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

VLSSIR Process Revision to Clarify Consideration of Traditional Enforcement Issues

Philip McKenna
Chief, Reactor Assessment Branch
Division of Reactor Oversight

July 27, 2022

Rev. 0

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

High safety

Not or unclear whether within the licensing basis

Evaluate issue to determine regulatory actions with tools such as:

- 50.54(f) or generic communications
- Backfitting
- Generic issue process
- LIC-504 and TAR

Clearly within the licensing basis

Address issue with appropriate tools such as:

- Enforcement
- Order
- Inspect licensee corrective actions

Unclear whether within the licensing basis and clearly very low safety significance

VLSSIR

Consider exit:

- Document decision
- Make public record

Clearly within the licensing basis but very low safety significance

RIPE

Address finding/violation with appropriate tools (i.e., either comes into compliance or change the licensing basis):

- Inspect licensee corrective actions (e.g., 50.59, PI&R)
- Change the licensing basis (LAR, relief, exemptions, etc.)
- Assess adequacy of the requirement (i.e., rulemaking)

Very Low Safety

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

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

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

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
Peach Bottom (2022):	Emergency Heat Sink (including ESW-0498, ESW Return to Pond) Safety Classification and Inservice Test (IST) Requirements

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.

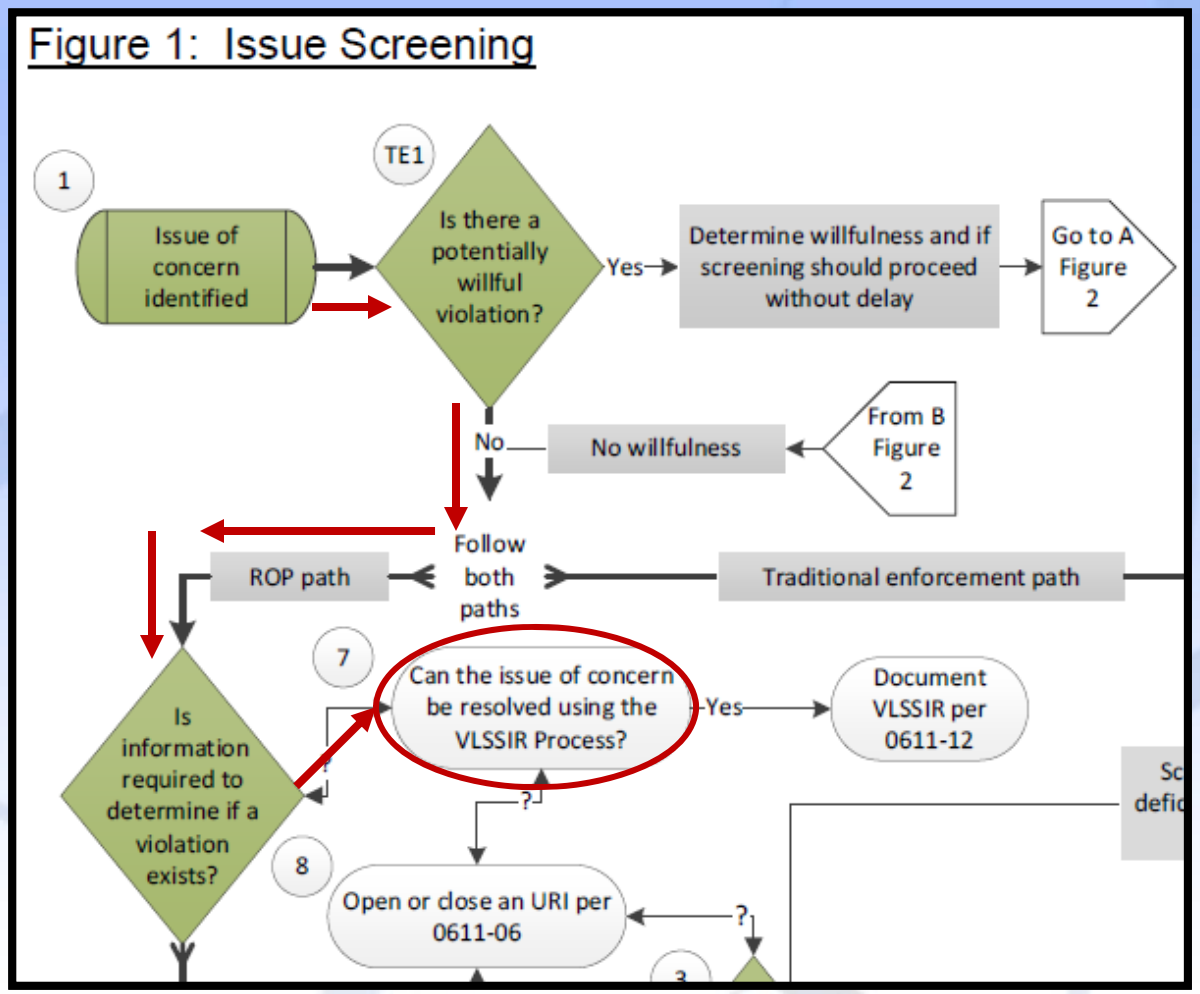
Focus Areas

- 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.

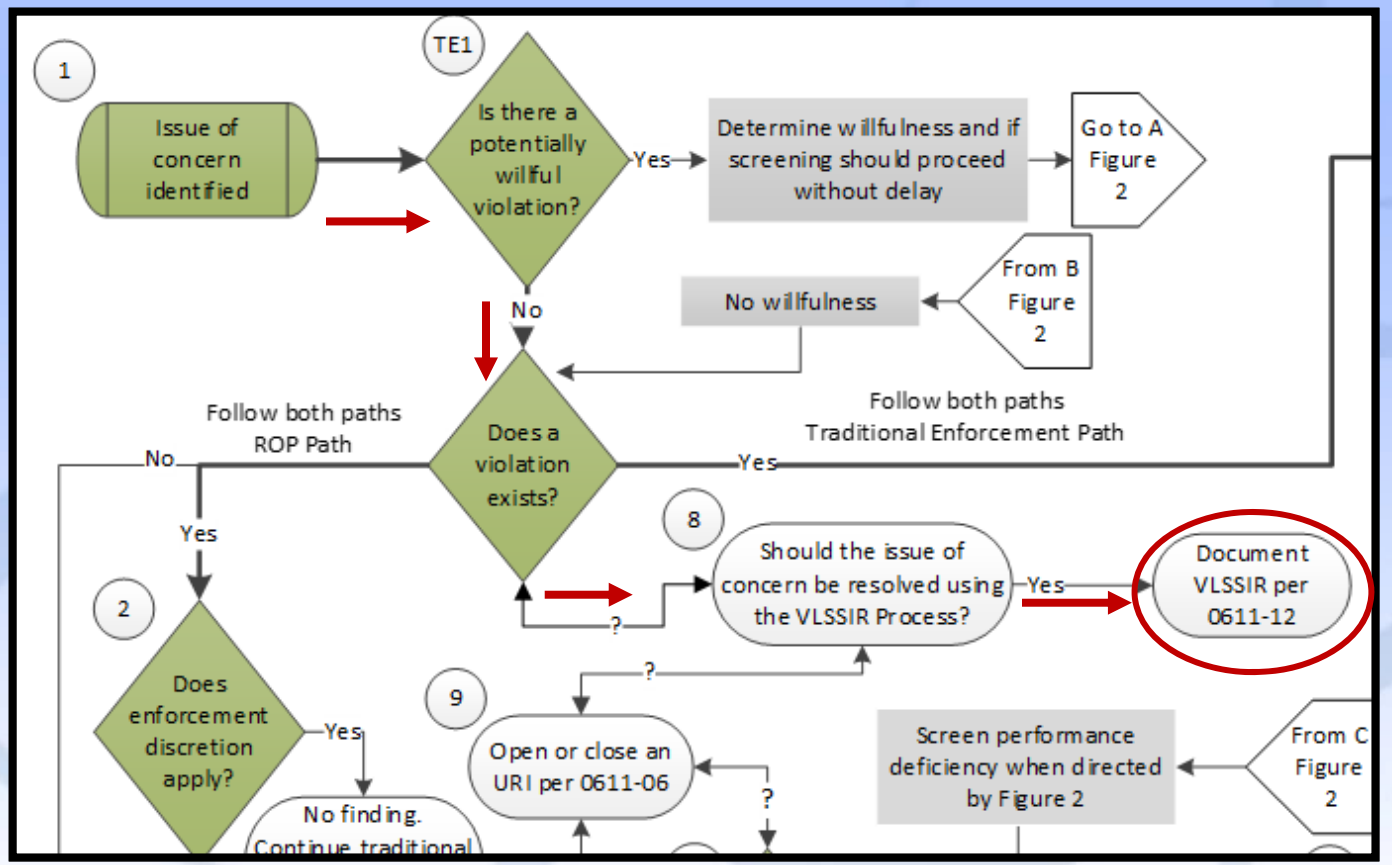
Engagement with Stakeholders

- 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



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.
- The 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 (≤ Green) criteria.
  - Willful issues would not be considered since there is a confirmation that an underly violation exists prior to launching into an investigation.
- Significant additional effort needed to confirm existence of a violation

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).

VLSSIR Process

Questions?