Attachment – NEI Comments on PI&R Revision

1. **A written problem statement is needed –** The PI&R working group charter does not appear to provide a concise statement of a specific problem to be solved. In lieu of an identified problem statement, the charter presents items from past assessments that were partially addressed by the February 26, 2015 revision of IP 71152, and may need further work. Beyond this, however, neither the charter nor the March 17, 2016, presentation[1] materials provide a simple declarative statement of the specific problem this project is intended to fix. For a project of this size and complexity, we would expect the project charter to include such a problem statement. We believe it would help the NRC to manage and communicate the value of projects like this one if NRC management imposed the discipline of requiring a concise and compelling statement of the problem to be solved before commissioning the project team. In our view, the mere passage of time and the accumulation of recommendations from previous studies (the justifications offered for the present PI&R project) do not comprise a clear and compelling problem statement.

   In the April 13, 2016, online ROP meeting, the staff attempted to answer our request for a concise problem statement. The staff orally articulated a two-part problem statement: (1) the staff wants objective criteria for judging corrective action programs; and (2) the staff wants better tools for communicating NRC judgments about the health of a corrective action program. This problem statement implies that the staff considers inadequate the current basis on which NRC judges the adequacy of corrective action programs, and insufficient the current tools for communicating those judgments to the licensee and the public. We would like to understand the basis for these concerns.

2. **Supporting data should be made public** – Neither the PI&R working group charter, nor the March 17, 2016, presentation or dialogue, nor the April 13, 2016, dialogue provided a specific set of data on which the staff's problem statement is based. For example, the staff has not shown that there is a clear and pervasive trend in declining performance of corrective action programs that has gone undiscovered by the NRC. In the staff's recent presentations, they did not identify an analysis of any data that indicates that the current basis for judging corrective action program health and the current communication tools are inadequate. We would expect the NRC to provide objective data and analysis as the basis for a decision as significant as revising IP 71152.

3. **The regulatory basis for spotting a "marginal" PI&R program should be clarified –** The March 17, 2016, presentation (slide #3) and staff remarks in the April 13, 2016, online meeting suggest the NRC thinks the problem to solve is spotting a "marginal" PI&R program. This self-imposed obligation appears to be at odds with the ROP framework.

   In SECY-99-007, the founding document of the ROP, PI&R is identified as a crosscutting area[2]. On page 10, SECY-99-007 states:

   > *"**Adequate** licensee performance in these crosscutting areas will be inferred through cornerstone performance results from both PIs [performance indicators] and inspection findings." [Emphasis added]*

[1] Presentation file is included in Enclosure 2 to the NRC summary of the March 17, 2016 public meeting, ADAMS ML16090A062.
[2] SECY-99-007, "Recommendations for Reactor Oversight Process Improvement", January 8, 1999, page 8.

Note that the qualifier is "adequate", not "gradations of". This implies the regulatory expectation is binary, not scalar. This is consistent with the basis for corrective action presented in the regulations (i.e., 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action"[3]):

> *"Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly* ***identified and corrected****. In the case of significant conditions adverse to quality, the measures shall assure that the* ***cause of the condition is determined*** *and* ***corrective action taken to preclude repetition****. The identification of the significant condition adverse to quality, the cause of the condition, and the corrective action taken shall be documented and reported to appropriate levels of management." [Emphasis added]*

Note that the regulation focuses on identification and correction of conditions adverse to quality. For significant conditions adverse to quality, the regulation adds a requirement for causal determination and actions to preclude repetition, plus documentation and reporting. These specifications appear sufficient for NRC to judge whether a corrective action program complies with the regulation. Moreover, the wording of Criterion XVI does not appear to require nor enable the NRC to establish additional criteria on which to judge the degree of health of a corrective action program. If the NRC now seeks to go beyond the requirements of Criterion XVI, what are the legal and technical bases for the standard the NRC would use in judging corrective action program health? If the staff has decided to proceed in this direction, we believe this would amount to a substantial change in ROP policy that warrants Commission review and approval before implementation.

4. **Corrective action programs should not be ranked** - The staff presentation on March 17, 2016, included a potential "model"[4] for binning licensee corrective action programs. The presentation appeared to indicate the staff intends to apply this force-ranking upon licensee corrective action programs. In subsequent remarks, the staff seems now to be saying this model was merely one of many brainstorming suggestions. In case this model or one like it is still under serious consideration, we urge the staff to go no further with this approach.

   The so-called "90-8-2" model presumes that corrective action programs can be forced into three bins. The "90" bin is captures the presumed 90 percent of licensees judged to have an effective CAP. The "8" bin captures the presumed eight percent of licensees judged to have a CAP that "adequately addresses most issues, but demonstrate[s] continued or emerging weaknesses and raise[s] concerns about the ability to continue meeting standards." The "2" bin captures a presumed two percent of licensees having a CAP with "significant problems [and is] in jeopardy of not meeting ROP bases assumptions." This model was presented without mention of the analytical or scientific basis on which it is founded. It appears to be based on "gut feel". Hence, we have no way of verifying that it is accurate or meaningful. If applied as presented by the staff, this forced ranking of CAP programs would guarantee that approximately 10 percent of licensees are always under extra scrutiny. Allocating extra NRC resources to

[3] Code of Federal Regulations, Title 10, Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants."
[4] See staff presentation at March 17, 2016, public meeting, slide #14.

10 percent of licensees at all times because of force ranking of CAP programs would be at odds with the foundation of the ROP, as explained in Comment 7 below.

5. **The PI&R crosscutting area should be eliminated if inadequate** - The recent staff presentations seem to indicate the NRC considers its existing tools are inadequate for gauging corrective action program effectiveness. Does this include the use of the PI&R crosscutting area to aggregate problems with corrective actions[5]? If the PI&R cross-cutting area is adding no value to the NRC's judgments about licensee performance, why continue to use it? If NRC thinks it useful but flawed, what does NRC think is needed to fix it?

6. **The NRC has the tools it needs** – The March 17, 2016, presentation (slide #5) indicates that the objective of the PI&R revision is to enable NRC to: (a) identify precursors of infrequent events that could have significant consequences; (b) assess potential common cause equipment failures; and (c) identify generic concerns that a licensee may have missed. These interests appear to be aligned with the technical framework for the PI&R cross-cutting area originally articulated in SECY-99-007.[6] The staff has not explained why NRC's existing approach to the PI&R inspection, combined with related NRC activities such as, for example, the accident sequence precursor program and oversight of maintenance rule implementation, is inadequate to meet these needs. The staff also has not explained why the existing PI&R-related samples in other inspection procedures are inadequate to produce the overall picture of corrective action program health that is said to be the objective of the desired change in the PI&R inspection.

7. **The PI&R inspection cannot prevent column "bounce"** – The staff's March 17, 2016, presentation materials (slide #8) and staff remarks indicate NRC concern that "transitions between Action Matrix columns occur without regard to the health of a licensee's Corrective Action Program." The presentation implies the staff considers this a problem and the PI&R revision is intended to address it. The staff presentation did not address the risk-significance of such column changes. Are column changes in and of themselves a safety problem or primarily a political or public perception problem for NRC? If the former, the NRC should state why the present features of the ROP are inadequate to address the safety problem. If the latter, the NRC should be clear it is seeking a technical solution to what is primarily a public perception or political problem.

   Contrary to the above, the founders of the ROP clearly understood occasional problems would occur, no matter how healthy the licensee's corrective action program:

   > *"Furthermore based on past experience it is expected that a limited number of risk-significant events will continue to occur with little or no indication of declining performance. Follow up inspections will be conducted to ensure that the cause[s] of these events are well understood and that licensee corrective actions are adequate to prevent recurrence. Likewise, reactive inspections may be*

[5] Inspection Manual Chapter 0310, "Aspects within the Cross-Cutting Areas", Section 04.01, December 4, 2014, ADAMS ML14337A018.
[6] SECY-99-007, "Recommendations for Reactor Oversight Process Improvement", January 8, 1999, Attachment 2, "Technical Framework for Licensee Performance Assessment", pages 16-17.

performed to follow up on allegations. The results of these follow up inspections will be factored into the assessment process along with performance indicators and risk-informed baseline inspections."[7]

The above excerpt reflects an understanding of the stochastic nature of organizational performance. Thus, there is nothing the staff can do through changes in the PI&R inspection that will prevent or explain jumps between Action Matrix columns. No matter what NRC does to "perfect" the PI&R inspection in the present project, events and performance indicators of Greater than Green significance could still happen. When they do, the ROP provides for supplemental inspections to determine whether a deficiency in corrective action played a part.

Furthermore, in a memorandum dated December 15, 2015,[8] the NRC staff rejected a similar proposal in Recommendation 2 of that document regarding additional criteria for changing columns in the Action Matrix. Three of the five bases for that rejection provided in Enclosure 2[9] of the memorandum include:

- *"The assessment process is performance-based. If a licensee is in Column 3, returns to Column 1, and then reenters Column 2 or 3 within the next year, there can be several reasons for this situation. Poor performance requires additional NRC inspection. Licenses who address their performance issues to the satisfaction of the NRC inspectors should be allowed to return to Column 1.*
- *It would be a challenge to allow some licensees to close out supplemental inspections to planned corrective actions, while requiring others to actually implement their corrective actions before closure. Some licensees have more effective corrective action programs than others, but there are no criteria to measure program effectiveness. This would be subjective, unpredictable, and it would be difficult to explain to licensees and the public. Licensees who do not implement their planned corrective actions should expect to move back to a higher column with resultant NRC oversight.*
- *Not all licensees move back and forth in the Action Matrix due to ineffective corrective actions from the first escalated enforcement action. Sometimes they have a completely different problem which moves licensees to increased levels of regulatory response of the Action Matrix."*

These reasons alone provide sufficient bases for removing related suggestions for Action Matrix changes from consideration.

Finally, the ROP provides for deviations if the staff believes that circumstances warrant a position in the Action Matrix other than what the nominal decision rules would dictate. Although the staff is loath to utilize this override feature of the ROP, nevertheless this tool is available to address extraordinary situations for which hard-and-fast rules may not work well.

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[7] SECY-99-007, page 10.
[8] Steven D. Rose, Acting Chief, Reactor Inspection Branch, to William M. Dean, Director, Office of Nuclear Reactor Regulation, "Completion of Staff Actions on the Reactor Oversight Process Independent Assessment Report Recommendations and Suggestions", December 15, 2015, ADAMS accession number ML15264A171.
[9] See pages 1-2 of Enclosure 2 to the December 15, 2015 memo.

8. **The NRC should clarify how it will use the results of the revised PI&R inspection** – It is not clear how the NRC would use whatever new information emerges from the revised PI&R inspections. (In part, this may be due to the absence of a clearly articulated problem statement.) One of the proposals floated by the staff was to use the new inspection results as the basis for a new flag that would be added to the licensee's Action Matrix rating.[10] According to the staff's presentation, the flag would indicate a sort of probationary placement of a licensee into a better column of the Action Matrix. This conditional placement would denote NRC reservations about the health of the licensee's corrective action program that necessitate follow-up inspection. This approach is fraught with opportunities to confuse the public about the plant's status, and to muddle thinking about the level of NRC resources needed to oversee the affected licensee. We urge NRC to retain the present clarity of the ROP ratings, a clarity born of simplicity and the absence of asterisks and other nuances.

[10] Staff presentation, March 17, 2016, slide #16.