



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 11, 2019

MEMORANDUM TO: Ho K. Nieh, Director
Office of Nuclear Reactor Regulation

FROM: Christopher G. Miller */RA/*
Division of Inspection and Regional Support
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SUBJECT: ASSESSMENT OF AGGREGATE PROPOSED CHANGES TO
THE REACTOR OVERSIGHT PROCESS

This memorandum transmits the results of an assessment of the impacts of the aggregate proposed changes being recommended for the Reactor Oversight Process (ROP) under the 2019 ROP enhancement initiative.

Background

In early 2018, the NRC's Executive Director for Operations established the Transformation Team to ensure the NRC was positioned to provide oversight of new technologies. The Transformation Team received 72 recommendations for enhancing the ROP. Subsequently, 27 ROP enhancement recommendations were provided to the NRC in a letter from the Nuclear Energy Institute (NEI), dated September 19, 2018 (Agencywide Document Access and Management System (ADAMS) Accession No. ML18262A322). To further evaluate these potential improvements, the NRC launched the ROP enhancement initiative. The recommendations have been binned into eight thematic areas: assessment area, inspection area, significance determination process (SDP), performance indicators (PIs), emergency preparedness (EP), radiation protection (RP), security, and independent spent fuel storage installation (ISFSI) oversight.

The goal of the ROP enhancement initiative is to take an objective, fresh look at the ROP as a mature oversight program, evaluate the recommendations, and implement changes to the ROP to make it more risk-informed and performance-based while adhering to the NRC's Principles of Good Regulation.

Enclosure:
Summary of Individual Potential Changes
To ROP

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The specific objectives of the initiative are to:

- focus both NRC and industry resources on issues of higher safety significance and provide for more timely resolution of issues of relatively low safety significance;
- enhance the SDP through improved risk assessment tools and communications;
- improve the efficiency and effectiveness of the baseline and supplemental inspection programs; and
- improve communications between NRC and industry on both licensing and oversight matters.

Feedback received from some internal stakeholders on the overall project indicates a concern that there are many changes being proposed to the ROP without assessing the impacts of the cumulative changes being considered. The following assessment is intended to address this concern.

The staff undertook a separate initiative to revise the suite of baseline engineering inspections with recommended changes for Commission approval documented in SECY-18-0013, "Recommendations for Modifying the Reactor Oversight Process Engineering Inspections," dated November 13, 2018 (ADAMS Accession No. ML18144A567). This assessment will include that effort as part of the overall ROP enhancement initiative.

Analysis

To conduct this assessment, the staff eliminated all recommendations for which no action was planned, recommendations that would not be pursued under this initiative, and recommendations that require further review. The primary focus of this analysis was to evaluate those recommendations for which some staff action to revise the ROP is proposed or has been completed. Where specific staff action associated with a recommendation has been identified, the assessment was based on the proposed action.

There were 26 recommendations reviewed for this assessment. The recommendations and individual potential impacts are described in the Enclosure. Under the ISFSI area, there were no recommendations being considered for staff action; however, the ISFSI inspection program is undergoing a separate comprehensive review with the intention of improving efficiency and standardization in training and conduct of ISFSI inspections. These changes are expected to have no impact on regulatory oversight.

The staff evaluated the potential impacts to regulatory oversight for each individual recommendation and binned the results. The main categories under which the recommendations were binned are:

- No impact on regulatory oversight;
- Minimal impact on the ROP or other regulatory processes; and
- Potential impact on regulatory oversight.

No impact on regulatory oversight

The staff concluded that 12 of the 26 recommendations would have no impact on regulatory oversight. The "no impact" conclusion was based on the proposed actions being considered, including reinforcing existing guidance, or making changes to qualitative descriptions.

The following examples are intended to illustrate the “no impact” conclusion:

- The staff is reinforcing existing NRC guidance for issuing press releases for White inspection findings.
- The is re-characterizing the qualitative descriptions for White and Yellow findings to be more consistent with the column descriptions in the ROP Action Matrix. The qualitative descriptions of the colors are intended to improve clarity and have no impact on the risk thresholds.

While the staff concluded these recommendations would have no regulatory impact, they are aligned with the NRC Principles of Good Regulation. Eight of these recommendations have the potential to improve efficiency or effectiveness of the program. Examples include recommendations to conduct focused self-assessments of all inspection areas, like that completed for the engineering inspections, to improve efficiency and reduce redundancy throughout the baseline inspection program, especially for emergency preparedness and radiation protection inspection areas. A similar effort has been conducted in the security area. Four recommendations that will have no regulatory impact are aligned with improving the clarity principle of good regulation. Other proposed staff actions will improve reliability of the oversight program.

Minimal impact to ROP or other regulatory processes

The staff concluded that five of the recommendations will have a minimal impact to the ROP or other regulatory processes. For instance, one recommendation is to create more incentive to fix existing issues and place less emphasis on inspection of White issues. Title 10 of the *Code of Federal Regulations* (CFR) Part 50, Appendix B, Criterion XVI, sets the expectation that conditions adverse to quality and significant conditions adverse to quality are promptly identified and corrected. White issues have been characterized as safety-significant, and as such, there should be an expectation to follow-up on licensee actions to determine the cause and to identify and implement corrective actions in a timely manner commensurate with that safety significance. The staff plans to make some changes to IP 95001 in response to this recommendation. One of those changes is to eliminate the expectation for licensees to perform a full root cause evaluation prior to notification of readiness for the supplemental inspection. This may reduce the time it takes for licensees to declare readiness for the supplemental inspection. While the staff is eliminating the expectation for licensees to complete root cause evaluations, there will still be an expectation for licensees to complete some kind of causal evaluation which inspectors will review. The changes being proposed should have minimal impact on regulatory oversight.

Another of these recommendations is to eliminate the Alert and Notification System (ANS) performance indicator (PI). The staff is planning to develop a new PI to replace the ANS PI. Elimination of the ANS PI should have minimal impact on oversight since the PI has rarely exceeded the Green/White threshold at any facility.

Additional proposed staff actions that may have minimal impact to the ROP are described in the enclosure.

Potential impact on regulatory oversight

The staff concluded that nine of the 26 recommendations for which the staff proposes some action have a potential impact on regulatory oversight of licensees. One of these is the recommended elimination of the requirement for safety-significant inspection findings to remain Action Matrix inputs for at least four full quarters, and for those inputs to be closed as soon as the NRC successfully completes the appropriate supplemental inspection. The impact will be reduced time for which safety-significant inputs may aggregate, making it less likely for a licensee to move to a higher column in the ROP Action Matrix. The staff concluded the impact from an historical perspective would have been relatively small in that, of the 75 plants to move to Column 3 of the Action Matrix because of White inspection findings, only three may not have moved to Column 3 if this policy had been in place since the inception of the ROP. However, that impact would only be seen under the original Column 3 entry criteria (two White inputs) and it would be negated when considering the change to the Column 3 entry criteria (three White inputs) in 2016. This recommendation has the added impact of providing an incentive for licensees to have supplemental inspections completed as soon as possible. The staff believes there is a safety benefit for licensees to identify the causal analyses and implement corrective actions sooner than four quarters, when able.

The recommendation to eliminate the four-quarter requirement is coupled with a recommendation to treat White PIs as Action Matrix inputs until the appropriate supplemental inspection is completed. Currently, a PI that returns to Green is no longer an input into the Action Matrix. This change would essentially treat PIs the same as inspection findings in the Action Matrix, and it also has the benefit of providing an incentive for licensees to have supplemental inspections completed as soon as possible. This proposed change would offset the loss of aggregation potential resulting from the elimination of the four-quarter requirement for inspection findings in that PIs that cross a significance threshold would continue to aggregate with other Action Matrix inputs, even if the PI returns to Green prior to the supplemental inspection being completed. Historical review identified five reactor units that may have transitioned to a higher column in the Action Matrix had this policy been in place since ROP inception. These recommendations are consistent with the principles of good regulation by improving clarity and reliability in how inspection findings and PIs are treated.

One recommendation to revise the SDP for the EP area may result in fewer White findings being issued. The proposal would revise the EP SDP to assign greater-than-Green safety significance to only those EP performance deficiencies related to planning standards that have a direct impact on public health and safety. Despite reducing the potential for greater-than-Green findings, the recommended change should better risk-inform the EP SDP.

There were five related recommendations to reduce the baseline inspection program or reduce the frequency of some inspections. The staff's review of the inspection program concluded that several inspection procedures could be revised to improve efficiency and effectiveness, in many cases by simply reducing the minimum, nominal, or maximum sample size requirements. The staff is recommending reductions in minimum sample sizes for several baseline inspection procedures, and this has the potential to impact regulatory oversight because less inspection may lead to fewer inspection findings. Fewer inspection findings could potentially result in fewer licensees transitioning to higher columns in the Action Matrix. Also, by reducing the frequency of some inspections, it is possible for a safety-significant performance deficiency to exist for a longer period before being identified. Longer exposure times tend to increase the safety-significance of an issue. Reduced oversight could also result in licensees relaxing standards which could, in turn, lead to an increase in inspection findings. The recommended

changes are aligned with improving NRC performance as it pertains to the Principles of Good Regulation of efficiency and reliability. The staff concluded that these changes would still provide a sufficient level of oversight to ensure that the ROP cornerstone objectives are being met.

The recommended changes to the baseline engineering inspection program could have a similar impact to that postulated for the overall proposed changes to the reactor safety baseline inspections. Reduced frequency of the engineering inspections may result in fewer inspection findings, although that potential impact may be offset by the change in focus for the engineering inspections. As previously mentioned, reduced inspection frequency could mean a performance deficiency exists for a longer period, potentially increasing its safety significance. The staff determined that the proposed format for the engineering inspections, in combination with an extended inspection cycle, would not negatively influence the effectiveness of the overall engineering inspection program. Through the completion of annual onsite engineering inspections, the staff determined that extending the cycle length would not impact the ability of the ROP to provide objective evidence that risk- or safety-significant SSCs would remain capable of performing their intended safety functions consistent with their design and licensing bases.

Summary of Impact of Aggregate Proposed Changes to the ROP

The staff concluded that nine of the 26 recommendations to enhance the ROP have the potential to have some regulatory impact, with an additional five having a minimal impact. The aggregate impact is the potential for fewer inspection findings, fewer greater-than-Green findings identified, and fewer licensees moving to Column 3 or 4 of the ROP Action Matrix because of the reduced time in which safety-significant inputs may aggregate.

The aggregation impact is mitigated by the proposal to maintain PIs as Action Matrix inputs pending successful completion of the appropriate supplemental inspection. Because these changes may make it more difficult for licensees to move to higher columns in the Action Matrix, it may be possible for licensee performance to decline to a point where increased regulatory oversight is appropriate, but not dictated by the licensee's position in the Action Matrix. For these cases, the Action Matrix deviation process exists such that the regions may increase oversight not described by the Action Matrix when licensee performance warrants it. Other tools available to address licensee declining performance are increasing inspection sample sizes to the maximum described by the inspection procedures, or increased management site visits. Proposed changes to IP 95001 to inspect potential common causes for all safety significant inputs during the previous 12-month period may be helpful in recognizing potential declining performance early.

Overall, the changes being considered by the staff are aligned with the NRC Principles of Good Regulation: seven should improve clarity, 17 are intended to make the program more efficient, one change improves openness, and one should improve reliability. In addition, 18 of the recommendations reviewed should improve effectiveness of the ROP, while better risk-informing inspections and inspection findings significance determinations. There were two recommendations that have the potential to reduce effectiveness of the ROP: reducing the resident inspector site coverage to allow up to a five-day gap, and reducing inspection sample sizes below minimum recommended samples for licensees characterized as "sustained good performers." Currently program guidance requires site coverage by a qualified inspector that is not interrupted for more than three consecutive work days, referred to as a gap in coverage. The staff is recommending extending this coverage gap to five days due to advancements in

communications and ability to monitor the plant remotely, along with the benefit of training for inspectors at counterpart meetings that this change provides. The longer period for which there is no qualified inspector onsite could reduce efficiency, or challenge inspectors to complete the baseline inspection program on time. With respect to the recommendation to reduce inspection for “sustained good performers,” the staff is not recommending inspection reductions below minimums. The overall assessment is that the recommendations will improve the effectiveness of the ROP.

The risk thresholds remain the same. When a licensee crosses one of those thresholds, the NRC will continue to provide increased oversight to ensure the licensee addresses the reasons for crossing that threshold. The ROP will continue to assess licensee performance and provide a measured regulatory response to that performance, ensuring licensees operate their plants in a manner that protects the public health and safety, as well as the environment.

The staff will continue to evaluate changes made to the ROP as part of the annual ROP self-assessment process to ensure adequate margin continues to exist in the assessment of licensee performance so that appropriate licensee and NRC actions are taken before unacceptable performance occurs.

SUBJECT: ASSESSMENT OF AGGREGATE PROPOSED CHANGES TO THE REACTOR
OVERSIGHT PROCESS JUNE 11, 2019

ADAMS Accession No.: ML19080A185

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Summary of Individual Potential Changes to ROP

Area	Recommendation (as submitted by stakeholders)	Staff Plan	Impact
No regulatory impact			
Assessment	Revise Public Communications on White Findings: NRC should discontinue the practice of issuing a press release for White findings. White findings are documented in Inspection Reports and assessment letters and should be treated as normal variations in performance as described in the original ROP construct.	NRC to reinforce existing guidance on issuing press releases for White inspection findings.	No regulatory impact – no change to existing guidance. Improves clarity and efficiency - fewer resources expended on unnecessary press releases.
Assessment	Redefine Finding Labels: Establish labels of Green as “very low safety significance,” White as “low safety significance,” Yellow as “moderate safety significance,” and Red as “high safety significance.”	Staff to implement.	No regulatory impact – changing qualitative descriptions. Improves clarity - definitions align with Action Matrix. Improves effectiveness – more accurately communicates the actual safety significance associated with these findings.
Assessment	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. This would eliminate the aggregation of Whites and allow the plant’s CAP to work as designed in support of nominal plant operation. Plants today nominally operate with baseline CDFs between 10-5 and 10-6/yr.	No plans to combine Columns 1 and 2. Staff proposes wording changes to the Action Matrix that better clarify what each column means.	No regulatory impact – description change only. Improves clarity of the significance of each Action Matrix column.

	Also, this would establish a column change as a more significant event the public would better understand.		
SDP	Standardize PRA Inputs to SDP: Develop a consensus methodology for PRA inputs that will align the NRC and industry on 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. Presently, PRA results differ from the NRC's SPAR models largely due to the sensitivity of these inputs and incorporation of plant changes. The NRC RASP Handbook provides very conservative initial assumptions which drive the significance higher in many cases. This causes consternation and application of intense resources, both by the NRC and industry, only to eventually come out in the end as very low safety significance. Since 2010, less than nine percent of findings actually escalated above very low significance.	Partially addressed through Inspection Finding Resolution Management. NRR/DRA to evaluate further enhancements as a longer-term activity. Revise relevant IMC documents to enhance communication with licensees.	No regulatory impact – staff action should improve communications. Improves openness in the SDP process. Improves efficiency and effectiveness by determining final risk significance of findings with reduced likelihood of licensee appeals.
Inspection	Reduce requirement of Resident Inspector coverage at each site (currently staffed with no more than 3-day gap).	The staff determined that increasing the site coverage gap in specific and infrequent occasions would not adversely impact oversight of licensee operations. Resident inspectors are able to maintain awareness of plant parameters in a variety of ways with minimal decreases in efficiency for short and infrequent periods of time. The 3-day gap coverage	No regulatory impact – backup inspectors would still be identified and available to provide support when there is a gap in coverage. Potential for reduced effectiveness with larger gaps in resident inspector coverage. There is a potential for improved effectiveness due to additional training inspectors receive by attending counterpart meetings.

		requirement is also in IMC 2515 (Section 11.01). Revise IMC 2515 to allow for up to 5-day gap.	
Inspection	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). When NRC wishes to add new subjects or scope to the Baseline Inspection Program, it should identify subjects and scope that will be removed from the BIP to prevent increasing the BIP hours. The treatment proposed for FLEX inspections is an example of weaving a new area of inspection into the existing baseline program while striving to avoid increasing direct inspection hours.	To the extent practicable, future additions to the inspection program should be incorporated into the sample requirements of existing baseline inspection procedures or replace existing baseline procedures. The intent of this statement 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. Any additions to the inspection program require DIRS management approval.	No regulatory impact – new inspection requirements will be incorporated into existing procedures to the extent practicable. Improves predictability of the inspection program with respect to resource requirements.

Inspection	Resident Inspectors focus daily on the Corrective Action Program (CAP) by reviewing all new condition reports (CRs). Moreover, in most inspections, inspectors focus first on CAP entries. Thus, each inspection and inspector assesses the ability of the plant to find and fix its problems. Focusing a separate inspection team solely on PI&R is redundant to the assessment of the PI&R function that occurs in almost every inspection. In addition, the cross-cutting issues element of the ROP captures trends in PI&R performance in every inspection.	Transfer action/hours back to IMC 2515, Appendix D, Plant Status intended to align performance and time commitment with intended scope of the activity and more clearly differentiate the difference in the routine review of CAP items with CAP follow- up inspection.	No regulatory impact – staff re-allocating budgeted hours from PI&R to Plant Status activities for tracking purposes.
Inspection	Reduce large team inspections by targeting areas based on plant risk and performance. A) Current process consists of numerous inspections covering broad areas and programs. (e.g., Design Basis Assurance, Fire Protection, Heat Sink, etc.) This approach utilizes a large number of inspector hours and even larger site resources. Findings from these inspections are largely due to documentation or analytical gaps that rarely impact or improve safety. B) Reduce inspections by focusing on risk significant areas and areas where plant performance warrants increased oversight. Plant-specific Probabilistic Risk Assessments could be used to select systems for inspections. Long-term scheduling could use tiered approach, covering higher risk systems first. NRC Performance Indicators for system availability/reliability could be utilized to determine additional focus areas.	Staff has completed a holistic review of the engineering inspections and provided recommendations to the Commission. Staff will continue to evaluate this recommendation.	No regulatory impact, but has the potential for improved efficiency, reduced redundancy, and further risk-informing the inspection program. Potential for improved effectiveness by further risk-informing the large team inspections.
Radiation Protection	Revise RP Inspections: Review radiation protection inspections to apply lessons learned from the Engineering Inspections Working Group to streamline them (following the	The staff has determined that it is appropriate to eliminate IP 71124.02, Occupational as Low as is	No regulatory impact – ALARA will still be monitored.

	<p>stakeholder engagement process employed with engineering inspections); include credit for self-assessments.</p>	<p>Reasonably Achievable (ALARA) Planning and Controls, and inspect certain aspects under other inspection procedures. Regarding crediting self-assessment in lieu of inspections, the staff will transition this specific item to a long-term effort in coordination with external stakeholders.</p>	<p>Improves efficiency by focusing fewer resources on an area where licensee historic performance is good and still improving, and risk is low.</p> <p>Improves effectiveness – less resource focus on a lower risk area so that inspectors can focus on issues of greater safety significance.</p>
<p>Radiation Protection</p>	<p>An overall consideration of reducing or combining inspection procedures (IP). One particular area of consideration is the Radiation Protection or Health Physics (HP) inspection program. However, other similar areas of multiple IPs for a given focus area could also be adjusted, for example emergency preparedness, security, 50.59, fire protection, etc. One example, rather than having eight (8) separate IPs in HP, we can effectively combine key focus areas of inspection into possibly only four (4) IPs. One IP focusing only during refuel outages effectively inspecting key areas of Rad Protection during refueling, outages, maintenance, Rad equipment, etc. This would only be needed during outages which could be every 18 or 24 months based on the licensees refuel cycle. Other key focus areas such as effluents, transportation, radwaste, etc., could also be combined and intervals extended. We continue to perform same inspection efforts over and over again on an annual or other periodic bases (biennial, triannual), potentially looking at the same thing, the overall program, repeatedly.</p>	<p>The staff is proposing to eliminate IP 71124.02 and transfer some necessary inspection activities to other IPs.</p>	<p>No regulatory impact – ALARA will still be monitored.</p> <p>Improves efficiency by focusing fewer resources on an area where licensee historic performance is good and still improving, and risk is low.</p> <p>Improves effectiveness – less resource focus on a lower risk area so that inspectors can focus on issues of greater safety significance.</p>

Emergency Preparedness	Consider allowing Emergency Plan changes associated with 10 CFR 50.47(b)(2, 4, 5, 8, 9, and 10 (offsite part)) 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 may also be considered for future rulemaking (10 CFR 50.54(q)) if desired.	This recommendation has two parts: (1) revise the 10 CFR 50.54(q) regulation and associated guidance document RG 1.219, "Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors," and (2) revise the applicable EP inspection procedures. If the Commission approves the staff recommendation to limit to Green only findings for planning standards having a direct impact on public health and safety, then the staff will provide the Commission the applicable risk-significant planning standards (RSPS) and non-RSPS functions when seeking approval for this recommendation. Potential rule-making will be a longer-term effort.	Changes to safety-significant planning standards will still be subject to NRC review. Planning standards will still be inspected against existing regulations. Implementation of this recommendation will reduce regulatory burden and inspection effort. Potential for improved efficiency and effectiveness in inspection program, and making the EP inspection requirements more risk-informed.
Security	Revise Security Inspection: Review security inspections to apply lessons learned from Engineering Inspection Working Group to streamline them (following the stakeholder engagement process employed with engineering inspections), include credit for self-assessments.	Continue to make relevant inspection program document changes based on the working group recommendations and Commission direction (SRM- SECY-17-0100).	Likely impacts will be increased efficiency and effectiveness by reducing redundancy in inspection procedures.

Some potential impact to ROP or other regulatory process			
Inspection	<p>Establish the follow-up and closure for White findings through the resident inspector inspecting the causal analysis. Initially this was approximately 16 hours as originally anticipated in the 2002 version of the IP 95001 procedure.</p> <p>Ensure the attributes of the 95001 procedure for prevention of recurrence, extent of cause/condition are assessed, possibly through a PI&R-type sampling process.</p>	<p>Staff is recommending the following enhancements:</p> <p>To enhance dissemination of best practices, equalize regional work-loads, and possibly improve consistency among regions, consider using inspectors from other regions to perform 95001 inspections.</p> <p>Remove the expectation outlined in IP 95001 that licensees should perform a root cause analyses to investigate issues, since this expectation does not have a regulatory basis and as such, is not an enforceable requirement. Root cause analysis would be replaced with causal analysis.</p> <p>Hours were changed in 2011 from 16 to 40 hrs. Recommend changing the range back to 16 and make the range 16 - 120 hrs.</p>	<p>Elimination of an expectation that a root cause evaluation be completed for safety significant Action Matrix inputs may result in an increased number of 10 CFR 50 Appendix B Criterion XVI findings for issues that are repetitive because there are no corrective actions to preclude recurrence by identifying a root cause. Increases flexibility in conducting the supplemental inspection.</p> <p>Recommendations will improve clarity for the supplemental inspection, and potentially improve efficiency by allowing budgeting for a range of hours, instead of targeting 40 hours per inspection.</p> <p>Potential for improved effectiveness by improving consistency in how the different regions complete the inspection.</p>

SDP	Combine Beyond-design-basis (BDB) into One SDP: For BDB SDP, combine all IMC 0609 appendices currently used into one SDP for BDB events. (Appendix O and L)	Staff partially accepted.	<p>Some regulatory impact - Currently, any FLEX/SFP finding that doesn't screen to Green in Appendix O goes to Appendix M. With the change, it would be evaluated in Appendix A and if it doesn't screen to Green there, it would get a detailed risk evaluation like any other at-power finding.</p> <p>Improves clarity in guidance and efficiency in processing findings for BDB events.</p>
Emergency Preparedness	Consider replacing the Alert and Notification System (ANS) Performance Indicator (PI) as it is not very indicative of EP readiness and effective maintenance of EP equipment. The availability of the Integrated Public Alert and Warning System (IPAWS) also may make this PI unnecessary and easily evaluated as part of a comprehensive EP baseline inspection program. Replace this PI with one for emergency response facility (ERF) readiness. ERF readiness is an integral part of an effective EP program as these facilities need to be ready when called upon.	The staff is planning to eliminate the ANS PI and develop an emergency response facility (ERF) readiness PI to measure licensee performance in the maintenance of EP equipment	<p>Some impact to the ROP can be expected when sunsetting one PI and replacing it with another PI measuring a different area of licensee performance. Impact should be relatively low considering there has rarely been a greater-than--Green PI in EP.</p> <p>Potentially improved effectiveness for oversight of the EP program by reducing redundant monitoring of the alert and notification system and focusing on ERF readiness.</p>

Emergency Preparedness	Develop a process for evaluating all potential findings that may be greater-than-Green (GTG) with all Regions and NRC HQ staff prior to issuance. We need to ensure that all findings are consistently understood and consistently implemented.	The Inspection Finding Resolution Management (IFRM) process was established to more effectively disposition greater-than-Green inspection findings. Following a pilot period, the IFRB was expanded to include cornerstones with deterministic SDPs, including EP. No further staff action identified yet.	The SERP process exists to ensure potential GTG findings are treated consistently. Generally, the EP SDP flowcharts are relatively straightforward; this change has the potential to insert more “subjectivity” into the significance determination.
Security	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.	Continue to make relevant SDP changes based on the task force recommendation and Commission direction (SRM- SECY-17-0100). The staff issued a revision to IMC 0609, Appendix E, Part I, “Baseline Security Significance Determination Process for Power Reactors,” on September 17, 2018. This document was revised in response to SECY- 16-0073 (ADAMS Accession No. ML16279A345) and the March 2017 Assessment Team review.	The impact is that the SDP is more risk-informed. All changes made during this revision were based on the objectives of increasing clarity, consistency, and predictability, leading to improved effectiveness.

Potential Impact on Regulatory Oversight			
Assessment	<p>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. This assures that escalated inspection attention is maintained only while ongoing plant risk is above nominal. Once the risk is returned to baseline, the inspection to ensure sustainability of corrective actions is provided by resident inspector monitoring. Adjust GTG PIs to be consistent.</p>	<p>Recommendation partially accepted.</p>	<p>Regulatory impact includes reduced time for GTG inputs to aggregate to indicate more pervasive and significant performance problems that require an increased level of interaction per the Action Matrix. Provides an incentive to licensees to prepare for supplemental inspections more quickly. Satisfactory completion of supplemental inspections provides public assurance that licensees understand the causes of the deficient performance, and have identified corrective actions to address that performance.</p> <p>Historical data shows the impact would have been relatively minor.</p> <p>The staff is also proposing to modify IP 95001 to allow inspectors to review previous GTG findings and PIs from within the previous four quarters when conducting that inspection, regardless of whether the issue is open or closed. That review would ensure that common causes between performance issues have been considered.</p>

			Potential to improve efficiency by regulatory decisions being made without undue delay, improve reliability through changes to PI treatment, and improve effectiveness by maintaining heightened oversight only while plant risk is above nominal.
Inspection	We are looking at all engineering inspection procedures, carry this effort on to look at operations, maintenance, security, etc.	Staff conducting analysis of all baseline inspection procedures to determine appropriate sample sizes and resource estimates using historical data.	<p>The regulatory impact is that proposed changes reducing sample requirements for some inspection procedures could result in fewer inspection findings, with potentially fewer GTG findings to move a licensee in the Action Matrix.</p> <p>Improved efficiency by reducing required resources to complete inspection program.</p> <p>Improved effectiveness by consolidating similar inspections reducing redundancies, and better risk-informing the existing inspection procedures.</p>

Inspection	<p>Streamlined Regulatory Oversight Recognize sustained high regulatory performance through reduced regulatory oversight (e.g., fee reduction or inspection less than baseline). Revamp inspection procedures to emphasize risk and less licensing/design basis approach. Simplify the "no violation" or low risk violation report (e.g., transition to materials Form 591 inspection report formats). Reduce columns in Reactor Oversight Process Action Matrix.</p>	<p>Staff accepted part of the recommendations and conducted analysis of all baseline inspection procedures to determine appropriate sample sizes and resource estimates using historical data.</p>	<p>Proposed changes reducing sample requirements for some inspection procedures could result in fewer inspection findings, with potentially fewer GTG findings to move a licensee in the Action Matrix.</p> <p>Improved efficiency by reducing required resources to complete inspection program.</p> <p>Improved effectiveness by better risk-informing the existing inspection procedures.</p>
Inspection	<p>Acknowledging improvements in safety and risk, lower required inspection resources to complete Reactor Oversight Process inspections annually to include resident inspectors.</p>	<p>Staff conducted analysis of all baseline inspection procedures to determine appropriate sample sizes and resource estimates using historical data.</p>	<p>Proposed changes reducing sample requirements for some inspection procedures could result in fewer inspection findings, with potentially fewer GTG findings to move a licensee in the Action Matrix.</p> <p>Improved efficiency by reducing required resources to complete inspection program.</p> <p>Improved effectiveness by better risk-informing the existing inspection procedures.</p>

Inspection	Reactor Oversight Process- reduce the frequency for some inspections and increase the flexibility to adjust inspection frequencies.	The staff has recommended reducing the frequency of the biennial PI&R inspection to triennial. Further changes have not been evaluated, yet.	<p>Reducing frequency of inspections has the perception of relaxing oversight, and there is potential for GTG findings to exist for a greater period before being identified. The greater exposure time for a finding may also increase the safety significance of that finding.</p> <p>The proposal could improve effectiveness of the inspection program by making it more performance-based.</p>
Inspection	Reduce Baseline Hours for Higher Performers: Reduce the baseline inspection hour levels based on sustained plant performance. Higher performing plants should merit at least 25 percent fewer baseline inspection hours. This can be achieved by reducing the number of samples and subsequent direct-inspection hours in the existing inspections. These inspector touch points ensure levels of performance are sustained. Higher performing plants could be defined as having no greater than green inputs to the Action Matrix in the past 12 months.	The staff is recommending revision to some baseline procedures to right size samples and hours to reflect potential gains in efficiency and effectiveness, current safety improvements, and risk insights in the current fleet. The staff is also recommending revising the program to define sustained Column 1 performance. This change will support an initiative that would allow minimum sampling for licensees that have exhibited sustained Column 1 performance. Staff is not recommending inspecting below minimum sample sizes.	<p>Right-sizing sample sizes and resource estimates will better risk-inform the baseline inspection program. Proposal to recommend only minimum sample sizes for sustained good performance could have an impact on regulatory oversight since reduced inspection could lead to fewer inspection findings.</p> <p>While reducing inspection to below minimum sample sizes may improve efficiency, it will likely have a negative impact on effectiveness of the inspection program as an oversight program because of less overall inspection.</p>

Inspection	Create more incentive to fix existing issues. Less emphasis on inspection of white issues: perhaps a 12-hour 95001 inspection.	Staff has recommended several changes to IP 95001, including a proposal to create a resource range reduced to as few as 16 hours.	<p>Elimination of an expectation that a root cause evaluation be completed for safety significant Action Matrix inputs may result in an increased number of 10 CFR 50 Appendix B Criterion XVI findings for issues that are repetitive because there are no corrective actions to preclude recurrence by identifying a root cause.</p> <p>Recommendations will improve clarity for the supplemental inspection, and potentially improve efficiency by allowing budgeting for a range of hours, instead of targeting 40 hours per inspection, such that inspections for simple performance deficiencies may be completed more quickly.</p>
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Inspection	Holistic review of baseline engineering inspections.	<p>Staff recommendations to modify the baseline engineering inspections documented in SECY-18-0113.</p> <p>These changes include:</p> <p>(1) modification of the engineering inspections from the current three-year to a four-year cycle;</p> <p>(2) inspection consolidation, elimination of several inspection activities and the development of two new types of inspections to be performed during the four-year cycle, the comprehensive engineering team inspection (CETI) and the focused engineering inspection (FEI); and</p> <p>(3) focusing inspection towards operating experience, aging management, and facility changes.</p>	<p>The regulatory oversight impact from proposed changes reducing the frequency for conducting engineering inspections is that it increases the potential exposure time for inspection findings, which could increase the safety significance. Significance determinations depend on exposure times. This could potentially result in more greater-than-Green inspection findings with resultant licensee movement in the Action Matrix. The revised scope could potentially result in more inspection findings, as well.</p> <p>Improved efficiency by consolidating some annual inspection activities. Reduced frequency will result in a reduction in resources necessary to evaluate the licensee's engineering programs.</p> <p>Focused engineering inspections should improve effectiveness by consolidating similar inspections reducing redundancies, and better risk-informing the existing inspection procedures. FEIs also allow inspectors an opportunity to inspect emerging issues or trends.</p>
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<p>Emergency Preparedness</p>	<p>Consider only having findings associated with 10 CFR 50.47(b)(2, 4, 5, 8, 9, 10(offsite only) be able to be greater than Green.</p>	<p>Recommendation accepted and documented in draft SECY.</p>	<p>The regulatory impact is a reduced likelihood for GTG findings in EP. However, it has the potential to make the SDP more risk-informed.</p> <p>Improves effectiveness by better risk-informing the EP inspection requirements, focusing on changes to the EP plan for only planning standards that have a direct impact on public health and safety.</p>
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