

Proposed Guidance Change to MC 0305 to Address Protracted Performance Indicator Results

Change to MC 305 Guidance:

The following discusses a revision to MC 0305, *Operating Reactor Assessment Program*, to include guidance for exclusion from aggregation in the action matrix, long-standing performance indicator results that have been addressed by inspection and licensee action and no longer reflect the need for additional regulatory action. The guidance would allow exclusion of a greater than green performance indicator result from assessment input to the Action Matrix. This exclusion would be applied in instances where a greater than green performance indicator has existed for four quarters, supplemental inspection activities have been completed and any resulting open inspection items related to the previous performance decline have been closed out in an inspection report.

Problem Statement:

Performance indicators and inspection findings are intended to provide an objective indication of the need to modify NRC inspection resources or to take other regulatory actions based on licensee performance. Most performance indicators assess licensee performance over a period of 4 quarters or less, giving input to the assessment process that aligns with the 4 quarter assessment cycle used in the ROP. However, for performance indicators with assessment inputs extending beyond 4 quarters¹, there is the potential for the initial performance indicator result to remain in effect following completion of all necessary licensee and NRC actions. This is the case for the Mitigating Systems Performance Index (MSPI), which is a 12 quarter indicator. Multiple failures of components in a MSPI monitored system have the potential to result in a White performance indicator result that can remain White for up to 12 quarters. This period of time is well beyond the time necessary to initiate and complete supplemental inspection activities.

Assessment process guidance currently calls for performance indicator results to be incorporated (aggregated) into the assessment process, irrespective of whether supplemental inspections have been completed and irrespective of whether licensee actions to address the performance indicator have been completed. The NRC assessment process does not currently provide any mechanism to incorporate insights from supplemental inspection of performance indicators, in a timely fashion, as part of the assessment process.

Changes to the assessment program guidance are needed to allow performance indicators results that are no longer indicative of a need for NRC or licensee action, to be removed as an input to the assessment process. This would occur following 4 quarters and following completion of all supplemental inspection activities necessary to address the performance indicator result. This change would also enable better alignment between the assessment process treatment of PI results and inspection findings.

¹ Within the Mitigating Systems Cornerstone, the Mitigating Systems Performance Index (MSPI) accumulates performance data over a rolling 12 quarter period. Under the Emergency Preparedness Cornerstone, there are two performance indicators that accumulate performance data over a rolling 8 quarter time period. These are Drill/Exercise Performance and Emergency Response Organization Drill Participation. All other performance indicators accumulate performance data over a 4 quarter period or less.

Proposed Change:

The concept for the proposed change is to identify the criteria, which if met, would allow a performance indicator result to be excluded from aggregation in the action matrix for a plant. The performance indicator value would not be changed or modified in these cases. Instances where the criteria have been met and the performance indicator result is excluded from the action matrix would be footnoted in the public display of the action matrix, to clearly identify that supplemental inspection activities have been completed.

The proposed changes would be incorporated in a revision to guidance contained in MC 0305, Operating Reactor Assessment Program. A new subsection would be added to Section 06.06, Additional Action Matrix Guidance. Proposed wording is provided in Table 1. The guidance could alternatively be included as an addition to Subsection 06.06.d, *Timeframe for Including Performance Indicators and Inspection Findings in the Assessment Program*.

Illustrative Examples:

Two example cases are provided as Figures 1 and 2 to illustrate the effect of current and proposed guidance.

Example Case 1: Two White MSPI Performance Indicators

- Case 1a shows a White MSPI performance indicator occurring in quarter 1 and remaining for 12 quarters. Supplemental inspection activities (IP 95001) are completed by the end of quarter 4. A second White MSPI performance indicator in a different system occurs in quarter 6 and remains for 12 quarters. The first MSPI indicator is still White and in combination with the second MSPI indicator leads to a Degraded Cornerstone (Column 3) in the action matrix starting in quarter 6 and potentially² to a Multiple/Repetitive Degraded Cornerstone (Column 4) by quarter 10.
- Case 1b shows companion results for the case where the originating failures addressed by the performance indicator are instead addressed through inspection and the Significance Determination Process.
- Case 1c shows the effect of the proposed change where the MSPI results are removed from the assessment process upon completion of 4 quarters and completion of supplemental inspection activities.

Example Case 2: Two White MSPI Performance Indicators

- Case 2a shows a White MSPI performance indicator occurring in quarter 1 and remaining for 12 quarters. Supplemental inspection activities (IP 95001) are completed by the end of quarter 4. A White finding in a different system within the Mitigating Systems cornerstone occurs in quarter 8 and remains for 5 quarters. The first MSPI indicator is still White and in combination with the White finding leads to a Degraded Cornerstone (Column 3) in the action matrix starting in quarter 8 and potentially to a Multiple/Repetitive Degraded Cornerstone (Column 4) by quarter 12.
- Case 2b shows companion results for the case where the originating failures addressed by the performance indicator are instead addressed through inspection and the Significance Determination Process.
- Case 2c shows the effect of the proposed change where the MSPI result is removed from the assessment process upon completion of 4 quarters and completion of supplemental inspection activities.

² MC0305 guidance for Multiple/Repetitive Degraded Cornerstone column applies in instances where 2 white inputs occur for five or more consecutive quarters. If both white inputs have been "held open" greater than four quarter, the repetitive degraded cornerstone does not apply. Current guidance is unclear whether the "held open" qualifier would apply to protracted performance indicators.

Table 1
Proposed Revision to MC 0305

06.06.x Treatment of Protracted Performance Indicator Results

The NRC may refrain from further consideration of performance indicator results in the assessment program for a performance indicator input that meets both of the following criteria:

- (a) Four quarters have elapsed since the green-white threshold was crossed.
- (b) Supplemental inspection activities have been completed and any resulting open inspection items related to the condition have been closed out in an inspection report.

If both of the above criteria are met, the performance indicator will be removed from consideration of future agency action (per the Action Matrix). This notification should be included in the cover letter of the supplemental inspection report and the performance indicator will be removed from consideration in the assessment program after the end of that quarter. In other words, the performance indicator will no longer be considered in the assessment program starting with the next calendar quarter. The performance indicator result would not be changed and would continue to be displayed on the NRC's web site with its current value (e.g., White, Yellow) and a footnote would be added to the Action Matrix summary for the plant reflecting the completion of the supplemental inspection and the exclusion of the performance indicator result from the assessment. Weaknesses in a licensee's efforts to address performance issues that are associated with a performance indicator will be addressed in accordance with guidance in section 06.06.d of this manual chapter (parallel performance indicator inspection finding). Removal of performance indicator results from the consideration in the action matrix per the above guidance is not considered a deviation from the action matrix as defined in section 06.06.f of this manual chapter.

Example A: The NRC has concluded that a white performance indicator in the mitigating systems cornerstone meets the criteria for a protracted performance indicator for Plant A. Plant A also has a white finding in the mitigating systems cornerstone. This plant would be considered in the Regulatory Response column of the Action Matrix. The protracted PI would not aggregate for Plant A in determining the Action Matrix column or required agency response. The PI result would continue to be displayed as White until the PI returns to Green. The Action Matrix summary for the plant would include a footnote reflecting the completion of supplemental inspection activities and the exclusion of the PI result from the assessment.

Example B: The NRC has concluded that a white performance indicator meets the criteria for a protracted performance indicator for Plant B. There are no other safety significant findings or performance indicators in the mitigating systems cornerstone or any other cornerstone for Plant B. This plant would be moved to the Licensee Response column of the action matrix. The PI result would continue to be displayed as White until the PI returns to Green. The Action Matrix summary for the plant would include a footnote reflecting the completion of supplemental inspection activities and the exclusion of the PI result from the assessment.

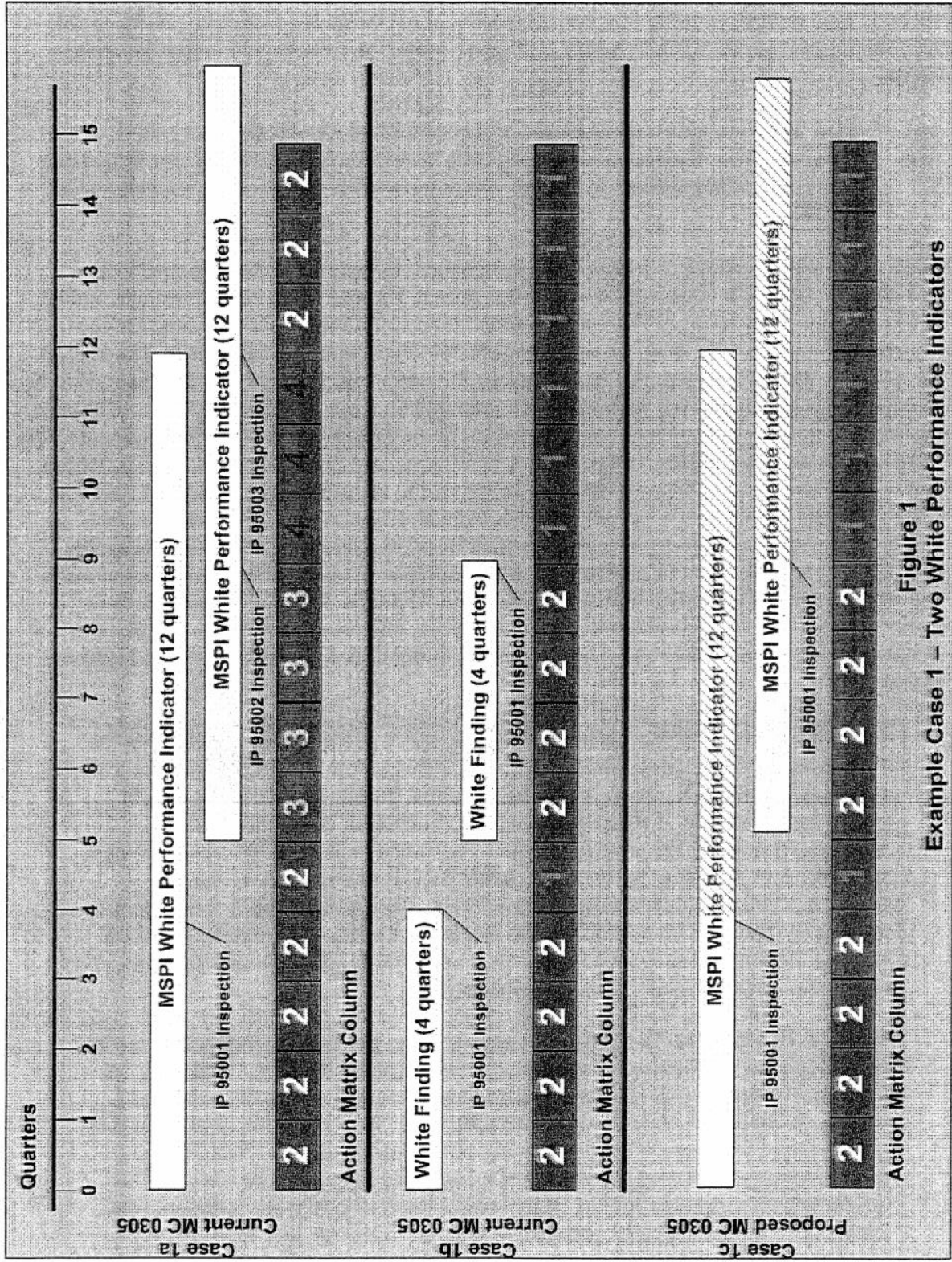


Figure 1
Example Case 1 – Two White Performance Indicators

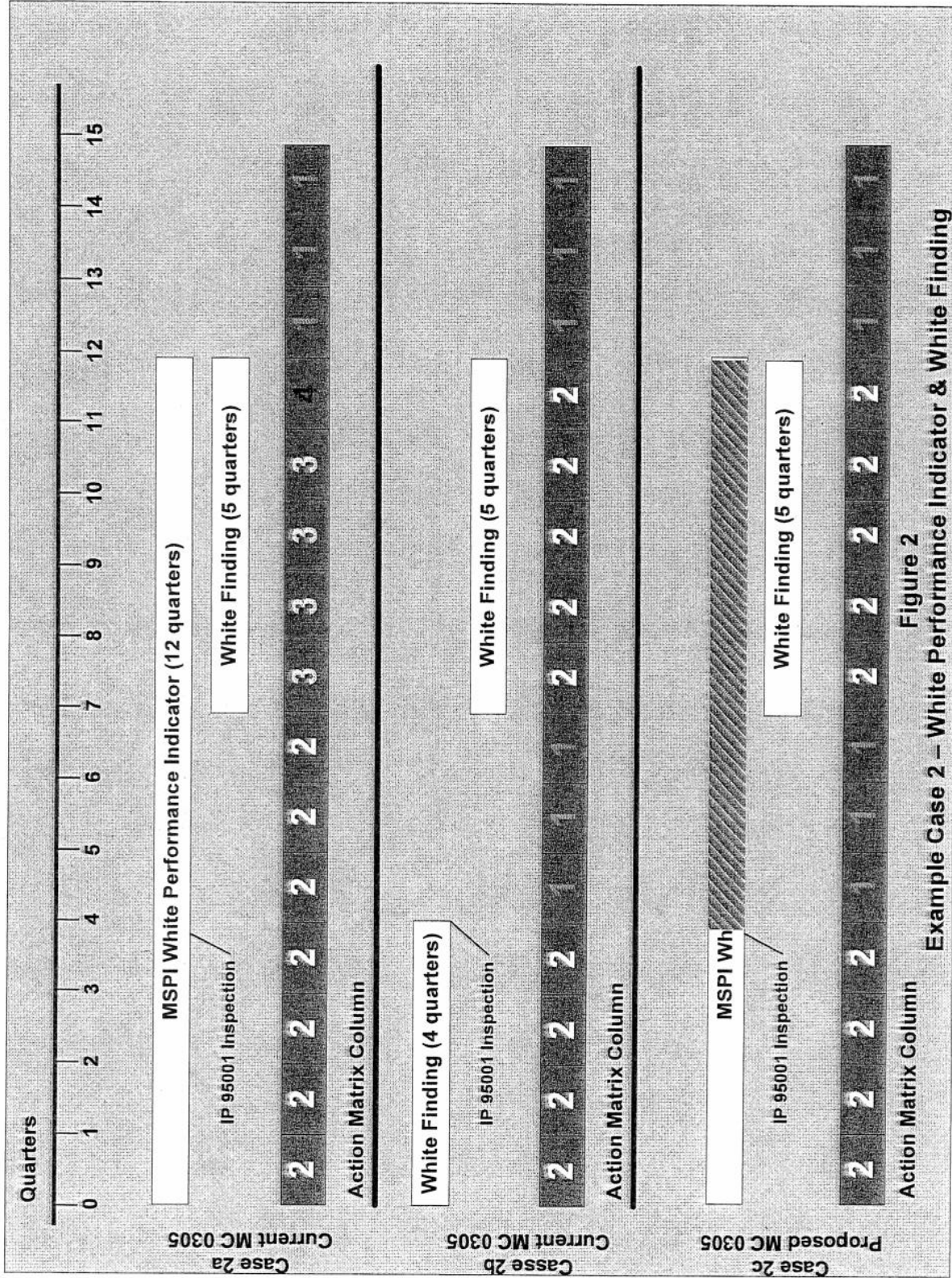


Figure 2
Example Case 2 – White Performance Indicator & White Finding