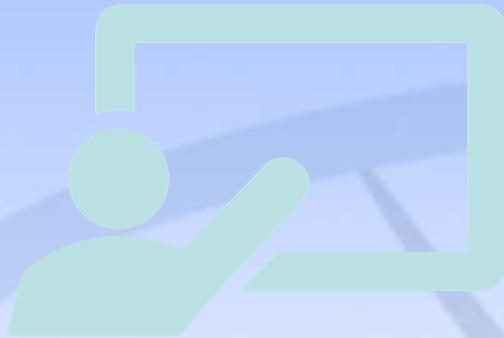


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- **Please leave your chat box open to view all questions and answers posed during the session.**

VLSSIR Process Review and Revision to Clarify Consideration of Traditional Enforcement Issues

Philip McKenna

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Division of Reactor Oversight

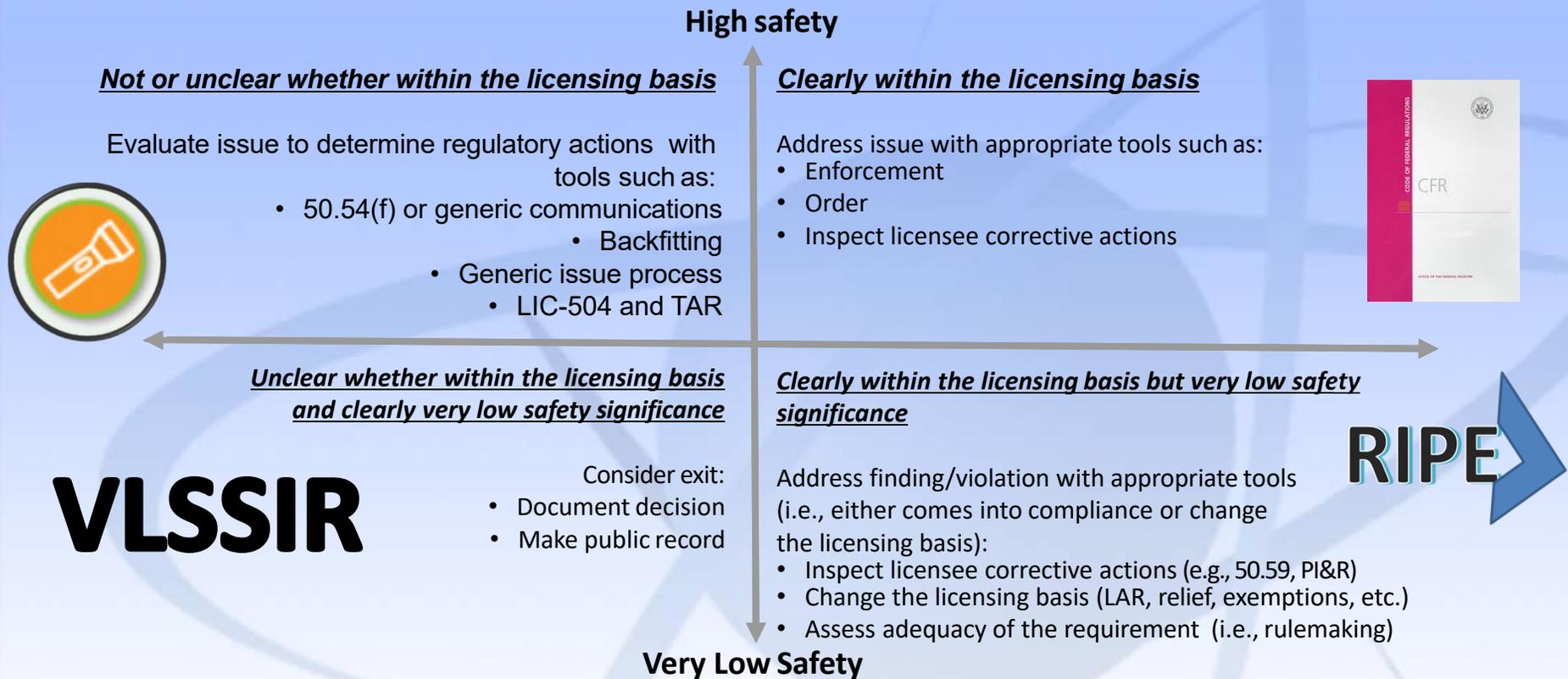
July 7, 2022

Rev. 1

VLSSIR Process Origin

- **Objective: identify means to enhance or improve the NRC internal processes to mitigate situations where there is an inappropriate expenditure of resources and attention on very low safety significant issues (e.g. – avoid very long TIAs)**
 - **HQ and Regional Working Group Formed in November 2018.**
 - **Effort began as a task under ROP Enhancement**
 - **Stemmed from NRC internal and industry feedback**
 - **NRC should establish a process for resolving very low-risk licensing basis concerns**
 - **IMC 0612 Appendix B was effective 01/01/2020**
 - **Revised in Oct 2021 to align VLSSIR requirements with the new TAR process and to clarify that items that go to a DRE and screen to green can be closed by VLSSIR process**
 - **Effectiveness Review Completed in March 2021**

Conducting Robust Risk-Informed, Safety Focused Reviews and Inspections



2020 VLSSIR Issues

| Reactor | Site | Title |
|--------------------------------|------|--|
| Arkansas Nuclear One Station | | Technical Specifications for Maximum Temperature of Service Water System When Aligned to Lake Dardanelle |
| Donald Cook Nuclear Plant | | Reactor Coolant Pump Lateral Support Bumper Gap Design Values |
| Fermi Power Plant | | Application of Technical Specification Limiting Condition for Operation 3.0.9, Barriers to the Mechanical Draft Cooling Tower Fan Brake System |
| Joseph M. Farley Nuclear Plant | | Capability of Emergency Diesel Building (EDB) Ventilation System to Withstand the Effects of a Tornado |
| H.B. Robinson Unit 2 | | Potential Passive Single Failure Design Control Issue |
| V.C. Summer | | Failure to Implement Corrective Actions to Restore Compliance with Previous NRC - Identified Green NCV 05000395/2005007-01 |
| Wolf Creek Generating Station | | Atmospheric Relief Valve and Main Steam Safety Valve Tornado Missile Vulnerabilities Result in Unanalyzed Condition |

2021/22 VLSSIR Issues

| Reactor Site | Title |
|-------------------------|--|
| McGuire (2021) | Capability of Diesel Building Ventilation System to Withstand the Effects of a Tornado |
| Hatch (2021) | Capability of Diesel Building Ventilation System to Withstand the Effects of a Tornado |
| Palo Verde (2021) | Change to Emergency Plan in 1994 Relative to Emergency Response Organization (ERO) Augmentation Timelines |
| Joseph M. Farley (2021) | Potential incorrect categorization of a spent fuel assembly resulting in a potential Technical Specifications non-compliance |
| Sequoyah (2022) | Safety Classification of Piping Associated with Auxiliary Feedwater Pump Suctions |

VLSSIR Effectiveness Review

- The VLSSIR process is meeting the goals and objectives outlined in the February 5, 2020, memorandum from the task force to the Director, NRR.
- The VLSSIR process has helped reduce the number of open or unresolved items that the NRC is tracking with only 12 items appearing in the Reactor Program System (RPS) database as of February 10, 2021.
- Recommended that NRC IMC 0612 Appendix B be modified to provide inspectors the option of using the VLSSIR process to disposition an issue after a Detailed Risk Evaluation (DRE) has confirmed the very low risk significance of an item.

Risk-informed Process for Evaluations (RIPE)

- RIPE establishes a **more efficient process to review licensing actions** that address low safety significance (LSS) issues within the licensing basis.
- Adoption of RIPE was recommended in a memo to the NRR Office Director dated January 5, 2021 (ML20261H428).
 - Enclosure 1 - Guidelines for Characterizing the Safety Impact of Issues (ML20261H462)
 - Enclosure 2 - Temporary Staff Guidance TSG-DORL-2021-01 (ML20261H473)
- The NRR Office Director approved RIPE by memo dated January 7, 2021 (ML21006A324).
- Revision 1 to the RIPE Guidelines was issued in June 2021 (ML2118A014)

RIPE (Cont.)

- **RIPE can be used to address low risk significant licensing actions using existing regulations under 10 Code of Federal Regulations (CFR) 50.12 (Exemptions) or 50.90 (Amendments).**
- **RIPE leverages current regulations and risk-informed initiatives to allow licensees to request plant-specific exemptions or license amendments for LSS issues using a streamlined NRC review process.**
- **Consistent with our RG 1.174 (PRA in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis) risk-informed integrated decision-making principles.**

What Licensees can use RIPE?

RIPE may be used by licensees that have a technically acceptable PRA model and a robust Integrated Decision Panel (IDP).

For the purposes of RIPE, a licensee may demonstrate that they have a technically acceptable PRA model by having implemented an approved TSTF-505 (Risk-Informed Extended Completion Times) or TSTF-425 (Risk-Informed Surveillance Frequencies) license amendment and having completed all of the license conditions and implementation items associated with the amendment.

The IDP will characterize the safety impact of the proposed change using both quantitative risk information from the PRA and qualitative risk insights consistent with RG 1.174.

The RIPE process has been used once so far (Palo Verde exemption request submitted in January 2022 and issued on March 23, 2022). (Partial exemption from the Anticipated Transient Without Scram (ATWS) rule (50.62) to remove the diverse auxiliary feedwater actuation system (DAFAS)).

Application of VLSSIR and RIPE-M Initiatives in NMSS

VLSSIR Working Group in NMSS

- Established to build off a similar effort in NRR for applicability across NMSS business lines.
- Currently refining the application of VLSSIR and exploring improvements for risk-informed process evaluations for materials licensing.

Focus Areas

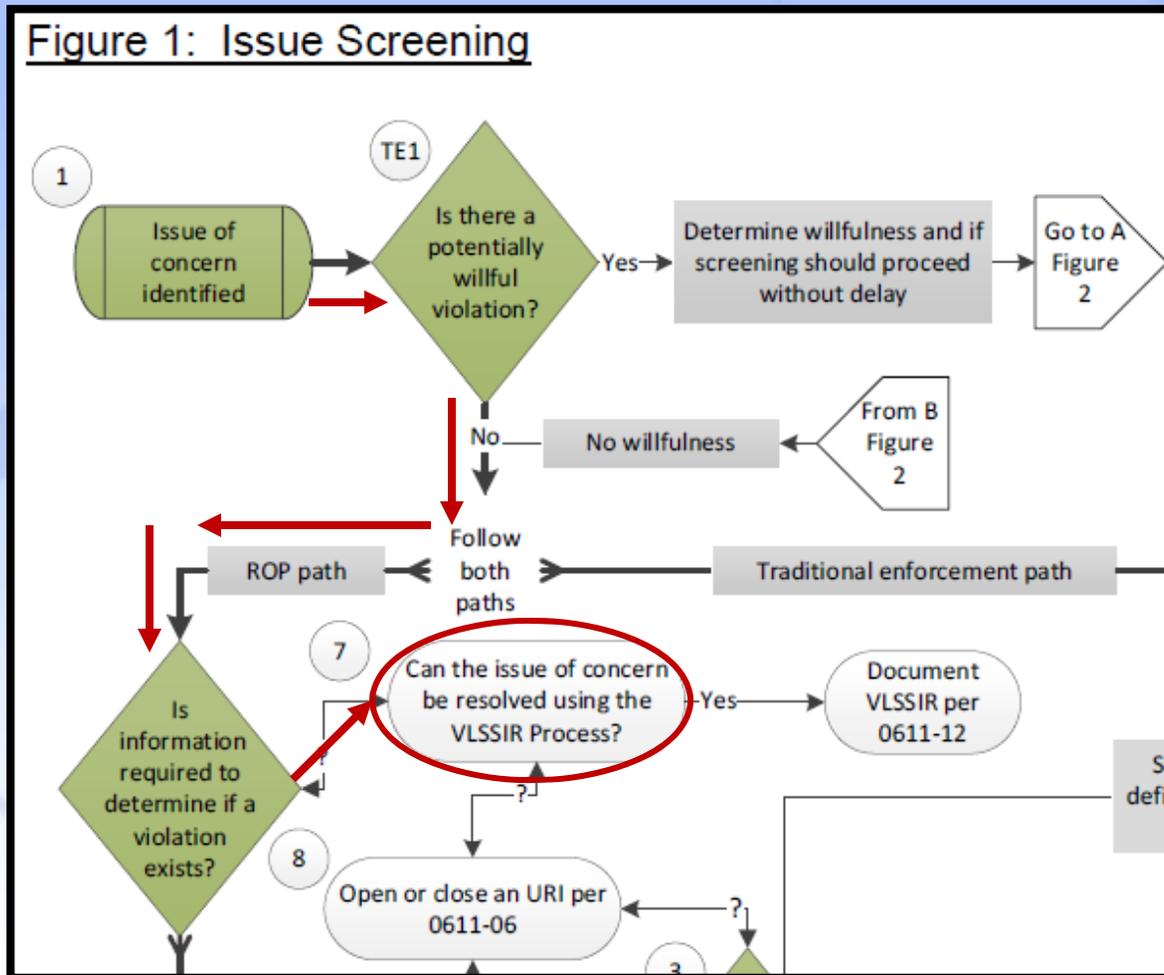
- Developing progressive screening questions to facilitate the identification of very low safety significance issues arising during inspection and licensing activities.
- Incorporating high-level "enabling" guidance into inspection manual chapters for fuel cycle, spent fuel, decommissioning, and materials users.
- Revising the TAR process to include VLSSIR principles to support decisionmaking around whether issues are within the licensing basis.

Engagement with Stakeholders

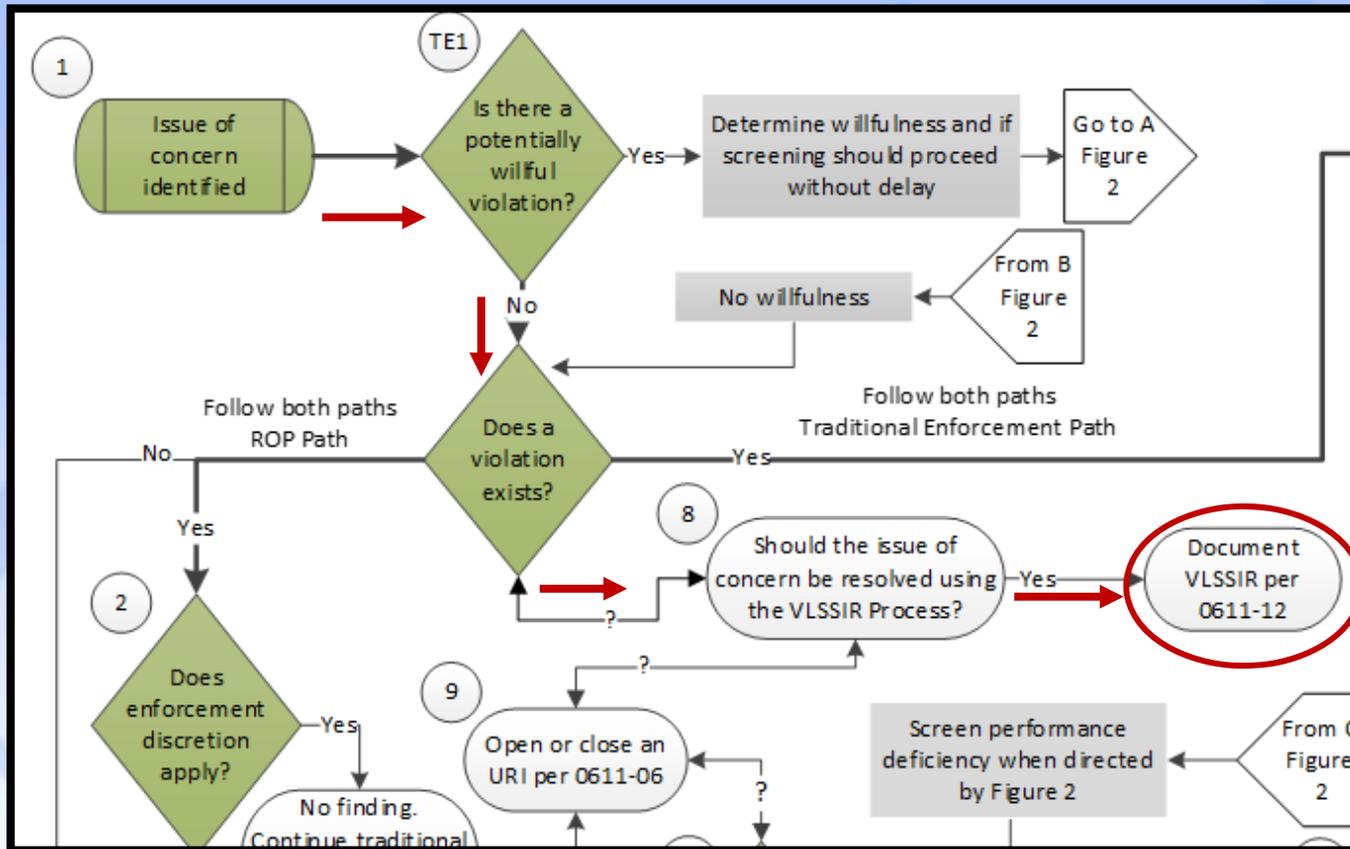
- VLSSIR was discussed during a public meeting hosted by NMSS on the issue of independent spent fuel storage installation (ISFSI) operations of short duration during cask loading campaigns (ADAMS Accession No. ML21313A223).
- NMSS is planning a second public meeting on ISFSI operations of short duration on February 17, 2022 (ADAMS Accession No. ML22035A328).
- NMSS is developing a public Web page to communicate about VLSSIR activities.

VLSSIR Today

Figure 1: Issue Screening



Proposed Change



Key Elements of Existing VLSSIR



Unclear if meet CLB

+

Significant Effort to Resolve



+

Very Low Safety Significance



=

Possible VLSSIR



Key Aspects of Existing VLSSIR

- Known Violation (ROP or TE) = Not eligible for VLSSIR
- NOT a regulatory decision that a violation does or does not exist
- Does not specifically preclude its use for issues that may involve traditional enforcement.
 - However, the existing process has no consideration for the regulatory impact (i.e., only considers risk insights from SDP and not insights from Enforcement Policy Examples).
- Lack of clarity in some traditional enforcement cases
- NMSS VLSSIR uses Enforcement Policy examples

Preliminary Markup Language

Criterion 1: The following are met:

- The condition surrounding the issue of concern cannot have any potential to be greater than very low significance (i.e., not greater than Green if the issue was determined to be a finding evaluated using the SDP) **nor greater than Severity Level IV if the issue was determined to be a violation subject to traditional enforcement.**
- **T**he inspection staff has not been able to conclude that the issue of concern is a violation or licensee standard, as described in Block 2, after considering any licensee provided supporting information on why the issue of concern is not in its licensing basis and any relevant information developed during the inspection process.
- The resources required to resolve the current licensing basis question would not effectively and efficiently serve the Agency's mission.

Criterion 2: The issue of concern was evaluated using Office Instruction COM-106, "Technical Assistance Request (TAR) Process" and recommended for no further action because the licensing basis standing is indeterminate and the TAR Safety Significance Determination has determined the issue to be of very low safety significance **and the issue would not be subject to escalated enforcement if determined to be a violation.**

Cases may arise where requirement clarification through generic processes, iterim staff guidance, or other appropriate means may be necessary, outside of inspection and assessment, to address broader safety and regulatory concerns.

What is NOT changing

- Clear violations (TE or ROP) not eligible for VLSSIR
- Must be Very Low Safety Significance
 - Actual Consequences would not meet the very low significance (\leq Green) criteria.
 - Willful issues would not be considered since there is a confirmation that an underlying violation exists prior to launching into an investigation.
- Significant additional effort needed to confirm existence of a violation

Basis for Change

The presence of a traditional enforcement attribute not yet determined to be a violation and associated with an unclear CLB question should not limit the ability of the agency to discontinue pursuing issues which have little to no safety or regulatory impact. Likewise, issues which have significant regulatory impact should not be screened out using the VLSSIR Process.

Discussion

Some issues involving traditional enforcement are ineligible for the VLSSIR consideration such as issues involving willfulness since an underlying non-compliance determination is made prior to starting an investigation and those issues involving actual consequences since they would be greater than very low safety significance.

The type of traditional enforcement issues that could be considered under the VLSSIR process are those that involve impeding the regulatory process. Possibly potential violations involving 50.59, 50.54p(2) (Security Plan Changes), and 50.54q(4) (EP Plan Changes).

Hypothetical Example

A licensee installed a concrete security barrier above the Train A Containment Spray Pump Room thereby raising a current licensing basis question regarding acceptability and compliance concerning a postulated roof collapse during a seismic event and equipment damage. It was unclear whether the changes created a possibility for an accident of a different type than any previously evaluated in the final safety analysis report and therefore would have required a licensee amendment. Inspectors were unable to conclude whether a violation of 50.59(c)(2)(v) occurred. Considering that this modification only affected one train and that the risk achievement worth of containment spray is very low the risk associated with this change was determined to be no greater than very low safety significance. After discussions with agency management and relevant technical experts, it was determined that a substantial amount of effort would be required to research and resolve this very low safety significance current licensing basis question. Based on this understanding the inspectors dispositioned the 50.59(c)(2)(v) aspect of the issue in accordance with the Very Low Safety Significance Issue Resolution (VLSSIR) process and documented the results in an inspection report.

VLSSIR Process

Questions?

Next Week- Special Double Feature!

- Discussion of the recent ASLB reversal of significant enforcement actions (violations and CP) against TVA and 2 TVA managers involving discrimination cases by Melanie Checkle (RII) and Sandra Mendez (OE)
- Overview of the NRC / OSHA memorandum of understanding and interactions with OSHA by John Pelchat (RII).