



U.S. Nuclear Regulatory Commission  
**34<sup>th</sup> ANNUAL REGULATORY  
INFORMATION CONFERENCE**

**MARCH 8-10, 2022**

PREPARING FOR  
**TOMORROW**

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# Very Low Safety Significance Issue Resolution

Office of Nuclear Material Safety and Safeguards

## NMSS VLSSIR Initiative

**CONDITION:** 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 agency has chosen not to expend them because the issue is expected to be of very low safety significance if found to be valid.

**ISSUE:** Significant effort (resources and time) can be expended to determine whether an issue is in or out of the licensing basis, without considering its significance.

**GOAL:** Put in place internal process enhancements to consider the significance of an issue if the licensing basis is uncertain. *NMSS is reviewing existing guidance and processes to incorporate VLSSIR principles.*

## Risk-Informed Process for Evaluations—Materials

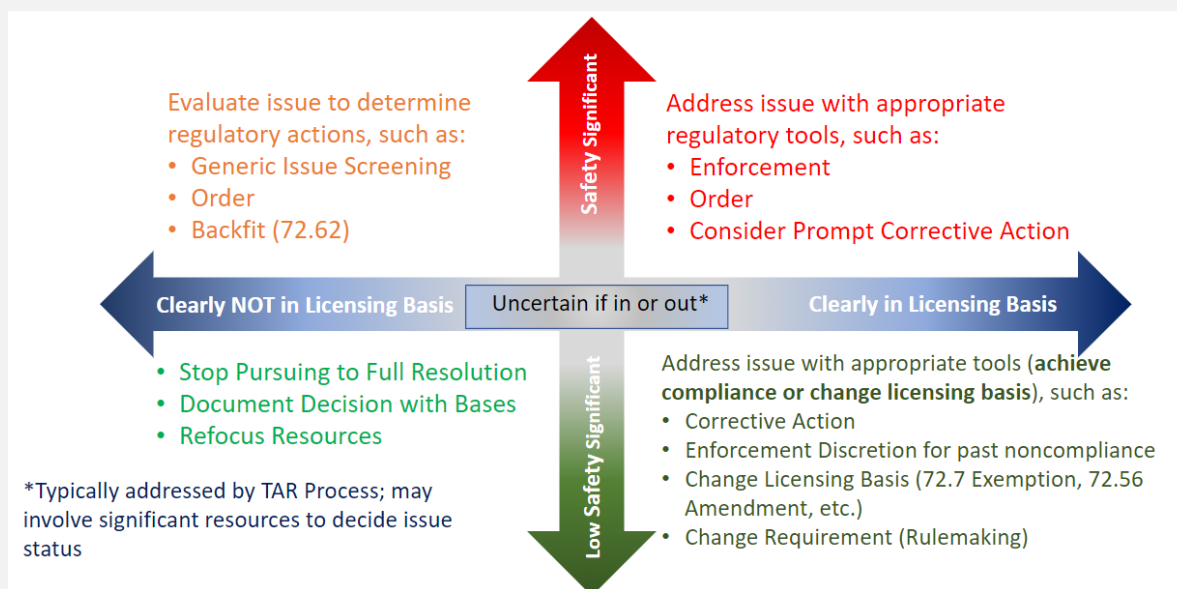
NMSS is also examining process efficiencies for the disposition of low safety significance licensing issues. Similarly, NRR has developed the Risk-Informed Process for Evaluations (RIPE), which is predicated on a probabilistic risk assessment (PRA). NMSS will look to leverage available risk information in licensing activities across its various business lines.



# Original Paradigm and Tools for Addressing Issues

In the original paradigm, NMSS considers whether issues are within the licensing basis through the technical assistance request (TAR) process.

A considerable level of effort and significant resources are required to determine whether these issues, independent of their safety significance, are within the licensing basis.





# Revised Paradigm VLSSIR and RIPE-M

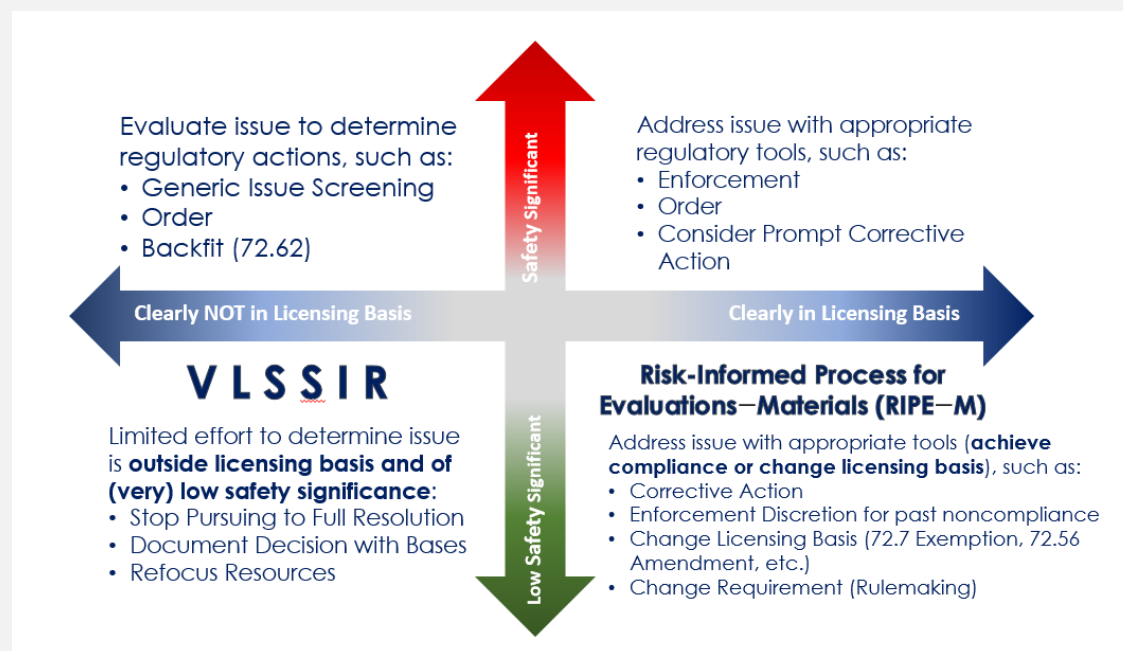
## VLSSIR (lower left)

Following the effort commenced in NRR, NMSS is seeking to incorporate principles of VLSSIR to efficiently disposition issues of very low safety significance when the licensing basis is unclear.

## Risk-Informed Process for Evaluations— Materials (lower right)

Similarly, NRR has developed the RIPE process, which is predicated on a PRA. NMSS is seeking to leverage available risk information in licensing activities across its various business lines to facilitate risk-informed decisionmaking around both quantitative and qualitative information.

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The graphic above presents the desired paradigm for processing issues of very low safety significance.



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# 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.



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## Contact Information

Questions related to VLSSIR and other risk initiatives in NMSS can be submitted to the Low Safety Significance Working Group in NMSS.

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