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MEMORANDUM TO: Daniel H. Dorman
Deputy Executive Director for Reactor
and Preparedness Programs
Office of the Executive Director for Operations

FROM: Ho K. Nieh, Director */RA Mirela Gavrilas for/*
Office of Nuclear Reactor Regulation

SUBJECT: DISPOSITION OF RECOMMENDATIONS TO ENHANCE THE
REACTOR OVERSIGHT PROCESS

PURPOSE:

The purpose of this memorandum is to document the disposition of recommendations made to enhance the Reactor Oversight Process (ROP).

BACKGROUND:

The U.S. Nuclear Regulatory Commission (NRC)'s Executive Director for Operations established a Transformation Team in a memorandum dated January 25, 2018 (Agency Documents Access and Management System (ADAMS) Accession No. ML18029A106), tasking the team with identifying potential transformational changes to the NRC's regulatory framework, culture, and infrastructure to further enhance effectiveness, efficiency, and agility in regulating novel technologies. The team solicited feedback from both internal and external stakeholders to inform its evaluation. Feedback that was not within the scope of the review was referred to other NRC organizations for consideration. The team received 72 recommendations for improvements to the ROP, which were provided to the Office of Nuclear Reactor Regulation (NRR) for its consideration (ADAMS Package Accession No. ML18292A594).

On September 19, 2018, the Nuclear Energy Institute (NEI) submitted a letter to the NRC with 27 additional recommendations to improve the ROP, described as consistent with the NRC's Principles of Good Regulation (ADAMS Accession No. ML18262A322).

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In 2018, in response to the letter from NEI, "Recommendations for Improving the Emergency Preparedness Significance Determination Process," dated December 12, 2017 (ADAMS Accession No. ML17354A094), the staff performed a focused self-assessment (FSA) of the emergency preparedness (EP) significance determination process (SDP). The staff documented six recommended changes to the EP SDP in a final report dated February 1, 2019 (ADAMS Accession No. ML18331A374).

DISCUSSION:

The ROP is a mature oversight program, and as such, the staff has compiled a considerable amount of data and operating experience during its nearly 20 years of implementation. The ROP was designed for continual improvement and is routinely assessed for improvements through the self-assessment process, through independent audits, and using inspector and industry feedback. Although the ROP is continually reassessed and improved, this large body of feedback provided the opportunity for a global, holistic look.

The staff initiated the ROP enhancement initiative in October 2018 to evaluate the 72 recommendations received from the Transformation Team, the 27 recommendations received from NEI, and recommendations received from the EP FSA. All recommendations were binned into eight thematic areas (i.e., ROP program areas): assessment, performance indicators (PIs), SDP, ROP inspection, EP, radiation protection (RP), security, and independent spent fuel storage installation (ISFSI) oversight.

The staff dispositioned the recommendations in a variety of ways. Several of the recommendations are addressed and documented in SECY-19-0067, "Recommendations for Enhancing the Reactor Oversight Process," dated June 28, 2019 (ADAMS Package Accession No. ML19070A036), and in SECY-18-0113, "Recommendations for Modifying the Reactor Oversight Process Engineering Inspections," dated November 13, 2018 (ADAMS Accession No. ML18144A567). The staff determined that several recommendations should be more appropriately addressed by other ongoing agency initiatives to eliminate duplication of effort, and others will be addressed as part of longer-term actions for ROP enhancement; these are described in the Enclosure.

The Enclosure provides a summary of the recommendations and their disposition. The summary describes the planned staff actions for recommendations that were accepted, and a basis for not accepting those recommendations for which no further action is planned.

Enclosure:
Disposition of Recommendations

Disposition of Recommendations

Recommendations submitted by the Nuclear Energy Institute (NEI) are preceded by the prefix "NEI." Recommendations received through NRC's transformation initiative are preceded by the prefix "TIR." Recommendations with the "FSA" designation are part of the focused self-assessment (FSA) of emergency preparedness oversight.

Assessment Area

Recommendation Number	Recommendation	Disposition
NEI 2A	Revise Public Communications on White Findings: NRC should discontinue the practice of issuing a press release for White findings.	<p>The staff partially accepted this recommendation. The staff determined that the current guidance, which states that press releases would not normally be issued for a White inspection finding, is appropriate. The guidance was not consistently followed. The staff will follow the existing guidance for issuing press releases for White findings to ensure consistent application.</p> <p>No additional actions are proposed.</p>
NEI 2B.1	Combine Columns 1 and 2: Combine Action Matrix Columns 1 and 2 into one column called "Nominal Plant Operation." There would be a change of columns only if findings with safety significance of moderate (Yellow) or high (Red) were identified.	<p>The staff did not accept this recommendation. The staff reviewed the bases for licensee movement into each Action Matrix column, found in IMC 0308, IMC 0308 Attachment 4, SECY-99-007, and SECY-99-007A, which state that the Action Matrix was developed with the philosophy that, within a certain level of safety performance, licensees would address their performance issues without additional NRC engagement beyond the baseline inspection program. Agency action beyond the baseline inspection program will occur only if assessment input thresholds are exceeded. White Action Matrix inputs exceed the threshold for additional regulatory response. The staff concluded that it would be appropriate to consider adjusting the level of effort associated with additional regulatory actions prescribed for licensees moving to column 2 and has provided those recommended changes to the Commission in SECY-19-0067.</p> <p>No additional actions are proposed.</p>

NEI 2B.5	Promptly Close White Findings: Close White findings upon successful completion of the resident inspector follow-up of the causal analysis for individual White findings. Make corresponding and consistent policy changes for Columns 3 and 4 when dealing with individual and isolated findings.	<p>The staff requested Commission approval in SECY-19-0067 to eliminate the four-quarter requirement (i.e., safety-significant findings remain as Action Matrix inputs for four full consecutive quarters) for greater-than-green (GTG) inspection findings such that they are closed upon successful completion of the appropriate supplemental inspection. This would apply to all GTG findings. The staff also requested Commission approval to revise the treatment of GTG performance indicators (PI) such that they remain Action Matrix inputs until the appropriate supplemental inspection is completed, even after the PI returns to Green; these changes will ensure more consistent regulatory treatment of Action Matrix inputs related to PIs and Findings.</p> <p>No additional actions are proposed.</p>
NEI 2B.6	Redefine Finding Labels: Establish labels of Green as “ <u>very low</u> safety significance,” White as “ <u>low</u> safety significance,” Yellow as “ <u>moderate</u> safety significance,” and Red as “ <u>high</u> safety significance.”	<p>The staff notified the Commission in SECY-19-0067 of its intent to implement this change to modify the qualitative description of White and Yellow findings. While this ROP change only requires Commission notification in accordance with guidance in Management Directive 8.13, the staff plans to wait for the Staff Requirements Memorandum (SRM) prior to implementing this change.</p> <p>No additional actions are proposed.</p>
NEI 4C	Open Up Communications about Inspection Results: The NRC should maintain open communications with the licensee through all stages of the inspection process, including presentations to the Significance and Enforcement Review Panel (SERP) process. NRC should discontinue use of the “pre-decisional” label.	<p>The staff accepted this recommendation, in part. The NRC staff communicates closely with licensees through all stages of the inspection process to ensure a common understanding of the inspection finding and its significance. For inspection findings that have the potential to be more significant and presented to the SERP, the staff concluded that this recommendation is already being addressed by the Inspection Finding Resolution Management (IFRM) initiative, documented in Inspection Manual Chapter (IMC) 0609, Attachment 05, “Inspection Finding Review Board,” which requires the review board to determine if additional communication with licensees is necessary, and at what management level, for inspection findings that have the potential to be GTG.</p> <p>The staff disagreed with the recommendation to discontinue use of the “pre-decisional” label, as pre-decisional information is still controlled as sensitive unclassified information. Presentations to the SERP are pre-</p>

		<p>decisional and considers all pertinent information provided by licensees.</p> <p>No additional actions are proposed at this time.</p>
NEI 4D	Standardize Issue Escalation Practices: Industry will develop a best practices document which formalizes the escalation of issues resulting from disagreements with inspection results and conclusions.	This recommendation is strictly an industry initiative for use by the industry; therefore, NRC is taking no action at this time pending further information from industry.
TIR 153 TIR 839	Eliminate White Findings.	<p>The staff did not accept this recommendation since all safety significance categorizations of findings, including White, are necessary in a graded, risk-informed approach to oversight. However, the staff acknowledges that both internal and industry stakeholders are concerned that the resources to finalize White findings is not commensurate with their safety significance. The staff has concluded that the proposed resolutions to numerous ROP enhancement recommendations in the aggregate are expected to reduce the significant expenditure of NRC and industry resources to finalize White findings.</p> <p>In addition, the staff plans to assess further enhancements to the Significance Determination Process (SDP), such as refinements to address uncertainties in PRA calculations, as part of the longer-term ROP enhancement effort to address this concern.</p>
TIR 248	The ROP should be looking at performance issues – leading indicators (i.e., cross-cutting aspects ahead of time).	The staff accepted this recommendation. The staff is conducting an effectiveness review of the Cross-Cutting Issues (CCI) process as part of the longer-term ROP enhancement effort. The staff will explore further changes to the CCI process based on the conclusions from the effectiveness review.

TIR 278	Expand credit for self-identification as an incentive for stronger audit programs.	<p>The staff did not accept this recommendation. As stated in SECY-99-007, a fundamental goal of the NRC's reactor inspection and assessment process is to establish confidence that each licensee is detecting and correcting problems in a manner that limits the risk to members of the public. The ROP presumes that licensees identify and correct issues. Since inception, ROP guidance has encouraged licensees to identify issues before inspectors do. This includes minimum documentation for licensee-identified Green findings, and the characterization of old design issues for GTG findings that licensees self-identified, which eliminates them as Action Matrix inputs.</p> <p>No additional actions are proposed.</p>
TIR 337	Change the categorization of inspection findings to only escalated (greater-than-Green) and non-escalated (Green or minor). Further consideration could be given to possibly re-establish the greater-than-Green threshold to a slightly higher SDP value.	<p>The staff did not accept this recommendation. The staff concluded that the existing approach with four bands of licensee performance (Green, White, Yellow, and Red) provides a graded approach with an appropriate regulatory response to licensee performance.</p> <p>With respect to adjusting the SDP threshold for greater-than-Green findings to a higher threshold, in SRM-SECY-10-121, the Commission reaffirmed that the existing safety goals, safety performance expectations, subsidiary risk goals and associated risk guidance (such as the Commission's 2008 Advanced Reactor Policy Statement and Regulatory Guide 1.174), key principles and quantitative metrics for implementing risk-informed decision making, are sufficient for new plants.</p> <p>No additional actions are proposed.</p>
TIR 338	Consider eliminating the cross-cutting aspect tool.	<p>The staff accepted this recommendation. The staff is conducting an effectiveness review of the CCI process under the second phase of the ROP enhancement effort. The staff will explore additional recommendations on the CCI process based on the results of that review.</p>

TIR 339	Only consider performance deficiencies (PDs) that occurred in the last three years for input to the Action Matrix.	<p>The staff did not accept this recommendation. The ROP was designed to consider all GTG performance deficiencies, regardless of the time of occurrence or the method of identification. The staff defined old design issues in IMC 0305 to give credit to licensees for identifying and correcting long-standing issues by not including these findings as Action Matrix inputs. In many cases there have been recent opportunities for older issues to have been discovered and addressed by a licensee, thus introducing a current performance aspect to older issues. The staff determined that the existing process is adequate.</p> <p>No additional actions are proposed.</p>
TIR 430	Apply risk insights to determine if low-significance findings would result in meaningful improvements to safety.	The staff accepted this recommendation. This will be considered as part of longer-term initiatives to re-assess the Cross-Cutting Issues program and the Significance Determination Process, as well as the continuous assessment of Issue Screening. While not all inspection findings can be shown to provide meaningful improvements to safety, even low significance findings may still represent licensee performance deficiencies that must be addressed.
TIR 618	Do more to emphasize the low to moderate risk of white findings and limit resources spent on this range of risk.	<p>The staff accepted this recommendation. The staff believes the programmatic tools are in place to limit the resource effort for evaluating the significance of White findings. However, the staff is still obligated to evaluate licensee challenges to the significance of inspection findings, which can be resource intensive. The inspection finding review board (IFRB) was created to identify these types of issues so that early licensee engagement could reduce overall resource efforts. The staff will continue to explore additional enhancements to reduce resource efforts on determining final significance of White findings.</p> <p>(Reference also Recommendation 2B.6).</p>

TIR 627	Limit resources spent on items of very low significance (Green and minor issues), including minimal to no documentation, no evaluation of minor or more than minor, no cross cutting except for safety culture issues, no Green findings without violations.	<p>The staff accepted this recommendation, in part. The staff credited recent changes to inspection report formatting, implementation of the auto-inspection report generator, and enhancements to Reactor Program System to address the significant resources spent on documenting issues, particularly those of very low safety significance. The staff has also revised the guidance in IMC 0612, Appendix E, "Examples of Minor Issues," with the intent to reduce staff resource effort on very low safety-significant issues. The staff is conducting an effectiveness review of the CCI process; the outcome of this effort may address the concern for assigning cross-cutting aspects to findings. The staff does not support eliminating the concept of Green findings without an associated violation. When the ROP was developed, the staff made a conscious decision to evaluate the significance of licensee performance deficiencies even when the deficiency does not involve a regulatory requirement. The staff has not seen sufficient data to support removing this practice, which can provide improved communication of performance issues.</p> <p>No additional actions are proposed at this time.</p>
TIR 842	Modify the SDP so that Green and White are combined into Green.	<p>The staff did not accept this recommendation. The Commission established the risk threshold for White Action Matrix inputs. White Action Matrix inputs are safety-significant and require additional inspection to ensure the licensee has adequately corrected the issue. The staff concluded that the existing threshold for White findings is appropriate.</p> <p>No additional actions are proposed.</p>
TIR 340	Revise the Action Matrix to eliminate the cornerstone concept and have the columns escalated based solely on the number of findings regardless of the cornerstone.	<p>The staff did not accept this recommendation. As stated in IMC 0308, "Reactor Oversight Process Basis Document," "The regulatory framework for reactor oversight consists of three key strategic performance areas: reactor safety, radiation safety, and safeguards. Within each strategic performance area are cornerstones that reflect the essential safety aspects of facility operation." IMC 0308 further states that the cornerstones serve as the fundamental building blocks for the ROP, and acceptable licensee performance in these cornerstones provides reasonable assurance that the overall mission of adequate protection of public health and safety is met.</p> <p>No additional actions are proposed.</p>

ROP Inspection Area

Recommendation Number	Recommendation	Disposition
NEI 1D	Reduce Baseline Hours for Higher Performers: Reduce the baseline inspection hour levels based on sustained plant performance.	This recommendation requires Commission approval and is included in SECY-19-0067 as a potential option to reduce baseline inspection samples below the current minimum requirements for sustained good licensee performance. The staff will modify the inspection program based on Commission direction.
NEI 1E	Remove PI&R Inspection from Baseline Program: Change Inspection Procedure 71152, Problem Identification and Resolution, to an inspector follow-up or reactive procedure and remove it from the baseline inspection program.	The staff did not accept this recommendation. The staff concluded that the Problem Identification and Resolution (PI&R) inspection is a very important inspection that verifies the ROP assumption that licensees have mature corrective action programs (CAPs) that are effective in identifying and correcting problems. The staff recommended revising the frequency of the biennial team inspection to a triennial frequency in SECY-19-0067 because of the many touchpoints for assessing licensee CAP performance. The staff is conducting a comprehensive review of the PI&R inspection program to determine if there are any changes that will make it more effective and efficient. This recommendation is linked to FSA 2A.
NEI 1F	Refrain from Expanding Baseline Inspection Effort in Future: Establish and enforce policy requiring no net increase in baseline inspection hours when considering new areas of inspection (including current consideration of inspecting Beyond Design Basis features).	<p>The staff accepted this recommendation. The staff revised IMC 2515, "Light-Water Reactor Inspection Program - Operations Phase," issue date July 3, 2019, to address this recommendation. The intent of this revision is for new baseline inspection program elements to take credit for existing program elements or replace existing baseline procedures, if possible, so that overall baseline program hours are not unnecessarily increased. Proposed increases to the inspection program should typically be offset by reductions in other inspection procedures.</p> <p>No additional actions are proposed.</p>

NEI 2B.2	Follow-Up via Resident Inspectors: Establish the follow-up and closure for White findings through the resident inspector inspecting the causal analysis.	The staff accepted this recommendation in part. The staff will consider revisions to IP 95001, "Supplemental Inspection Response to Action Matrix Column 2 Inputs," as part of a longer-term ROP enhancement initiative. The Regions will assign appropriate inspectors to conduct this inspection.
NEI 2B.3	Redirect IP 95001: Change the IP 95001 from a stand-alone "supplemental" procedure for Whites to become a follow-up to Yellow or Red findings as an initial inspection, with triggers for expanded inspections using IP 95002 or IP 95003, if necessary.	<p>The staff did not accept this recommendation. The staff concluded that IP 95001, "Supplemental Inspection Response to Action Matrix Column 2 Inputs" and its relation to the assessment process Action Matrix represents a graded approach to additional regulatory actions, is functioning as designed, and remains appropriate.</p> <p>No additional actions are proposed.</p>
NEI 2B.4	Revise IP 71152 to be Reactive: Change IP 71152, Problem Identification and Resolution, to an inspector follow-up or reactive procedure and remove it from the baseline inspection program.	The staff did not accept this recommendation. Refer to Recommendation NEI 1E.
TIR 42	The agency should discontinue its preventative/assessment approach to an approach that is completely reactive.	<p>The staff did not accept this recommendation. Based on feedback from internal and external stakeholders, the staff has concluded that the current ROP process with its goals, objectives, framework, and use of region-based and resident inspectors to complete the baseline inspection program is sound.</p> <p>No additional actions are proposed.</p>

TIR 143 TIR 197	Cease documenting any findings or violations below the white threshold, with very few exceptions (e.g., willful, impeding the regulatory process, cross-cutting).	<p>The staff did not accept this recommendation. The staff has concluded that documentation of Green findings and violations in inspection reports is important to share with internal and external stakeholders and improves inspector ability to identify and communicate where additional regulatory attention may be necessary.</p> <p>No additional actions are proposed.</p>
TIR 186	Stop inspecting the design basis of the nuclear plants.	<p>The staff did not accept this recommendation. The intended focus of engineering inspections is primarily on current licensee engineering performance - not verifying original design basis. One feature of NRC engineering inspections is to verify that licensee engineering activities did not inadvertently introduce latent conditions (e.g., unknown design deficiencies) into structure, system, or component (SSC) designs important to safety. In certain instances, latent conditions are not readily identifiable through routine operations or testing but could adversely impact SSCs during design basis accidents. This is addressed in SECY-18-0113.</p> <p>No additional actions are proposed.</p>
TIR 231	<p>Streamlined Regulatory Oversight</p> <p>A. Recognize sustained high regulatory performance through reduced regulatory oversight (e.g., fee reduction or inspection less than baseline).</p> <p>B. Revamp inspection procedures to emphasize risk and less licensing/design basis approach.</p> <p>C. Simplify the "no violation" or low risk violation report (e.g., transition to materials Form 591 inspection report formats).</p> <p>D. Reduce columns in Reactor Oversight Process Action Matrix.</p>	<p>The staff accepted this recommendation, in part.</p> <p>A. This recommendation requires Commission approval and is included in SECY-19-0067 as an option to reduce baseline inspection samples below the current minimum requirements for sustained good licensee performance; therefore, it will be addressed in accordance with Commission direction.</p> <p>B. This recommendation was addressed in SECY-18-0113 which states that one of the steps in the assessment of engineering inspections was to verify engineering areas that the NRC should be inspecting is based on plant risk and operating experience.</p> <p>C. While the format for Green findings is not being changed, the Inspection Scheduling, Tracking, and Reporting (ISTAR) tool should make documentation easier for inspectors.</p> <p>D. Feedback from internal and external stakeholders has indicated that the ROP framework, goals, and objectives are sound. For an effective oversight program, the NRC needs to distinguish the various levels of performance with a graded approach relative to licensee performance. The existing Action</p>

		<p>Matrix columns are a necessary oversight aspect of the ROP.</p> <p>No additional actions are proposed.</p>
TIR 266	For existing facilities, consider regulation changes to use risk management, safety system performance, and licensee safety culture to establish baseline inspection activity level.	<p>The staff did not accept this recommendation. The staff concluded that the fundamentals of the ROP are sound, and that the ROP is fundamentally risk-informed. The baseline inspection program is the minimum inspection necessary to verify that licensees address risk management and safety system performance. Assessment of licensee safety culture is performed in a graded, as needed approach. Efforts to implement new regulations to incorporate regulation of licensee risk management to a greater extent are not warranted at this time.</p> <p>No additional actions are proposed.</p>
TIR 304	Regulatory approach to verify important system properties (in part) using indirect measures (inspection) of system state should be revised to account for the characteristics of digital systems.	<p>The staff did not accept this recommendation. The staff recognized in 2009 that more rigor was needed to be applied in the inspection of digital I&C system attributes. The staff developed a non-intrusive inspection methodology and associated procedures to address digital systems as part of the inspection of 10 CFR Part 52 design acceptance criteria. The methodology focused on key interfaces with a typical digital system hardware/software development lifecycle, specifically at the lifecycle “requirements” and “testing” phases. The methodology has been utilized since 2012 for the AP1000 digital system design, with tangible success, assessing and verifying digital specifications, procedures, test methods and results, and independent verification and validation. The staff anticipates that the inspection methodology will continue to provide reasonable assurance that digital systems fulfill their design and operational functions under normal and abnormal conditions. This inspection methodology is readily adaptable for 10 CFR Part 50 licensees employing digital I&C platforms and applications.</p> <p>No additional actions are proposed.</p>
TIR 306	Use simulation-based inspection techniques.	<p>The staff did not accept this recommendation. This recommendation is more conceptual in nature without specifics on how this approach might be implemented. While the recommended approach might offer some value in the inspection of new designs or licensing of certain electronic-based monitoring systems, the use of such an approach in the oversight of the</p>

		<p>current operating fleet appears to have limited value. The staff has determined that the current inspection program with a focus on direct inspection activities is an effective oversight program.</p> <p>No additional actions are proposed.</p>
TIR 342	Provide vehicles equipped with emergency lights for Federal Emergency Response Officials (especially Resident Inspectors).	<p>The staff did not accept this recommendation. NRC Resident Inspectors and other NRC staff possess identification badges that would allow access under emergency conditions as needed.</p> <p>No actions are proposed.</p>
TIR 343	Develop a graphical solution to demonstrate exactly how the inspector goes through the Inspection Manual Chapter 0612 Appendix B process of taking an issue of concern to the status in the enforcement process.	<p>The staff did not accept this recommendation. A graphical solution currently exists in IMC 0612, "Issue Screening," Figure 1 pages 1-2.</p> <p>No additional actions are proposed.</p>
TIR 375	Reassess the basis of what inspections are based on and why they are necessary.	<p>The staff did not accept this recommendation. The staff reviewed the basis for each inspectable area of the ROP, described in IMC 0308, Attachment 2, "Technical Basis for the Inspection Program," and concluded that the basis for each inspection was still appropriate.</p> <p>No additional actions are proposed.</p>

TIR 380	Base inspection resource allocations on total plant risk. Readjust current per-unit allocations while adding special categories. A simpler solution to change the baseline inspection hour allocation is to maintain a per unit allocation with some special categories.	<p>The staff did not accept this recommendation. Resource estimates for inspection procedures are for planning purposes only. Inspectors should expend the time necessary to complete the required samples.</p> <p>Each inspection procedure provides a range of sample sizes, from minimum to maximum, and inspectors determine the appropriate sample sizes based on their unique plant risk profiles and current plant conditions.</p> <p>No additional actions are proposed.</p>
TIR 389	The definitions of licensee identified and self-revealed findings in Inspection Manual Chapter 0612 should be revisited to ensure they appropriately encourage the use of technology beyond what is required by regulation.	<p>The staff did not accept this recommendation. As a result of the 2013 Government Accountability Office (GAO) audit that determined there were Regional inconsistencies in numbers of Green inspection findings, the staff conducted training with all inspectors to ensure there was a standardized understanding of the definitions for licensee-identified vs. self-identified.</p> <p>No additional actions are proposed.</p>
TIR 428	Reduce large team inspections by targeting areas based on plant risk and performance.	<p>The staff accepted this recommendation. In 2017, the staff revised the Component Design Basis Inspection (CDBI) inspection procedure, splitting it into two inspection activities performed in different years, the Design Basis Assurance Inspection (DBAI)-team (IP 71111.21M) and DBAI-program inspections (IP 71111.21N). The staff has recommended additional changes to the engineering inspection program which will incorporate aspects of the DBAI inspection and add the triennial aspects of the 71111.07 heat sink inspection and 71111.17T 50.59 inspections. These inspections focus on samples based on plant risk. These inspections are part of the baseline inspection program, which is the minimum inspection necessary for all plants, regardless of performance. The staff provided these recommendations to the Commission in SECY-18-0113.</p> <p>No additional actions are proposed.</p>

TIR 466	Eliminate regions and residents.	<p>The staff did not accept this recommendation. The existing resident inspection program was created as a result of the lessons learned from the 1979 Three Mile Island Unit 2 accident. Internal and external stakeholder input has indicated that the ROP, including the inspection program implemented by regional and resident inspectors, is an effective oversight framework for ensuring adequate protection of public health and safety, and the environment. Potential regional restructuring may be undertaken as a longer-term agency effort.</p> <p>No additional actions are proposed.</p>
TIR 583	Reactor Oversight Process - reduce the frequency for some inspections and increase the flexibility to adjust inspection frequencies.	<p>In SECY-19-0067, the staff recommended revising the biennial PI&R inspection to a triennial frequency and provided recommended changes to sample sizes for certain inspection procedures based on inspector feedback and operating experience. The staff will make appropriate changes based on Commission direction. The program allows adjustments to inspection frequencies pending Commission notification, when appropriate.</p> <p>No additional actions are proposed.</p>
TIR 584	Reactor Oversight Process – eliminate Green findings.	<p>The staff did not accept this recommendation. The staff has considered this recommendation for several years. The staff has concluded that, although Green findings are of very low safety significance, they represent performance deficiencies that are more-than-minor and must be corrected by the licensee.</p> <p>No additional actions are proposed.</p>
TIR 613	As with the agency review of engineering inspection procedures, look at operations, maintenance, security, etc.	<p>The staff accepted this recommendation. The staff has completed or is planning comprehensive reviews of the radiation protection, security, and EP cornerstone inspections.</p> <p>The staff will revise inspection procedures based on the results of those efforts.</p>

TIR 617	Create more incentive to fix existing issues. Less emphasis on inspection of White issues: perhaps a 12-hour 95001 inspection.	The staff provided recommendations to address this concern to the Commission in SECY-19-0067. 10 CFR Part 50, Appendix B, Criterion XVI already requires that conditions adverse to quality are promptly identified and corrected. The staff recommended eliminating the four-quarter requirement for inspection findings and revising treatment of PIs that cross significance thresholds to encourage licensees to fix problems as expeditiously as possible. The staff also plans to revise the resource estimate for completing the IP 95001 supplemental inspection to a range of 16-120 hours to provide flexibility to close out simple issues vs complicated issues.
TIR 622	Acknowledge improvements in safety and risk, and lower required inspection resources to complete ROP inspections annually to include resident inspectors.	The staff recommended revisions to sample sizes for several baseline inspection procedures that are described in SECY-19-0067. The staff will implement those changes based on Commission direction.
TIR 624	Reduce requirement of Resident Inspector coverage at each site (currently staffed with no more than 3-day gap).	<p>The staff accepted this recommendation. The staff determined that increasing the site coverage gap for specific and infrequent occasions would not adversely impact oversight of licensee operations. The staff revised IMC 2515, "Light-Water Reactor Inspection Program - Operations Phase," issued July 3, 2019, to increase the site coverage gap to up to five days during inspector counterpart meetings. The Regional Administrator has discretion to increase the allowance beyond five days.</p> <p>No additional actions are proposed.</p>
TIR 626	Inspectors should be first to get time-saving and efficient technologies.	The staff accepted this recommendation. The staff recognizes the vital role inspectors perform in the oversight program and is committed to ensure inspectors have the tools to perform their jobs in the most efficient and effective manner possible. The staff will continue to work with the Office of the Chief Information Officer to ensure inspectors receive new tools to improve their efficiency and effectiveness in the field as quickly as possible.

TIR 661	Adjust the baseline inspection program by applying findings and observations from one site in a fleet to the other. The fleets share information on problems and have common processes. Reduce the sample size in inspections in areas where the safety significance is low.	<p>The staff accepted this recommendation, in part. Inspectors already use operating experience and inspection findings at other sites to inform their inspection samples, so no further action is necessary to revise the inspection program to apply findings and observations across a fleet.</p> <p>The staff recommended revisions to sample sizes for several baseline inspection procedures, described in SECY-19-0067. The staff will implement those changes based on Commission direction.</p>
TIR 810	More NRC resources and research need to be applied to the operator training and licensing areas (simulator training scenarios). Also, more testing/ training of loss of power situation (station blackout scenarios), Appendix R Fire/control room evacuation procedures scenarios, Diverse and Flexible Coping Strategies (FLEX) equipment usage scenarios studies.	<p>The staff accepted this recommendation, in part. The staff has determined that the inspection of licensed operator requalification programs and licensed operator performance using Inspection Procedure 71111.11, "Licensed Operator Requalification Program and Licensed Operator Performance," is robust and effective. To further aid inspectors in identifying factors that can negatively impact operator performance, the staff is currently evaluating inspection tools based on Human Reliability Analysis (HRA). However, the staff emphasizes that NRC accepts INPO National Academy for Nuclear Training (NANT) accreditation as evidence of an acceptable systems approach to training (SAT) based training program that meets the requirements of 10 CFR 55.59(c). The NRC routinely observes INPO accreditation activities to ensure adequate oversight of licensee training programs.</p> <p>The staff continues to perform research to understand and model operator performance, primarily to support Probabilistic Risk Assessment (PRA) needs. The research includes fire and control room evacuation scenarios, FLEX and mitigating strategies, and low power and shutdown scenarios.</p> <p>No additional actions are proposed.</p>

Significance Determination Process Area

Recommendation Number	Recommendation	Disposition
NEI 3B	Combine BDB into One SDP: For Beyond Design Basis (BDB) SDP, combine all IMC 0609 appendices currently used into one SDP for BDB events (Appendix O and L).	<p>The staff did not accept this recommendation. The staff revised IMC 0609, Appendix A, "The Significance Determination Process for Findings at Power," dated December 13, 2019, to incorporate several years of operating experience and lessons learned from the implementation of Appendix O, "Significance Determination Process for Mitigating Strategies and Spent Fuel Pool Instrumentation." The screening questions in Appendix O were revised and moved into the appropriate sections in Appendix A. As such, Appendix O was retired. This action is consistent with direction provided by the Commission in SRM-SECY-13-0137, "Recommendations for Risk-Informing the Reactor Oversight Process for New Reactors," dated June 30, 2014 (ADAMS Accession No. ML14181B398), that the "SDP should continue to place emphasis on the use of the existing quantitative measures of the change in plant risk for both operating and new reactors." IMC 0609, Appendix L, "B.5.b Significance Determination Process," will remain as a separate SDP appendix because of the unique nature and security implications of findings associated with compliance with Title 10 of the Code of Federal Regulations (10 CFR) 50.54(hh)(2). This equipment has not traditionally been modeled in PRAs, therefore, the staff determined it is appropriate to consider these issues in a separate deterministic appendix for evaluation of potential findings.</p> <p>No additional actions are proposed.</p>
NEI 3C	Stop Appendix M Revision: Stop work on IMC 0609, Appendix M and leave as-is.	<p>The staff accepted this recommendation, in part. The recommendation was based on staff plans to make significant modifications to Appendix M to fashion a more structured risk-informed process. However, the staff changed those plans, and instead completed a more targeted revision to IMC 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria," in January 2019. The staff believes the stringent entry conditions combined with the use of a decision-making management body (i.e., planning SERP) to approve use of Appendix M in situations where it is not previously designated in procedures puts adequate controls in place to ensure the use of qualitative factors in the SDP is appropriate.</p> <p>No additional actions are proposed.</p>

NEI 3D	<p>Standardize PRA Inputs to SDP: Develop a consensus methodology for PRA inputs that will align the NRC and industry to uncertainties in key variables when beginning a PRA analysis of a performance deficiency. These key variables include, among others, Human Reliability, Common Cause, and Exposure Time.</p>	<p>The staff accepted this recommendation, in part. Early and open interactions with licensees are an important component of understanding performance deficiencies and developing an accurate preliminary significance determination. The staff recently implemented the IFRB, as documented in Inspection Manual Chapter 0609 Attachment 5, "Inspection Finding Review Board." The purpose of the IFRB is to provide a formal framework to obtain regional staff and management agreement on the proposed performance deficiency and to effectively manage the actions needed to reach a preliminary decision on the significance of inspection findings that do not initially screen to Green. A key component of the IFRB process is early contact with the licensee.</p> <p>The recommendation mentions key variables used in assessing the significance of findings (i.e., human reliability, common cause, and exposure time). These variables are aspects that are discussed among inspectors, analysts, and licensees. Based on feedback from senior reactor analysts (SRAs) and headquarters risk analysts, the staff believes that open and effective communications with the licensees are taking place.</p> <p>The recommendation also calls for a "consensus methodology" and "alignment" with the licensee. Although the SDP is an NRC process, the licensee is encouraged to provide information to analysts during the process. However, alignment or consensus with the licensee is not consistent with the technical basis of the SDP and could undermine the NRC's independence in the process.</p> <p>The NRC proposed a three-pronged approach to address internal and external stakeholders' comments about the impact of common cause failure on the SDP. The approach will be used on a trial-basis for one calendar year, beginning on April 1, 2019 and is outlined in a memorandum to the Office Director of the Division of Risk Assessment (DRA) (ADAMS Accession No. ML19066A292). The NRC staff will continue to engage with stakeholders to address technical issues and concerns related to evaluation of performance deficiencies within the ROP.</p> <p>No additional actions are proposed.</p>
NEI 3E	<p>Develop Procedure to Align on PRA Inputs Early: While the consensus</p>	<p>The staff did not accept this recommendation. The staff has decided not to pursue a new "consensus methodology." Some of the aspects of this recommendation have been addressed (Reference NEI recommendation 3D (e.g., communications,</p>

	methodology is being developed, the NRC should institute a procedural requirement to fill out a worksheet with the three key variables and obtain alignment with the licensee on other major inputs prior to running models either in SPAR or the licensee's PRA.	independence of NRC risk analysis)). The development of a risk analysis for the SDP is an iterative process, and the staff believes implementing this recommendation would hamper the efficient disposition of inspection findings. No additional actions are proposed.
NEI 3F	Develop NRC Interface for Licensee PRAs: Industry and NRC should jointly develop a portal for NRC access to the licensee's site- specific PRA models for the purpose of supporting SDPs.	<p>The staff did not accept this recommendation. There have been multiple efforts to evaluate the elimination or reduced usage of the Standardized Plant Analysis Risk (SPAR) models in regulatory decision-making. Until recently these efforts were not well documented with a sound basis for the NRC staff position. The lack of documentation was identified in an Office of Inspector General (OIG) report OIG-17-A- 26, "Evaluation of Proposed NRC Modifications to the Probabilistic Risk Assessment Process," dated September 21, 2017. OIG recommended formally documenting evaluation results to conclusively establish the agency position on the NRC's use of licensees' PRA models, to include reliable, verifiable cost data. This action was completed and documented in an NRC memorandum to Dr. Brett M. Baker, "Response to the Office of the Inspector General's Evaluation of Proposed NRC Modifications to the Probabilistic Risk Assessment Process (OIG-17-A-26)" dated June 29, 2018 (ML18173A253).</p> <p>The NRC staff uses plant-specific SPAR models in several regulatory applications. The SPAR models utilize standardized conventions and modeling methods to improve staff efficiency. In some cases, SPAR models are more detailed than the associated licensee-maintained, non-standardized models. The OIG response memorandum describes the most recent effort that was launched in 2015 by the NRC's Risk-Informed Steering Committee (RISC). The RISC directed the NRC staff to evaluate the costs and benefits associated with using licensees' PRA models in lieu of the SPAR models with the goal of eliminating the SPAR model program completely. The staff identified and evaluated several technical, regulatory, cost, and other related factors pertinent to use of licensees' PRA models in lieu of the SPAR models. The results from the cost analysis indicated a significant cost for transition to licensee models with a potential for longer-term</p>
NEI 3G	Eliminate Use of SPAR in SDP: Once the portal is implemented and proven satisfactory, NRC should eliminate the use of the SPAR model in SDPs.	
TIR 840	Eliminate the Use of SPAR Models – The NRC should rely on more realistic licensee models to determine the significance of any deficiencies. The Standardized Plant Analysis Risk (SPAR)	

	models should be phased out.	<p>small cost savings once full transition was complete.</p> <p>The NRC staff also worked with NEI to gauge licensees' willingness to participate, since the viability of the proposal depended upon full NRC access to licensee PRA models (which are not normally submitted to the NRC under the current regulatory framework). While some licensees were supportive of the proposal, there was considerable resistance towards allowing NRC staff full access to the licensee PRA models. Based on the staff's recommendation, the RISC made the decision to conclude the evaluation and continue to use SPAR models for operating reactor oversight programs.</p> <p>While the effort in 2015 was focused on complete elimination of the SPAR model program, a previous effort in 2007 was focused solely on use of licensee PRA models in the SDP. The current recommendation by NEI is somewhat different than what was under discussion during that time, but some of the same principles apply. In an October 2007 letter to NEI (Reyes, Luis A., NRC, letter to Marvin S. Fertel, NEI, regarding NRC response to NEI letter on August 2 Commission Briefing, October 15, 2007 (ML072490540)), the staff presented its final position and rationale regarding the topic areas discussed during several public meetings that were held regarding the topic.</p> <p>No additional actions are proposed.</p>
TIR 250	The SDP needs a transformation to move away from risk-based to risk-informed solutions factoring in performance attributes (e.g., is the problem corrected, was it licensee identified, were there multiple opportunities to identify the problem, etc.)	<p>The staff accepted this recommendation. The existing SDP is a blend of quantitative and qualitative considerations; even when a quantitative tool is used to arrive at a calculated risk result, qualitative assessments are associated with some of the inputs to the risk calculation, such as recovery credit and human error probability. The staff will continue to explore this area, with stakeholder input, to decide if there are more efficient ways to arrive at the right regulatory response, especially in situations where there may be a wide band of uncertainty in the detailed risk evaluation, or where significant time or expense may be needed to quantitatively determine the overall risk.</p> <p>No additional actions are proposed.</p>

TIR 336	Eliminate the use of the post-Performance Deficiency (PD) reevaluation risk assessment or, at a minimum, use an average of pre-PD risk and post-PD risk to determine significance.	<p>The staff did not accept this recommendation. The safety significance of inspection findings depends on the increased plant risk, and the duration of that increased risk. The SDP uses screening questions and logic to expeditiously screen findings for which there is high confidence that the significance is of very low safety significance – Green. Once through that process, the inspector and SRA will collaborate to further understand the PD and assess its risk significance. Many findings are evaluated as Green during this initial collaboration, but a small subset proceed to a more comprehensive detailed risk evaluation (DRE).</p> <p>The analysis process (i.e., DRE) involves the modification of a SPAR model to reflect attributes of an issue, solution of the modified model to estimate the risk significance of the issue and documentation of the analysis and its results. The process is structured to ensure the analysis is comprehensive and traceable. A detailed review by the analyst and a subsequent independent review minimizes the likelihood of errors and enhances the quality of the risk analysis. Staff believes that the screening process and the iterative nature of performing DREs is adequate to allow for the adjustment of resources necessary to determine the preliminary risk-significance of PDs. (Reference TIR 619 and TIR 621).</p> <p>No additional actions are proposed at this time.</p>
TIR 619 TIR 621	Use deterministic or simpler significance determination process models for those items that are initially scoped to be less than Yellow risk. Yellow risk would get more significant Detailed Risk Evaluation and actions on the Action Matrix.	<p>The staff did not accept this recommendation. The staff performs detailed risk evaluations (DREs) for PDs that do not screen to Green using the IMC 0609 screening questions. For many PDs, the initial SPAR model results determine the risk significance is Green without significant resource expenditure. However, a small percentage of PDs require changes to the SPAR models or additional information from the licensee to determine the initial risk significance. Performance of a DRE is an iterative process and staff guidance ensures that resources expended are commensurate with the complexity and significance of the finding. Since the inception of the ROP, the screening questions have been clarified and refined based on lessons learned and experience.</p> <p>No additional actions are proposed.</p>

Performance Indicator Area

Recommendation Number	Recommendation	Disposition
NEI 1G	Revise Use of Mitigating Systems Performance Index: Reevaluate the NRC's treatment of the MSPI. Consider eliminating overlap between MSPI and inspections of safety systems monitored by MSPI or simplifying or replacing MSPI with an indicator based on similar data collected for related purposes (e.g., for Maintenance Rule monitoring).	<p>The staff will address this recommendation once the industry proposes changes to the MSPI performance indicator.</p> <p>No additional actions are proposed.</p>

TIR 144	For the ROP, identify areas where performance based, risk focused indicators could be established with appropriate thresholds for allowing licensee oversight in lieu of NRC inspections (e.g., upper half or upper quartile Radiation Protection (RP) performance plants with some allowance for continued NRC inspection of high RP risk activities such as Reactor Pressure Valve (RPV) head work).	<p>The staff accepted this recommendation, in part. The staff will address this recommendation as part of ROP enhancement under a longer-term initiative to re-assess the PI program. However, the staff has not accepted the suggestion to establish indicator thresholds for allowing licensee oversight in lieu of NRC inspections. This proposal may challenge the NRC's independence in its oversight role and has not been supported by a detailed proposal on how licensee assessment would be credited or how NRC would determine adequacy of licensee efforts without inspection.</p> <p>No additional actions are proposed.</p>
TIR 171 TIR 587 TIR 784	Reevaluate performance indicator(s), including consideration where the licensee's probabilistic risk assessment risk metrics are monitored to identify trends for determining oversight that is efficient and effective for risk-informed operations.	<p>The staff may address this recommendation under a longer-term initiative to re-assess the PI program, if the review is determined necessary.</p> <p>No additional actions are proposed at this time.</p>

Independent Spent Fuel Storage Installation Area

Recommendation Number	Recommendation	Disposition
NEI 1H	Eliminate Materials Inspections of ISFSIs: Inspection Procedures 608555 & 60855.16 should be eliminated as redundant to numerous other inspection activities.	The staff accepted this recommendation, in part. The staff has completed an assessment of the ISFSI inspection program with recommendations to revise the ISFSI inspection program. Those recommendations have not yet been approved. The staff will revise the ISFSI inspection procedures when the final recommendations are approved.

Emergency Preparedness Area

Recommendation Number	Recommendation	Disposition
NEI 1B	Revise EP Inspections: Review emergency preparedness inspections to apply lessons learned from the Engineering Inspections Working Group to streamline them (following the stakeholder engagement process employed with engineering inspections); include credit for self-assessments.	<p>The staff accepted this recommendation, in part. Based on the results of the FSA on the EP SDP, the staff is considering few changes to the EP inspection program. The staff is not pursuing crediting of licensee self-assessments. (See TIR 144).</p> <p>No additional actions are proposed.</p>

NEI 3A/ FSA 1.A	Revise EP SDP: Revise the EP SDP to consider the site's performance in the Cornerstones of Initiating Events, Mitigating Systems, and Barrier Integrity. EP SDP should be constructed to consider licensee performance in the ROP cornerstones associated with other elements of reactor safety DID.	The staff has determined that a revision to the EP SDP to include the status of the other reactor safety cornerstones when assessing significance of an EP performance deficiency should be further evaluated. The key to a defense-in-depth approach is creating multiple independent and redundant layers of defense to compensate for potential failures and external hazards so that no single layer is exclusively relied on to protect the public and the environment. A working group was created to evaluate this recommendation. Implementation will require Commission approval.
FSA 1.B	Consider only having findings associated with 10 CFR 50.47(b)(2, 4, 5, 8, 9, 10 (offsite only) and 14) be able to be greater-than-Green.	This was a staff recommendation. This recommendation is described in SECY-19-0067, awaiting Commission approval. The staff will implement Commission direction.
FSA 1.C	Consider allowing Emergency Plan changes associated with 10 CFR 50.47(b) (2, 4, 5, 8, 9, and 10 (offsite only) and 14) be the only ones inspected for change management purposes (10 CFR 50.54(q)) and allow the other planning standards to be inspected to confirm conformance with the applicable regulation.	This was a staff recommendation. If the Commission approves FSA Recommendation 1.B, the staff will provide the Commission the applicable Risk Significant Planning Standard (RSPS) and non-RSPS functions when seeking approval for this recommendation. A licensee proposed EP plan change related to the remaining non-RSPS functions only needs a determination of whether it continues to meet regulatory requirements. If the change is determined to not meet the regulation, it would need to be submitted to the NRC for approval prior to implementation.

FSA 2.A	Consider eliminating EP from Problem Identification and Resolution (P&IR) Inspections and only have it in the EP Baseline Inspection Program.	This was a staff recommendation. This recommendation will be considered as part of the staff's planned comprehensive review of the PI&R inspection.
FSA 2.B	Consider eliminating the alert and notification system (ANS) performance indicator (PI). Replace this PI with one for emergency response facility (ERF) readiness.	<p>This was a staff recommendation. The staff evaluated this recommendation and concluded that the ANS PI has not resulted in significant insight into EP equipment maintenance. The staff plans to develop an emergency response facility (ERF) readiness PI to measure licensee performance in the maintenance of EP equipment, in lieu of the ANS PI. The staff plans to seek Commission approval after the proposed new PI is developed and stakeholder input obtained, and before eliminating the ANS PI.</p> <p>No additional actions are proposed.</p>
FSA 2.C	Use the ROP Program as an acceptable approach to justify a 24-month 10 CFR 50.54(t) EP review periodicity. The regulation already allows for a 24-month audit cycle if certain aspects of an EP program are monitored by PIs. With the creation of new PIs, the ROP Program may suffice to allow for this audit frequency. Note that this may be considered a transformative idea	<p>This was a staff recommendation. Instead of using the ANS PI as a measure of licensee performance, the staff will develop the ERF readiness PI with the implementation of this recommendation. The ERF readiness PI would, if approved by the Commission, measure the ability of the licensee to maintain emergency facilities and equipment in a state of functional readiness.</p> <p>If the Commission approves the staff's future submittal of new EP PIs, the staff believes that revising NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, dated August 31, 2013 (ADAMS Accession No. ML13261A116), and associated EP program documents to address the new EP PIs would provide adequate justification to permit licensees to utilize the EP PIs to satisfy the requirements of 10 CFR 50.54(t)(1)(ii) to extend the 12-month review frequency to a 24-month review frequency of a licensee's EP program.</p>

	requiring specific Commission approval.	
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Radiation Protection Area

Recommendation Number	Recommendation	Disposition
NEI 1A	Revise RP Inspections: Review radiation protection inspections to apply lessons learned from the Engineering Inspections Working Group to streamline them (following the stakeholder engagement process employed with engineering inspections); include credit for self-assessments.	<p>The staff accepted this recommendation, in part. The staff recommended eliminating inspection procedure (IP) 71124.02, "Occupational ALARA Planning and Controls," and reassigning necessary required inspection samples to other inspection procedures, described in SECY-19-0067. The staff will implement based on Commission direction.</p> <p>The staff is not pursuing credit for licensee self-assessments in lieu of inspections. (See TIR 144)</p>
NEI 3A.1/ FSA 1.A	Expand 3A Approach to All Deterministic SDPs: The philosophy setting the policy for the EP SDP above should be applied to all deterministic SDPs as much as practical.	<p>The staff did not accept this recommendation. The staff concluded that licensee performance in the Reactor Safety Cornerstones (i.e., initiating events, mitigating systems and barrier integrity) of the ROP is not indicative of performance in the Radiation Safety Cornerstones, nor does good performance in the Reactor Safety Cornerstones mitigate performance issues in the Radiation Safety Cornerstones.</p> <p>No actions are proposed.</p>

Security Area

Recommendation Number	Recommendation	Disposition
NEI 3A.1	Expand 3A Approach to All Deterministic SDPs: The philosophy setting the policy for the EP SDP above should be applied to all deterministic SDPs, as much as practical.	<p>The staff accepted this recommendation, in part. The staff concluded that licensee performance in the Reactor Safety Cornerstones (i.e., initiating events, mitigating systems and barrier integrity) of the ROP is not necessarily indicative of performance in the Security Cornerstone, nor does good performance in the Reactor Safety Cornerstones mitigate performance issues in the Security Cornerstone. However, the staff issued a revision to IMC 0609, Appendix E, Part I, "Baseline Security Significance Determination Process for Power Reactors," on September 17, 2018 (ADAMS Accession No. ML18164A326). Based on evaluation and stakeholder input, the staff incorporated a defense-in-depth approach into the changes to the security SDP to the extent practicable.</p> <p>No additional actions are proposed.</p>

Miscellaneous Out of Scope Recommendations

Recommendation Number	Recommendation	Disposition
TIR 185	A more in-depth meta-analysis including the types of findings, with statistical analysis of trends using "big data techniques" should be completed that would yield insights that could inform the direction of our inspection and assessment efforts.	<p>The staff accepted this recommendation, in part. The staff monitors trends and shares information through the research performed by the Office of Nuclear Regulatory Research, inspector counterpart meetings, (internal) inspector newsletters, operating experience, and generic communications (such as information notices) to identify trends well before they significantly affect public health and safety. Improvements in data analysis techniques in these areas will continue to be shared to enhance the ROP.</p> <p>No additional actions are proposed.</p>

TIR 218	It is important that any transformative consideration address the continued need for regulatory oversight and ask, "where is the regulatory oversight."	<p>The staff accepted this recommendation. It is the responsibility of the NRC to provide oversight of operating nuclear reactors in the United States. This oversight is accomplished through the ROP in helping to assure adequate protection of public health and safety, and the environment. Although feedback from internal and external stakeholders has indicated that the ROP framework, goals, and objectives are sound, continuous assessment of the ROP is performed on an annual basis to determine the ROP 's effectiveness and the need for transformational changes.</p> <p>No additional specific actions are proposed.</p>
TIR 590	Risk inform the reactor oversight process.	<p>The staff accepted this recommendation. The Reactor Oversight Process is a risk-informed program as it incorporates risk insights into the inspection program, uses risk information to determine the significance of inspection findings, and factors risk into the assessment process resulting in a more graded approach to oversight. The ROP enhancement initiative aims to better risk inform and performance base the ROP by better focusing inspectors on important safety matters while taking into account licensee performance.</p> <p>No additional actions are proposed.</p>
TIR 596 TIR 476	Look at the ROP for transformation	<p>The staff did not accept this recommendation. Feedback from internal and external stakeholders has indicated that the ROP framework, goals, and objectives are sound. Therefore, at the current time the ROP does not require a transformation. However, the ROP is continuously evolving based on assessments, feedback, and audits. The staff concluded that targeted enhancements were more appropriate at this time.</p> <p>No additional actions are proposed.</p>
TIR 620	Use Skype or similar technology to support actions on the matrix such as meetings or site visits. Still use face to face meetings for very significant items.	<p>This recommendation is accepted in part for evaluation in ROP improvement efforts. The NRC is in a period of change with regards to improving its efficiency in communicating internally and externally, with the use of technologies to facilitate meetings remotely. This recommendation appears to focus on meetings between NRC and licensees with respect to meetings required by the Action Matrix. Webinars have been successfully used to conduct annual assessment meetings. The NRC will continue to look for opportunities to use such communication technologies, when possible.</p>
TIR 794	The Reactor Oversight	The staff accepted this recommendation. The feedback form process described in

	<p>Process (ROP) feedback process has not resolved certain contentious issues for 8 years. The ROP feedback process should be fixed.</p>	<p>IMC 0801, "Inspection Program Feedback Process" was revised to address this recommendation.</p> <p>No additional actions are proposed.</p>
<p>TIR 146 TIR 176 TIR 615</p>	<p>Eliminate Paper Inspection Reports (Routine)</p> <p>Automate the inspection report process as much as possible by building standardized framework and streamlining finding write-ups. Also eliminate mailing letters to licensees.</p> <p>Switch from inspection reports to inspection documentation that is uploaded to a website and viewable by all stakeholders</p>	<p>The staff accepted this recommendation, in part. While paper inspection reports will continue to be signed and issued in the near term, the recently developed auto-report generator tool enables inspectors to generate inspection reports automatically after entering samples inspected and inspection findings into the RRPS database. This database will enable staff to more efficiently verify that the baseline inspection program has been completed for every licensee at the end of an inspection cycle. The data fields entered into the system to generate the inspection report cover letter may ultimately enable automatic profiling of inspection reports for entering them into ADAMS.</p> <p>An inspection report template has been loaded into the tool to standardize all inspection reports, as well as cover letters. The tool can generate inspection reports for most inspection types.</p> <p>Inspection finding documentation has been improved with the tool as it uses drop down menus and data entry fields to automatically generate the write-up for the inspection report.</p> <p>Once full automation is implemented and evaluated, further improvements such as web-based reports could be used to replace hard copy reports.</p> <p>No additional actions are proposed.</p>

TIR 436	Find a way to include Division of Reactor Safety inspection results in Division of Reactor Projects quarterly reports except for anything greater than Green or with different public release requirements such as security reports.	<p>The staff accepted the recommendation. The staff developed the auto-report generator tool in RRPS to facilitate drafting and issuing inspection reports using inputs from inspectors associated with that inspection report, including DRS inspectors. Security inspection reports are generally stand-alone reports, and the auto-generation tool is designed to create those type reports, as well.</p> <p>No additional actions are proposed.</p>
TIR 515	Eliminate review of all low value reports (e.g., steam generator inspection report).	<p>The staff did not accept this recommendation. Reviewing third party or licensee reports is an integral part of the inspection program and can provide the inspector insights, assessment, or areas to inspect further, depending upon risk significance.</p> <p>No additional actions are proposed.</p>
TIR 574	Decrease paperwork for regulated entities: Look to the Occupational Safety and Health Administration Voluntary Protection Programs as a possible model.	<p>The staff did not accept this recommendation. Openness is an important principle of good regulation. Inspection reports give the public confidence that the NRC is meeting its mission to protect public health and safety. The staff revised the format of inspection reports in 2018 to streamline them and reduce the unnecessary information in those reports. The staff will continue to seek ways to further reduce unnecessary paperwork.</p> <p>No additional actions are proposed.</p>

TIR 614	Get digital devices involved. Inspectors should carry devices that can record pictures and sound, has requirements and procedures on an app, will record samples and text in a downloadable format to support automated inspection report.	The staff accepted this recommendation. The NRC is piloting new 2-in-1 laptops (also referred to as Tablets) with resident inspectors. This is a OCIO initiative which outlines how Resident Inspectors use technology at their sites. OCIO will begin this pilot by assigning two new 2-in-1 machines to two resident inspectors in each region. This will replace their current NRC assigned laptops. Over the course of the pilot, OCIO will be pulsing the inspectors, and their Regional IT support, to gather feedback and respond to issues that arise.
TIR 165	Consider reducing and sharing resident inspector staffing of sites in close geographic proximity of each other.	This recommendation requires further assessment. This item is best addressed by a broader NRC organizational review, such as a potential regional office restructure and organizational evaluation being led by NRC's Office of the Executive Director for Operations.
TIR 204 TIR 344 TIR 476	It may be time to reconsider the number or need for Regional offices. Readjust the breakdown of sites to Regions, and possibly combine or relocate Regions. Also, the region-based inspection structure could be drastically changed to better suit NRC/licensee needs.	This recommendation requires further assessment. This item is best addressed by a broader NRC organizational review, such as a potential regional office restructure and organizational evaluation.
TIR 309 TIR 368 TIR 407 TIR 476 TIR 623 TIR 707	The NRC should consider revising the Resident Inspector program. For example: 1) One	This recommendation requires further assessment. This item is best addressed by a broader NRC organizational review, such as a potential regional office structure and organizational evaluation.

	<p>more inspector than units at every site; 2) Require each inspector to participate or lead a regional/Headquarters inspection each year at their respective sites; 3) Make the Senior Resident Inspectors Grade 15 supervisors. 4) Increase the number of resident inspectors to N+3 or 4 and reduce the inspection effort that has traditionally been performed by DRS and assign to the resident inspectors, 5) Go away from required numbers of Resident Inspectors and give Regional Administrators ability to shift resources to plants with more risk significant issues, 6) Run all site-assigned Resident Inspectors and Senior Resident Inspectors out of one location</p>	
TIR 843	Reassign First Energy plants to NRC headquarters.	This recommendation requires further assessment. This item is best addressed by a broader NRC organizational review, such as a potential regional office structure and organizational evaluation.
NEI 4A	Establish an NRC policy where the approved licensing basis of a plant is to be respected as	The staff accepted this recommendation. This was addressed by NRR's Division of Operating Reactor Licensing reactor licensing/backfit initiative. MD 8.4, "Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests," was revised in 2019 to clarify roles and responsibilities, and to provide

	complete and adequate.	<p>policy to staff on implementation of the backfitting provisions of 10 CFR 50.109.</p> <p>Respecting the licensing basis was a key element in the NRC 2017 reset and 2018 backfit training workshop. This perspective will be part of the longer term backfit training as well. Since this perspective is built into the ongoing effort to update the backfit policy, supporting backfit guidance and development of the follow-on backfit training, it does not need to be tracked as a separate task.</p> <p>No additional actions are proposed.</p>
NEI 4B	NRC should establish a process for resolving very low-risk licensing basis concerns.	The staff accepted this recommendation. The staff revised IMC 0612, Issue Screening, to include a process for resolving very low-risk licensing basis concerns.
TIR 841	Development of a Risk-Informed Compliance Process - The NRC inspection program should become more fully risk-informed so that inspections are focused on risk significant licensee activities.	The staff accepted this recommendation, in part. The staff has no plans to pursue risk-informing the compliance process; licensees not in compliance with regulatory requirements are required to implement corrective actions. The staff has made several recommendations for Commission consideration to more fully risk-inform the ROP. This recommendation is also being considered as part of the effort to address low safety significance issues under the "Very Low Safety Significance Issue Resolution (VLSSIR)" effort.

SUBJECT: DISPOSITION OF RECOMMENDATIONS TO ENHANCE THE REACTOR
OVERSIGHT PROCESS DATED MARCH 10, 2020

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