

# NEI/Industry Recommended Regulatory Efficiency and Oversight Actions by DFM Staff to Meet the Call to Action in ADVANCE ACT Sections 505 and 507

NEI/NRC Public Meeting  
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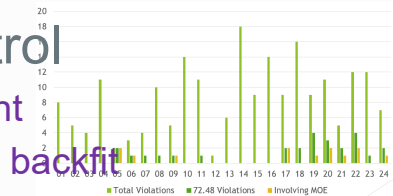
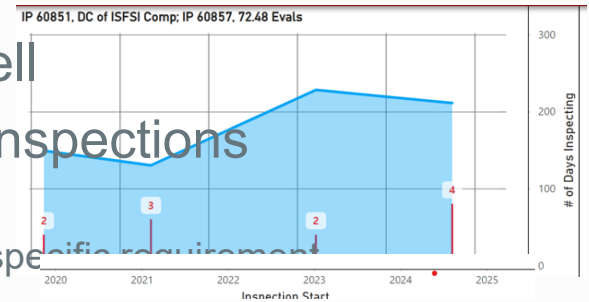
# The United States ADVANCE Act - Call to Action

- ADVANCE ACT 505 “Nuclear Licensing Efficiency” The Director, NRR shall:
  - “**establish techniques and guidance** for evaluating applications for licenses for nuclear reactors **to support efficient, timely and predictable reviews** for applications for those licenses **to enable** the safe and secure use of nuclear reactors”
  
- ADVANCE ACT 507 Operating Reactor Oversight and Inspection” The Commission shall develop a report to:
  - “assess the ability of the Commission, consistent with the mission of the Commission, **to enable licensee innovations that may advance nuclear reactor operational efficiency and safety**, including the criteria of the Commission for timely acceptance of licensee adoption of advanced technologies.....”

# Cross-Cutting Recommendation (505/507)

- Eliminate 10 CFR 72.48(c)(2)(viii) to refocus inspections on more safety significant issues

- 10 CFR 50.59 rationale does not translate well
- NRC spends significant resources on 72.48 inspections
  - ◆ No safety issues have been identified
  - ◆ Yet Since 2017 75% of 72.48 violations have been of this specific requirement
  - ◆ CBS issue was open for over 2 years
- NRC otherwise has sufficient oversight of design control
  - ◆ Examination of Part 72 methods of evaluation is the wrong starting point
  - ◆ Introduces ambiguity into an otherwise non-complex system which can backfit the design review (*licensing*) process through the *inspection* process,
  - ◆ Better to start with “is design change safe?”



# ADVANCE ACT 505 “Nuclear Licensing Efficiency”

- Eliminate the requirement in 72.236 (a) which states that: Specifications must be provided for the spent fuel to be stored in the spent fuel storage cask, such as, but not limited to, type of spent fuel (i.e., BWR, PWR, both)...and replace it with a simple condition that the CoC holder may not add significantly different fuel types...without NRC approval
- Eliminate 72.214 which provides a list of casks that are approved for storage of spent fuel under the conditions specified in their Certificates of Compliance
- Recommendations align with the NRR Executive Team’s expectations for implementing near-term actions identified during the May 29, 2024, licensing workshop (ML24193A001) and summarized in a January 21, 2025, letter (ML24278A002) from Andrea Veil to NRR Division Directors

# ADVANCE ACT 505 “Nuclear Licensing Efficiency”

- Eliminate the requirement in 72.236 (a) which states that:  
Specifications must be provided for the spent fuel to be stored in the spent fuel storage cask, such as, but not limited to, type of spent fuel (i.e., BWR, PWR, both)....
  - Industry graded approach pilot examined every TS for possible movement to the UFSAR
  - Graded approach selection criteria locked down eight spent fuel parameters in 72.236(a) - no efficiency increase was possible
  - Replace it with a simple condition that the CoC holder may not add significantly different fuel types...without NRC approval

# ADVANCE ACT 505 “Nuclear Licensing Efficiency”

## ■ Eliminate 72.214

- Requires lengthy NRC rulemaking process after the approval of each individual CoC
- 72.214 list does not serve any useful purpose.
  - ◆ Part 71 uses CoCs that are approved and issued with no listing and no rulemaking necessary.
  - ◆ Part 72 storage systems are well-known and understood
- An opportunity for public observation can be provided in the Federal Register

# ADVANCE ACT 507 Operating Reactor Oversight and Inspection

- NEI calls on NMSS to implement IMC 2515-11.07 “Coordination of Headquarters Technical Support for Regional Inspection Activities”
  - Classification of level of regional requests for HQ support
  - Regional support requests greater than 16 hours require Regional Division Director and the respective HQ Division Director approval
  - For HQ support greater than 16 hours, HQ staff require Division Director’s approval and will charge directly to the licensee
  - If the issue can be closed under the IMC 0612 Very Low Safety Significance Issue Resolution (VLISSR) Process, the reason for spending additional time on the issue should be discussed with the Regional Division Director before exceeding 16 hours of inspection effort to resolve

# ADVANCE ACT 507 Operating Reactor Oversight and Inspection

- Implement and apply VLSSIR, RIPE or other risk tools to close Spent Fuel Storage issues of very low or no safety significance
  - Very Low Safety Significance Issue Resolution (VLSSIR) is a process used to discontinue evaluation of an issue involving a licensing basis question in which the issue cannot be resolved without a significant level of effort and resources, and the issue is expected to be of very low safety significance if found to be valid
  - Risk-Informed Process for Evaluations—Materials (RIPE-M) a process for the disposition of low safety significance licensing issues. NRR developed the Risk-Informed Process for Evaluations (RIPE), predicated on a probabilistic risk assessment (PRA). NMSS committed 3+ years ago to leverage available risk information in licensing activities across its various business lines



# ROI/Burden Reduction: Exemptions

## ■ Assumptions

- Licensee prep and approval time (technical and licensing) plus RAI response: 80 hours @ \$200/hr
- NRC review fees: 60 hours @\$300/hr
- 3 licensee exemptions avoided resulting from the elimination of question 8 of 72.48

## ■ ROI/Burden Reduction

- $80 \times 200 + 60 \times 300 = \$34\text{k}$  per exemption  $\times 3 = \$102\text{k}$  per year saved by not preparing and processing 3 exemptions (assumed 3 exemptions per year average)

# ROI/Burden Reduction: Certificates of Compliance

## ■ Assumptions

- CoC amendment technical work, LAR prep, phone calls/meetings, RAI responses: 400 hours @200/hr
- NRC review fees: 300 hours @\$300/hr

## ■ ROI/Burden Reduction

- $400 \times 200 + 300 \times 300 = \$170\text{k}$  per amendment  $\times 2 = \$340\text{k}$  per year saved by not preparing and processing 2 CoC amendments

## ■ Combined ROI/Burden Reduction is \$442k per year.

# Transportation

- Revise 10 CFR Part 71 to extend or eliminate the CoC 5-year term
  - NUREG-2125, “Spent Fuel Transportation Risk Assessment,” published in January 2014 notes that “If there were an accident during a spent fuel shipment, there is only about one-in-a billion chance that the accident would result in a release of radioactive material”
  - 10 CFR Part 71.38(c) states that renewal packages should include as few documents as possible, focusing on the changes to the CoC itself. Given that 10 CFR Part 71.107(c) requires NRC approval prior to any changes to the conditions listed in the CoC, CoC renewal is an administrative task providing little to no regulatory value
  - Given the extremely low risk level and with little or no regulatory value, the CoC 5-year term should be extended or eliminated

# Ongoing work important to efficiency

- Industry urges completion and implementation of the following initiatives to realize the anticipated regulatory efficiencies:
  - PIRTs
  - Graded Approach
  - Gross Rupture

Questions?

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