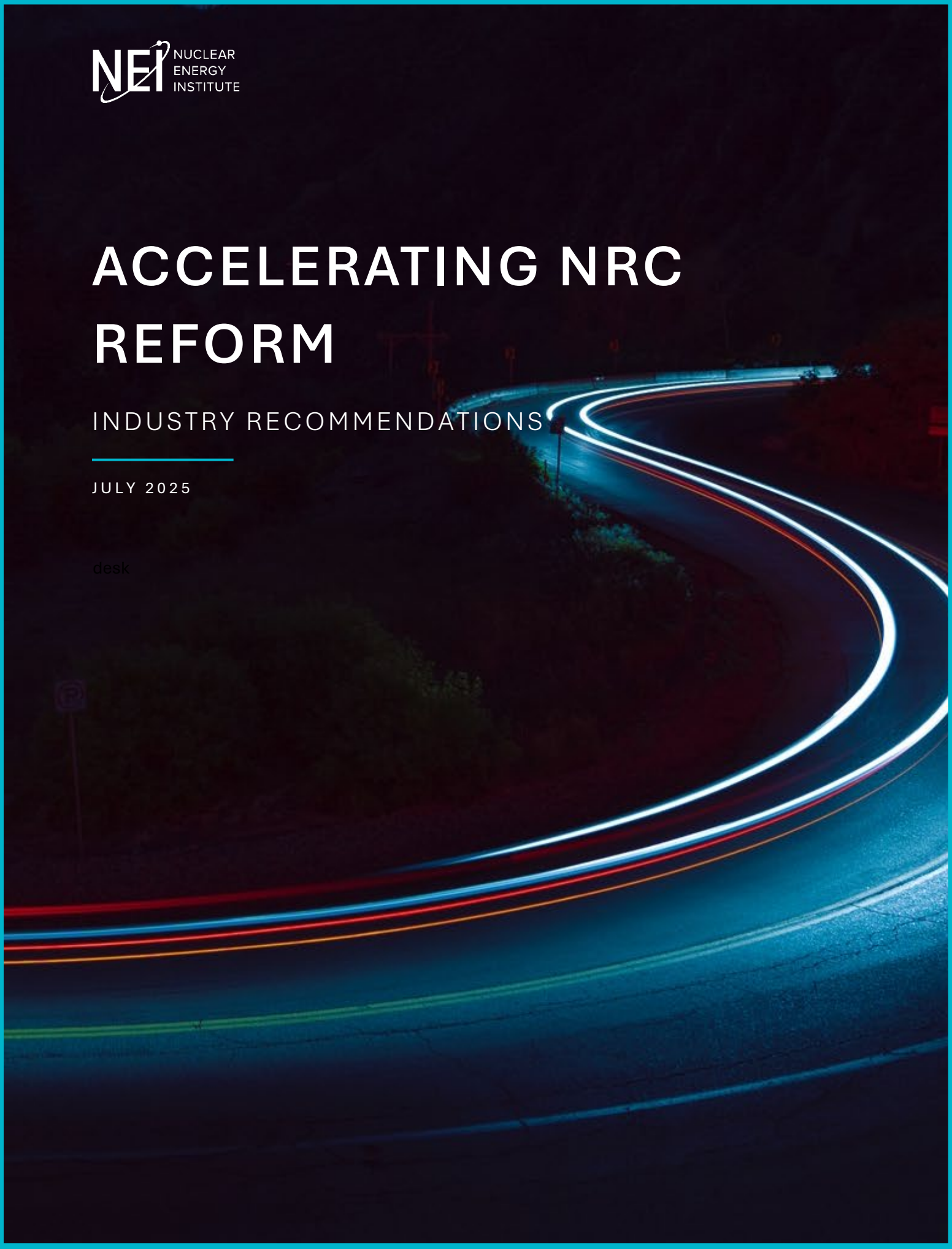
NUCLEAR ENERGY INSTITUTE

ACCELERATING NRC REFORM

INDUSTRY RECOMMENDATIONS

JULY 2025



PREFACE

For over a decade, the Nuclear Energy Institute (NEI) has called for significant reform of the Nuclear Regulatory Commission (NRC) to enable the growth of nuclear energy in the U.S. Last year, Congress underscored this imperative through the ADVANCE Act, and President Trump reinforced it with his May 23, 2025, Executive Order (EO), "Ordering the Reform of the Nuclear Regulatory Commission." This report presents the industry's recommendations for the most impactful reforms needed to enable the NRC to meet the urgent national demand for more safe, reliable nuclear power.

The U.S. nuclear industry supports the EO's call for near-term action and recommends the NRC adopt a deployment-oriented, risk-informed, and performance-based approach that enables efficient deployment of advanced reactors, microreactors, power uprates, and fuel facilities, and the long-term operation of the existing fleet.

The NRC plays an essential role in ensuring nuclear safety and public trust; this effort is not about replacing the agency but transforming and modernizing it to meet the demands of today and the future. As the NRC transforms, it should continue to exemplify excellence in nuclear regulatory practice while maintaining its global reputation for safety and oversight. Through thoughtful, risk-informed modifications, the Commission can fulfill its safety mandate while becoming an effective and efficient facilitator of U.S. energy security, economic growth, and technological leadership.

This document has been extensively vetted with NEI member companies representing all aspects of the nuclear value chain including regulatory experts, nuclear technology vendors, current and future plant operators, and suppliers. The recommendations represent a comprehensive set of changes and pathways to implementation that can enable the transition from the regulatory framework of today to an efficent framework of tomorrow that ensures safety. If implemented, our recommendations will effect significant change in a manner that maintains as stable a regulatory framework as possible. Within the larger set of recommendations, the following key areas of reform require particular focus:

- **Streamline Licensing Actions** by enhancing the efficiency of NRC reviews and meeting licensee schedules
- **Streamline Oversight and Inspection** by eliminating unnecessary inspection to reflect licensee performance
- **Enhance Safety Focus** by using risk insights and eliminating unnecessary regulatory requirements and processes
- **Accelerate Environmental Reviews** by removing unnecessary delays impacting urgent grid and industrial needs
- **Reform Hearing Process** by providing for stakeholder participation while maintaining project timelines
- **Modernize Security Framework** by restoring requirements to a level that is appropriate for a commercial facility

- **Accelerate Deployment Pathways** by right-sizing requirements and streamlining approval processes

The recommendations are grouped into eight areas of high-level changes. Each high-level change is briefly summarized in a Tier 1 overview. More detail regarding the supporting changes needed to achieve the Tier 1 reforms is provided in the associated Tier 2 documents. The details outline the specific regulations or policies that must be revised, the technical justification for each change, and any necessary statutory amendments requiring legislative action.

Commitment to Safety and Risk-informed Innovation

The industry's commitment to safety is unwavering, as demonstrated by decades of high performance. Nothing in our recommendations would diminish the high standards that protect the public, workers, and the environment. In fact, recommended reforms such as streamlining environmental reviews, simplifying hearings, and modernizing oversight will improve safety by directing resources toward issues of risk significance.

It is critical that modernization efforts do not divert attention from other high-priority Commission work. Balancing reform initiatives with the continued execution of essential responsibilities will be critical to maintaining program effectiveness. A more responsive regulatory process is a pathway to sustaining safe and reliable operation.

Implementation Pathways

To ensure reforms are timely, NEI urges the NRC to use exemptions, interim enforcement policies, and enforcement guidance memoranda while rulemaking proceeds toward the November 2026 completion date, enabling licensees and applicants to benefit from policy changes that require rulemaking, without delay. Any reforms identified that do not require rulemaking should be implemented immediately by the NRC staff.

Organizational Reform to Support Implementation

Successfully transforming the NRC requires the effective organization of its robust technical capabilities. A well-staffed and strategically structured agency is critical to ensuring a smooth and efficient transition. To implement these reforms, the NRC should consider organizational adjustments that enhance responsiveness and agility—enabling the growth of nuclear energy while maintaining the agency's global standard for regulatory excellence. Specifically, NEI recommends:

- Accelerating decision-making and increasing management focus and accountability by flattening organizational hierarchies;
- Issuing 90% of Staff Requirements Memoranda within 6 months and 100% within 12 months by revising Commission voting processes;
- Improving the consistency and efficiency of oversight by eliminating the regions;

- Focusing sufficient resources on deployment priorities by establishing a dedicated office for new reactor licensing;
- Increasing the cohesiveness of the regulatory process by integrating and streamlining the security and enforcement functions;
- Enhancing the focus on mission critical functions by streamlining the Office of Nuclear Regulatory Research, the Office of Investigations, and the Office of the Inspector General.

Table of Contents

Preface i

Tier 1: High-level Reforms

Reform New Nuclear Licensing 1
Reform NRC Licensing 3
Reform Nuclear Security Regulation 6
Reform and Modernize the Reactor Oversight Process 8
Reform Radiation Protection Standards 10
Eliminate Administrative Reporting Requirements 13
Modernize the Nuclear Fuel Cycle Facility Regulatory Environment 16
Reform Decommissioning Funding & Execution 19

Tier 2: Supporting Improvements

Reform New Nuclear Licensing

Create High Volume Licensing Path 23
Restrict Late-Stage Licensing and Approval Delays 26
Modernize Siting Criteria 31

Ensure Reactor Safety Assessments Focus on Credible, Realistic Risks 34
Approve DOE/DOD Tested Designs 37

Reform NRC Licensing

Establish Fixed Licensing Schedules 40
Streamline NRC Hearings 43
Modern Environmental Review Process 48
Crosscutting Regulatory Improvements 51
Streamline License Renewal Regulations 57
Enable More Digital I&C Deployment With and Without Prior NRC Approval 59
Modernize Operator Licensing Program 61
Reform License Durations 65
Optimize Reactor Restarts 69
Align Transportation Regulations 71
Reform the Advisory Committee on Reactor Safeguards 74

Reform Nuclear Security Regulation

Update the Design Basis Threat 76
Redesign Force-on-Force Inspection Program 78
Remove Prescriptive Security Requirements 81
Right-Size Cybersecurity Standards 84
Modernize AA/FFD Program Requirements 87

Reform & Modernize the Reactor Oversight Process

Overhaul the ROP Framework 91
Align Inspections Based on Safety Significance 96
Eliminate Low Value Work in Other NRC Processes 99

JULY 2025

REFORM NEW NUCLEAR LICENSING

Executive Summary

Establish the organization and processes for new reactor licensing to accelerate deployment in more locations, enable scalability, and enhance design certainty.

Enable high-volume licensing for microreactors and modular reactors

- Immediately implement a framework for qualifying reduced-risk reactors
- Eliminate barriers and establish processes to drive licensing for previously approved standardized designs in less than six months.
- Create a pathway to use general licenses for eligible reactors or components, including pursuit of statutory changes where necessary.

Restrict late-stage licensing and approval delays

- Set strict criteria for NRC-imposed changes during construction and licensing actions required during construction under Part 50.
- Allow licensees to implement design changes prior to NRC approval to avoid construction delays under Part 52.

Streamline reactor siting and remove population-based restrictions

- Revise siting rules to enable risk-informed placement near higher population areas
- Streamline the early site permit (ESP) process and extend the 20-year limit
- Simplify and align environmental reviews through interagency coordination, so only one report is generated

Ensure reactor safety assessments focus on credible, realistic risks

- Establish clear probability thresholds for events and hazards to be considered in a reactor's design
- Establish guidance on addressing unlikely events with defense-in-depth

Expedite NRC approval of DOD/DOE-tested reactor designs

- Harmonize NRC, Department of Energy (DOE), and the Department of Defense (DOD) regulatory approaches
- Require NRC licensing of reactor designs previously approved/tested by DOD or DOE in six months or less

- Limit NRC licensing reviews to statutorily required considerations unique to NRC licensing

Outcomes

- Enables rapid deployment of new reactors
- Enables flexibility to site qualifying reactors where they are needed
- Eliminates dual regulatory pathways
- Provides effective and efficient plant construction without delays

Timing and Implementation

- Immediate actions via policy and exemption authority
- Full codification by November 2026 through the wholesale regulation review rulemaking

REFORM NRC LICENSING

Executive Summary

Reform the NRC's licensing processes by setting fixed timelines, reducing regulatory overhead, and aligning reviews with safety significance to ensure timely decisions while maintaining safety and public trust.

Establish fixed licensing schedules

- Enable faster deployment, supports investment certainty, and improves NRC accountability
- Cap fees and enforce firm deadlines:
  - ≤12 months for nth-of-a-kind (NOAK) Construction Permit (CP), Operating License (OL), and Combined License (COL) application reviews
  - ≤18 months for first-of-a-kind (FOAK) CP, OL, and COL application reviews
- Align review timelines with safety significance

Streamline NRC hearings

- Focus contested hearings on material issues by refining intervention standards, requiring supporting evidence with proposed contentions, and providing for expedited Commission review of Atomic Safety and Licensing Board (ASLB) admissibility decisions.
- Assign NRC staff with relevant technical expertise to decide the merits of admitted contentions in individual licensing proceedings in parallel with the staff's application review, ensuring that issues are evaluated by qualified personnel and decisions are subject to Commission oversight.
- Eliminate procedural inefficiencies by removing mandatory disclosures, limiting late-filed contentions and motion practice, and adopting paper-only hearings governed by fixed schedules.
- Advocate for legislation to remove the mandatory uncontested hearing requirement applicable to CPs, limited work authorizations (LWA), COLs, and ESPs.

Modernize environmental reviews

- Finalize and codify New Reactor Generic Environmental Impact Statement (GEIS) in 10 CFR Part 51
- Institute use of environmental assessments and categorical exclusions as default approaches
- Eliminate low-value, duplicative analyses; focus on foreseeable impacts

Crosscutting regulatory improvements

- Reduce unnecessary regulatory burden

- Expand the use of risk-informed, performance-based regulation agency-wide
- Modernize and align NRC processes with industry standards
- Support innovation and deployment of advanced technologies

Streamline license renewal

- Introduce a performance-based audit/inspection path in lieu of application review
- Focus reviews on safety-critical programs; eliminate duplication
- Cut renewal time and staff hours by greater than 50%

Enable more digital instrumentation and control (DI&C) deployment with and without prior NRC approval

- Establish clear, risk-informed regulatory guidance that will streamline licensing of DI&C systems requiring NRC approval
- Limit NRC licensing reviews to DI&C systems that present credible risks
- Expand the use of DI&C qualitative assessments
- Eliminate the default assumption that common cause failure (CCF) cannot be addressed by a licensee without prior NRC approval
- Improve the ability of licensees to implement modern, reliable technology without costly, inefficient NRC review

Modernize operator licensing program

- Remove duplication and streamline operator licensing program requirements
- Focus NRC resources on oversight of examination administration
- Increase regulatory flexibility while maintaining accreditation requirements
- Standardize operator licensing by reactor type

Reform license durations

- Eliminate expiration dates for reactor permits, licenses, and design approvals (including CPs, OLs, ESPs, standard design approvals (SDA), design certifications (DC), COLs, Certificates of Compliance (COC) and LWAs) through legislative changes, where needed.
- Utilize exemption authority to renew ESPs until rulemaking is complete

Optimize reactor restarts

- Streamline restart inspections
- Use historical performance and existing data to grade the licensing and inspection efforts
- Institutionalize lessons learned

Align transport regulations

- Modify regulations to align with international shipping standards
- Eliminate duplication of requirements with Department of Transportation (DOT)
- Simplify Certificate of Compliance renewal procedures

Restructure the Advisory Committee on Reactor Safeguards (ACRS)

- Limit ACRS scope to novel, safety-significant technologies
- Impose firm timelines; avoid duplicative reviews of previously approved designs and technologies
- Use ACRS as expert advisors

Outcomes

- Enables faster deployment, supports investment certainty, and improves NRC accountability
- Significantly reduces the scope and burden of adjudicatory hearings while avoiding changes that could increase the risk of federal court challenges to licensing decisions.
- Reduces delay and duplication, while aligning with National Environmental Policy Act (NEPA) reform mandates
- Modernizes NRC regulations to improve efficiency, effectiveness, and focus on safety
- Eliminates duplicative work and retains a focus on safety
- Enables faster deployment of modern technology while preserving safety
- Removes duplication and streamlines operator licensing program requirements
- Reduces duplicative work, lowers cost, and ensures sustained reactor operation
- Delivers the fastest path to new nuclear on the grid with consistent NRC oversight
- Aligns NRC's rules for regulating the transportation of radioactive material to increase the efficiency of the international and domestic shipping process
- Accelerates licensing timelines and improves resource use while preserving safety

Timing and Implementation

- Immediate actions via policy and exemption authority
- Full codification by November 2026 through the wholesale regulation review rulemaking
- Legislative changes will be needed for NRC structural changes

REFORM NUCLEAR SECURITY REGULATION

Executive Summary

Reform security regulations to ensure protection against credible threats using performance-based standards.

Re-baseline the Design Basis Threat (DBT) and adversary characteristics to reflect credible threats

- Align with protection levels used across the nation's critical infrastructure
- Limit the DBT to realistic tactics and durations and discontinue the assumption of an omniscient insider.
- Account for technological advancements in post-9/11 counterterrorism and intelligence capabilities

Eliminate NRC-led force-on-force (FOF) exercises for operating plants

- Implement a licensee-led FOF process
- Focus the FOF exercise on credible threats and tactics

Eliminate prescriptive and outdated security rules to enable flexible, risk-informed protection programs consistent with other critical infrastructure

- Modernize security regulations and guidance and eliminate obsolete mandates
- Abide by the reasonable assurance standard for prevention of significant core damage and spent fuel sabotage
- Maximize use of and reliance on existing on and off-site resources in protective strategies

Modernize cyber security requirements:

- Remove low risk requirements
- Credit physical security programs and insider threat mitigation programs
- Focus protections on assets directly related to the prevention of significant core damage, spent fuel sabotage and prevention of significant reactivity changes (per Federal Energy Regulatory Commission (FERC)/North American Electric Reliability Corporation (NERC) requirements with NRC as the sole regulator under FERC-NRC Memorandum of Understanding (MOU)

Modernize Access Authorization/Fitness-for-duty program requirements to eliminate legacy low-value requirements

- Expedite the access authorization of nuclear workers by eliminating low-value administrative requirements
- Eliminate low-value testing and auditing requirements that do not have a measurable impact on the fitness-for-duty program
- Eliminate unnecessary work and documentation in NRC processes

Outcomes

- Focus on reasonable assurance of adequate protection of safety-significant items
- Develop a performance-based security framework and eliminate low-impact requirements and non-essential activities

Proposed Timing and Method

- Immediate actions via policy and exemption authority
- Full codification by November 2026 through the wholesale regulation review rulemaking

REFORM AND MODERNIZE THE REACTOR OVERSIGHT PROCESS

Executive Summary

Eliminate low value work and reduce regulatory burden in the Reactor Oversight Process (ROP) framework and other processes

Overhaul the ROP

- Shift regulatory focus on actual safety significance and plant performance
- Risk-inform and streamline existing NRC performance indicators (PI)
- Streamline the Significance Determination Program (SDP)
- Develop a risk-informed model for advanced reactor oversight

Align inspections based on safety significance

- Eliminate and streamline baseline inspection procedures
- Risk-inform the NRC inspection program and incorporate performance-based approaches
- Eliminate duplicative inspections
- Develop a risk-informed approach for grading the level of oversight needed that allows advanced reactors with demonstrated lower risk profiles to reduce or eliminate the number of resident inspectors.

Streamline or eliminate NRC processes

- Reduce scope and process in the Office of Investigations
- Streamline the allegation process
- Eliminate oversight of safety conscious work environment (SCWE)

Outcomes

- Resets inspection to a level that provides reasonable assurance of adequate protection
- Reduces NRC inspection workload and frees up resources for work in other areas
- Provides a more risk-inform program so effort is focused on safety-significant areas
- Reduces unnecessary burden

Proposed Timing and Method

- Immediate actions via policy and exemption authority

REFORM RADIATION PROTECTION STANDARDS

Executive Summary

Modernize current radiation protection regulatory framework

- Eliminate 'as low as reasonably achievable' (ALARA) as a regulatory requirement and establish in guidance dose optimization above a specific dose threshold
- Eliminate redundant dose limits and overlapping criteria
- Eliminate requirements that limit program optimization & flexibility
- Eliminate the need for NRC pre-approval to use modern dose models
- Prioritize revisions to relevant guidance documents

Outcomes

- Reduction of unnecessary burden
- Facility design flexibility and optimization

Why This Matters

Existing rules are overly restrictive, and the application of ALARA is inconsistent. Updating the framework improves efficiency, flexibility, clarity, and supports deployment of modern nuclear technologies while maintaining safety. The current application of radiation protection standards at very low doses results in:

- Overly conservative constraints, especially in licensing, decommissioning, and design
- Minimal or unclear safety benefits, particularly at doses already below 100 mrem/year
- Distorted perception of radiation risk

Proposed Timing and Method

- Immediate actions via policy and exemption authority
- Full codification by November 2026 through the wholesale regulation review rulemaking

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Dose Limits	Focus on the primary dose limits, and eliminate redundant limits/constraints (e.g., EPA 40 CFR 190,10 CFR 20.1301(e), 10 CFR 20.1101(d)).	Well-defined overarching dose limits provide adequate protection for workers and the public. Redundant or more restrictive criteria below the dose limits add complexity and conservatism without improving safety outcomes.	Improves clarity and efficiency in the regulatory framework while maintaining safety of workers and the public. Elimination of 40 CFR 190 and 20.1301(e) provides flexibility for co-location of multiple facilities and maintains safety.
ALARA	Eliminate ALARA as a requirement and in guidance establish a threshold for dose "optimization" at worker doses above 2 rem/year. In addition, clarify that 10 CFR 20 requirements are operational, not design requirements.	ALARA's restrictive implementation and negative connotations hinder risk-informed optimization.	Enables a more graded and risk-informed approach to facility design and program implementation.
Radiological Criteria for License Termination	Increase the unrestricted use criteria from 25 mrem/year to align with the public dose limit in 10 CFR 20.1301 Remove 20.1406 and ALARA from Subpart E.	Current requirements are unnecessarily restrictive, complicate facility design and drive overly conservative licensing and decommissioning reviews.	Optimizes licensing, design, and decommissioning by removing unnecessary conservatism while maintaining public safety.
ALARA Design Objectives and Limiting Conditions for Operations	Delete 10 CFR Part 50, Appendix I.	Appendix I utilizes outdated dose methodologies (i.e., ICRP 2) that are inconsistent with the basis of Part 20.	Reduces unnecessary design and program compliance requirements.
Dose Methods	Allow voluntary use of updated dose methodologies (e.g., NCRP, ICRP) without NRC pre-approval.	Modern models improve accuracy and flexibility and are endorsed by consensus scientific bodies.	Allows use of updated methods and facilitates innovation without compromising safety.

Area	Proposed Change Description	Basis	Benefit
Monitoring Requirements	Remove “as a minimum” from 20.1502 and establish guidance for a minimum recordable dose (e.g. 100 mrem/year).	Current monitoring requirements require licensees to have prospective dose evaluations for determining the need to monitor doses below 10% of the limits.	Eliminates the need for prospective dose evaluations and reduces unnecessary monitoring.
High Radiation Areas (HRAs)	Refine regulatory guidance to increase administrative flexibility associated with HRA controls and 20.1601(c).	Revising guidance will allow greater flexibility and decrease resource needs while maintaining safety.	Facilitates optimization of HRA controls and more effective use of resources.

ELIMINATE ADMINISTRATIVE REPORTING REQUIREMENTS

Executive Summary

Eliminate administrative reporting requirements

- Remove unnecessary reporting already available to the NRC
- Reduce licensee distraction from core safety and operational responsibilities
- Retain only those requirements that directly support NRC's mission

Outcomes

- Focus licensee attention on safety
- Eliminate administrative, low-value work
- Reduce regulatory overhead and compliance costs
- Improve efficiency of NRC oversight and reviews
- Support a risk-informed, modern regulatory framework

Why This Matters

Transparency in nuclear operations and regulation contributes to public confidence in nuclear safety. However, the necessary transparency can be realized without the burdensome reporting and administrative paperwork required by the NRC's regulations.

Proposed Timing and Method

- Immediate actions via policy and exemption authority
- Full codification by November 2026 through the wholesale regulation review rulemaking

References and Background

NRC attempted to review all administrative reporting requirements beginning with its Retrospective Review of Administrative Regulations (RROAR) in 2017, in response to EOs in the first Trump administration.[1] The effort took four years to submit a modest set of recommendations to the Commission in late 2021 (SECY-21-0110). The staff's proposal included rulemaking that would take several more years to complete. In 2020, NEI provided comments and recommendations to the NRC on the RROAR.[2]

In 2018, NEI petitioned for the elimination of nonemergency notifications that are redundant to communications with the resident inspectors[3]. The staff took almost six years to develop its response to the petition, which was submitted to the Commission in June 2024 (SECY-24-0049).

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Reporting	Eliminate the following regulations and any other unnecessary reporting regulations identified following a comprehensive review: 1) §19.13 2) §20.1906(d), §20 Subpart M, 3) §26.203(e)(1), §26.203(e)(2), §26.417(b)(1)-(b)(2), §26.717(e), §26.719(b), §26.719(c)(1)-(c)(3) 4) §37.57(a)-(b), §37.81(b)-(f) 5) §50, Appendix E, Sec. IV.D.4, §50 App. H 6) §50.36a(a)(2), §50.54(a)(3), (p)(2), (q)(5), (w)(3), §50.59(d)(2), §50.71(b), §50.72(a)-(c), §50.73, §50.74, §50.75(f)(1)-(2), §50.78§, 50.82(a)(8)(v) 7) §55.25, §55.46(d)(3), §55.53(g) 8) §70.32, §70.38, §70.50, §71.17(c)(3), §72.44, §72.48(d)(2), §72.70(c)(6), §72.75(b)-(d), §72.80(b), §72.186, §72.248(c)(6) 9) §73, Subpart T	NRC reporting requirements impose a high administrative obligation on the industry and do not increase safety. Reporting non-emergency events consumes operator time, diverting resources from higher-value activities. NRC resident inspectors maintain full	Eliminates low-value and outdated compliance processes.

[1] Executive Order 13771: "Reducing Regulation and Controlling Regulatory Costs," issued: January 30, 2017; and Executive Order 13777: "Enforcing the Regulatory Reform Agenda," issued: February 24, 2017.

[2] Letter from James E. Slider to Andrew G. Carrera, "Comments on the NRC's Retrospective Review of Administrative Requirements [85 FR 6103; Docket ID NRC-2017-0214]," dated May 6, 2020, ML20128J340.

[3] Letter from Bill Pitesa to Annette L. Vietti-Cook, "Petition to Amend 10 CFR 50.72, 'Immediate notification requirements for operating nuclear power reactors,'" dated August 2, 2018, ML18247A204.

Area	Proposed Change Description	Basis	Benefit
	10) §74, Subpart B 11) §75.7, §75.10(a)-(c), §75.11, § 75.34 12) §95.17(a)(1), §95.19(c)(1)	awareness of plant activities.	

MODERNIZE THE NUCLEAR FUEL CYCLE FACILITY REGULATORY ENVIRONMENT

Executive Summary

Modernize regulations to focus on safety and increase accountability amongst stakeholders

- Introduce accountability mechanisms for both applicant and regulator
- Rely on applicable precedent to increase regulatory efficiency and focus facility licensing reviews on novel issues
- Remove references to the mixed oxide (MOX) facility to clarify applicability of regulations
- Risk-inform the regulatory framework for fuel cycle facilities
- Apply broader security and oversight reforms in this report to fuel cycle facilities

Outcomes

- Streamlined regulatory framework
- Enhanced regulatory efficiency
- Accelerated deployment
- Cost and time savings

Proposed Timing and Method

- Immediate actions via policy and exemption authority
- Full codification by November 2026 through the wholesale regulation review rulemaking

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Regulation Modernization	Modify staff guidance to increase the efficiency of reviews by using precedent and focusing on novel issues. Establish strict schedules for new licenses (18-month maximum) and license amendments (90% within 6 months; 100% within 12 months).	NRC has reevaluated previously established positions and reduced the efficiency of designs in licensing reviews.	Reduced review durations and improved implementation schedules and design efficiency.
Regulation Review	Remove baseline design criteria (10 CFR 70.64).	Fuel facilities are not identical in baseline design, and suitable design and facility information is available in licensing documents.	Provides flexibility for applicants and enables more efficient and risk-informed designs.
Regulation Modernization	Establish staff limits for licensing actions: • Number of pages for safety evaluation reports • Durations of audits based upon risk-significance • Schedule and scope for acceptance and final reviews.	Limits can help focus effort on what matters most to safety.	Increased efficiency, predictability, and accountability for both regulator and applicant.
Regulation Modernization	Avoid a 9-month delay on construction activities from date of application submittal allowing for expedited construction timelines by removing 70.21(f).	This represents an administrative delay and does not affect the health or nuclear material-related impact on the environment.	Increases efficiency of new capability construction schedules.

Area	Proposed Change Description	Basis	Benefit
Regulation Modernization	Remove ambiguity regarding construction activities. In 70.23(a)(7), delete the section beginning with: "Commencement of construction prior to this conclusion… "	Regulations should be clear and unambiguous.	Provides a clear basis for when construction can begin.
Regulation Modernization	Remove MOX facility related regulations for clarity. Delete 70.23(a)(8), 70.23(b), 70.23 Footnote 2.	These regulations are obsolete and obfuscate requirements.	Removes obsolete regulations and enhances clarity.
Fees	Extend the applicability of reduced reviews fees required by Section 201 of the ADVANCE Act to encompass all actions associated with advanced reactor development and deployment.	Significant costs associated with NRC review and approval represent a significant barrier to licensing activities.	Reduced cost for regulatory interactions.
Oversight Programs	Utilize licensee-performed inspections and reporting of vendors to satisfy NRC vendor oversight goals.	NRC vendor inspection does not add value (e.g., observing factory acceptance testing) when staff could instead review test plans and results.	Reduced cost for inspection activities and greater efficiency completing activities.
Backfit Protection for transportation and used fuel storage	Modify 10 CFR Part 71 and 10 CFR Part 72 to provide transportation and storage licensees – COC holders – the same backfit protection that reactor operators and other licensees currently have.	In recent years, NRC staff have sought to impose multiple reinterpretations of 10 CFR Part 72 on COC holders. These issues have consumed inordinate resources without increasing safety.	Reduced cost for regulatory interactions and improved regulatory certainty in transportation and used fuel storage.

REFORM DECOMMISSIONING FUNDING & EXECUTION

Executive Summary

Modernize current regulatory structure governing decommissioning funding and execution

- Reflect cost reductions achieved by recent projects in decommissioning cost estimates
- Permit excess funds in Decommissioning Trusts to be used for decommissioning efforts during operations
- Operationalize known opportunities to further reduce decommissioning costs

Outcomes

- Achieved reductions in decommissioning costs are recognized in NRC's regulatory framework
- Definitions and timelines are updated for consistency with more efficient business practices
- Pending NRC actions that would further reduce costs are completed
- Simplified radiological compliance would reduce timelines of unrestricted use of enable the decommissioned nuclear sites while ensuring safety
- NRC regulations allow withdrawals of excess funds from Nuclear Decommissioning Trusts for decommissioning efforts during operation

Why This Matters

Modernized decommissioning regulations will promote the identification of excess funds and allow their use in decommissioning activities during operation, increasing the safety and efficiency of decommissioning process.

Proposed Timing and Method

- Immediately approve pending decommissioning transition rule and industry guidance to enable additional decommissioning cost reductions without impacting safety
- Immediate actions via policy and exemption authority
- Full codification by November 2026 through the wholesale regulation review rulemaking

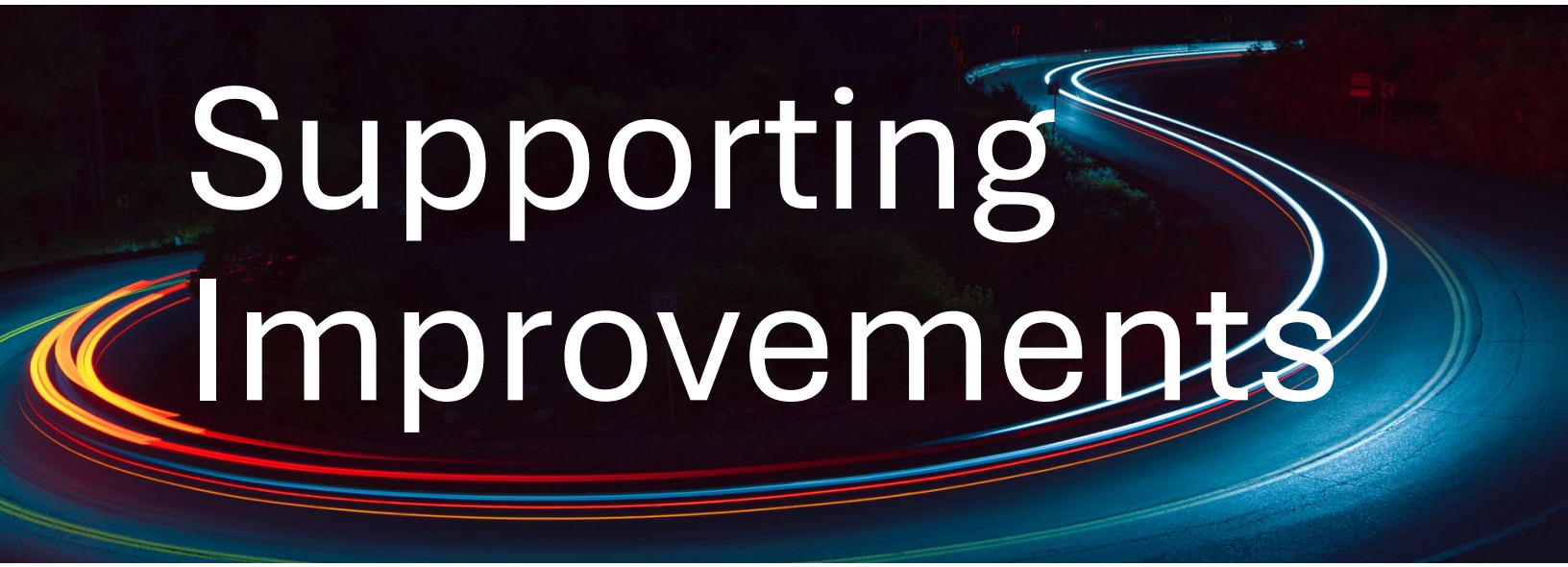
References and Background

- SECY-24-0011, "Final Rule: Regulatory Improvements for Production and Utilization Facilities Transitioning to Decommissioning," (3150-AJ59; NRC-2015-0070), January 31, 2024.
- NEI 22-01 Revision 1, "License Termination Process" (ML25006A203), December 2024.

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Permit access to Decommissioning Trust Funds (DTF) that exceed minimum value providing reasonable assurance of funding for NRC-defined decommissioning.	Revise 10 CFR 50.82(a)(8)(i) to add provisions for licensees to withdraw excess funds from DTFs to pay for other decommissioning activities during operations and after shutdown and update formulas in related guidance for estimating decommissioning costs	Based on more recent experience with nuclear decommissioning projects, it is known that DTFs have funds in excess of the requirements. Allowing use of these funds during operation will accelerate decommissioning and reduce contamination at the site.	Enhances the efficiency of the decommissioning process and reduces site contamination during operations.
Decommissioning a shut-down reactor on an active plant site on the timeframe of the last operating unit.	Revise 10 CFR Part 50.82(a)(3) to remove time constraints on decommissioning activities.	The resources of operating reactors on site more than provide for the safety of a co-located shut-down reactor. Bringing decommissioning activities onto an operating site is disruptive and costly.	Enables more efficient work-flow management and maintains safety while further reducing costs.
Complete long pending regulatory actions to further reduce decommissioning costs	Approve: 1) the pending rule (SECY-24-0011) to reduce decommissioning transition costs and 2) submitted industry guidance (NEI-22-01, Rev. 1) to reduce license termination costs.	These proposed changes are supported by considerable industry experience. Industry and NRC staff agree that they should be implemented.	Enables additional cost savings.

Area	Proposed Change Description	Basis	Benefit
Decommissioning Cost Estimates	Allow a generic decommissioning cost estimate to be approved for a reactor design (in advance of site-specific license).	Current estimates are not applicable to advanced reactors. A more detailed, design-specific cost estimate could be submitted to the NRC for approval, improving the accuracy of the estimate and the efficiency of the process.	More accurate cost estimates would minimize overfunding the trust funds.
Impose realistic radiological dose compliance scenarios for decommissioning	Eliminate the use of "less likely but plausible" scenarios and scenarios that involve uses that will not occur once the site is released.	Recent NRC reviews of license termination plans have resulted in excessive expenditures to assess unrealistic future public exposure scenarios and pathways.	Achieves safe unrestricted site release at reduced cost and accelerated timeframes.



Supporting Improvements

REFORM NEW NUCLEAR LICENSING

CREATE HIGH VOLUME LICENSING PATH

Executive Summary

Enable high-volume licensing for microreactors and modular reactors

- Immediately implement framework for qualified reduced-risk reactors
- Eliminate barriers and establish processes to drive licensing for previously approved standardized designs in under six months
- Create a pathway to use general licenses for eligible reactors or components, including pursuit of statutory changes where necessary

Outcomes

- Immediately facilitates rapid deployment of new reactors
- Provides regulatory certainty

Why This Matters

Deployment of 300 GWe of new nuclear will require a great deal of NRC licensing reviews that are not possible without a new paradigm for high-volume licensing, including the use of General Licenses.

Proposed Timing and Method

- Immediate implementation of reduced-risk pathway using exemptions as necessary to impose only the minimum amount of regulation necessary for NRC to fulfill its statutory obligations
- Initiate parallel expedited rulemaking to create a new framework for high-volume licensing for all advanced reactors, including pathways for the use of General Licenses, as appropriate.

References and Background

- On July 31, 2024, NEI submitted to the NRC a proposal "Regulation of Rapid High-Volume Deployable Reactors for Remote Applications (RHDRA) and Other Advanced Reactors" (ML24213A337). On December 9, 2024, the NRC responded to the NEI proposal (ML24317A174). In July 2025, NEI is submitting a supplement to RHDRA to remove the condition of remote applications and to inherently encompass the applicability to "other advanced reactors." Going forward, the term "Rapid High-Volume Deployable Reactors (RHDRA)" means "any advanced reactors with characteristics of safety, standardization, the use of automatic features and/or incorporation of advanced technologies, regardless of size or power level, that meet one or more performance-based criteria established for the use of alternative approaches." RHDRA proposes alternative approaches in 35 topic areas that are significantly more efficient than the NRC's current regulatory framework.
- A rulemaking for "Low Consequence Reactors" was initiated in July 2025 to provide for High-Volume licensing for advanced reactors and includes pathways for General Licenses. The proposed rule is expected in 1Q2026, and a final rule by 4Q2026. The rulemaking effort aligns with the NEI RHDRA and enables RHDRA to serve as a foundational framework. The wholesale rulemaking effort should incorporate elements of the Low Consequence Rulemaking to the extent that they can be applied to any nuclear reactor.
- There are several prior NRC and NEI papers that provide a basis for the RHDRA proposal, including: NEI papers in 2019 (ML24124A190), 2021 (ML21197A103), and NRC SECY 20-0093, SECY 24-0008 and SECY-25-0052.
- Letter, ClearPath et. al to Nuclear Regulatory Commission, "Transformative Regulatory Reform for New Reactors," May 15, 2025 (endorsed by Kairos Power)

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Near-term reduced-risk pathway	If necessary for immediate implementation, identify a set of exemptions necessary to license reduced-risk reactors (e.g., < 1 rem site boundary dose) with the minimum amount of regulatory burden.	Industry proposal on Transformative Regulatory Reform	Identifies near-term pathway for reduced regulatory burden in advance of rulemaking
RHDRA	Continue developing industry-proposed approaches that will serve as the basis for new regulations, and additional details on methodologies that will serve as the basis for new guidance, to enable the NRC rulemaking to meet the needs for High-Volume licensing.	A successful rulemaking will need industry input on novel concepts and details	Ensure the rulemaking will meet industry needs of diverse business models

Area	Proposed Change Description	Basis	Benefit
NRC Rulemaking	Codify a new rule for high-volume licensing and the appropriate use of General Licenses based upon the NEI RHDRA proposal: 1) NRC solicitation of stakeholder input [July 2025] 2) NRC issues proposed rule for comment [February 2026] 3) Public Comment on the Proposed Rule [March 2026] 4) NRC issues final rule for use [November 2026]	High-volume licensing, including General License, will require rulemaking.	Enables meeting the 300 GWe of new nuclear by 2050, including new business models and applications
Atomic Energy Act	Pursue changes to the Atomic Energy Act, and other statutes, to enable high-volume licensing, including appropriate use of General Licenses.	Optimal licensing may need changes to statutes	Optimal high-volume licensing and use of General Licenses
NOAK Licensing	Establish reduced timelines (6 months) and streamlined reviews for designs substantially similar to one with prior NRC approval at sites within the site parameter envelope.	High-volume licensing supported by regulatory efficiency	Demonstrates regulatory efficiency

REFORM NEW NUCLEAR LICENSING

RESTRICT LATE-STAGE LICENSING AND APPROVAL DELAYS

Executive Summary

Reform and modernize processes for changes during construction

- Set strict criteria for NRC-imposed changes during construction and licensing actions required during construction under Part 50.
- Allow licensees to implement design changes prior to NRC approval to avoid construction delays under Part 52.

Outcomes

- Enables more rapid deployment of new reactors
- Supports innovation
- Frees up licensee and NRC resources from focusing on unimportant activities
- Ensures regulatory stability and avoids unnecessary delays

Why This Matters

Licensing actions during construction that are imposed by the NRC, or licensee-initiated changes that require prior NRC approval, can be a major source of schedule delays and cost overruns.

Proposed Timing and Method

- Immediate implementation through expedited process improvements, and where changes to the regulations are needed, by exemption until completion of the rulemaking. Integrate ongoing Part 50/52 Lessons Learned rulemaking into the wholesale regulation review with a completion date of November 2026.
    - Enables continued construction without prior NRC approval of licensee-initiated changes to Tier 1, 2* and Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)
    - Establishes a strict standard to limit NRC-required changes after construction is underway

References and Background

The NRC Part 50/52 Lessons Learned Rulemaking (ML24326A003) considers experience from the regulatory impacts of construction for Part 52 Combined Operating Licenses.

- The proposed rule addresses numerous lessons learned to make Part 52 more efficient. However, there are numerous changes, consistent with NEI prior comments (ML21144A164 and ML21265A444) that would be needed, but the NRC is not currently addressing, as noted in the table below.

Additional references with background on the regulatory impacts during construction related to change controls are documented by: NEI (ML18305B421), Southern Nuclear (ML22265A097), and NRC (ML23325A202). There are numerous key insights from this experience, including:

- NRC caused delays to the deployment of Vogtle 3 & 4 due to several factors including re-design for the new rule on Aircraft Impact Assessments. NRC review included 215 Licensing Actions and over 143,000 inspection hours (ML22265A097).
- The need for prior NRC approval of changes has disrupted work and increased licensing and engineering costs during construction and created an ongoing risk of delay.
- Use of Tier 2* is unnecessary, does not improve safety, and should be eliminated for future design certifications.
- The NRC staff interpretation that construction must conform to the licensing basis at all times makes construction under Part 52 inflexible and as a result more costly than it has to be - without a corresponding safety benefit.

Reference List

- The NRC Part 50/52 Lessons Learned Staff Requirements on Proposed Rule Alignment of Licensing Processes and Lessons Learned from new Reactor Licensing (ML24326A003)
- NEI letters on Part 50/52 Lessons Learned Rulemaking (ML21144A164 and ML21265A444)
- NEI letter on the Assessment of Licensing Impacts on Construction – Experience with Making Changes during Construction under Part 52 (ML18305B421)
- Southern Nuclear Company slides on Lessons Learned from Part 52 Implementation for NRC Public Meeting 9/27/2022 (ML22265A097)
- NRC Part 52 Construction Lessons Learned Report (ML23325A202)
- RG 1.237, “Guidance for Changes During Construction for New Nuclear Power Plants Being Constructed Under a Combined License Referencing a Certified Design Under 10 CFR 52”

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Part 50/52 Lessons Learned Rulemaking	Immediately establish an NRC policy that minimizes NRC involvement in changes during construction. Provide finality in Environmental Review in the CP, allowing changes only for "new and significant information." Establish regulations on NRC involvement in changes during construction so that NRC required changes must be shown to be cost-beneficial, with costs stemming from construction delays explicitly considered.	Codification is needed for durability and predictability	Ensure that NRC will not unnecessarily delay construction or result in unnecessary resources to maintain schedule
Part 52 Licensing and Construction Modernization	• Develop an efficient Tier 1, 2* and ITAAC change process that does not require NRC prior approval during construction and sunsets the Tier 1 and 2* categories once operation begins • Eliminate the Tier 2* category and eliminate the need to include unnecessary details in Tier 1 and to require ITAAC to address overly detailed aspects of the plant (resulting in hundreds of ITAAC instead of tens of ITAAC) • Eliminate ITAAC for non-safety related equipment or programs • Eliminate docketed submittal of ITAAC closure • Allow construction/ installation/testing to proceed in parallel to NRC approval • Create a process to issue COLs that reference a DC or SDA with a known change or correction prior to the correction of the error. Establish a mechanism	• Less disruption of NRC and licensee resources for licensing and construction of new reactors • No impact on safety • Allows flexibility • Risk-informs requirements during construction	• Allow for modernization of Part 52 utilization for licensing and construction • Reduces time and cost for new nuclear

Area	Proposed Change Description	Basis	Benefit
	to make that change/correction after COL issuance. • Revise applicability of Technical Specifications for graded approach during start up and commissioning • Update Construction ROP (cROP) to utilize a low safety significance issue resolution process, limit significance of licensee-identified findings, and revise the SDP to ensure resources are focused on the most safety-significant issues • Change duration of COL & OL from 40 to 60 years (Atomic Energy Act change) • Eliminate ACRS reviews for COLAs for standard plant designs already approved (Atomic Energy Act change) • Eliminate reportability requirements during construction prior to special nuclear material (SNM) onsite • Eliminate/reduce security requirements prior to SNM being stored onsite • Expand scope of allowable nuclear construction to start prior to COL approval • Eliminate PI reporting for 2 years post commercial operation date • Eliminate plant walkthrough requirements for operator licensing for plants under construction • Eliminate fitness-for-duty requirements for construction workers and a graded approach to Part 26 requirements • Create a mechanism to enable the agency to pilot new approaches or processes for		

Area	Proposed Change Description	Basis	Benefit
	the first licensee as unanticipated challenges are identified. • Develop expedited and more efficient process for reviewing licensing actions with minimal safety significance		
LWA	Expand the allowable activities under LWA to include activities such as placement of safety-related concrete or other inspectable, safety-related construction activities, prior to full NRC CP or COL approval.	Allows flexibility for applicants.	Provides enhanced efficiency of construction and enables expedited deployment timelines.
Changes to Activities Constituting Construction	Expand the list of activities that **do not** constitute construction and allow for broader use of "at-risk" construction to allow some construction activities to commence before full NRC construction permit (or COL) approval.	Allows flexibility for applicants.	Provides enhanced efficiency of construction and enables expedited deployment timelines.

REFORM NEW NUCLEAR LICENSING

MODERNIZE SITING CRITERIA

Executive Summary

Streamline site licensing and remove population-based restrictions

- Revise siting rules to enable risk-informed placement near higher population areas
- Streamline the ESP process and extend their 20-year limit
- Simplify and align environmental reviews through interagency coordination, so only one report is generated

Outcomes

- Enables deployment of advanced reactors for strategic applications
- Significantly reduces site characterization timelines
- Increases efficiency of NRC reviews
- Supports innovation through risk-informed regulation
- Improves consistency with federal modernization efforts

Why This Matters

These solutions will reduce time and costs to develop and review applications and enable deployment of new reactors near industrial sites, data centers, and AI applications.

Proposed Timing and Method

Immediate implementation via expedited process improvements, and where changes to the regulations are needed, via exemption until completion of the rulemaking. This should include issuance of exemptions to extend current ESPs beyond their 20-year expiration dates. Integrate rulemaking into the wholesale regulation review with a completion date of November 2026.

References and Background

- NEI Proposal Regarding Use of Offsite Meteorological Data for Licensing and Emergency Planning (ML25098A278)

- In March 2025, NEI requested NRC endorsement by September 2025 on the use of offsite meteorological data, including data from airports, mesonets, or state environmental agencies, for reactor licensing and emergency planning in place of onsite meteorological towers.
- NEI White Paper: *Modernizing Population-Related Siting Requirements for Advanced Reactors* (ML25171A127)
- In June 2025, NEI submitted a white paper to the NRC advocating risk-informed siting requirements for advanced reactors. The letter recommends revisions to Part 100, proposed Part 52, and relevant guidance to support efficient deployment of advanced reactors.
- NEI Guidance for Implementing the Requirements of 10 CFR Part 52 for Early Site Permit (ESP) Renewal (ML25167A250)
- In June, NEI submitted a guidance document for NRC endorsement, proposing applicants update only information that has materially changed since initial application.
- SECY-25-0052: Nth-of-a-Kind Microreactor Licensing and Deployment Considerations
- In September 2024, NRC staff published a draft white paper on NOAK microreactor considerations, including scaling application requirements for seismic and other siting characteristics based upon reactor design site parameters.
- Forthcoming NEI Proposal Regarding Use of United States Geological Services (USGS) and Alternative Approaches to Geotechnical/Seismic Site Characterization
- NEI's forthcoming submittal will include proposed alternatives to the NRC requirements for time consuming and unnecessarily expensive geotechnical site characterization and soil structural analyses using NRC Senior Seismic Hazard Analysis Committee (SSHAC) Level 2/3 process and extensive Appendix B quality assurance (QA) core borings. This detailed methodology will enable use of USGS data and processes for sites that meet consequence and seismic margin performance criteria, to avoid or minimize core borings that are commercial quality.

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Population Siting	Revise the requirements in § 100.21(h), § 53.530(c), § 100.1(d), § 100.21(a), § 100.21(b), and the Introductory paragraph to § 53.530(c) to apply a risk-informed approach for grading population-related requirements to allow advanced reactors with demonstrated lower risk profiles to reduce or eliminate	Current language written for large LWRs limits the ability to site plants in a certain population density and distance from population centers. Demand for new reactors from industry requires co-siting near workplaces and workforces.	Reduces regulatory burden, operating costs, and enables industrial and other population-centered applications.

Area	Proposed Change Description	Basis	Benefit
	the requirements for population density and distance from population centers.		
Use of Offsite Meteorological Data & Meteorological Towers	Develop regulatory guidance to formally endorse the use of technically justified offsite meteorological data sources for initial licensing activities. When meteorological towers are needed, reduce data collection period to 1 year.	Regional meteorological data have improved by orders of magnitude since meteorological towers were first envisioned over 50 years ago. Today, we rely on this readily available data for critical forecasting and life-safety warnings, making it a robust and proven basis for site assessments. With enhanced modeling of meteorological patterns, data collection should be reduced to 1 year.	Significantly reduces time and cost of site characterization. Streamlines licensing and reduces unnecessary time and costs without compromising safety.
ESP Renewal	Grant exemptions to 10 CFR 52.26 for ESP holders to extend licenses beyond their 20-year duration in the absence of compelling evidence that the permit is no longer valid. Amend regulation to eliminate expiration date of future ESPs.	ESP renewals require significant time and resources to update application information, despite no impact to safety.	Reduces licensing costs and time for ESP renewals.
Graded approach to site characterization	Develop guidance for a graded approach to site characterization and utilize exemptions as needed. For example, for some designs existing U.S. Geological Survey data may be adequate, obviating the need for additional data. Adopt forthcoming NEI guidance on Geotechnical and Seismic site characterization methodology as part of the guidance development.	Siting requirements in Part 100 involve extensive site characterizations of features of a proposed site.	Significantly reduces time and cost of site characterization. Reduces time and cost of application preparation

REFORM NEW NUCLEAR LICENSING

ENSURE REACTOR SAFETY ASSESSMENTS FOCUS ON CREDIBLE, REALISTIC RISKS

Executive Summary

Focus reactor safety assessments on credible, realistic risks

- Establish clear probability thresholds for events and hazards to be considered in a reactor's design
- Establish guidance on appropriately addressing unlikely events with defense-in-depth (DiD)

Outcomes

- Enables more rapid deployment of new reactors
- Supports innovation
- Ensures regulatory predictability and avoids unnecessary delays

Why This Matters

New designs are often challenged to reach ever-increasing standards of safety, often resulting in risk metrics that are orders of magnitude below the operating fleet, despite designs with larger safety margins.

Proposed Timing and Method

- Immediate implementation through policy changes informed by the criteria in the Licensing Modernization Project (LMP).
- Near-term implementation through expedited process improvements, and where changes to the regulations are needed, exemptions should be used until the completion of the wholesale review rulemaking with a completion date of November 2026.

References and Background

- NRC Safety Goals for the Operations of Nuclear Power Plants – 1986 Policy statement
- Commission direction as provided in SRM-SECY-10-0121 and SRM-SECY-24-0008
- Aircraft Impact Rule Statements of Consideration (Federal Register Vol. 74, No. 112)

- In 2024, NEI submitted a proposal [ML24213A337] on rapid high-volume deployment of microreactors (RHDRA) calling for reduced regulatory burden for smaller reactors with increased safety features. These considerations should inform a licensing framework that reduces unnecessary burden for applicants and licensees that meet the performance-based criteria described above.
- In February 2025, NEI submitted comments [ML25051A092] on the Proposed Part 53 rulemaking, which should inform the final part 53 rule as well as pathways under Parts 50 and 52 for reduced regulatory burden for Physical Security, Access Authorization/Fitness for Duty, Operations Staffing, and other programs.

Specific Requirements

Area	Proposed Change Description	Basis	Benefit
Threshold for reduced regulation	Establish a risk-informed threshold, that if met, enables reduced regulatory requirements while still ensuring safety. This threshold can be met if a reactor satisfies any of the following criteria: 1) Site Boundary Emergency Planning Zone (EPZ). A facility qualifies for a plume exposure pathway EPZ that does not extend beyond the site boundary in accordance with the requirements of 10 CFR 50.33(g)(2). 2) Design basis accident (DBA) dose <1 rem in lieu of 25 rem in 10 CFR 50.34(a)(1)(ii)(D)(1) and (2) a. Dose calculated according to the standard review plan with design-specific modifications, LMP, or maximum hypothetical accident b. Licensee would defend DBA based on design requirements. 3) Unmitigated Dose < 25 rem in a simple, extreme bounding analysis specified in ANS 2.26.	ANS 2.26 10 CFR 50.160, RG 1.242, NEI 24-05 NUREG-1537, RG 1.233, SRP Unmitigated Dose is evaluated using extreme bounding assumptions. There is precedent in ANS 2.26 which linked that criteria to being able to use commercial seismic design.	Reduces regulatory burden for reactors with enhanced safety that meet any of the risk-informed and performance-based criteria
Reduced Unnecessary Regulatory Burden	For those plants that meet the threshold for reduced regulation (provided above): 1. Revise 10 CFR 100, 10 CFR 73, 10 CFR 55, 10 CFR 50, 10 CFR	Part 53 comment, RHDRA	Reduces regulatory burden for reactors with enhanced safety

Area	Proposed Change Description	Basis	Benefit
	52, and 10 CFR 53 draft rule consistent with the RHDRA proposal and NEI comments on the Part 53 rulemaking. This effort should address all areas identified in RHDRA, including meteorology, geology, physical security requirements, aircraft impact, emergency preparedness, NRC oversight, commercial codes and standards, quality assurance, and population-related siting standards. 2. Reconsider the applicability of the DBT		and establishes performance-based criteria
Thresholds for design basis events	The threshold for design-basis events should be 1E-4/year frequency with margin informed by 95th percentiles and defense in depth (DiD) consideration. Mitigation of beyond design-basis (BDB) should consider events down to 1E-6/year frequency with margin informed by 95th percentiles and DiD consideration. These thresholds need not be strictly quantitative with precedent from SRP, NUREG-1537, and existing guidance providing sufficient guidance for qualitative assessments on event likelihood. Reviews should be risk-informed, with minimal resources expended on events below the thresholds (reduced review for single failure criterion, large-break loss-of-coolant accident (LLOCA).	Except where phenomenologically evident to apply to the design, consideration of "cliff edge" effects should not be imposed for BDB events.	These thresholds should inform staff reviews by limiting review scope to credible events.

REFORM NEW NUCLEAR LICENSING

APPROVE DOE/DOD TESTED DESIGNS

Executive Summary

Expedite NRC approval of DOD/DOE-tested reactor designs

- Harmonize NRC, DOE, and DOD regulatory approaches
- Require NRC licensing of reactor designs previously approved/tested by DOD or DOE in six months or less
- Limit NRC licensing review to statutorily required considerations unique to NRC licensing

Outcomes

- Increased deployment flexibility
- Faster commercial deployment of advanced reactors
- Elimination of duplicative licensing
- Minimal differences between NRC, DOE, and DoD review scopes

Why This Matters

Harmonization of NRC, DOE, and DOD regulatory approaches is necessary to realize the full benefit of DOE/DOD advanced nuclear innovation and accelerated deployment options for new technologies in commercial applications.

Proposed Timing and Method

- Immediate implementation – Identify gaps between DOE/DOD authorization and NRC licensing that must be addressed in order to meet statutory requirements and define the process to quickly close these gaps for an expedited NRC review.
- Long-term implementation – Implement common regulatory approaches for the NRC, DOE and DoD, including revisions to statutes as necessary, to enable NRC reciprocity or comity of all scope of designs or sites previously approved by DOE or DOD.

References and Background

- The Atomic Energy Act of 1954, as amended, including Sections 91 and 101, allows the President of the United States to authorize the DOD to manufacture, produce, or acquire any utilization facility for military purposes.[4] The AEA specifically does not require an NRC license for "the manufacture, production, or acquisition by the Department of Defense of any utilization facility …or for the use of such facility by the Department of Defense or a contractor thereof."[5] Army, Navy, and Air Force each separately operated nuclear power plants 1950s-1970s.[6] The Naval Reactors program was established by EO 12344 (42 U.S.C. 7158), "Naval Nuclear Propulsion Program, and exists as an Office within DOE under NNSA.
- The Energy Reorganization Act of 1974 delegated the role of research, development, and demonstration of nuclear reactors and technologies to the predecessor of the Department of Energy while the regulation of commercial nuclear activities was delegated to the NRC. However, DOE still maintains the authority to self-regulate nuclear facilities, governed by 10 CFR Part 830, "Nuclear Safety Management," and a series of internal DOE Orders and Standards.
- There are unclear boundaries between NRC, DOE and DOD regulatory authorities for reactors that would be used in part, and potentially fully, for commercial activities. Various permutations of owner/operator/use/grid connection are possible, mostly untested, and never in the modern political, legal, and regulatory environment. Therefore, it is unclear the conditions under which a reactor could utilize the DOE testing or DOD military regulatory pathways and at the same time be used for commercial purposes, including situations in which the reactor is connected to and providing power to the electric grid.[7]

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Regulatory Jurisdiction	Clarify the regulatory jurisdiction of the NRC, DOE, and DOD, for reactors authorized by DOE or DoD and also used for commercial purposes, especially when they are connected to the electric grid. Amend statutes as necessary to achieve intended goals of EOs (14301 and 14302).	Lack of clarity of jurisdiction	Enables the use of DOE and DoD authorization.

[4] See 42 U.S.C. §2121(b)

[5] This position is supported by an NRC letter to the Washington State Attorney General dated April 13, 2001. See 42 U.S.C. §2121(b), and 42 U.S.C. §2140(b).

[6] U.S. Army Engineer Reactors Group Fort Belvoir, Va, "An Introduction to the Army Nuclear Power Program," January 22, 1966.

[7] Commercial entities regulated by DOE or DoD and tied to electricity grid may be subject to regulatory provisions of the Federal Power Act: 42 U.S.C. §2019 and provisions of 12 U.S.C. Chapter 12 Subchapter II

Area	Proposed Change Description	Basis	Benefit
Expedited Licensing	Establish NRC guidance for addressing gaps between NRC licensing and approval by DOE or DOD that eliminate duplicative reviews and minimize differences. Ensure NRC is engaging with DOE/DOE processes to ensure common understanding/alignment. Amend NRC regulations as necessary.	Lack of clarity of how to credit DOE or DOD approvals for NRC licensing	More efficient and timely NRC licensing of reactor designs or specific systems that have been approved for DOE testing and DOD use
Reciprocity and Comity	Establish common regulatory approaches for the NRC, DOE and DOD, including revisions to statutes as necessary, to enable NRC reciprocity or comity of all scope of systems, reactor designs or sites previously approved by DOE or DOD.	Separate approval and licensing processes do not support national energy goals.	Creates viable pathways from DOE testing and DOD use to NRC licensing

REFORM NRC LICENSING

ESTABLISH FIXED LICENSING SCHEDULES

Executive Summary

Establish fixed deadlines and fee recovery caps for licensing actions.

- Enables faster deployment, supports investment certainty, and improves NRC accountability
- Cap fees and enforce firm deadlines:
  - ≤12 months for NOAK CP, OL and COL application reviews
  - ≤18 months for FOAK CP, OL, and COL application reviews
- Align review timelines with safety significance

Outcomes

- Enables rapid deployment of new nuclear power to the grid
- Ensures regulatory reviews are predictable, timely, and focused on safety
- Provides applicants with budget and schedule certainty, minimizing the potential for costly and disruptive overruns

Why This Matters

Achieving a nuclear power capacity of 400 GW in the U.S. by 2050 will not be attainable without definitive schedules and accountability in licensing processes. Operators and applicants depend on the certainty of regulatory reviews to secure investors and support for the reliable and affordable power nuclear provides.

Proposed Timing and Method

Immediate implementation through an NRC policy directive and incorporation into the various parts of the CFR as part of the wholesale review with a completion date of November 2026.

References and Background

- In 2024, NEI wrote a letter[8] to the NRC providing input on improvements to licensing and oversight programs directed by the ADVANCE Act.
- NEI has submitted numerous comments and recommendations that would enable the NRC to establish fixed aggressive yet realistic deadlines for new reactor licensing. This includes Part 50/52 Lessons Learned (ML21144A164 and ML21265A444), Part 53 (ML25051A092), RHDRA rapid licensing (MLML24213A337), and Combined License Reviews (ML25062A103).

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Licensing Schedule and Cost Caps	Establish fee recovery caps for licensing actions[9] and fixed deadlines including a 12-month maximum for all licensing review unless otherwise noted: **New Licenses (Parts 30, 40, 50, 52, 70, 72):** FOAK 18-month maximum, NOAK 9-month maximum **Early site permits:** 12-month maximum. A 9-month schedule for an ESP application that references a DC with site parameters that bound the site characteristics. **License Amendments (Parts 30, 40, 50, 52, 70, 72):** 90% within 6 months; 100% within 12 months: **Certificates of Compliance (Parts 71, 72, and 73):** 9-month maximum for new applications and 3-months for amendments	Arbitrary and continually shifting schedule and resource estimates are not indicative of a predictable, performance-based regulator that possesses the knowledge base and operating experience of the NRC.	Enables predictable and timely reviews that must be performed commensurate with the safety significance of the application.

[8] Letter from Andrew Mauer (NEI) to U.S. NRC, "NEI Input on Improvements to Licensing and Oversight Programs," October 28, 2024, ML24302A311.

[9] These fixed deadlines should also be adopted in the final rulemaking for 10 CFR 53

Area	Proposed Change Description	Basis	Benefit
	Power Uprates: MUR-6 months; SPU-9 months; EPU-12 months **License Renewals (Parts 40, 50, 52, 54, 70, 72):** 12-month maximum **License Transfers (Parts 50 and 52):** 6-month maximum		
Changes to Regulatory Framework	Implement changes to regulations and guidance that enable more efficient licensing, including: Part 50/52 Lessons Learned Rulemaking, Part 53, and the NEI RHDRA Process / NRC NOAK Licensing.	NRC regulatory framework creates a barrier to achieving greater levels of efficiency.	Creates a rapid efficient, predictable and repeatable licensing process
Changes to NRC Processes	Implement changes to NRC project management and other review practices to streamline reviews: e.g., project planning and tracking tools, escalation process for applicants, core team reviews, etc.)	NRC review practices create a barrier to achieve greater levels of efficiency.	Ensures project management and conflict resolution practices produce timely reviews.

REFORM NRC LICENSING

STREAMLINE NRC HEARINGS

Executive Summary

Significantly reduce the scope and burden of adjudicatory hearings while ensuring a focused, fair process and a robust record that allows the NRC to successfully defend its licensing decisions in federal court

- Focus contested hearings on material issues by refining intervention standards, requiring supporting evidence with proposed contentions, and providing for expedited Commission review of ASLB admissibility decisions.
- Assign NRC staff with relevant technical expertise to decide the merits of admitted contentions in individual licensing proceedings in parallel with the staff's application review, ensuring that issues are evaluated by qualified personnel and decisions are subject to Commission oversight.
- Eliminate procedural inefficiencies by removing mandatory disclosures, limiting late-filed contentions and motion practice, and adopting paper-only hearings governed by fixed schedules.
- Advocate for legislation to remove the mandatory uncontested hearing requirement applicable to CPs, LWAs, COLs and ESPs.

Outcomes

- Greater regulatory certainty through earlier issue resolution
- Faster decisions by minimizing legal filings and duplicative processes
- Lower cost by eliminating unnecessary disclosures and formal hearings
- Better use of NRC and applicant resources

Why This Matters

The current hearing process is overly formal and burdensome, with mandatory disclosures, repeated legal filings, and late-arising challenges that delay decisions and increase uncertainty. Streamlining the process can improve licensing speed and predictability without compromising safety, environmental compliance, or the quality of agency decision-making.

Proposed Timing and Method

Immediate implementation through the ongoing wholesale regulation review, with a completion date of November 2026. While rulemaking proceeds, a revised Commission policy statement on

the conduct of adjudicatory proceedings can provide early direction on contention admissibility, standing, hearing schedules, and other topics. Continue to advocate for legislative change to eliminate mandatory uncontested hearings.

References and Background

- The NRC has broad discretion under the AEA, NEPA, and the Administrative Procedures Act to define appropriate procedures for contested matters, including through generic rulemaking, rules of particular applicability, and case-specific hearing orders. Courts have consistently affirmed that the AEA guarantees an opportunity for hearing, but not any specific format, and that NEPA imposes procedural—not substantive—obligations. Agencies may tailor processes to match the nature of the issues and the need for administrative efficiency.
- Because NRC licensing decisions are reviewed under the Hobbs Act, judicial review proceeds directly to a U.S. Court of Appeals. Revised hearing procedures should not alter this pathway but should reduce administrative burden and avoid an increase in litigation over matters unrelated to nuclear safety or other material issues.
- In 2024, NEI submitted a proposal recommending significant reductions in the complexity and duration of contested hearings for rapid high-volume deployable reactors in remote applications (RHDRA). While focused on RHDRA licensing, many of the proposed changes are adaptable to other licensing actions.
- In *NRC v. Texas* (2025), the Supreme Court confirmed that only parties admitted under the NRC's intervention rules qualify as "parties aggrieved" eligible for judicial review under the Hobbs Act — affirming the agency's framework for intervention and contention admissibility. NEI has identified opportunities to modernize and streamline the hearing process consistent with that decision.

Reference List

- NEI letter on NEI Proposal Paper "Regulations of Rapid High-Volume Deployable Reactors in Remote Applications (RHDRA) and Other Advanced Reactors," Appendix 6 – Simplification of Procedures for Contested Hearings (ML24213A337)
- Idaho National Laboratory, Recommendations to Improve Nuclear Licensing, INL/RPT-25-84292, April 2025.

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Contention Admissibility	Issue a policy statement reinforcing application of existing strict admissibility standards, including that ASLBs must not reframe or supply bases for deficient contentions,	NRC has broad discretion under the AEA to define hearing procedures, including thresholds for what issues may be raised. Courts have upheld the	Filters meritless issues early, reducing unnecessary process and litigation risk.

Area	Proposed Change Description	Basis	Benefit
	and that NEPA contentions must satisfy scope and materiality requirements consistent with NEPA case law. Revise 10 CFR 2.309(f) as needed.	NRC's use of intervention requirements. NEPA is procedural and affords substantial deference to both the scope and depth of environmental evaluations.	
Standing	Issue a policy statement eliminating the presumption of standing based solely on geographic proximity and clarifying that standing must be established for each proposed contention, reconsidering CLI-09-20 and related Commission precedent as needed. Revise 10 CFR 2.309(d) as needed.	NRC has broad discretion under the AEA to establish participation thresholds and courts have upheld the NRC's intervention framework. Modern federal caselaw requires a showing of injury, causation, and redressability for each claim—supporting alignment with a contention-specific standing analysis.	Promotes consistency with judicial standing standards and ensures only parties with a direct, articulable interest can intervene.
Early Commission Review of Contentions	Revise 10 CFR 2.311(a) to expand scope of interlocutory appeals of contention admissibility rulings. Revise internal Commission procedures to ensure timely review.	The Commission has discretion to define both who may appeal and how quickly interlocutory appeals are resolved.	Avoids wasted resources on improperly admitted contentions and prevents delays caused by the reinstatement of valid contentions that were improperly excluded.
Combined Contention and Evidentiary Filings	Revise 10 CFR 2.104, 2.105, 2.309, and Subpart L to establish the initial intervention stage as the primary opportunity to present evidence for contentions.	Courts affirm that agencies may define when and how a record is developed, and have recognized that new evidence—such as staff documents—does not justify reopening proceedings absent a genuinely new issue.	Promotes efficiency by focusing the hearing process at the outset and supporting predictable scheduling.
Limit New and Amended Contentions	Issue a policy statement clarifying that new or amended contentions must be filed within 30 days of public availability, that timeliness is measured from that date, and that	Courts have upheld NRC's authority to adopt reasonable limits for late-filed contentions and balance fairness with timely issue resolution.	Promotes timely issue resolution, limits abuse of late filings, and ensures schedule discipline while preserving a meaningful

Area	Proposed Change Description	Basis	Benefit
	"materially different" information must present new issues—not new evidence or reinterpretations of existing information. Revise 10 CFR 2.309(c) as needed to codify these clarifications, authorize presiding officers to reasonably limit filing windows, and require consideration of delay and record contribution when evaluating good cause.	These changes align with that case law and preserve due process.	opportunity to raise new issues if warranted.
Eliminate Mandatory Disclosures	Revise 10 CFR 2.1203 to eliminate mandatory disclosures and formal discovery in Subpart L proceedings; rely on ADAMS and other NRC platforms.	APA does not require discovery in informal adjudications.	Reduces burden on all parties; promotes transparency through centralized access to information.
Paper-Only Format & Scheduling	Revise Subpart L and Appendix B to 10 CFR Part 2 make written hearings the default format. Establish fixed milestone schedules to structure written submissions and support early, orderly development of the record.	The APA permits agencies to tailor adjudicatory procedures. Subpart L currently defaults to a complex written and oral hybrid process, but a written-submission default better reflects informal hearing principles and promotes early resolution of contentions and evidence.	Reduces complexity and cost, improves scheduling predictability, and streamlines adjudications without compromising fairness.
Merits Resolution by Staff	Revise Subpart L to provide that admitted contentions will be referred to NRC staff for resolution on the merits. Staff may request additional information from the parties as needed, with an obligation for timely response. Resolution would be documented in an order issued with the staff's review documents and take effect immediately unless stayed. Conforming changes may be needed to 10 CFR 2.347,	The Commission has authority to delegate the presiding officer role. The APA and AEA permit staff to resolve issues in informal adjudications without triggering separation-of-functions or ex parte restrictions, so long as the process is fair and impartial.	Puts review in the hands of most qualified individuals and allows faster resolution of contentions without procedural burdens of formal hearings.

Area	Proposed Change Description	Basis	Benefit
	2.348, and 2.340 to reflect this process.		
Commission Review of Staff Decisions	Revise Subpart L to provide that NRC staff orders resolving contentions are treated as initial decisions under 10 CFR 2.1210 and 2.1212, subject to petition for Commission review. These decisions would become final agency action 60 days after issuance unless the Commission modifies, sets aside, or stays the decision.	Subpart L already authorizes party-initiated petitions for Commission review of initial decisions. Extending this framework to staff merits decisions—with a shorter timeline before finality—preserves fairness and enables Commission oversight without unnecessary delay.	Ensures parties can raise concerns with staff decisions and promotes timely resolution. Maintains Commission authority to review staff determinations where appropriate and supports efficient judicial review.

REFORM NRC LICENSING

MODERN ENVIRONMENTAL REVIEW PROCESS

Executive Summary

Reduces delay and duplication, while aligning with NEPA reform mandates

- Finalize and codify New Reactor GEIS in 10 CFR Part 51
- Expand use of environmental assessments (EA) and categorical exclusions (CATEX)
- Eliminate low-value, duplicative analyses; focus on foreseeable impacts

Outcomes

- Simplifies a complex procedural process that doesn't provide commensurate benefit
- Creates immediate licensing certainty
- Facilitates continued operation, restarts, and new nuclear deployment

Why This Matters

These changes will accelerate licensing and reduce burdens on applicants while maintaining robust environmental protection and public participation in the NEPA process.

Proposed Timing and Method

Immediate implementation through expedited process improvements and exemptions, where needed, until the wholesale regulation review rulemaking is completed by November 2026.

References and Background

- Fiscal Responsibility Act of 2023 (FRA) – amends NEPA; sets time/page limits for EISs/EAs
- ADVANCE Act of 2024 – Section 506 directs NRC to modernize reviews
- EO 14154 & EO 14300 – require prioritization of efficiency and regulatory reform
- SECY-24-0046 – "Implementation of the Fiscal Responsibility Act of 2023 National Environmental Policy Act Amendments", May 30, 2024 (ML24078A013)

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Environmental Review	1) Finalize New Reactor GEIS and codify in Part 51 2) Expand use of EAs/Finding of No Significant Impacts (FONSIs)/mitigated FONSIs and codify changes 3) Develop and codify categorical exclusions for all categories of licensing actions determined by the NRC not to have individually or cumulatively significant environmental impacts, potentially including, for example, subsequent license renewals (SLR), power uprate license amendments, certain advanced reactor licensing actions, and site decommissioning. 4) Eliminate analysis of "need for power" and limit alternatives analysis 5) Focus on direct/proximate impacts only to the maximum extent practicable [10] 6) Minimize duplication via applicable methods, including tiering (e.g., from GEIS), adoption or incorporation by reference of other agencies' analyses, interagency	Statutory and executive mandates, legal precedent, and NRC staff recommendations	Faster, more predictable licensing; reduced costs; better alignment with national energy goals

[10] Amy Howe, *Supreme Court limits scope of environmental review,* SCOTUSblog (May. 30, 2025, 11:23 AM), https://www.scotusblog.com/2025/05/supreme-court-limits-scope-of-environmental-review/

Area	Proposed Change Description	Basis	Benefit
	MOUs, EIS/EA templates, and applicant-prepared draft EISs/EAs 7) Implement a graded approach for environmental reviews of micro-reactors and other qualifying low-consequence reactors that reflects resource requirements and reduced risk of radiological release, consistent with that described in SECY-25-0052 8) Eliminate alternative site analysis		
NRC Policy on Referencing External Environmental Analyses	Establish NRC organizational policy on the use of incorporation by reference (IBR) from relevant state and federal agency environmental analyses.	Environmental impact statements and assessments require significant time and costs and are often duplicated with various agencies engaged in the project.	IBR would reduce review project time and costs by reducing duplicative work.

REFORM NRC LICENSING

CROSSCUTTING REGULATORY IMPROVEMENTS

Executive Summary

Modernize NRC regulations to improve efficiency, effectiveness, and focus on safety.

- Reduce unnecessary regulatory burden
- Expand the use of risk-informed, performance-based regulation agency-wide
- Support innovation and deployment of advanced technologies

Outcomes

- Faster, more predictable licensing decisions
- Streamlined and clearer regulatory requirements
- More efficient deployment of advanced fuels and technologies
- Improved NRC focus on safety-significant issues

Why This Matters

Alignment with NRC's licensing modernization efforts is instrumental in facilitating the expansion of American nuclear energy

Proposed Timing and Method

Immediate implementation through expedited process improvements, and exemptions, where needed, until completion of the wholesale regulation review rulemaking by November 2026.

References and Background

- NEI Letter, McCullum to Helton, Interim Enforcement Policy (IEP) for Enforcement Discretion for General Licensee Adoption of Certificate of Compliance Holder Generated Changes, 90 Federal Register 14,917, April 7, 2025 (Docket ID NRC–2025–0064), April 25, 2025.
- NEI letter, "Nuclear Energy Institute (NEI) Input on Recent Executive Orders," February 10, 2025.

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Risk-informed Change Processes	Revise the following regulations: 1) 10 CFR 50.59 2) 10 CFR 70.72 3) 10 CFR 72.48 including elimination of 10 CFR Part 72.48 (c)(2)(viii) 4) 50.54(a), 50.54(p), 50.54(q)	Certain low-risk and low-safety-significant changes cannot be implemented without NRC review and approval.	Eliminates regulatory burden to obtain NRC review and approval for minor changes
In-progress Rulemaking	Revise 10 CFR 50.46 to adopt a risk-informed approach. Implement increased enrichment of conventional and accident tolerant fuel designs for operating reactors and enable extension of burnup limits. Revise 50.36 to apply risk insights to limiting conditions of operation (LCO).	NRC requirements impose unnecessary burden related to postulated LOCAs. LLOCAs are not significant contributors to overall plant risk per NUREG/CR-6932.	Increased Enrichment rule with the risk-informed 50.46 would enable more realistic operational margins for advanced fuels and power uprates.
Offsite emergency preparedness (EP) programs	Revise requirements in 10 CFR 50.47, 10 CFR 50.54, and Appendix E to provide an option for States to certify offsite EP adequacy directly to the NRC. This option would be in addition to the current method where FEMA provides certification to the NRC. The current FEMA method should be retained for use by	Allowing States to self-certify the adequacy of their EP programs would be analogous to NRC's approach to Agreement States, which grants States regulatory authority over users of certain radioactive materials.	The proposed change would enhance the efficiency of federal oversight and significantly reduce the costs that a licensee incurs to maintain offsite EP programs, all while ensuring the ability to protect public health and safety is maintained.

Area	Proposed Change Description	Basis	Benefit
	licensees lacking State support for direct certification. Coordinate with FEMA to achieve conforming changes to 44 CFR 350-354 (i.e., FEMA's regulations applicable to nuclear power plants). Revise the MOU between the NRC and FEMA to reflect these changes.	States understand the adequacy of their EP programs well enough to make valid certifications to the NRC.	
Part 52	For licensed plants, convert Tier 1 and Tier 2* to Tier 2 upon commercial operation	Allows changes to units licensed under Part 52.	Enhanced efficiency of construction
Aircraft Impact Assessment	Eliminate 10 CFR 50.150 so new plants do not need to design for aircraft impact.	The aircraft impact assessment has caused significant delays in licensing and significant expense for designs that rely on robust barriers to prevent damage from a postulated aircraft impact. The TSA has adequately protected against the potential hijacking of a large commercial aircraft.	Significant reduction in analysis, schedule and design burden without a reduction in safety.
QA	Revisions to Part 50 Appendix B to allow use of nationally and internationally recognized QA standards, like ISO-9001, to provide reasonable assurance that the component will perform its safety function, instead of demonstrating compliance with current criteria.	NRC QA requirements hinder new suppliers entering the supply chain	Expands the supply chain
Part 21	Simplify Part 21 reporting so vendors provide the information to the NRC and utilities.	Reporting chain is not clear and adds complexity to the process	Clarifies the reporting requirements and simplifies the process

Area	Proposed Change Description	Basis	Benefit
Part 53	Reissue proposed Part 53 as part of the wholesale regulatory review rulemaking and adopt industry recommendations.	Part 53 is required by NEIMA	Modify Part 53 to provide an efficient and effective regulation
50.55a	Eliminate the in-service inspection and testing program update requirement. Revise 50.55a to remove NRC restrictions of American Society of Mechanical Engineers and Institute of Electrical and Electronics Engineers code cases and adopt the standards committee interpretations without exceptions. Streamline code endorsement through an expedited rulemaking process. Grant generic implementation for subsequent licensees after an alternative or relief request is approved for a code case.	Consensus-based standards reflect broad technical expertise, promote safety through proven engineering practices, and enable regulatory efficiency by aligning requirements with industry-accepted norms, reducing redundant review and customization.	Streamlined licensing and reduced costs through consistent, predictable requirements. Efficiency and improved focus on safety-significant issues, and enhanced credibility by leveraging widely accepted, expert-vetted standards.
Analytical Methods	Accelerate NRC review and approval of advanced codes and methodologies submitted via topical reports.	NRC review of analytical methods should be accelerated to enable faster licensee adoption of advanced methods.	Accelerates the adoption of improved analytical methods by the industry
10 CFR 110	The NRC should take all necessary steps to ensure that export licensing under 10 CFR Part 110 is administered efficiently, predictably, and transparently.	This request is grounded in the same rationale as EO 14299 Section 8(b), which directs DOE to process Part 810 applications within 30 days in order to advance U.S. national interests in sustaining global nuclear energy leadership that depends on a strong commercial presence in international markets.	By improving the timeliness and certainty of Part 110 licensing, the NRC will help ensure U.S. nuclear suppliers can compete on equal footing with state-owned enterprises that face few comparable delays in securing export approvals.

Area	Proposed Change Description	Basis	Benefit
International Regulatory Assistance	Expand regulatory assistance activities in key markets and align this assistance with the overall U.S. government strategy to promote exports in near- and mid-term markets, including under intergovernmental agreements.	Section 8 of EO 14299, "Deploying Advanced Nuclear Technologies for National Security," focuses on promoting the export of U.S. advanced reactor technologies and the NRC's Office of International Programs (OIP) helps to forge these relationships.	The NRC is considered the global gold standard for nuclear regulation and markets considering U.S. technologies value cooperation with the NRC. Enhancing this cooperation will bolster U.S. nuclear export efforts.
International Regulatory Cooperation	Expand bilateral and multilateral regulatory cooperation activities to enhance the efficiency of licensing and export of U.S. nuclear technologies in key global markets.	Section 8 of EO 14299, "Deploying Advanced Nuclear Technologies for National Security," focuses on promoting the export of U.S. advanced reactor technologies and the NRC's OIP plays an important role in this area.	Licensing by national safety regulators represents a significant cost and market barrier to U.S. nuclear reactor exports. By cooperating with foreign regulators in key markets for near- and midterm deployment, the NRC can accelerate review timelines and reduce licensing costs for U.S. exporters especially in markets where the regulator is less mature.
Non-Safety Related Special Treatments	Reduce regulatory burden for non-Safety Related SSCs.	"Important to safety" and "safety-significant" SSCs that do not rise to the safety-related threshold should receive significantly less regulatory oversight compared to SR SSCs. Treatment should be at the owner's discretion unless a performance issue is identified. For new reactor design, treatment should only be required if cost-benefit criteria are satisfied.	Enhances the safety focus of the regulatory framework.
External Hazards	Revise guidance and implementation practices for the Process for Ongoing	The current implementation of POANHI does not	A transparent hazard analysis improves

Area	Proposed Change Description	Basis	Benefit
	Assessment of Natural Hazard Information (POANHI) to achieve the objectives of SRM for SECY-16-0144 while ensuring the process is efficient, transparent, ands leverages available and relevant data. Only credible risks should be evaluated.	leverage all available data and has produced conclusions without the necessary stakeholder engagement.	predictability for all stakeholders.

REFORM NRC LICENSING

STREAMLINE LICENSE RENEWAL REGULATIONS

Executive Summary

Eliminates duplicative work and retains a focus on safety

- Introduce a performance-based audit/inspection path in lieu of application review
- Focus reviews on safety-critical programs; eliminate duplication
- Cut renewal time and staff hours by greater than 50%

Outcomes

- Establishes a more efficient pathway for renewing operating reactor licenses
- Directs industry and NRC resources to elements of the renewal process that demonstrate safety
- Relieves significant administrative investment associated with the application process
- Eliminates duplication of effort and redundant processes

Why This Matters

Achieving a nuclear power capacity of 400 GW in the U.S. by 2050 will not be attainable without the continued operation of the current fleet. A performance-based audit/inspection option will provide a more focused pathway to license renewal approval.

Proposed Timing and Method

- Immediately begin guidance development on how an audit/inspection-centric approach could facilitate much more streamlined license renewal approvals for operating reactors. Use exemptions as needed and codify the changes in the wholesale regulation review with a completion date of November 2026.
- Immediate implementation of removing the term limits on SNM facility licenses through exemptions and codify the changes in the wholesale regulation review with a completion date of November 2026.

References and Background

- On May 30, 2025, NEI sent the NRC a letter[11] detailing the justification for modernizing the regulatory framework governing the licensing terms of certain SNM facilities

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Operating Reactor Alternate Renewal Path	Revise the following regulation and associated guidance as needed: 1) 10 CFR 54	Initial license renewal approvals establish the framework for managing aging. Subsequent renewals should focus on the effectiveness of programs and any emergent gaps.	Focuses both industry and NRC resources on the most important aspects of continued operation.
LR/SLR Aging Management Program Implementation	Revise NRC's policy and processes to increase efficiency by allowing augmented Maintenance Rule activities to fulfill the requirements of the applicable overlapping Aging Management Programs in the period of extended operation.	The Maintenance Rule is a proven, risk-informed, performance-based requirement that significantly overlaps the scope of license renewal components subject to aging management. Its activities should be fully leveraged and credited toward meeting aging management requirements associated with license renewal.	Reduces significant site resource expenditure imposed by implementing separate programs to ensure structures, systems, and components are adequately maintained.
SNM Facility Renewals	Revise the following regulations and associated guidance as needed: 1) 10 CFR 40 2) 10 CFR 70	The facilities already undergo regular inspections and continuous compliance monitoring that are supported by thorough annual Integrated Safety Analysis update requirements.	Removing unnecessary administrative actions enables placing resources on higher-value licensing and oversight activities.

[11] Letter from Greg Core (NEI) to U.S. NRC ADVANCE Act Lead, "NEI Input on Modernizing License Terms for SNM Facilities," May 30, 2025, ML25155B238.

REFORM NRC LICENSING

ENABLE MORE DIGITAL I&C DEPLOYMENT WITH AND WITHOUT PRIOR NRC APPROVAL

Executive Summary

Enables faster deployment of modern technology while preserving safety

- Establish clear, risk-informed regulatory guidance that will streamline licensing of DI&C systems requiring NRC approval
- Limit NRC licensing reviews to digital I&C systems that present credible risks
- Expand the use of DI&C qualitative assessments
- Eliminate the default assumption that common cause failure (CCF) cannot be addressed by a licensee without prior NRC approval
- Improve the ability of licensees to implement modern, reliable technology without costly, inefficient NRC review
- Approve industry guidance document,

Outcomes

- Improve the efficiency of NRC licensing reviews
- Accelerate the deployment of DI&C systems
- Enable a modern, risk-informed approach to licensing DI&C

Why This Matters

Existing I&C protection and control systems are reaching obsolescence and increasingly subject to random failures due to aging. Implementing DI&C systems can enhance plant safety and reliability through increased access to plant data and self-diagnostic capabilities. However, NRC licensing guidance restricts a licensee's ability to implement DI&C technology in protection and engineered safeguards applications without prior approval due to an assumption that DI&C systems have embedded CCFs. This assumption restricts licensees from making certain changes to systems without NRC approval under 10 CFR 50.59 so license amendments must be submitted, unnecessarily impeding digital modernization. Clear, risk-informed guidance must also be developed to streamline licensing of DI&C systems that require NRC approval.

Proposed Timing and Method

Immediate implementation through expedited policy and process improvements.

References and Background

The NRC published RIS-2002-22, Supplement 1, which provides for a means to qualitatively assess digital CCF; however, the document restricts Reactor Protection System (RPS) and Engineered Safety Actuation System (ESFAS) digital modifications from its use.

Additionally, the Commission approved a revised DI&C CCF policy, SRM-SECY-22-0076, which allows for risk-informed processes to address digital CCF in addition to the prescriptive policy requiring diversity (SRM-SECY-93-087). The new policy and its associated staff review guidance relies on an analysis that assumes that a CCF exists within the DI&C system.

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Licensing Process	Revise RIS-2002-22, Supplement 1 to remove the restriction on RPS and ESFAS. Remove DI&C CCF policy (SRM-SECY-22-0076) and revise staff review guidance (NUREG-0800, Chapter 7, Branch Technical Position 7-19) to remove the assumption that digital CCF exists in DI&C systems in defense-in-depth analysis. Allow for risk-informed approach to determine if a digital CCF concurrent with a Design Basis Event is a credible, realistic risk using CCF likelihood consistent with other BDBEs. Approve NEI 20-07 to license DI&C systems where digital CCF presents a credible, realistic risk.	A digital CCF is considered a beyond design basis event and may not present a credible, realistic risk.	Allows more efficient deployment of DI&C systems. Establishes a clear, risk-informed DI&C approval process.
Licensing Process	Remove 10 CFR 50.55a(h) which incorporates by reference outdated safety criteria standards. Instead, rely on 10 CFR 50, Appendix A General Design Criteria (GDC).	10 CFR 50, Appendix A General Design Criteria provides adequate requirements for the design of protection and reactivity control systems, including CCF.	Allows the use of modern standards for the design of DI&C systems.

REFORM NRC LICENSING

MODERNIZE OPERATOR LICENSING PROGRAM

Executive Summary

Modernize requirements for issuing, maintaining and utilizing operator licenses

- Remove duplication and streamline operator licensing program requirements
- Focus NRC resources on oversight of examination administration
- Increase regulatory flexibility while maintaining accreditation requirements
- Standardize operator licensing by reactor type

Outcomes

- Eliminates duplicative requirements
- Leverages accreditation and reduces process overlap
- Enables improved timelines for new reactor applicants

Why This Matters

Enhances the efficiency of the process while maintaining reasonable assurance of adequate protection standard.

Proposed Timing and Method

Immediate implementation through expedited process improvements, and by exemption, where necessary, until completion of the wholesale regulation review rulemaking by November 2026.

References and Background

- NUREG-1021, Rev. 12, "Operator Licensing Examination Standards for Power Reactors"
- RG 1.134, Rev. 4, "Medical Assessment of Licensed Operators or Applicants for Operator Licenses at Nuclear Power Plants"
- RG 1.149, Rev. 4, "Nuclear Power Plant Simulation Facilities for Use in Operator Training, License Examinations, and Applicant Experience Requirements"
- Proposed Rule: Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors
- DRO-ISG-2023-01, Operator Licensing Programs Draft Interim Staff Guidance 10 CFR 53

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Operator Licensing	Modify the following regulations: 1) § 50.120(b)(1)(i), (ii) to eliminate 18-month requirement 2) § 50.54 (m)(2)(iv) to eliminate direct supervision of fuel handling activities 3) § 55.21 to include other medical professionals qualified to perform medical exams 4) § 55.40(b) to also allow facility licensees to proctor and grade operating tests 5) § 55.45(b) eliminate reference to plant walkthrough 6) Revise § 55.46 and update RG 1.149 to expand the allowable simulation facilities that can be used for training, evaluation	Operator licensing decisions should be focused on written exam and simulator operating test performance. Plant walkthrough and redundant requirements should be eliminated. Current regulatory requirements do not credit technology advancements used in industry training programs.	Prevents need for exemption which could delay new builds coming online. Eliminates overly restrictive guidance for oversight. Enables senior operators to oversee fuel handling activities from the Control Room or other location. Reduces NRC staff burden allowing focus on oversight of exam administration and elimination of unnecessary activities to make an operator license decision. Proficiency requirements are part of licensee training programs. Eliminates duplication with other regulations (e.g., part 26).

Area	Proposed Change Description	Basis	Benefit
	and administration of operating tests. 7) Revise § 55.47(a)(1) and update NUREG-1021 to eliminate or extend the 2-year time limit to allow for a waiver of examination requirements for an operator previously licensed at the same facility. 8) § 55.53(b) to allow license by reactor type 9) § 55.53(c) to include reactor type and qualified to operate 10) 55.55(a) to eliminate the 6-year expiration date Eliminate the following regulations: 1) § 55.53 (e), (f)(2), (g) 2) § 55.53 (j)(k) for power reactors Streamline associated regulatory guidance including: NUREG-1021 rev. 12, "Operator Licensing Examination Standards for Power Reactors."		Eliminates overly restrictive simulation facilities requirements and reduces NRC staff burden when assessing approved simulation facilities.
Use of Shift Technical Advisor	Revise Commission Policy Statement 50 FR 20892, May 21, 1985, "Engineering Expertise on Shift," to increase flexibility when utilizing non-degreed Senior Reactor Operators (SROs)/Shift Managers to fill the dual role when completing systematic approach to training (SAT)	Credit mature training programs focused on engineering principles and accident mitigation and analysis.	Allows greater flexibility in fulfilling the independent STA role and enhances operational efficiency while maintaining robust engineering expertise on shift.

Area	Proposed Change Description	Basis	Benefit
	based training requirements.		
Use of NRC Knowledge/Ability (K/A) Catalogs	Eliminate the need for NRC K/A catalogs to simplify operator licensing exam writing.	Credit mature systematic approach to training-based training programs.	Streamlines the operator licensing exam development process while maintaining training effectiveness and regulatory oversight
Risk-informed Operator Licensing	Develop an operator licensing framework for advanced technologies that is reflective of risk profile. Include a pathway to generally licensed reactor operators (GLROs) informed by the Part 53 Proposed Rule and NEI comments on the Proposed Rule. It may require a legislative change.	NRC's risk-informed approaches should be extended to operator licensing.	Eliminates unnecessary requirements for new reactor operating license applicants.

REFORM NRC LICENSING

REFORM LICENSE DURATIONS

Executive Summary

Reduces duplicative work, lowers cost, and ensures sustained reactor operation

- Eliminate expiration dates for reactor permits, licenses, and design approvals (including CPs, OLs, ESPs, SDAs, DCs, COLs, CoCs and LWAs) through legislative changes, where needed.
- Utilize exemption authority to renew early site permits until rulemaking is complete

Outcomes

- Eliminates unnecessary administrative effort and cost associated with license renewal
- Leverages NRC oversight activities to ensure ongoing license compliance
- Frees up NRC licensing resources to focus on other high priority resources for deployment of new and advanced reactors

Why This Matters

- Expiration dates and associated renewal processes require unnecessary, time-intensive, and costly engagement with the NRC. These interactions and associated costs are unnecessary in light of ongoing NRC oversight.
- License renewal applications divert NRC resources from a focus on licensing new and advanced reactors and create unnecessary work.

Proposed Timing and Method

Codification into the wholesale regulation review with a completion date of November 2026.

References and Background

- In May 2025,[12] NEI submitted a white paper describing how removing the license terms for special nuclear material facilities aligns with the spirit of Section 505 of the ADVANCE Act. No action has been taken in response to this paper.
- SECY-22-0052,[13] "Proposed Rule: Alignment of Licensing Processes and Lessons Learned from New Reactor Licensing," proposed numerous changes to regulations to ensure consistency and promote efficiency in new reactor licensing. Part of this proposed rulemaking was to eliminate the expiration date for DCs recognizing the unnecessary regulatory burden without commensurate safety benefit. In November 2024,[14] the Commission approved select items of the proposed rulemaking that did not address the expiration of DCs. It did however, approve extending the duration of manufacturing licenses to 40 years.
- COMDAW-24-0001,[15] "Revising the Duration of Design Certifications," requested the Commission to separate the question of DC duration from SECY-22-0052 into a stand-alone voting issue. In November 2024,[16] the Commission approved extending the duration of design certifications to 40 years.

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Reactor and Certificate of Compliance Duration[17]	Revise § 54.31 to eliminate the license renewal duration Revise § 50.51 to eliminate the license duration Revise § 52.104 to eliminate the license duration after 103(g) finding	NRC oversight ensures ongoing compliance with regulatory requirements, and a specific license renewal application offers no safety benefit. Other regulatory processes ensure safety-significant regulatory	Modernizes regulatory process to be performance-based and specific to reactor design. Supports NRC focus on industry efforts to license and deploy

[12] Letter from NEI to U.S. NRC ADVANCE Act Lead, "NEI Input on Modernizing License Terms for SNM Facilities," May 30, 2025, ML25155B238.

[13] SECY-22-0052, "Proposed Rule: Alignment of Licensing Processes and Lessons Learned from New Reactor Licensing (RIN 3150-AI66)," June 6, 2022, ML21159A055.

[14] SRM-SECY-22-0052, "Staff Requirements – SECY-22-0052 – Proposed Ruel: Alignment of Licensing Processes and Lessons Learned from New Reactor Licensing (RIN 3150-AI66)," November 20, 2024, ML24362A003.

[15] COMDAW-24-0001, "Revising the Duration of Design Certifications," June 4, 2024, ML24156A066.

[16] SRM-COMDAW-24-0001, "Staff Requirements – COMDAW-24-00001 – Revising the Duration of Design Certifications," November 14, 2024, ML24319A209.

[17] It is recognized that if these recommendations are adopted they may impact related recommendations to streamline license renewal.

Area	Proposed Change Description	Basis	Benefit
	Revise § 52.26 and § 52.33 to eliminate ESP duration Revise §§ 52.173 / 52.181 to eliminate manufacturing license duration Revise §§ 72.3, 72.42(a), 72.212(a)(3), 72.230(b), 72.238, and 72.240 to eliminate references to license duration	changes may be imposed, if needed.	new reactors and designs. Updates regulations to reflect performance, operating experience, and current practices of the nuclear industry.
Design Duration	Revise §§ 52.55 and 52.61 to eliminate expiration of design certifications Revise § 52.147 to eliminate expiration of standard design approvals	Certified and standard designs do not require ongoing oversight and maintenance like an operating facility. As such, any duration for design validity is administrative. Other regulatory processes ensure safety-significant regulatory changes may be imposed.	Ensures ongoing availability of NRC-approved reactor designs and eliminates costly applications to maintain validity of the design.
Exemption Authority	Issue exemptions to extend ESP terms, either by expedited action on applicant exemption requests or through the exercise of the NRC's *sua sponte* exemption authority. NRC should use its exemption authority under §§ 50.12, 52.7 to address an outdated regulation (§ 52.29) not required by statute or necessary as a practical matter.	Exemptions are already allowed under NRC rules; the ESP 20-year term and update requirement are not tied to any statutory requirement; this would be consistent with NRC's allowing CP extensions.	Provides scalable and consistent path to reduce burden
License Duration	Revise § 70.38 to remove license expiration for special nuclear material (SNM) licenses that have an integrated safety analysis under § 70.62.	Facilities are inspected by NRC on a defined frequency that confirms compliance.	Because a license renewal is not required, the NRC staff can be directed to other areas. Licensees could save between $1M-$1.5M per license renewal.
License Duration	Revise § 72.238 to eliminate expiration of dry cask storage certificates of compliance	Changes to the safety basis are communicated through routine FSAR updates. Aging management is continually	Reduces administrative, low value activity, and allows resources to be

Area	Proposed Change Description	Basis	Benefit
		addressed through oversight and corrective action programs.	reallocated to higher value work.
License Duration	Revise § 72.42 to remove license expiration dates for licensees that have complied with requirements for time limited aging analyses and have an aging management program	Aging management is continually addressed through oversight and corrective action programs.	Refocuses on and reallocates resources to safety-significant issues.

REFORM NRC LICENSING

OPTIMIZE REACTOR RESTARTS

Executive Summary

Optimize NRC inspection and licensing processes for reactor restarts

- Deliver fastest path to new nuclear on the grid
- Streamline restart inspections
- Use historical performance and existing data
- Institutionalize lessons learned

Outcomes

- Efficient and rapid licensing with no delays in return to operation
- Consistent and predictable implementation of the restart process across licensees.
- NRC inspection and licensing efforts are limited to new, safety-significant issues
- Effective Restart Panel interaction
- Elimination of low-value work to NRC and licensee

Why This Matters

Reactor restarts are the fastest and most economical way to achieve new nuclear power on the grid

Proposed Timing and Method

- Immediate implementation: Institutionalize NRC policy, guidance, and practices to maximize the NRC's effectiveness in enabling reactor restarts.
    - Revise Inspection Manual Chapter 2562, "Light-Water Reactor Inspection Program for Restart of Reactor Facilities following Permanent Cessation of Power Operations"

References and Background

- Inspection Manual Chapter 2562 (ML25017A231), "Light-Water Reactor Inspection Program for Restart of Reactor Facilities following Permanent Cessation of Power Operations," April 24, 2025

- Holtec Letter to NRC (ML23072A404) “Regulatory Path to Reauthorize Power Operations at the Palisades Nuclear Plant” March 13, 2023
- Constellation Letter to NRC (ML24310A104) “Regulatory Path to Reauthorize Power Operations” November 4, 2024 (Three Mile Island, Unit 1)

REFORM NRC LICENSING

ALIGN TRANSPORTATION REGULATIONS

Executive Summary

Aligns NRC's rules for regulating the transportation of radioactive material with international and domestic standards and improves efficiency

- Modify the regulations to align with international shipping standards
- Eliminate duplication of requirements with Department of Transportation (DOT)
- Simplify Certificate of Compliance renewal procedures

Outcome

- More efficient transportation licensing process

Why This Matters

The transport of radioactive materials is an international endeavor. Fuel for operating and advanced reactors originates and can be processed in many parts of the world. Aligning NRC requirements with international standards provides a more efficient and transparent process.

Proposed Timing and Method

Complete current rulemaking (SECY-24-0069), immediately revise guidance and revise 10 CFR Part 71 as part of the wholesale regulation review rulemaking with a completion date of November 2026 and update relevant guidance.

DOT initiated separate regulatory reform rulemakings in June 2025 to increase government efficiency, and NRC's wholesale regulation review rulemaking should proceed independently.

References and Background

IAEA safety standards are updated at most every two years, driven by recommendations for changes by IAEA member states. Upon the completion of that process, the updated standards are adopted to varying degrees by member states. Similarly, the NRC and the U.S. DOT cooperatively perform rulemaking to align with the new standards. The most recent rulemaking effort by the NRC to harmonize with IAEA's SSR-6 began in 2016. Thorough documentation supporting that rulemaking is available via the staff's submission of the final rule in 2024 (SECY-24-0069[18]). NEI submitted comments on the draft rule in 2022.[19] Not all comments from industry were incorporated into the final rule.

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Regulatory Modernization	Institutionalize transportation rulemaking schedule of 24 months to maintain alignment with international radioactive material transportation safety standards	Unnecessarily long rulemaking efforts introduce uncertainty and the potential for domestic regulations to significantly trail international standards	Increased efficiency in the international business of radioactive material transportation
Regulatory Modernization	Eliminate 10 CFR 71.5(a)(1) and (2)	Remove the guidance contained in the rule to Regulatory Guide, if necessary	Increased flexibility of transportation activities
Regulatory Modernization	Eliminate the first sentence of 10 CFR 71.5(b)	This regulation requires a licensee to follow DOT regulations even if the DOT regulations are not applicable to a shipment	Removal of unnecessarily burdensome requirements will increase efficiency in packaging design and approvals
Regulatory Modernization	Align lifting and tie-down standards with international standards • Eliminate 10 CFR 71.45(b)(1)	10 CFR 71.45(b)(3) already provides the necessary requirement for tie-downs in the international standard	Removal of unnecessary requirements will increase efficiency in packaging design and approvals

[18]SECY-24-0069: https://www.nrc.gov/docs/ML2408/ML24089A170.html

[19] https://www.nrc.gov/docs/ML2233/ML22333B032.pdf

Area	Proposed Change Description	Basis	Benefit
Regulatory Modernization	Align general license limits and packaging requirements for fissile material with international standards • Revise 10 CFR 71.22(c), (d), (e) to align with Paragraphs 674 & 675 of IAEA SSR-6, 2018 edition	International standards provide appropriate regulations for general licenses for fissile material transportation	Alignment with international standards will enhance regulatory efficiency of radioactive material transport
Regulatory Modernization	Clarify Certificate of Compliance (CoC) renewal procedures by removing discussion of a “consolidated application.” • Delete 10 CFR 71.38(c)	The concept of a consolidated application is too vague and can introduce inefficiencies depending on the interpretation	Increased efficiency in renewing CoCs

REFORM NRC LICENSING

REFORM THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

Executive Summary

Shrinks licensing timelines and improves resource use while preserving safety

- Increase ACRS accountability and limit ACRS scope to novel, safety-significant technologies
- Impose firm timelines; avoid duplicative reviews of known designs
- Use ACRS as expert advisors

Outcome

- Immediate reduction in licensing timelines
- Increased licensing predictability
- Effort reset to levels that provide reasonable assurance of adequate protection

Why This Matters

Nuclear safety is our number one priority, but safety is not increased by redundant reviews. Focusing ACRS reviews on truly safety-significant issues will lead to faster, more predictable licensing actions.

Proposed Timing and Method

Immediate implementation through Commission direction. Amend regulations regarding ACRS hearings and reports, to reflect the statutory minimum requirements, and use exemptions as necessary until the rulemaking is final. Make any necessary amendments to the ACRS Charter.

References and Background

- AEA Sec. 29 (42 USC 2039) – "There is established an Advisory Committee on Reactor Safeguards consisting of a maximum of fifteen members appointed by the Commission for terms of four years each. The Committee shall review safety studies and facility license applications referred to it and shall make reports thereon, shall advise the Commission with regard to the hazards of proposed or existing reactor safety standards, and shall perform such other duties as the Commission may request. One member shall be designated by the Committee as its Chairman. The members of the Committee shall receive their necessary traveling or other expenses while engaged in the work of the Committee. The provisions of section 2203 of this title [regarding outside compensation] shall be applicable to the Committee."
- AEA Sec. 182b. (42 USC 2232) – Review of applications by Advisory Committee on Reactor Safeguards; report: "The Advisory Committee on Reactor Safeguards shall review each application under section 2133 or section 2134(b) of this title for a construction permit or an operating license for a facility, any application under section 2134(c) of this title for a construction permit or an operating license for a testing facility, any application under subsection (a) or (c) of section 2134 of this title specifically referred to it by the Commission, and shall submit a report thereon which shall be made part of the record of the application and available to the public except to the extent that security classification prevents disclosure."

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
ACRS	Reduce scope to statutory minimum. Define what is "truly novel or noteworthy" per the EO. Implement timelines for reviews. ACRS report should be in parallel with, not series to the NRC Final Safety Evaluation Report. Improve communication and engagement between NRC staff and ACRS. Improve ACRS operations and management.	ACRS reviews are lengthy and often redundant to staff reviews, representing a high administrative burden on the industry for low safety value. ACRS reviews should be reserved for truly novel or noteworthy aspects of new reactors.	Eliminates low-value reviews and provides for faster, more safety-focused and predictable licensing actions and lowers review fees.

REFORM NUCLEAR SECURITY REGULATION

UPDATE THE DESIGN BASIS THREAT

Executive Summary

Re-baseline the Design Basis Threat (DBT) and adversary characteristics to reflect credible threats

- Align with protection levels used across the nation's critical infrastructure
- Limit DBT scenarios to realistic tactics and durations and discontinue the assumption of an omniscient insider
- Account for technological advancements in post-9/11 counterterrorism and intelligence capabilities

Outcomes

- Optimized defensive strategy that ensures reasonable assurance of adequate protection
- Licensees and NRC will focus on realistic and more probable threats
- Critical resources will not be diverted to low-impact security requirements and non-essential activities

Why This Matters

A DBT limited to realistic and credible threats ensures that security resources are used effectively and protect actual vulnerabilities. By this change and by crediting timely law enforcement response, facilities can implement practical and effective security programs, aligning nuclear energy with the rest of the critical infrastructure.

Proposed Timing and Method

- Immediate implementation:
  - Rescind NRC DBT Order and revise Regulatory Guide 5.69
  - Use enforcement discretion and exemptions to effect immediate changes where appropriate.
  - Issue Security Bounding Time (SBT) guidance within three months

- Where changes to the regulations are needed, integrate rulemaking into the wholesale regulation review with a completion date of November 2026.

References and Background

- AEA 1954, Sec. 170E
- NRC DBT Order April 29, 2003 (SECY 06-0219)
- 10 CFR 73.1
- Regulatory Guide 5.69
- DOE O 470.3C Change 2, February 23, 2024

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
DBT	Revise the Design Basis Threat • 10 CFR 73.1 • Regulatory Guide 5.69 Rescind the DBT Order • NRC DBT Order April 29, 2003 Revise 10 CFR 73.1 and RG 5.69 to reflect credible threats and adversary tactics, credit timely law enforcement response, limit proposed attack duration and align with modern security practices used across critical infrastructure. Discontinue the assumption of an omniscient insider.	The current DBT does not reflect credible threats which divert attention and resources away from safety-and security-significant areas.	Unnecessary burden is reduced, and innovation is not inhibited.

REFORM NUCLEAR SECURITY REGULATIONS

REDESIGN FORCE-ON-FORCE INSPECTION PROGRAM

Executive Summary

Eliminate current model for NRC-led force-on-force (FOF) exercises for operating plants

- Implement a licensee led force-on-force process
- Focus the force-on-force exercise on credible threats and tactics

Outcomes

- Focus on reasonable assurance of adequate protection
- Efficient and performance-based security framework and oversight process

Why This Matters

The NRC-led FOF exercise inspection program exceeds what is required for reasonable assurance of adequate protection and demands extensive coordination, staffing, and resource expenditure from both NRC and licensees. By continuing to execute and inspect exercises separately, NRC imposes unnecessary burden when robust, regulator-observed licensee-led exercises would meet current statutory requirements.

Proposed Timing and Method

Immediate implementation through expedited process improvements, and exemptions, where needed, until the wholesale regulatory review rulemaking is completed by November 2026.

References and Background

- **SECY-99-024 (1999)** – Recommends replacing NRC-led OSRE with licensee-led evaluations. [ML003751815]
- **SECY-01-0023 (2001)** – Describes how 9/11 paused near-final rulemaking to eliminate NRC-led FOF. [ML010310326]
- **SECY-14-0088 (2014)** – Formal industry request for NRC to observe (not lead) FOF exercises. [ML14139A231]
- **SECY-16-0073 & SRM** – Commission orders legal analysis of industry's licensee-led proposal. [ML16109A200] & [ML16279A345]
- **SECY-17-0100 (2017)** – NRC proposes pilot for enhanced licensee-led inspection model. [ML17223A279]
- **NRC OIG Audit OIG-09-A-12 (2009)** – Endorses independent adversary teams as mitigation for bias. [ML092110644]
- **March 31, 2025, Industry Letter** – Advocates for licensee-developed scenarios and full transition.

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
FOF	Eliminate NRC-led triennial FOF inspection (IP 71130.03). NRC will instead oversee licensee-led FOF exercises as the means to evaluate security readiness and satisfy the requirements of Section 170D of the AEA.	NRC's FOF program is duplicative and resource intensive. Licensees already perform regular FOF drills, which the NRC evaluates, satisfying the intent of AEA §170D without a separate NRC-led event. Past Commission decisions and industry petitions have supported a licensee-driven model as maintaining security effectiveness. Removing the NRC-led exercise eliminates overlapping evaluations and potential inconsistencies between NRC-led and licensee-led exercise results. NRC oversight, along with independent adversary teams, will ensure no loss of rigor or objectivity in testing security defenses.	Improves efficiency: Frees up NRC inspectors and advisors from planning and executing mock attacks, saving thousands of labor hours and allowing a focus on other high priorities. Reduces industry burden while ensuring robust security programs: Licensees avoid the disruptive preparation for NRC-led exercises (which temporarily doubles security staff and strains resources) in addition to their own drills. The same vulnerabilities are identified and corrected through NRC-monitored licensee exercises, with real-time NRC feedback. Modernizes Oversight: Aligns security exercise oversight with NRC's performance-based

Area	Proposed Change Description	Basis	Benefit
			regulatory philosophy and is consistent with how emergency preparedness exercises and DOE security tests are managed. Overall, the change maintains reasonable assurance of protection against credible threats

REFORM NUCLEAR SECURITY REGULATION

REMOVE PRESCRIPTIVE SECURITY REQUIREMENTS

Executive Summary

Eliminate prescriptive and outdated requirements to enable flexible, risk-informed protection programs consistent with other critical infrastructure.

- Modernize security regulations and guidance and eliminate obsolete mandates
- Abide by the reasonable assurance standard for prevention of significant core damage, spent fuel sabotage
- Maximize use of and reliance on existing on and off-site resources in protective strategies

Outcomes

- Provides reasonable assurance of adequate protection
- Eliminates outdated and obsolete requirements
- Eliminates low value requirements to free up resources
- Improves coordination with law enforcement

Why This Matters

Prescriptive requirements, often rooted in legacy assumptions, divert licensee and NRC resources toward compliance activities with limited security benefit. A risk-informed, performance-based framework will enable licensees to focus resources on areas that have a demonstrable impact on safety and security outcomes. Reducing unnecessary complexity and administrative burden also streamlines processes so resources can be directed toward higher-value efforts, such as implementing innovative technologies and enhancing coordination with external organizations.

Proposed Timing and Method

Immediate implementation through expedited process improvements, and exemptions, where needed, until the wholesale regulation review rulemaking is completed by November 2026.

References and Background

- Staffing, credit for site capabilities, and external resources (e.g. LLEA), equipment/testing, and legacy/outdated regulations addressed in 10 CFR 73.55
- Security Training addressed in 10 CFR Appendix B
- Proposed Rule: Alternative Physical Security Requirements for Advanced Reactors (APSRAR)

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Staffing	Armed Responders Eliminate § 73.55(k)(5)(ii) OCA Searches Eliminate § 73.55 (h)(2)(iii) Last Access Control Revise § 73.55 (g)(1)(i)(E)	Prescriptive requirements should be replaced with a performance-based approach.	Enables site specific, right-sized defensive strategy.
Legacy/Outdated	High Assurance Revise § 73.55(b)(1) Vital equipment and Vital Areas Eliminate § 73.55 (e)(8)(i)(C), (e)(8)(v), (e)(9)(i), (e)(9)(ii), (e)(9)(iii), (e)(9)(iv), (e)(9)(v) (e)(9)(v)(A), (e)(9)(v)(B), (e)(9)(v)(C), (e)(9)(v)(D), (e)(9)(vi), (e)(9)(vi)(A), (e)(9)(vi)(B), (g)(1)(i)(D), (g)(4), (g)(4)(i), (g)(4)(ii), (g)(6)(i), (g)(7)(i), (g)(7)(i)(E), (g)(7)(ii), (i)(5)(v) Illumination Revise § 73.55(i)(6)(i), (i)(6)(ii) Isolation zone Revise § 73.55(e)(7)(i)(B), (e)(7)(ii) Alarm Stations Eliminate § 73.55(i)(4)(iii)	Modernizes the security regulations and eliminates obsolete mandates.	Removes obsolete requirements.
Credit for site capabilities, and external resources	Target Sets Revise § 73.55(f)(1), (k)(8), (k)(9)	Would add credit for LLEA to regulations.	Clear rules enable defense-in-depth via credit for

Area	Proposed Change Description	Basis	Benefit
(e.g. local law enforcements (LLEA)			operators and LLEA.
Maintenance, testing, and calibration frequencies	Testing Frequencies Revise § 73.55(n)(2), (n)(4), (n)(5), (n)(6)	Testing Frequencies are overly prescriptive and add additional activities that are not aligned with system or component failure data.	Optimized testing and maintenance frequencies that ensure proper equipment performance.
Independent Spent Fuel Storage Installation (ISFSI)	ISFSI Security Requirements Revise § 73.51, § 72.212	Currently, ISFSI security rules differ by license and should be consistent. Replace reference to 73.55 with 73.51 in 72.212 to align all ISFSI security requirements.	Enhances the clarity and consistency of the regulations.
Appendix B	Security Training Revise Part 73, Appendix B	Modernize training requirements.	Training requirements that ensure proficient responders with optimized capabilities.
APSRAR	Finalize the Proposed Rule: Alternative Physical Security Requirements for Advanced Reactors while addressing NEI comments.	Right-size security requirements for new reactors.	Enables site specific, right-sized defensive strategy.

REFORM NUCLEAR SECURITY REGULATIONS

RIGHT-SIZE CYBERSECURITY STANDARDS

Executive Summary

Align cyber security standards to the reasonable assurance standard for prevention of significant core damage and spent fuel sabotage.

- Modernize cyber security requirements:
  - Remove low risk requirements
  - Credit physical security programs and insider threat mitigation programs
  - Focus protections on assets directly related to the prevention of significant core damage, spent fuel sabotage and prevention of significant reactivity changes (per FERC/NERC requirements with NRC as the sole regulator under FERC-NRC MOU)

Outcomes

- Refocuses requirements on providing reasonable assurance of adequate protection
- Eliminates low value work and streamlines processes, freeing up resources for innovation
- Enables a performance-based program crediting the site physical security program and defense-in-depth

Why This Matters

Current cybersecurity regulations are misaligned with core physical security objectives and based on an outdated characterization of cyber threats, creating a disconnect that has driven unnecessary burden since 2009. This misalignment, compounded by overly conservative guidance, has led to low-significance inspection findings and excessive unnecessary compliance obligations.

Proposed Timing and Method

Immediate implementation via expedited process improvements, and where changes to the regulations are needed, via exemption until completion of the rulemaking. Integrate rulemaking into the wholesale regulation review with a completion date of November 2026.

References and Background

- 10 CFR 73.54, "Protection of Digital Computer and Communication Systems and Networks"
- Regulatory Guide 5.71, Revision 1, "Cybersecurity Programs for Nuclear Power Reactors"
- Regulatory Guide 5.69, "Guidance for the Application of the Radiological Sabotage Design-Basis Threat in the Design"
- NEI 08-09, Revision 6, "Cyber Security Plan for Nuclear Power Plants"

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Modernize cyber security commitments to eliminate low risk requirements Align cyber security with DBT objectives	Implement realism into nuclear cyber security programs, focusing on digital assets and controls necessary to prevent radiological sabotage against a credible threat. Including leveraging defense-in-depth and developing flexible performance-based program requirements. Reduce overly conservative guidance and commitments in RG 5.71, NEI 08-09, to focus on reasonable assurance of adequate protection.	Current regulatory requirements and guidance are not performance-based and exceed reasonable assurance of adequate protection standard. NRC has not credited defense-in-depth. Innovation has been hampered due to cyber security requirements (e.g., new security systems and technologies, monitoring tools, etc.).	Focus NRC oversight and regulatory requirements on protecting digital assets associated with preventing radiological sabotage.
Reduce low risk cyber security controls	Credit Physical Security and Insider Mitigation Programs - Credit comprehensive and mature physical security programs to reduce low risk cyber security controls. Implement a performance-based cyber security program. Revise RG 5.71 and NEI guidance documents (e.g., NEI 08-09) to reduce low value cyber security controls, credit defense-in-depth and physical security controls.	NRC inspections have only resulted in very low safety-significant violations. NRC guidance does not credit defense-in-depth controls and requires unrealistic requirements for assets already protected.	Ensures protections are right-sized to the threat, and permits reasonable credit for existing programs, processes, and procedures that provide cyber protection. Enables efficient cybersecurity

Area	Proposed Change Description	Basis	Benefit
	Eliminate requirements/controls that are required to be performed at unrealistic frequencies and credit defense-in-depth.		inspection and oversight activities. Reduce low value requirements and focus on prevention of significant core damage and spent fuel sabotage.

REFORM NUCLEAR SECURITY REGULATIONS

MODERNIZE AA/FFD PROGRAM REQUIREMENTS

Executive Summary

Modernize Access Authorization (AA)/Fitness-for-duty (FFD) program requirements to eliminate outdated, low value requirements that:

- Provide no safety or security benefit
- Impose an administrative burden that distracts from the core mission and drives unnecessary cost.

Outcomes

- Expedite the access authorization of nuclear workers by eliminating low-value administrative requirements.
- Eliminate testing and auditing requirements that do not have a measurable impact on the fitness for duty program.
- Eliminate unnecessary work and documentation requirements

Why This Matters

Redirecting resources away from low-value compliance requirements allows industry to focus on more impactful safety, reliability and program enhancements.

Proposed Timing and Method

Immediate implementation through expedited process improvements, and exemptions, where needed, until the wholesale regulation review rulemaking is completed by November 2026.

References and Background

The NRC introduced 10 CFR 73.56 on May 29, 1991, establishing foundational requirements for personnel access authorization at nuclear power plants to ensure that individuals granted unescorted access are trustworthy and reliable. Since that time, the industry has strived to reduce unnecessary burden while meeting high standards of trustworthiness and reliability. The

recommendation described below continue to those standards while enabling innovation and efficiency

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Access Authorization	Eliminate or revise the following requirements and inspection procedures (IP): 1) IP 71130.01 2) 73.56 (i) (iv) 3) 73.56 (j) 4) 73.56 (n) (1) (2) 5) NEI 03-01 6.2 (c.) 6) 73.56 (i) (v) (A,B) (1-5) 7) 73.56 (4) 8) NEI 6.2, 6.3	Access authorization requirements should be modernized to eliminate low-value legacy administrative burdens that do not demonstrably enhance safety or security **Access Authorization Inspection:** Access authorization program is inspected during security, cyber and access inspections. **Annual Supervisor Review:** 31 Day Review encompasses a behavioral review. **31 Day Review Frequency:** Recommend a bi-annual frequency. **Extend Audits** from 1 to 2 years for contract vendors. From 2 to 3 years for licensees. **FFD Potentially Disqualifying Information (PDI) Background Expansion** Shorten from 5 to 3 years, eliminating expanded background. **Reinvestigations** Align the 3-year re-assessment with the 5-year psychological re-assessment. RAP-Back could replace reinvestigations **Eliminate Best Effort:** Align with Part 26 requirements; 3 attempts to solicit information from employers within a 24-hour period. **Initial/Updated Unescorted Access Authorization, Unescorted Access (UA/UAA)** Eliminate verifying longest claimed employment in each calendar month for years 2 & 3.	Eliminates redundancy and enhances efficiency

Area	Proposed Change Description	Basis	Benefit
	9) NEI 6.2, 6.3,6.4	**Unemployment Verifications:** Remove the requirement to verify periods of unemployment	
	10) NEI 6.4, 6.5	**Reinstate 31-365:** Change requirement for drug results from 5 business days to 10.	
	11) NEI 7.4.3	**Military:** Change hand carried DD214 to veteran obtaining DD 214 on-line in presence of AA/FFD staff. Change last duty station to pertinent contact for today's military environment OR remove the requirement in its entirety and rely solely on the DD214.	
	12) NEI 7.4.4	**Education:** Change education period from 5 years to 3 years to match employment.	
Fitness for Duty	Eliminate or revise the following regulations:	Fitness for duty requirements should be modernized to eliminate low-value legacy administrative burdens that do not demonstrably enhance safety or security	Removes duplicative requirements, reduces unnecessary burden and enhances efficiency and flexibility
	13) 26.168	**Blind Specimen Testing.** Eliminate blind specimen testing comparable with DOT.	
	14) 26.41	**Audit Frequency:** Change audit frequency to 2 yrs for vendor, and 3 for programs. Program performance to determine more frequent audit need.	
	15) 26.41	**Laboratory Audits**: Eliminate lab audits. Use HHS audits instead. Licensee reserves the right to audit if there is evidence of program deficiency in the HHS lab program.	
	16) 26.189 (5) (c)	**Face-to-Face Evaluations:** Allow web-based electronic evaluations, use face-to-face determinations only if ordered by the licensed professional.	
	17) 26.97	**Oral Fluid:** Include oral fluid testing for all conditions of test. Allow multiple collections at once. (One collector with several donors)	
	18) 26.109	**Urine Specimen Quantity:** Eliminate split specimen verbiage. Require only one specimen at 30 ml.	

Area	Proposed Change Description	Basis	Benefit
	19) 26.187 (b) 1-4	**Substance Abuse Expert:** Regulation fails to include master's level education for professionals that have specifically trained in addiction science.	
	20) 26.31 (d) (D)	**Panel Expansion:** Allow for fast and immediate rule changes that provide additions to the drug panel providing immediate flexibility to combat societal drugs of abuse.	
	21) 26.119	**Shy Bladder:** Eliminate the requirement for an immediate medical exam and revert to oral fluid testing when the donor cannot produce the required volume of urine. A medical exam may be ordered by the Medical Review Officer (MRO) scheduling of the exam, if ordered by MRO, should be within 10 days, thus providing enough time for the donor to make arrangements with medical personnel.	
Fatigue	Eliminate or revise the following regulations:	NRC's fatigue rules often impose unnecessary administrative burdens and restrict workforce scheduling without clear safety benefits	Removes duplicative requirements, reduces unnecessary burden and enhances efficiency and flexibility
	22) 26.203(4)	**Disciplinary Actions** Eliminate disciplinary actions.	
	23) 26.717 (b) (9)	**Performance Data** Eliminate FFD program performance data reporting.	
	24) 26.203(e)(1)(i)(ii)(iii) 26.203(e)(2)	**Performance Data Information** These sections describe what is evaluated and included in the NRC Form 892, no longer needed per (table item 2)	
	25) 26.205	**Work Hours** Revise such that the prescriptive requirements are eliminated, and administrative requirements are simplified, easily understood, and flexible. Current regulation is overly complex, and changes will help enhance the transparency of the requirements while ensuring safety.	

REFORM & MODERNIZE THE REACTOR OVERSIGHT PROCESS

OVERHAUL THE ROP FRAMEWORK

Executive Summary

Further evolve the operating fleet Reactor Oversight Process (ROP) to be risk-informed and performance-based

- Shift regulatory focus to actual safety significance and plant performance
- Risk-inform and streamline existing NRC Performance Indicators (PI)
- Streamline the Significance Determination Process (SDP)
- Develop risk-informed and performance-based model for advanced reactor oversight

Outcomes

- Maintains the ROP purpose of assessing performance and responding appropriately to declines
- Resets oversight to a level that provides reasonable assurance of adequate protection
- Improves the efficiency of NRC decisions, outcomes, and timelines
- Refocuses oversight effort on any lower performing plants
- Focuses the ROP on activities and systems that are most safety-significant

Why this Matters

- Over time, the ROP inspection hours and scope have grown beyond what is needed to provide reasonable assurance of adequate protection and included areas of low safety significance. Documentation requirements have increased, and decision-making has become inefficient.
- Overhauling the ROP can be accomplished in a manner that maintains the NRC's ability to inspect and assess the safety and security performance of the industry and respond to any decline in performance.

Proposed Timing and Method

- Immediate implementation of recommendations not needing Commission approval.
- Implementation of additional recommendations upon Commission approval.

References and Background

- SECY-25-0045, "Recommendations for Revising the Reactor Oversight Program."
- SECY-23-0048, "Vision for the Nuclear Regulatory Commission's Advanced Reactor Construction Oversight Program"
- SECY-24-009, "Proposed Revisions to the U.S. NRC Enforcement Policy."

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
ROP/Oversight	Immediately approve SECY-25-0045, "Recommendations for Revising the Reactor Oversight Program." *(In the interim, recommendations that do not require Commission approval should be implemented immediately)*	ROP should reflect improved plant performance and focus on what is safety significant.	Improves the effectiveness and efficiency of NRC oversight.
ROP/Oversight	Immediately approve SECY-24-009, "Proposed Revisions to the U.S. NRC Enforcement Policy."	Establishes a more appropriate enforcement policy and realistic description of NRC findings.	Applies a graded performance approach to traditional enforcement violations
ROP/Oversight	Simplify and risk-inform PIs to focus on safety-significant performance gaps.	Some PIs are unnecessarily complex and should be simplified. PIs should focus on parameters that reflect safety-significant attributes.	Improves NRC oversight efficiency. Reduces licensee resources responding to low to moderate issues that are in the corrective action program. Aligns with ROP's fundamental purpose to assess performance.
ROP/Oversight	Streamline the SDP to eliminate the use of NRC's SPAR models and utilize the utility PRAs. Eliminate greater-than-green findings for deterministic or	Licensee PRAs more accurately model the plant design and operation and are of high quality.	Enhances technical accuracy, as SPAR models are intentionally simplified, are not updated as frequently

Area	Proposed Change Description	Basis	Benefit
	qualitative thresholds (EP, Security, RP). Risk-inform the SDP screening guidance: • Revise the screening guidance in IMC 0609, Appendix A to provide credit for plants that have adopted TSTF-505 and implemented risk-informed completion times (RICTs). • Reduce resources for completing detailed risk assessments when an AOT is extended utilizing an improved NRC process and risk management actions are implemented. • Revise Appendix A, C, I and M to institute off-ramps and remove the requirement to use deterministic criteria.	Using the licensees' PRAs streamlines decision-making. A graded approach based on the risk significance of the application allows the NRC to allocate resources more efficiently without reducing safety.	as licensees' models, and may not reflect design changes. Reinforces NRC's commitment to risk-informed oversight. Modernize and streamline SDP screening with a focus on safety significance.
ROP/Oversight	Credit licensee actions for responding to Licensee-Identified and Self-Revealing findings for oversight. Deterministic criteria should be risk-informed and consider defense-in-depth for findings/violations. Require the staff to use the Very Low Safety Significance Issue Resolution (VLSSIR) process, when applicable. Limit the time spent on low safety-significant issues and streamline documentation of the issues. Overhaul and risk-inform the Traditional Enforcement guidance and implement a VLSSIR-like process for Traditional Enforcement.	Focus regulatory oversight on safety-significant issues. The 95001 process is too burdensome considering white findings are of low safety significance. Any follow up should be performed by the Resident Inspector. The 95002/3 processes should be simplified and focused on only safety-significant issues.	Improve NRC oversight effectiveness and efficiency and focus attention on safety-significant matters.

Area	Proposed Change Description	Basis	Benefit
	Revise more than minor guidance in IMC 0612 to remove the "potential result or outcome" subjective criteria when determining if a violation is minor or more than minor. Eliminate White Findings and the 95001 process and simplify the 95002 and 95003 program. Eliminate the subjective deterministic criteria for reactive inspections and utilize a risk-informed approach.		
ROP/Oversight	Sunset the current inspection report model and replace it with a more modern, efficient and transparent system that incorporates: • Real-time digital tracking of inspection findings • Quarterly summary reports for public stakeholders • Graded approach to documentation based on safety significance • Simplified documentation approach with standard templates for low safety significance issues • Eliminate or streamline reporting for issues of green or minor significance and rely on the licensee's corrective action program	Inspection reports are an outdated process from a paper-based system and should be replaced by simplified methods of documentation. Lengthy inspection reports obfuscate information of interest to stakeholders. Green findings are by definition of very low safety significance, and minimal resources should be spent on them.	Modernizing and simplifying the documentation process enhances public transparency, and saves inspector and licensee resources.
ROP/Oversight	Eliminate inspection finding cross-cutting attributes (CCA) from the ROP.	CCAs are subjective, inconsistently applied, and add little regulatory value. CCAs were originally intended to promote safety culture awareness, but over 20+ years of experience have proved to be neither	Eliminates a low-value regulatory oversight process. Streamlines inspection findings, reduces ambiguity, and focuses attention

Area	Proposed Change Description	Basis	Benefit
		predictive nor informative. CCAs are redundant to existing safety culture monitoring programs (e.g., CAP, INPO) required by 10 CFR 50, Appendix B.	on actual performance issues.
Risk-Informed and Performance-based Advanced Reactor Oversight	Develop a risk-informed approach for grading the level of oversight for advanced reactors with demonstrated lower risk profiles to: (1) prioritize continuous self-reporting performance indicator evaluation and threshold analysis and periodic inspection, and (2) replace resident inspector mode with periodic inspectors conducting reduced baseline inspections. Ensure the SDP is realistic. Finalize Advanced Reactor Construction Oversight Program (ARCOP) guidance.	Advanced reactors have significantly lower risk profiles that should be credited in operational oversight.	Provides predictable, effective and efficient oversight that provides reasonable assurance of public health and safety.

REFORM & MODERNIZE THE REACTOR OVERSIGHT PROCESS

ALIGN INSPECTIONS BASED ON SAFETY SIGNIFICANCE

Executive Summary

Implement a reduction in inspection procedures, commensurate with safety significance

- Eliminate and streamline baseline inspection procedures
- Risk-inform the inspection program and incorporate performance-based approaches
- Eliminate duplicative inspections
- Develop a risk-informed approach for grading the level of oversight needed that allows advanced reactors with demonstrated lower risk profiles to reduce or eliminate the number of resident inspectors.

Outcomes

- Resets inspection to a level that provides reasonable assurance of adequate protection
- Reduces NRC inspection workload and frees up resources for work in other areas
- Provides a more risk-informed and performance-based program so effort is focused on safety significant areas
- Reduces unnecessary burden

Why This Matters

NRC resident inspectors perform full-time onsite inspections and oversight bolstering public confidence and transparency of the regulatory process. Additional inspection programs have not resulted in safety improvements. Implementing a risk-informed and performance-based inspection program allows the industry to focus on more impactful safety and reliability improvements and allows the NRC to redeploy resources to support energy dominance.

Proposed Timing and Method

- Immediate implementation of recommendations not needing Commission approval.
- Implementation of additional recommendations upon Commission approval.

References and Background

- IMC 2515, "Light Water Reactor Inspection Program Operations Phase"
- IMC 2525 Appendix D, "Plant Status"

Specific Recommendations

Area	Proposed Change Description	Basis	Benefit
Revamp Inspector Baseline Inspections	Streamline the inspection program using risk insights and incorporate performance-based principles. Eliminate low value inspection procedures and credit inspections and discontinue duplicative inspection. Problem Identification & Resolution Inspection (IP 71152) • Outage based inspections – Inservice Inspection and Radiation Protection Inspections. • Security program inspections – five of the existing security inspection procedures (e.g., Access Authorization, Access Controls, Security Plan Changes, Security Equipment, etc.). Reduce low value inspections performed by resident inspector and eliminate minimum sampling process, which will enable the elimination of regional inspectors. Revise IMC 2515, "Light Water Reactor Inspection Program Operations Phase," (including Appendix D), to eliminate low value inspections and minimum sampling process using risk and performance-based insights. Eliminate inspections with historical performance of no or limited violations of very low safety significance – 70% of the 49 baseline inspection procedures have seen historical good performance with limited violations. Consolidate eight physical security inspections into a single inspection program and transition the majority of inspections to resident inspectors.	The majority of inspections result in outcomes of very low safety significance. The inspection program is not adequately risk-informed or performance-based, resulting in low value inspections and unnecessary requirements. 80% of inspection violations are driven from approximately 11 inspection procedures; the remaining 38 inspection procedures account for 20% of violations.	Eliminates low-value inspection programs allowing licensees to prioritize staffing for safety and reliability improvements.

Area	Proposed Change Description	Basis	Benefit
	Consolidate team and program inspections to focus on risk-informed aspects and use performance-based criteria to extend inspection cycles. • Extend Program Inspection cycle to 4 years – Cyber Security, Radiation Protection, Emergency Planning and Security Force-on-Force • Combine Security and Emergency Planning evaluated exercise and program inspection procedures Eliminate low risk and low safety inspections, documentation and administrative process to allow resident inspectors to perform risk-informed and performance-based inspections. Eliminate NRC preparation and documentation process for very low safety significance items.		
Eliminate Regional Inspections	Eliminate and streamline inspection programs: • Revamp inspection program to be risk-informed and performance-based, focused on items of safety significance • Consolidate and eliminate 49 baseline inspection procedures by 70%. • Eliminate team engineering and program inspections (e.g., CETI, FEI and PI&R) • Consolidate and reduce security-related inspections and transition inspections to resident inspectors	NRC resident inspectors maintain full awareness of plant activities and review licensee programs. Resident inspector performs similar and overlapping inspections as those performed by the region.	Focuses NRC and licensee resources on risk significant inspections. Eliminates duplicative efforts by region inspectors and resident inspectors.
Develop a Risk-Informed and Performance-based Advanced Reactor Oversight Program	NRC should adopt a graded and risk-informed approach in establishing an advanced reactor oversight program so that inspection hours and the need for a resident inspector is a function of the safety profile and performance of a plant.	Advanced reactors have a lower risk profile and a graded approach to the presence of resident inspectors is appropriate.	Reduced operating costs for advanced reactors while ensuring safety.

REFORM & MODERNIZE THE REACTOR OVERSIGHT PROCESS

ELIMINATE LOW VALUE WORK IN OTHER NRC PROCESSES

Executive Summary

Streamline and eliminate NRC processes

- Reduce scope and process in the Office of Investigations
- Streamline the allegation process
- Eliminate regulation of Safety Conscious Work Environment

Outcomes

- Resets NRC effort to a level that provides reasonable assurance of adequate protection
- Immediately reduces NRC workload and frees up resources for work in other areas
- Avoids duplication of licensees' investigations, and licensees' actions can be done more effectively and efficiently
- Eliminates unnecessary work and documentation of NRC processes that are outside of the ROP framework

Why This Matters

Resets NRC effort to a level that provides reasonable assurance of adequate protection, reduces unnecessary regulatory burden and frees up resources for work in other areas.

Proposed Timing and Method

Immediate implementation via a change to NRC programs and processes with a completion date of December 2025.

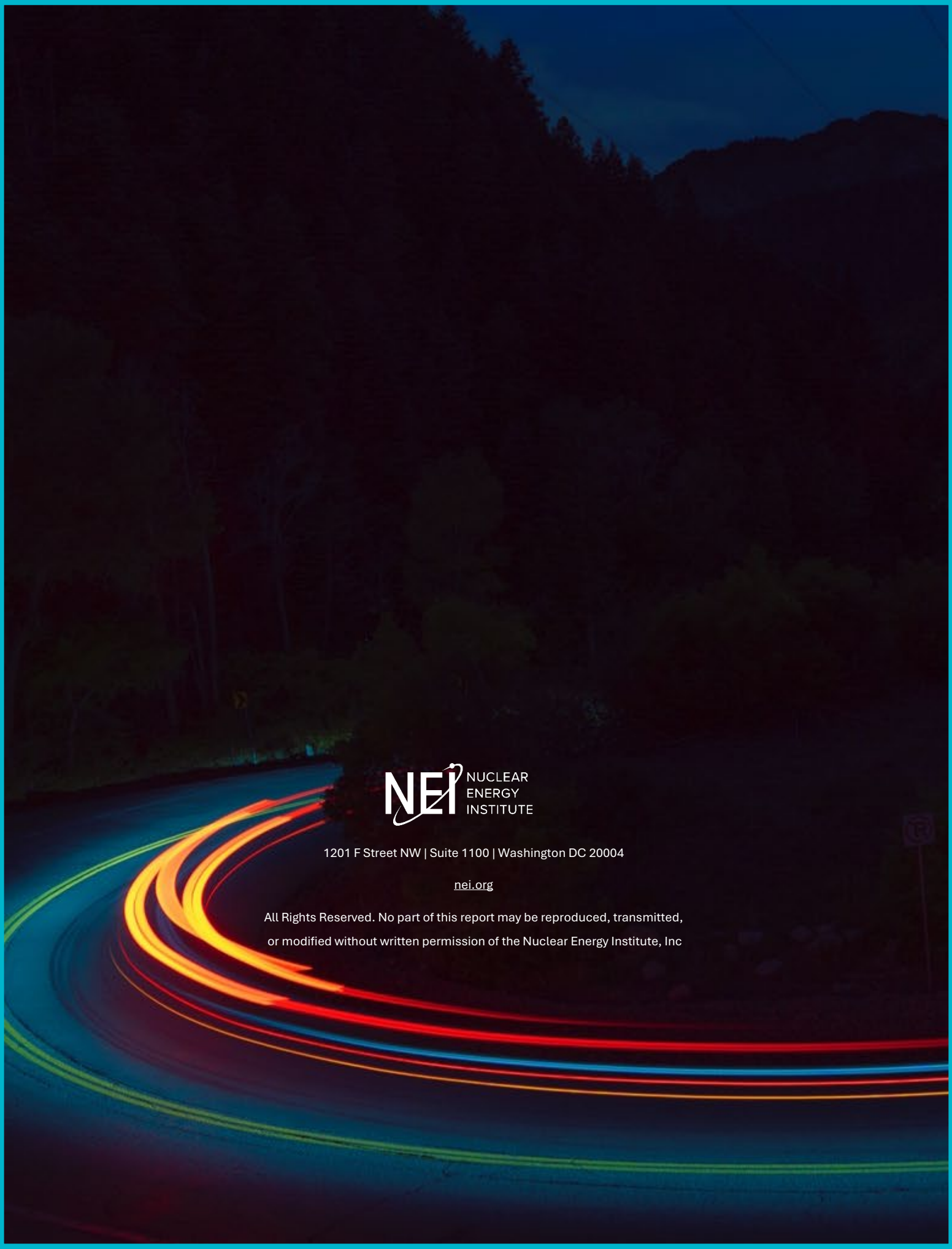
References and Background

NRC's SCWE Policy, "Freedom of Employees in the Nuclear Industry to Raise Safety Concerns Without Fear of Retaliation," 61 Fed. Reg. 24,336 (5.14.96) or Regulatory Issue Summary 2005-18.

Area	Proposed Change Description	Basis	Benefit
Office of Investigations (OI)	Streamline OI (as established by 10 CFR 1.36) and focus NRC oversight on cases of serious deliberate misconduct Revise Investigation Procedures Manual to: • Allow NRC to assess licensee materials (licensee-identified issues, findings and corrective actions) to satisfy need for investigation; allow non-interview, truncated process for licensee-identified issues • Set clear thresholds and off-ramps during investigations (e.g., for retaliation claims, first assess whether a non-prohibited reason for adverse action exists) • Set timeliness criteria considering severity and seriousness of claims • Risk-inform investigation resources based on materiality and importance • Risk-inform investigative functions. Some can be consolidated and	OI duplicates investigations already performed by licensees, even where the licensee substantiated the claim. OI process is lengthy and delayed and requires NRC and licensee resources, even where the licensee does not dispute the facts. In retaliation cases, the alleger and the licensee may wish to settle claims after an investigation has commenced. But such settlement is hampered by the inability of OI to turn off an ongoing investigation. NRC conducts investigations of alleged willful misconduct/wrongdoing, which NRC defines as either deliberate misconduct or careless disregard for requirements. This proposed change is intended to conform guidance documents with the thrust of NEI's overall concern, which is to focus and tailor NRC investigations on truly serious deliberate misconduct.	Focuses NRC and licensee resources on serious deliberate misconduct. Eliminates duplicative efforts between NRC and licensees. Reduces NRC resources by consolidating job functions and utilizing investigation agents only for claims of serious deliberate misconduct.

Area	Proposed Change Description	Basis	Benefit
	handled by resident inspector staff. • Modify the process to allow an investigation to be terminated before completion under appropriate circumstances (e.g., alleger and licensee reach settlement in a retaliation case; OI uncovers exculpatory evidence) • Revise applicable NRC guidance documents to delete references to "willful misconduct" and replace them with "deliberate misconduct."		
Allegation Process	Streamline Allegation Process to focus on nuclear safety concerns. Revise Allegation Manual and M.D. 8.8 to screen allegations for credibility and materiality, eliminate unnecessary documentation associated with responses. For technical allegations, refer the issue to the licensee and allow licensee and NRC to use existing corrective action processes and inspection process to resolve the issue.	The allegation process is unnecessarily burdensome. Other processes exist that can assess and address concerns	Focuses NRC and licensee resources on more efficient, established processes for addressing concerns. Focus investigations on credible concerns and issues related to public health and safety.
Safety-Conscious Work	Eliminate NRC oversight of SCWE through inspections, referral of	Licensees may maintain SCWE policies to ensure compliance with 10 CFR 50.7.	Reduces NRC and licensee resources on assessments for

Area	Proposed Change Description	Basis	Benefit
Environment (SCWE)	allegations to licensees and investigations. Revise Allegation Manual and M.D. 8.8, Management of Allegations, to remove requirements and process for responding to SCWE claims. Eliminate NRC Inspection Manual, Inspection Procedure 93100, "Safety-Conscious Work Environment Issue of Concern Follow-up." Substantially limit the Request for Information (RFI) process and limit the requirement to perform nuclear safety culture assessments within the ROP framework.	There is no regulatory basis to regulate or inspect against NRC's SCWE Policy.	which there is no regulatory basis.
Office of Enforcement (OE)	Require NRC staff to engage in meaningful mediation of disputes under its Alternative Dispute Resolution (ADR) Program, including but not limited to considering facts presented by the licensee.	In ADR, OE refuses to consider facts other than those developed in the OI Investigation and is solely interested in negotiating an outcome (i.e., numerous and burdensome corrective actions) based on NRC's often flawed and incomplete understanding of the facts.	More meaningful dispute resolution that considers all of the facts and results in corrective actions that address the actual problem.



NUCLEAR ENERGY INSTITUTE

1201 F Street NW | Suite 1100 | Washington DC 20004

nei.org