



POLICY ISSUE

(Notation Vote)

September 20, 2022

SECY-22-0087

FOR: The Commissioners

FROM: Daniel H. Dorman
Executive Director for Operations

SUBJECT: RECOMMENDATION FOR PROBLEM IDENTIFICATION AND
RESOLUTION TEAM INSPECTION FREQUENCY

PURPOSE:

The staff requests a Commission vote on the frequency of the inspection team sample in Inspection Procedure 71152, "Problem Identification and Resolution" (Agencywide Documents Access and Management System (ADAMS) Accession No. [ML21281A181](#)).

SUMMARY:

The current Problem Identification and Resolution (PI&R) team inspection frequency is biennial. In 2019, the staff recommended that the Commission change the frequency to triennial in SECY-19-0067, "Recommendations for Enhancing the Reactor Oversight Process" (ADAMS Accession No. [ML19070A036](#)). The Commission approved the withdrawal of that SECY in Staff Requirements Memorandum (SRM)-SECY-18-0113, "Recommendations for Modifying the Reactor Oversight Process Engineering Inspection" and SECY-19-0067, "Recommendations for Enhancing the Reactor Oversight Process" and directed the staff to engage the Commission, as appropriate, with any new recommendations depending on the outcome of consideration of new information and reevaluation of the bases for prior recommendations (ADAMS Accession No. [ML21217A284](#)).

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This paper provides a background on the PI&R inspection procedure and associated enhancement recommendations developed in 2018, current information on the efficacy of the procedure, and a risk assessment of updated options provided to the Commission. Based on new considerations and reevaluations, the staff now makes a new recommendation to maintain a biennial frequency rather than changing to triennial.

BACKGROUND:

In 1999, acknowledging the importance of PI&R performance as a leading indicator of overall licensee performance, the Commission authorized an annual PI&R team inspection under Inspection Procedure (IP) 71152, during the Reactor Oversight Process (ROP) pilot under SRM-SECY-99-007, "Recommendations for Reactor Oversight Process Improvements," dated June 18, 1999 (ADAMS Accession No. [ML20196A871](#)). Based on feedback following initial implementation, the staff recommended decreasing the frequency of PI&R inspections from annual to biennial and adding annual samples for selected issues (SECY-01-0114, "Results of the Initial Implementation of the New Reactor Oversight Process," dated June 25, 2001, ADAMS Accession No. [ML011410551](#)). As a result of the Davis-Besse Lessons Learned Task Force recommendations (dated September 30, 2002, ADAMS Accession No. [ML022760172](#)), the staff incorporated the semiannual trends sample and updated the resident inspectors' daily PI&R screening guidance, formalizing the daily review under IP 71152. With minor changes, the PI&R procedure has existed with that basic framework from 2005 until January 2022, when the staff moved the daily resident PI&R screening to Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program—Operations Phase," appendix D, "Plant Status" (ADAMS Accession No. [ML022760172](#)), to improve the tracking of inspection hours. This change did not require prior Commission approval per Section II.I "Changes to the ROP" of Directive Handbook (DH) 8.13 "Reactor Oversight Process" (ADAMS Accession No. [ML17347B670](#)).

In the since-withdrawn SECY-19-0067, the staff provided to the Commission the perception among stakeholders that the PI&R inspection may not be fully effective in assessing effectiveness of licensee corrective action programs. The staff recommended decreasing the PI&R team inspection frequency to triennial as a means to improve effectiveness and efficiency. Additionally, the staff recommended conducting a comprehensive review of PI&R inspections.

In August 2019, a multi-disciplinary team of staff from multiple agency offices was assigned to conduct a comprehensive review of the PI&R inspection program. The review focused on two main areas: (1) procedure guidance and implementation; and (2) the U.S. Nuclear Regulatory Commission's (NRC) overall assessment of a licensee's PI&R program. The team, referred to as the PI&R Working Group (PIRWG), concluded (ADAMS Accession No. [ML20247J602](#) (PIRWG Report)):

[T]he procedure [IP 71152] remains an effective oversight tool to assess the acceptability of licensee actions to identify, prioritize, evaluate, and correct plant problems. However, aspects of the PI&R program could be strengthened to reduce subjectivity when assessing overall licensee performance in the areas of PI&R. Therefore, the staff identified several enhancements, as discussed in this report, that could improve the overall effectiveness of the PI&R inspection program.

The working group provided risk-informed recommendations for changes to the procedure for biennial and triennial frequencies, so that the appropriate recommendations could be

implemented after the Commission approved or disapproved the decrease in team inspection frequency from biennial to triennial. In a memorandum dated November 12, 2020 (ADAMS Accession No. [ML20274A133](#)), the Director, Division of Reactor Oversight (DRO), provided the Director, Office of Nuclear Reactor Regulation (NRR) with the PIRWG Report and associated supporting information, the Director, DRO's views on options in the PIRWG Report, and finally DRO's plan to work with NRR, the Office of Nuclear Security and Incident Response, and the Regions to discuss and develop any needed changes to the PI&R inspection procedure as a result of the PIRWG Report, and to include public discussions of any changes that might be anticipated to impact stakeholders. After subsequent engagement with the Regions, NRR selected a subset of these recommendations for implementation. The selected recommendations address inspector feedback regarding the need for more clear guidance to enhance consistency while maintaining the basic structure of the current PI&R inspection procedure, that is, a team inspection, annual review samples, and semiannual trend samples. The changes will be implemented in the 2024 update to team inspection guidance. These changes include:

- The inspection scope would be licensee implementation of the PI&R program with a focus on identification, prioritization, evaluation, and corrective action. The outcome of the procedure would be the identification and documentation of licensee PI&R program implementation trends and themes for use by NRC management during the annual "end-of-cycle" assessment meetings.
- Licensee audits, self-assessments, and operating experience reviews would be folded into these inspection focus areas. The changes redistribute inspection resources in a more risk-informed and performance-based manner, which could allow for appropriate resource reduction from the team inspection. Duplicative guidance that overlaps with annual and semiannual samples would be removed to enable inspectors to focus on areas that directly support the objectives of the team inspection. (ADAMS Accession No. [ML20247J602](#))

The selected changes would require minimal NRC staff effort to modify the program with routine stakeholder interaction and do not require prior Commission approval per Section II.I of DH 8.13 (ADAMS Accession No. [ML17347B670](#)). The PIRWG recommendations were communicated to internal and external stakeholders in 2020 (Meeting Summary: ADAMS Accession No. [ML20322A191](#)).

In August, 2021, the Commission approved the withdrawal of SECY-2019-0067 (ADAMS Accession No. [ML21217A284](#)). In the SRM, the Commission noted that "[t]he staff requested to withdraw these papers because new information and additional staff activities are relevant and were not considered in developing the basis for several of the recommendations in the papers. The staff intends to reevaluate the basis for the previous recommendations."

DISCUSSION:

The staff considered new information since the SECY-19-0067, including the results of the PI&R comprehensive review and inspection findings issued since June 28, 2019, and now recommends retaining biennial PI&R team inspections. The staff recommends maintaining the status quo of the inspection frequency, and while Commission approval would not normally be required by Section II.I of DH 8.13 (ADAMS Accession No. [ML17347B670](#)), the staff is engaging

the Commission with the new recommendation of retaining biennial team inspections, as contemplated by the SRM (ADAMS Accession No. [ML21217A284](#)).

SECY-19-0067 included multiple bases for recommending decreasing the inspection frequency from biennial to triennial. Although the information presented in SECY-19-0067 was accurate at that time, the PIRWG benefited from a more comprehensive and up-to-date review of the history, inspection bases, and outcomes of the PI&R inspection procedure. The PIRWG did not conclude whether it would be beneficial to transition the inspection from biennial to triennial frequency; however, the information it provided was used in reevaluating the basis for the previous recommendation.

While the overall conclusion of the PIRWG was that the PI&R inspection procedure is effective, internal stakeholder opinion on the efficacy of the procedure varied and included some opinions that the procedure is not effective. However, as demonstrated by Attachment 6 of the PIRWG report, decreasing the inspection frequency was not a common staff proposal for increasing procedure effectiveness. While staff is in general agreement that the procedure could be more effective, there was a broad spectrum of proposed ideas to improve the procedure. While some believed that the frequency should be made triennial for the reasons listed in SECY-19-0067, a common concern was the lack of formal PI&R program assessment criteria and the lack of guidance on appropriate NRC actions to be taken when a licensee's PI&R program is deemed to be inadequate. Specifically, the procedure could be improved to identify and address poor PI&R programmatic performance more effectively. Shifting the frequency to triennial would not address those concerns. The Inspection Manual has a process for staff to recommend changes to procedures via Inspection Program Feedback Forms (IMC 0801, "Inspection Program Feedback Process," (ADAMS Accession No: [ML19343A777](#))). Of the 28 open feedback forms for IP 71152 at the time that SECY-19-0067 was written, 9 recommended enhancing assessment capabilities, the remaining 19 regard procedural changes not related to assessment or frequency, none recommended making the procedure triennial.

One argument for decreasing the frequency of the team inspection is that there are multiple other PI&R "touchpoints" in the baseline inspection program. In its review of the PI&R inspection procedure, the PIRWG determined that the team inspection "should not duplicate the inspections within the cornerstones" (IMC 2515, Appendix A). Inspectors do have many touchpoints with licensee PI&R programs; however, those touchpoints do not provide the programmatic assessment required by the team inspection. While a primary goal of the daily review "is to verify that licensees are identifying issues at an appropriate threshold and entering issues into the PI&R program," inspectors are also required to follow up on any issues via a baseline inspection rather than through the daily review (IMC 2515 Appendix D, "Plant Status"). The semiannual trend reviews and annual follow-up samples are limited in scope to the selected issues rather than a holistic assessment of the effectiveness of the licensee's PI&R program; similarly, reviews required as a part of other baseline procedures are limited to the scope and cornerstones of those inspections.

As stated in IMC 0308 "Reactor Oversight Process Basis Document," "[w]ith regard to licensee PI&R effectiveness, there are several areas that are not specifically evaluated by either the individual cornerstone [performance indicators] PIs or the individual risk-informed inspections" (ADAMS Accession No. [ML16306A386](#)). Decreasing the team inspection frequency will increase the time periods between these broader assessments, which may result in missed opportunities to identify poor performance in the broader PI&R program sooner and less information available to support decision-makers during the annual performance assessment

process. Both SECY-19-0067 and the PIRWG recommended mitigating this potential through changes to the PI&R annual sample guidance; however, as these mitigations cannot meet the objective to assess licensee PI&R performance the same way that a cross-cornerstone team inspection does, the staff believes these mitigations may not fully address the concern.

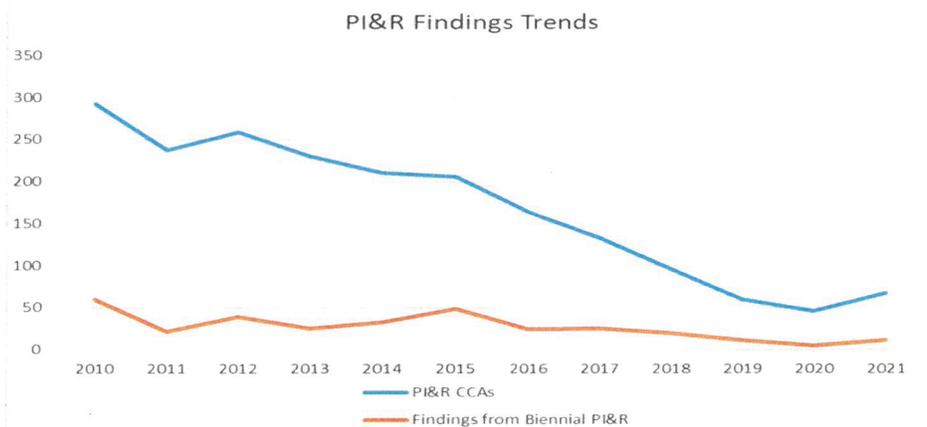


Chart from SECY-19-0067 with updated data through 2021

A recent review of the [ROP Self-Assessment Data Trending Dashboard](#) (not publicly available) confirms that the overall trend for ROP findings has decreased since 2015, with the exception of a slight increase in 2021, while findings from IP 71152B have been relatively constant. The PIRWG Report determined that the PI&R inspection procedure yields the most findings of any baseline procedure when combining annual (71152) and team inspection (71152B) samples (ADAMS Accession No. [ML20247J602](#)). Based on this data, the PIRWG Report recommended not making substantial changes to the procedure that could impact such a high number of ROP findings and observations without careful consideration. The staff now recommends that more-incremental changes to the procedure are warranted, and the frequency only be reconsidered after they are completed.

Summary of Options Following Be RiskSMART Assessment

As part of this COMSECY, the staff performed an assessment utilizing the Be RiskSMART Framework (ADAMS Accession No. [ML21071A238](#)) as a guide to risk inform its recommendation. This assessment outlined the positive and negative consequences of the two options on which the staff is requesting a vote: maintaining the biennial frequency or decreasing the frequency to triennial:

Option 1: Maintain Biennial Frequency

Positives

- Provides more opportunities to maintain inspector proficiency
- Maintains the more frequent PI&R assessment and ability to detect a decline in PI&R program performance
- Incremental procedure enhancements can be made and evaluated prior to considering additional changes

Negatives

- Resource burden of existing inspection frequency is maintained
- No change to licensee burden to support team inspections

Option 2: Decrease Frequency to Triennial

Positives

- Reduces inspection resource burden
- Reduces licensee support burden
- Increases the time for licensees to develop and implement corrective actions between inspections, reducing need for staff to track them for later review in subsequent team inspections

Negatives

- Does not provide the staff adequate opportunity to assess on their own merits other planned procedure enhancements independent of a frequency change
- Less opportunities to maintain inspector proficiency
- Increases risk of delays in detecting a decline in PI&R program performance due to less information available to support decision-makers during the annual performance assessment process

RECOMMENDATION:

Based on this risk assessment, the staff recommends that the Commission approve option 1: maintaining the team inspection portion of IP 71152, "Problem Identification and Resolution," at a biennial frequency. Although shifting the team inspection from biennial to triennial would yield some incremental benefits to regional and licensee resource burdens and would allow more time in between team inspections for licensee corrective actions to take effect, it would also minimally increase the risk of delays in detecting a decline in PI&R program performance, which is seen as a leading indicator in overall ROP performance. Maintaining the team inspection at biennial while the staff incorporates other selected PIRWG recommended enhancements to the PI&R inspection procedure provides a prudent approach to implement those recommendations first in order to assess any impacts to the effectiveness of the PI&R inspection program before considering additional changes, such as changes to the inspection frequency.

RESOURCES:

Utilizing resource requirements from the current inspection procedure, there is no change in FTE for option one; for option two the staff estimates a reduction from approximately 7.4 FTE annually to conduct the team inspection down to 4.9, or a drop of 2.5 FTE. For a more detailed discussion of resources, refer to the enclosure.

COORDINATION:

This paper has been coordinated with the Office of the General Counsel, which has no legal objection. The Office of the Chief Financial Officer OCFO has reviewed this paper for resource implications and has no objections.



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Enclosure:

Recommendation for Problem Identification
and Resolution Team Inspection Frequency
Resources (Non-Public)

SUBJECT: RECOMMENDATION FOR PROBLEM IDENTIFICATION AND RESOLUTION
 TEAM INSPECTION FREQUENCY DATED September 20, 2022

ADAMS Accession Number: Pkg: ML22252A161, Paper: ML22145A448, Encl: ML22252A162

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