INSPECTION MANUAL CHAPTER 0608

PERFORMANCE INDICATOR PROGRAM

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Attachment 1: Flowchart for Addressing Questions and Feedback Related to ROP Performance Indicator

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0608-01 PURPOSE

This Inspection Manual Chapter (IMC) provides guidance on the implementation of the Reactor Oversight Process (ROP) Performance Indicator (PI) Program.

0608-02 OBJECTIVES

02.01 To provide policy and guidance regarding implementation of the ROP PI Program, including the submission and verification of PI data and the posting of PI data and frequently asked questions (FAQs) on NRC Web sites.

02.02 To establish a formal process for responding to questions related to the interpretation of PI reporting guidance.

02.03 To establish a formal process for developing and implementing changes to the PI Program, including creating new PIs and changing existing PIs.

0608-03 APPLICABILITY

This IMC applies to all operating commercial nuclear power reactors.

0608-04 DEFINITIONS

04.01 Extended Shutdown. For the purposes of the PI Program, an extended shutdown is a condition in which a nuclear power reactor has been subcritical for at least six months.

04.02 Frequently Asked Question. An ROP PI FAQ is a question or a requested change from an external stakeholder regarding the PI Program or its implementation. An FAQ is submitted to the ROP Working Group (WG) in accordance with NEI 99-02.

04.03 NEI 99-02. The current revision of Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," is a document published by NEI that contains guidance for calculating and reporting PI data. NEI 99-02 is jointly produced by the U.S. Nuclear Regulatory Commission (NRC) and NEI.

04.04 Performance Indicators. PIs are objective data regarding licensee performance in the ROP cornerstones of safety and security.

04.05 PI Discrepancy. A PI discrepancy is a difference between what was supposed to be reported in accordance with the current NRC-accepted version of NEI 99-02 and what was reported by a licensee in its PI data submittal.

04.06 ROP Feedback Form. An ROP feedback form (FBF) is Exhibit 1 of IMC 0801, "Inspection Program Feedback Process."

04.07 ROP Working Group. The ROP WG is an assembly of NRC staff and commercial nuclear power industry representatives who meet periodically in a public meeting to discuss FAQs and other issues related to ROP programs.

04.08 White Paper. A white paper is a document created by any stakeholder that contains proposed generic changes to NEI 99-02 or the PI Program and is presented to the ROP WG.

0608-05 RESPONSIBILITIES AND AUTHORITIES

05.01 Director, Office of Nuclear Reactor Regulation (NRR).

a. Provides overall policy direction for the PI Program

b. Directs the development, and implementation of policies, programs, and procedures for the PI Program and oversight of program effectiveness and implementation

05.02 Director, Division of Inspection and Regional Support (DIRS).

a. Manages PI Program development, and implementation within NRR and oversees program implementation and effectiveness

b. Makes the final decision on an FAQ resolution when the ROP WG cannot reach alignment

05.03 Chief, Reactor Assessment and Human Factors Branch (IRAB).

a. Develops policy, programs, and procedures for implementation of the PI Program

b. Receives and posts PI data and FAQs on NRC Web sites

c. Manages and implements the process for responding to questions related to interpretation of PI reporting guidance and develops and implements changes to the PI Program, including creating new PIs and making changes to existing PIs or thresholds

d. Assesses PI Program effectiveness and implementation

05.04 Regional Administrator (RA). The RA manages regional implementation of the PI Program in accordance with the requirements of this IMC, Management Directive (MD) 8.13, "Reactor Oversight Process," Inspection Procedure (IP) 71150, "Discrepant or Unreported Performance Indicator Data," and IP 71151, "Performance Indicator Verification."

0608-06 REQUIREMENTS

There are no requirements in this document. This document is for guidance only.

0608-07 GUIDANCE

07.01 ROP Framework Background. The ROP is built upon a framework directly linked to the NRC's mission. That framework includes cornerstones of safety and security that focus on the licensee's ability to (1) limit the frequency of initiating events; (2) ensure the availability, reliability, and capability of mitigating systems; (3) ensure the integrity of the fuel cladding, reactor coolant system (RCS), and containment; (4) ensure the adequacy of the emergency preparedness functions; (5) protect the public from exposure to radioactive material releases; (6) protect nuclear plant workers from exposure to radiation; and (7) provide assurance that a licensee's security system and material control and accounting program can protect against the design basis threat of radiological sabotage and the theft or loss of radiological materials. The ROP cornerstones are more fully described in IMC 0308, "Reactor Oversight Process Basis Document."

Within each cornerstone, a broad sample of data on which to assess licensee performance in risk-significant areas is gathered from PI data submitted by licensees and from the NRC's risk-informed baseline inspections. The PIs are not intended to provide complete coverage of every aspect of plant design and operation, but they are intended to be indicative of performance within the related cornerstone.

Data submitted by each licensee are used to calculate PI values. These values are then compared to objective thresholds to determine the performance band associated with those values. The performance bands are color-coded. Plant data for a PI that falls within the "green" band indicate licensee performance is within the nominal, expected range. The "white" band indicates that performance is outside of the nominal, expected range and can be characterized as of low to moderate safety significance, but performance remains acceptable. Performance in the "yellow" band indicates a more significant decline in performance and can be characterized as being of substantial significance. Performance is considered acceptable, but a reduction in safety margin exists. Performance in the "red" band indicates a very significant decline in performance. Changes can be characterized as being of high safety significance. Performance may be acceptable with a significant reduction in safety margin or may be unacceptable.

07.02 PIs. IMC 0308, Attachment 1, "Technical Basis for Performance Indicators," and IMC 0308, Attachment 6, "Basis Document for Security Cornerstone of the Reactor Oversight Process," describe the PIs; their objectives, thresholds, and bases; and ROP cornerstone attributes covered by the PIs. NEI 99-02 describes the PIs, how they are calculated, and how and when to report PI data to the NRC. NRC Regulatory Issue Summary (RIS) 2000-08, "Voluntary Submission of Performance Indicator Data," Revision 1, informs stakeholders that the NRC accepts NEI 99-02 for use in reporting PI data. The latest revision of NEI 99-02 accepted by the NRC for use in reporting PI data is posted on the NRC's public Web site.

PIs are a means of obtaining information related to licensee performance in certain attributes of each cornerstone. They provide indication of problems that, if uncorrected, may increase the probability and/or the consequences of an off-normal event. Because not all aspects of licensee performance can be monitored by PIs, safety and security significant areas not covered by PIs are assessed using the ROP Inspection Program.

The ROP cornerstones and the current suite of PIs that monitor performance in some of the cornerstones' attributes are as follows.

1. Initiating Events Cornerstone:
   - IE01: Unplanned Scrams per 7,000 Critical Hours
   - IE03: Unplanned Power Changes per 7,000 Critical Hours
   - IE04: Unplanned Scrams with Complications

2. Mitigating Systems Cornerstone:
   - MS05: Safety System Functional Failures (SSFFs)
   - Mitigating System Performance Index (MSPI). The MSPI is calculated separately for each of the following five systems for each reactor type:
   - MS06: Emergency AC Power Systems
   - MS07: High Pressure Injection Systems. For pressurized water reactors (PWRs), the high pressure safety injection system is monitored. For boiling water reactors (BWRs), the high pressure coolant injection system (e.g., high pressure coolant injection, high pressure core spray, and/or feedwater coolant injection) is monitored.
   - MS08: Heat Removal Systems. For PWRs, the auxiliary feedwater system is monitored. For BWRs, the heat removal systems monitored can include the reactor core isolation cooling and/or isolation condenser systems.
   - MS09: Residual Heat Removal Systems (or the equivalent function)
   - MS10: Cooling Water Support Systems (for the above systems)

3. Barrier Integrity Cornerstone:
   - BI01: RCS Specific Activity
   - BI02: RCS Identified (or Total) Leakage

4. Emergency Preparedness Cornerstone:
   - EP01: Drill/Exercise Performance
   - EP02: Emergency Response Organization Drill Participation
   - EP03: Alert and Notification System Reliability

5. Occupational Radiation Safety Cornerstone:
   - OR01: Occupational Exposure Control Effectiveness

6. Public Radiation Safety Cornerstone:
   - PR01: Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual Radiological Effluent Occurrences

7. Security Cornerstone:
   - PP01: Protected Area Security Equipment Performance Index

0608-08 PI DATA SUBMISSION AND PROCESSING

08.01 Reporting PI Data. Reporting PI data to the NRC is a voluntary program in which licensees of commercial nuclear power plants participate. The Office of Management and Budget (OMB) clearance for PI reporting is OMB No. 3150-0195. The introductory section of NEI 99-02 contains the guidance and due dates for reporting PI data.

08.02 Posting PI Data to NRC Web Sites. After the PI data are received by IRAB staff, they are entered into the NRC's Reactor Programs System database to calculate the indicator values and generate NRC Web site files. The NRC will post the data, the indicator values, and associated graphs on the NRC's internal Web site. IRAB staff will notify the NRC regional offices when the PIs are available on the NRC's internal Web site so they can review the PIs and identify any inconsistencies prior to public release. The NRC will then place the PIs on the NRC's external Web site to make them available to external stakeholders.

08.03 PI Data Submission for Plants in Extended Shutdowns. Commercial nuclear power plants may be shut down for an extended period of time for a variety of reasons. For these sites, the NRC may apply the process described in IMC 0350, "Oversight of Reactor Facilities in a Shutdown Condition Due to Significant Performance and/or Operational concerns," or the NRC may apply the guidance in IMC 0351, "Implementation of The Reactor Oversight Process at Reactor Facilities in an Extended Shutdown Condition for Reasons Other Than Significant Performance Problems." Because some PIs are heavily influenced by the operational status of the reactor (e.g., the number of hours a reactor has been critical), these PIs may no longer provide valid indications of performance during an extended shutdown. A licensee with a plant in an extended shutdown should report PIs for that plant in accordance with the guidance provided in the current revision of NEI 99-02. PIs that are invalid because the plant is in an extended shutdown will be displayed as "not applicable" on NRC Web sites.

0608-09 PI VERIFICATION

09.01 Verification. PI data are voluntarily submitted by licensees to the NRC; however, information provided to the NRC by a licensee must be complete and accurate in all material respects. Because PI data are sources of information upon which NRC assessment and oversight actions will be based, the failure to report PI data completely and accurately can impede the regulatory process and therefore have traditional enforcement implications. IP 71151 shall be conducted to review licensees' PI data collection and reporting activities for adherence to pertinent guidance. The NRC expects licensees to make reasonable, good faith efforts to comply with the guidance in NEI 99-02. This includes taking appropriate and timely action to identify and report performance issues captured by the indicators. It may be necessary for inspectors to exercise some judgment on the adequacy of licensee actions to make a reasonable, good faith effort to comply with the guidance.

09.02 Discrepant or Unreported PIs. Instances of PI discrepancies and unreported PIs should be documented in accordance with IP 71151 and IMC 0612, "Power Reactor Inspection Reports." Enforcement action will be taken for incomplete or inaccurate PI reporting in accordance with the NRC Enforcement Policy. If the NRC determines that PI discrepancies exist that cause NRC staff to lose confidence in the licensee's ability to collect and report PI data accurately, the affected PI(s) will be classified as discrepant on the NRC Web sites, and the staff will perform IP 71150. Factors to consider when deciding to perform IP 71150 include whether the licensee is correcting the PI data errors, the effectiveness of those corrective actions, the repetitiveness of the errors, and any trends in the quality of PI data reporting that the NRC may be aware of. The decision to perform IP 71150 should be discussed (and could be made) during the plant performance reviews described in IMC 0305, "Operating Reactor Assessment Program." IP 71150 provides guidance for collecting PI data and inspecting cornerstone attributes to compensate for the discrepant or unreported PI data. Regional management should coordinate activities in this area with NRR/DIRS. The selected inspections will be performed in addition to the baseline inspection. Once the licensee has corrected the

root cause(s) of the discrepant or unreported data and the NRC has verified that the licensee can collect and report PI data accurately, oversight of PI reporting in accordance with IP 71151 will resume.

09.03 Extended Shutdowns. When a plant has been in an extended shutdown, some PIs may not provide a meaningful indication of plant performance in the cornerstone attributes they are intended to monitor (i.e., the PIs become invalid or not applicable). In these situations, the guidance provided in IP 71150 should be followed to obtain sufficient performance information via the inspection program when possible until the plant has restarted and the PIs become valid.

0608-10 FEEDBACK AND DIFFERENCES IN INTERPRETATION

The NRC receives feedback and suggestions from various stakeholders about the PI program. For example, an NRC inspector may submit an ROP FBF that recommends modifying a PI to address possible unintended consequences; an ROP survey respondent may request the NRC to change a PI threshold; or a lessons learned task force may suggest a new PI. In the spirit of continuous improvement, NRC staff evaluates this feedback to determine if enhancements to the PI Program are warranted.

Various stakeholders also submit questions regarding the interpretation of NEI 99-02. For example, a licensee and an inspector may disagree over the interpretation of NEI 99-02 and therefore seek clarification from the ROP WG. In these cases, NRC staff engages with the internal and external stakeholders to interpret the guidance and determine if clarifications or changes thereto are warranted.

This section describes a process to address such questions and feedback from internal and external stakeholders. Attachment 2 of this IMC also summarizes this process using a flowchart. This section describes actions taken for differences in interpretation of NEI 99-02 guidance, the FAQ process, general feedback about the PI Program, and close-out activities.

Some questions and issues (e.g., those involving other NRC regulatory documents or programs) fall outside the scope of this process, even though the issue may affect PI data values. For example, questions about a plant's design or licensing basis, interpretation of Technical Specifications, or reporting requirements should be directed to other NRC technical leads or processes (e.g., the Task Interface Agreement process). An NRC's Division of Operating Reactor Licensing project manager can assist with referrals to other NRC technical leads or processes.

10.01 Differences in Interpretation of NEI 99-02. If an NRC inspector and a licensee have differing views about the interpretation of NEI 99-02 and approved FAQs that could involve a potential PI discrepancy, the issue may need to be resolved at the ROP WG meetings. An NRC inspector (or any NRC employee) should initiate the process by contacting the PI Program Lead in NRR/DIRS. The inspector should be prepared to provide the PI Program Lead with a description of the circumstances, the guidance in question, and necessary background information.

NRC staff may also submit an ROP FBF to receive a more formal response (i.e., the FBF resolution would have IRAB BC concurrence). ROP FBFs involving differing interpretations of NEI 99-02 should indicate "IP 71151" in the IP/IMC section of the ROP FBF because it involves an NEI document rather than an IMC or IP for which the ROP feedback

process was originally designed. The FBF should indicate the PI guidance in question, document that the FBF is being submitted because of differing interpretations of NEI 99-02, and list specific guidance references (e.g., NEI 99-02 page numbers and lines). Additional guidance is provided in IP 71151 and in IMC 0801.

When the PI Program Lead receives an inquiry from an inspector seeking clarification of NEI 99-02 guidance, the PI Program Lead, with assistance from other NRC technical leads if necessary, and after consultation with the IRAB BC, will provide the inspector its initial interpretation based on the information provided by the inspector. NRC staff should first seek alignment to the extent possible. NRC staff should consider the clarity and the intent of the guidance. The staff may refer to other NRC documents (e.g., IMC 0308, Attachment 1 and ROP-related SECY papers) to inform its position.

After the PI Program Lead provides the NRC inspector with the initial NRC interpretation, the inspector should then discuss the interpretation with the licensee. If the inspector and licensee continue to have differing views, and the licensee does not submit an FAQ in a timely manner or at all, then the inspector should follow the guidance in IP 71151 for a PI discrepancy (i.e., consider enforcement action). If the licensee submits an FAQ, the inspector should follow the guidance in IP 71151 for inspection results and documentation, and the staff will follow the FAQ process described in the next section of this IMC.

10.02 FAQ Process. NEI 99-02, Appendix E, establishes the FAQ process to resolve differing interpretations of NEI 99-02, address unique situations for which NEI 99-02 is not clear, and incorporate changes into NEI 99-02 after completion of the white paper process, which is described in Section 09.03 of this IMC.

Industry stakeholders that are members of NEI submit FAQs directly to the ROP Task Force. The ROP Task Force will follow their internal process before introduction of the FAQ at an ROP WG meeting. Industry stakeholders that are not members of NEI submit FAQ directly to the NRC's PI lead, who will then coordinate the introduction of the FAQ at the next ROP WG meeting.

The typical FAQ process is described as follows.

a. Introduced. The industry introduces FAQs at an ROP WG meeting. If the FAQ involves plant-specific security information, the ROP WG meeting will acknowledge the status of the FAQ; however, a separate non-public meeting will be conducted to resolve the FAQ. For FAQs involving differing interpretations of NEI 99-02, the NRC resident inspector should plan to call into the ROP WG meeting to discuss her or his views on the issue.

   The NRC or industry may also submit a generic FAQ (i.e., an FAQ that applies to multiple licensees) to the ROP WG. A generic FAQ may incorporate decisions made from the white paper process.

   At this point, the FAQ is called a "draft FAQ." NEI typically provides the NRC with the document containing the draft FAQs. This document is posted on the NRC's public Web site unless it contains plant-specific security information.

b. Discussed. After a draft FAQ is introduced to the ROP WG, the WG will review and discuss the FAQ to acquire understanding of assumptions and facts. The NRC may

also clarify the resident inspector's position about the FAQ, if necessary. These discussions may span over multiple ROP WG meetings. The content of draft FAQs may be updated based on these discussions.

c. Tentative Resolution. The ROP WG will develop a resolution to the FAQ, which will be considered tentative. NRC staff will update the draft FAQ with a section titled, "Tentative NRC Response," which will document the NRC's tentative position and a proposed effective date.

The tentatively approved FAQ will remain tentative for a waiting period – normally until the next regularly scheduled meeting – to allow a final opportunity for all stakeholders to review the proposed FAQ resolution and provide any input. Stakeholders should forward any feedback that impacts the resolution of the issue to the assigned lead reviewer on the FAQ for resolution prior to the next scheduled ROP WG meeting. The schedule for upcoming public meetings is posted on the NRC's public Web site. After stakeholders have had an opportunity to comment on a tentative resolution, the ROP WG will determine whether the resolution can be considered final and approved.

d. Appealed. If consensus on a resolution cannot be attained (typically by the second ROP WG meeting after the FAQ is introduced), the NRR/DIRS Division Director will determine the resolution, which will become the final approved resolution. The NRR/DIRS Division Director will convey his decision at a public meeting (e.g., the ROP WG meeting). Additional information about this process is provided in NEI 99-02.

e. Approved. After a final resolution and effective date are determined, NRC staff will update the draft FAQ with a section titled, "Final NRC Response," that contains the basis for the NRC's resolution and an effective date, if necessary. The NRC will then publish the final FAQ on its public Web site to characterize the FAQ as an "approved FAQ," unless the FAQ contains plant-specific security information. Approved FAQs are treated as extensions of NEI 99-02 and become effective as of the effective date specified in the NRC's final response or as specified by NEI 99-02. The NRC will notify internal and industry stakeholders that are not members of NEI of the status of the FAQ. NEI is responsible for notifying industry stakeholders that are members of NEI of the status of the FAQ.

f. Withdrawn. The ROP WG may also decide to withdraw a draft FAQ; however, the basis for the withdrawal and the status of the NRC deliberations should be documented in the NRC's response to the withdrawn FAQ for knowledge-transfer purposes.

g. Archived. After the approved FAQs are incorporated into the next revision of NEI 99-02, as applicable, the NRC will move the approved FAQs into the "archived FAQ" list on the NRC's public Web site. Withdrawn FAQs are also captured in the archived FAQ list.

10.03 General Feedback about the PI Program. Anyone may provide feedback about the PI Program. Such feedback can include clarifications of current guidance or suggested significant changes to the PI Program (e.g., a new PI or a change to an existing PI). When the NRC receives feedback about the PI Program, it evaluates the feedback to determine whether it has merit and should be discussed at the ROP WG meetings. This section describes how various stakeholders typically generate feedback about the PI program and how the feedback is evaluated.

a. Sources of Feedback. NRC staff can generate questions and feedback using a variety of methods (e.g., ROP FBFs, surveys, self-assessment results, task force recommendations, and sharing lessons learned through day-to-day interactions). If NRC staff has specific suggestions for a new PI or for clarifying or modifying an existing PI and associated guidance, the staff should submit an ROP FBF. The ROP FBF should indicate "IMC 0308, Attachment 1" or "IMC 0308, Attachment 6" (if security-related) in the IP/IMC section of the ROP FBF. The staff may also provide such feedback in ROP surveys of internal stakeholders. IRAB staff should consider generating an ROP FBF to capture feedback coming from other internal sources of information such as task force recommendations, Agency Action Review Meeting results, or ROP survey feedback and comments.

The industry may generate white papers for proposed changes to NEI 99-02 that have generic implications. Other stakeholders (e.g., the public, state/local governments, etc.) can provide questions and feedback about the PI Program to the NRC's Office of Public Affairs (OPA). Methods for contacting OPA are listed on the NRC's public Web site. Stakeholders may also ask questions during the public ROP WG meetings and provide feedback about the PI Program in ROP surveys of external stakeholders. IRAB staff will generate an ROP FBF if the feedback warrants more detailed consideration for program enhancements.

After IRAB staff receives suggestions to develop a new PI or to modify an existing PI, the staff will evaluate the feedback to determine if it is possible or has merit. The staff may involve NRC regional office staff and other technical staff as necessary. For feedback from non-industry stakeholders, IRAB staff or technical leads in other NRC offices in coordination with IRAB staff will generate a white paper to introduce the feedback at an ROP WG meeting if the staff believes the feedback has merit. IRAB or other technical staff may also discuss the issue with industry stakeholders at the ROP WG meetings before deciding if the feedback has merit.

b. White Paper Process. Stakeholders should introduce proposed generic changes to the PI Program to the ROP WG via a draft white paper. White papers should contain the following information, the extent of which can vary depending on the complexity of the issue.

- a description of the issue or circumstances that initiated the proposal
- the proposal and its basis
- the guidance that would be affected (e.g., NEI 99-02 sections, pages, and lines)
- implementation considerations (e.g., impact on information technology support or infrastructure or an update to the OMB clearance for reporting PIs)

The ROP WG should determine whether the white paper is proposing a clarification or minor change to the guidance or if it is proposing a more significant change (e.g., a new PI or a change in threshold values). Section 09.03.c should be implemented for white papers that potentially involve significant changes to the PI Program.

The outcome of the ROP WG deliberations and the basis for that outcome shall be documented in a final revision of the white paper, which shall then be entered into the NRC's Agencywide Documents Access and Management System (ADAMS). If the

ROP WG decides to not implement the white paper proposal, the white paper shall be closed out in accordance with Section 09.04 of this IMC. If the ROP WG decides to implement the white paper proposal, the ROP WG (typically the industry) will develop an FAQ to incorporate the changes into NEI 99-02.

A listing of white papers is available on the NRC's public Web site. A white paper does not constitute a final decision or NRC-approved guidance for PI reporting; rather, an approved FAQ, which incorporates the outcome of the white paper process into NEI 99-02, constitutes approved guidance for PI reporting.

c. Significant Changes to the PI Program. This section establishes guidance for considering and making significant changes to the PI program, such as a new PI or a modification of an existing PI. The process described in this section can be modified as needed. Some activities (e.g., informing NRC management, seeking stakeholder feedback, evaluating policy implications, and determining the impact of the change on OMB Clearance No. 3150-0195) should be performed as needed or on an ongoing basis. Because commercial nuclear power plant licensees voluntarily report PI data to the NRC, continual interaction with the ROP WG is needed throughout this process.

1. Identification of Potential Significant Changes to PI Program. Various circumstances (e.g., Commission direction or results of ROP realignment analyses, ROP self-assessment activities performed in accordance with IMC 0307, "Reactor Oversight Process Self-Assessment Program," or task group reports) can shape and influence ongoing efforts to improve the PI Program and/or ROP oversight. As circumstances warrant, efforts to identify potential changes or improvements may take the form of a simple analysis or a more detailed, systematic evaluation (such as an ROP realignment exercise). Therefore, a number of approaches to the analysis could have merit given the unique confluence of circumstances that give rise to the inquiry.

   If an assessment reveals a gap in oversight of an ROP cornerstone, or if an existing PI is ineffective, consistently generates many FAQs, or has the potential to be misleading or create unintended consequences, the development of a new PI or the significant modification of an existing PI may be a viable option to ensure oversight of ROP cornerstone attributes is appropriate.

   Significant changes to an existing PI can include a change to its thresholds. Thresholds may need to be adjusted based on lessons learned from experience with individual PIs. Such adjustments are not intended to continually raise licensee performance expectations, but rather they are intended to ensure that the initial thresholds, some of which were established without the benefit of actual industry performance data, are performing as intended. A significant change to an existing PI may also be necessary for plants with unique design features that create challenges for adhering to NEI 99-02.

2. Documentation of Proposed Significant Changes. Proposed significant changes to the PI program should be documented in a white paper. Section 09.03.b describes the basic content of a white paper. The following information should be included for a proposed new or modified PI, as applicable and to the extent practicable.

- purpose of the proposed new or modified PI
- definition of the proposed new or modified PI
- the reporting elements for the proposed new or modified PI
- calculations for the proposed new or modified PI
- thresholds for the proposed new or modified PI

The draft white paper should be modified and refined as additional information and feedback become available throughout the process.

3. Evaluation of Proposed Significant Changes. In 2010, the ROP WG developed a list of traits or characteristics that should be considered to guide the development of a new PI to the extent practicable (ADAMS Accession Nos. ML101180467, ML101530479, and ML101800474). These traits include considerations used for selecting the initial set of PIs that was established in SECY-99-007 and later documented in IMC 0308, Attachment 1. These traits can also be considered for the development of significant changes to an existing PI.

   The following traits should be considered for developing a new PI or a significant change to an existing PI to the extent practicable.

   - capable of being objectively measured
   - allows for the establishment of a risk-informed threshold to guide NRC and licensee actions
   - provides a reasonable sample of performance in the area being measured
   - represents a valid indication of performance in the area being measured
   - represents a verifiable (auditable) indication of performance in the area being measured
   - encourages appropriate NRC and licensee actions
   - provides sufficient time for the NRC and licensees to correct declining performance prior to posing undue risk to public health and safety
   - adheres to the overall objectives of the ROP (i.e., risk-informed, objective, predictable, and understandable)

   The ROP WG should consider whether the proposed change to the PI program will provide information that is not currently being collected. The ROP WG should also consider whether the proposed new or modified PI warrants changes to the ROP Inspection Program or other aspects of the PI Program to eliminate unnecessary overlap or to ensure adequate coverage of ROP cornerstone attributes.

4. Stakeholder Feedback. After a stakeholder has developed a proposed concept for a new or modified PI and begun the evaluation process, the stakeholder should discuss the proposal with the ROP WG to acquire other stakeholder feedback to inform the evaluation. The ROP WG may form a sub-group that includes technical experts or representatives of the affected licensees.

   The ROP WG may decide to use available industry performance information to evaluate the proposal against the traits described in the previous section.

If historical data are available, they may be collected and used in this effort. If such data are not readily available, the ROP WG may decide to use the best information available or hypothetical data. An expert panel can also be assembled to identify appropriate thresholds.

5. Recommendation to NRR/DIRS Division Director. After evaluation of stakeholder feedback, NRC staff should provide a recommendation to the NRR/DIRS Division Director on whether to proceed with pursuing the PI change. Developing new PIs or making significant changes to existing PIs can require significant resources or may have policy implications. After consideration of the safety insights that could be gleaned from the proposed PI change and associated implications, the NRR/DIRS Division Director will inform IRAB staff of whether the proposed change is feasible.

   For PI changes that the DIRS Division Director determines are not feasible, NRC staff will suspend consideration of the proposed changes and will close the issue in accordance Section 09.02.d of this IMC.

6. Pilot Project. Upon approval from the DIRS Division Director to proceed with evaluating the proposed change, the ROP WG will develop a pilot project or a tabletop exercise, as necessary, to further evaluate the change against the traits listed in Section 09.03.c.3 and determine the efficacy of the PI. The pilot project should be conducted using a representative sample of plants to collect data. These plants would continue to provide data in accordance with the current revision of NEI 99-02. The pilot project should benchmark those data to further inform the characteristics of the proposed change, such as its definition, calculation, and thresholds.

   When the pilot project or the tabletop exercise has been completed, the results and lessons learned will be used to update the white paper evaluation. The NRC will then provide an opportunity for the industry, public, and other stakeholders to provide feedback. This feedback will be evaluated by the staff and may be used to modify the proposal.

7. Final Recommendation. After the pilot project is conducted and stakeholders provide feedback, the staff will make its final recommendation to the NRR/DIRS Division Director as to whether to proceed with the proposal. Upon the NRR/DIRS Division Director's decision, the staff will proceed with the following step.

8. Implementation. If the staff determines that the proposal will not be implemented, the staff should close out the issue in accordance with Section 09.04. If the proposal will be implemented, the following steps shall be taken, as necessary.

   - The ROP WG will generate a generic FAQ to incorporate the change into NEI 99-02. Refer to Section 09.02 of this IMC.
   - NRC staff will issue a RIS to inform stakeholders of the PI change and its reporting criteria.
   - NRC staff will revise OMB Clearance No. 3150-0195. Revising the OMB clearance could take approximately nine months to complete.

Early consideration should be given to the potential need for revising the OMB clearance to ensure it will not significantly delay final PI implementation.

- NRC staff will update ROP documents affected by the change (e.g., Attachments 1 or 6 of IMC 0308, IMC 0608, IP 71150, or IP 71151).
- NRC staff will update its Web sites to incorporate the change.
- NRC staff will develop training for its inspectors.

10.04. Closure. NRC staff will respond to the originator of questions or feedback, if contact information is available, after the issue is resolved. The format and timing of the NRC's response will depend on how the feedback was received and its complexity. If the question or feedback was generated using the ROP FBF process, then the lead reviewer will notify the originator of the final response in accordance with the guidance established in IMC 0801. If the question or feedback was generated using the FAQ process, then the ROP WG will adhere to current guidance in NEI 99-02 for documenting and publishing the final resolution to the NRC's public Web site. If the question or feedback was generated by a public stakeholder, then the NRC will respond in written correspondence.

NRC staff should determine whether any ROP documents (e.g., IMC 0308, Attachments 1 or 6; IP 71150; or IP 71151) and its Web sites should be updated as a result of clarifications of or changes that are made to the PI Program. This will help ensure that the basis for the changes is communicated clearly and captured for knowledge-transfer purposes. NRC staff should verify that any revision of NEI 99-02 correctly incorporates the decisions made since the previous revision. Additionally, the staff should review RIS 2000-08, "Voluntary Submission of Performance Indicator Data," and update it to ensure consistency and adequacy. NRC staff should ensure that the ROP WG meeting summaries document the results of the staff's reviews of NEI 99-02 revisions. If the issue involved a proposed significant change to the PI Program that was not implemented, the staff shall update IMC 0308, Attachment 1, Table 1, "PI Program Aspects Considered but Not Used."

The ROP WG meeting summaries, including handouts that do not contain plant-specific security-related information, are made publicly available in ADAMS.

0608-11 REFERENCES

CFR

IMC 0305, “Operating Reactor Assessment Program”

IMC 0307, “Reactor Oversight Process Self-Assessment Program”

IMC 0308, “Reactor Oversight Process Basis Document”

IMC 0308, Attachment 1, “Technical Basis for Performance Indicators”

IMC 0308, Attachment 6, “Basis Document for Security Cornerstone of the Reactor Oversight Process”

IMC 0350, “Oversight of Reactor Facilities in a Shutdown Condition Due to Significant Performance and/or Operational Concerns”

IMC 0351, “Implementation of the Reactor Oversight Process at Reactor Facilities in an Extended Shutdown Condition for Reasons Other Than Significant Performance Problems”

IMC 0612, Appendix B, “Issue Screening”

IMC 0801, “Inspection Program Feedback Process”

IP 71150, “Discrepant or Unreported Performance Indicator Data”

IP 71151, “Performance Indicator Verification”

MD 8.13, “Reactor Oversight Process”

NEI 99-02, ARegulatory Assessment Performance Indicator Guideline@

NRC Enforcement Policy

OMB Clearance No. 3150-0195, “Voluntary Reporting of Performance Indicators” (ML12020A281)

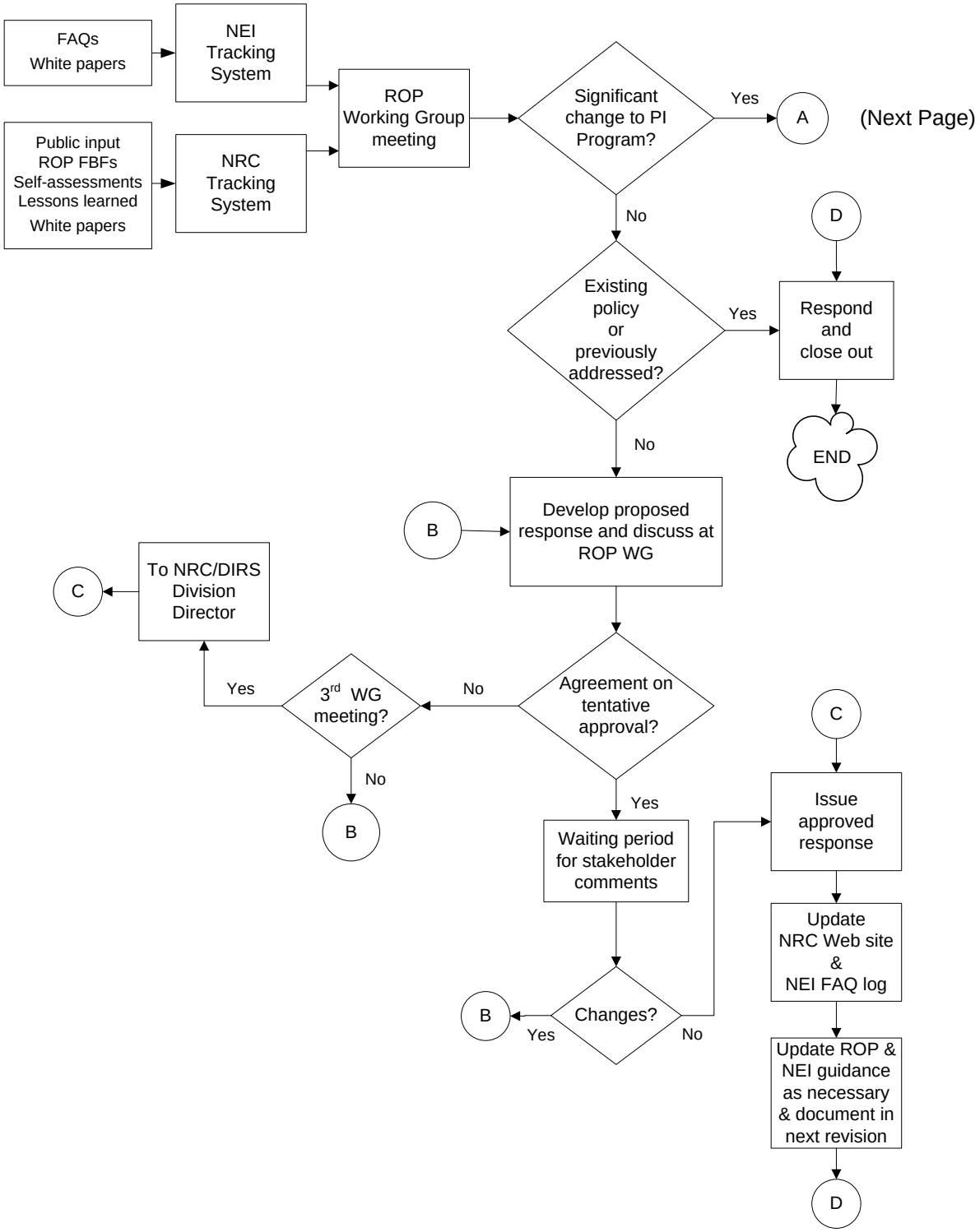
RIS 2000-08, Revision 1, “Voluntary Submission of Performance Indicator Data”

SECY-99-007, “Recommendations for Reactor Oversight Process Improvements”

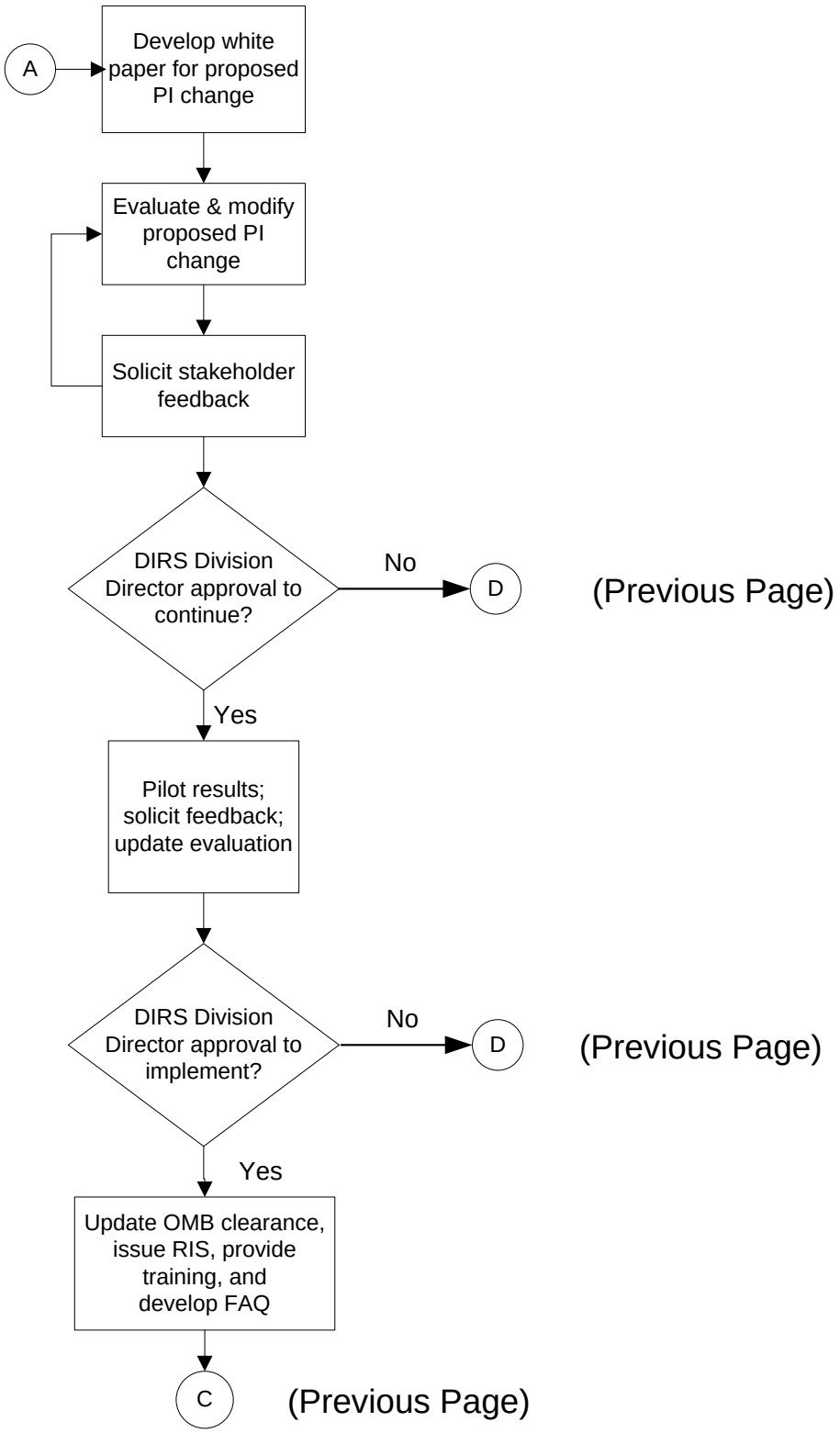
END

ATTACHMENT 1

FLOWCHART FOR ADDRESSING QUESTIONS AND FEEDBACK
RELATED TO ROP PERFORMANCE INDICATORS



FLOWCHART FOR ADDRESSING QUESTIONS AND FEEDBACK
RELATED TO ROP PERFORMANCE INDICATORS (CONTINUED)



ATTACHMENT 2

Revision History of IMC 0608

Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Required Training and Completion Date	Comment Resolution and Closed Feedback Form Accession Number (Pre-Decisional, Non-Public Information)
N/A	ML1011270423 04/21/01 CN 01-012	IMC 0608 issued.		
N/A	ML1021190669 04/16/02 CN 02-017	Revised to document exclusion of T/2 fault exposure time in SSU PIs, add guidance on how to resolve technical issues that are not covered by the PI program, and add guidance for when a licensee disagrees with HQ's resolution of a feedback form.		
N/A	ML0435601021 2/01/04 CN 04-027	Revised to delete information related to the Physical Protection Cornerstone to ensure that potentially useful information is not provided to a possible adversary.		
N/A	ML070360605 02/27/07 CN 07-007	Delete SSU, add MSPI; update flow charts; add definitions	N/A	N/A
N/A	ML12219A374 09/26/12 CN 12-022	Significant rewrite of questions and feedback section and flowchart. New guidance was added on the white paper process and considerations for developing new PIs. Some background information was removed because it was redundant to and contradicted with IMC 0308. Clarified other portions of guidance. Incorporated ROP FBF 0608-1622.	N/A	ML12270A018 FBF 0608-1622.
N/A	ML19025A257 02/05/19 CN 19-005	Document updated to reflect FAQ process changes for licensee's that are not members of NEI. Other minor editorial changes made. Also, IMC 0040 format compliance changes.	N/A	N/A