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MEMORANDUM TO: Christopher G. Miller, Director
Division of Reactor Oversight
Office of Nuclear Reactor Regulation

FROM: Anthony Masters, Chief ***/RA/***
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SUBJECT: RESULTS OF A CALENDAR YEAR 2020 REACTOR OVERSIGHT PROCESS SELF-ASSESSMENT EFFECTIVENESS REVIEW OF THE VERY LOW SAFETY SIGNIFICANCE ISSUE RESOLUTION PROCESS

SUMMARY:
This memo provides the results of the calendar year 2020 Reactor Oversight Process (ROP) self-assessment effectiveness review of the January 1, 2020, revision to NRC Inspection Manual Chapter (IMC) procedure 0612, “Issue Screening” and supporting appendices, which included the addition of the Very Low Safety Significance Issue Resolution (VLSSIR) process. This procedure was revised, in part, based upon the recommendations from a task force that examined how issues of potential very low safety significance that are identified in the inspection process should be evaluated and dispositioned, when there are questions regarding whether the issue of concern is within the licensing basis of a plant.

BACKGROUND:
The VLSSIR process development effort began as a task under the ROP enhancement project. Stakeholder feedback received during that project suggested that the NRC should establish a process for resolving issues that are of very low safety significance with a focus on addressing ambiguity in the licensing basis. Because the tasking had broader relevance than the ROP enhancement project (e.g., licensing and back-fitting processes), the NRR Office Director made this feedback topic a separate initiative and formed a Low Safety Significant Issue Resolution (LSSIR) working group in November 2018.

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As part of the fact-finding process, the LSSIR working group solicited comments regarding how very low safety significant issues should be addressed from internal and external stakeholders. Three public meetings were held on March 19, 2019, May 29, 2019, and August 7, 2019, to discuss the LSSIR effort and to obtain stakeholder input on its proposed recommendations. Summaries of these public meetings are provided in ADAMS (ADAMS Accession Nos. ML19074A142, ML19156A428, and ML19226A316). Stakeholders provided feedback which included comments that there was no discrete NRC process to address issues where the risk was very low but resolving the licensing basis standing of the issue required significant resources. In response to the feedback, the LSSIR working group proposed several changes to NRC internal office instructions and NRC inspection manual chapters to address issues of very low safety significance, which were accepted and adopted as recommended. The recommendations were summarized in a February 5, 2020, memorandum from the LSSIR task force to the Director, Office of Nuclear Reactor Regulation. Included in the memo was a recommendation to "*Assess the effectiveness of the VLSSIR process within one year of its implementation."* This self-assessment was performed in response to the LSSIR task force recommendation.

As part of the process rollout to the NRC staff, briefings on the VLSSIR process development was provided to inspectors in October 2019, and subsequent inspector training was conducted during inspector counterpart meetings in December 2019. Adjustments to the VLSSIR process were made based on feedback received from those activities. The training was further supplemented, in part, during a May 28, 2020, inspector knowledge management seminar that provided an overview of the VLSSIR, Backfit, and Technical Assistance Request processes. To ensure newly hired inspectors were informed of the VLSSIR process during the inspector training program, a discussion of the VLSSIR process was added to the G-105, "Conducting Inspections" course curriculum. To encourage use of the VLSSIR process once it had been approved for implementation, the Division of Reactor Oversight (DRO) requested that the Regions review all open Unresolved Items (URIs) to determine if they involve licensing bases issues that can be closed to the VLSSIR process.

EFFECTIVENESS REVIEW DATA ANALYSIS APPROACH:

To evaluate the effectiveness of the VLSSIR process, IRAB interviewed inspectors and first line supervisors who had used it to disposition issues. IRAB also reviewed NRC procedures and supporting documents that implement the VLSSIR process including Inspection Manual Chapter (IMC) 0612, Appendix B, "Issue Screening," and IMC 0611, "Power Reactor Inspection Reports" and the results of an internal survey that was conducted by DRO during the second quarter of calendar year 2020. IRAB also reviewed feedback received about the process from internal and external stakeholders. Supplementing the IRAB review, was first-person feedback obtained about the process by DRO inspectors who observed inspections at reactor plant sites.

DISCUSSION:

During calendar year (CY) 2020, seven items were dispositioned using the VLSSIR process. This level of use was expected as VLSSIR issues are not frequently identified during the course of NRC inspection activities. Two of the items, one at the V.C. Summer plant and one item at Arkansas Nuclear One, concerned issues that had been open for greater than one year. The remaining five items, such as the one that was identified during a Power Operated Valve (POV) inspection at the H.B. Robinson plant in December 2020, were resolved during ongoing inspection activities, which indicated the VLSSIR process had been effectively integrated into the NRC inspection program

The seven items consisted of the following:

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

CONCLUSION AND RECOMMENDATIONS:
Based upon a review of the aforementioned procedures, survey results and feedback received from external and internal stakeholders, IRAB determined that the VLSSIR process is meeting the goals and objectives outlined in the February 5, 2020, memorandum from the task force to the Director, NRR. Specifically, the process has provided a predictable framework to review, assess, and disposition issues of very low safety significance that are identified in the inspection process and involve ambiguity in the plant licensing basis. Indeed, 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. The process that has been established ensures that all inspectors that are conducting inspections under the Reactor Oversight Process, will evaluate whether the VLSSIR process should be used to disposition their issues.

Despite the success of the process, IRAB has identified an area where procedural guidance may be enhanced to help facilitate the processing of issues where a Detailed Risk Evaluation (DRE) is required. Specifically, as the process is currently structured, once an item has been screened through the Significance Determination Process (SDP), if a DRE is needed to confirm the very low safety significance of an issue, the VLSSIR process cannot be used to close the issue since the governing document, NRC IMC 0612 Appendix B, “Additional Issue Screening” does not discuss what happens if the DRE ultimately determines that the issue is Green. Accordingly, IRAB recommends that NRC IMC 0612 Appendix B be modified to provide inspectors the option of using the VLSSIR process to disposition an issue after a DRE has confirmed the very low risk significance of an item. This item has been documented in Feedback form 0612 App B-2427.

Another observation concerned the RPS system software. During the assessment, a minor programing issue was identified when the RPS database was searched for VLSSIR issues using the filters “ROP or Non ROP.” Specifically, when the database was searched with either filter on, no VLSSIR issues appeared. This was unexpected since the VLSSIR issues had been identified as part of the ROP inspection process. However, when the search criteria included the filters “ROP and Non ROP” all seven VLSSIR items appeared. IRAB believes the VLSSIR issues should have appeared during the database search when the “ROP” filter was selected. Trouble report IN-3369 was created to track this issue.

When performing this assessment, there were anecdotal comments received from inspectors and first line supervisors that some licensees are recommending that issues be dispositioned in the VLSSIR process before inspectors have confirmed through inspection activities that the issue is indeed suitable for inclusion in the VLSSIR process. Despite these comments, IRAB has no evidence that the seven issues which were dispositioned using this process in calendar year 2020, did not meet the VLSSIR criteria. Accordingly, IRAB does not recommend that inspectors or first line supervisors receive additional training on the VLSSIR process, and that normal supervisory oversight of inspectors is sufficient to ensure the process is being implemented as intended.

Finally, while performing this effectiveness review, a number of inspectors expressed a desire for additional guidance regarding what information should be documented in an NRC inspection report when using the VLSSIR process, and who in DRO should be contacted if they have questions regarding the VLSSIR process. To address these comments, IRAB recommends that a centralized database of VLSSIR background documents, such as the results of this effectiveness review, be established on a DRO SharePoint site and a DRO VLSSIR point of contact (POC) be established. Inspectors can be notified of the establishment of VLSSIR SharePoint site and POC via the quarterly Inspector Newsletter.

In summary, IRAB has concluded that the VLSSIR process is working as intended. Items of very low safety significance have been closed when a clear compliance issue has not been identified, inspectors have been trained on the process, and feedback about the process from internal and external stakeholders has been positive. As such, IRAB recommends that the VLSSIR process continue to be maintained as part of the ROP. It is also recognized that 2020 has had unique challenges from the COVID19 pandemic, therefore, the process should be reviewed as part of the normal ROP Self-Assessment Program in accordance with NRC IMC 0307 “Reactor Oversight Process Self-Assessment Program.”

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