APPENDIX A

REACTOR OVERSIGHT PROCESS SELF-ASSESSMENT METRICS

I. PERFORMANCE INDICATOR PROGRAM METRICS

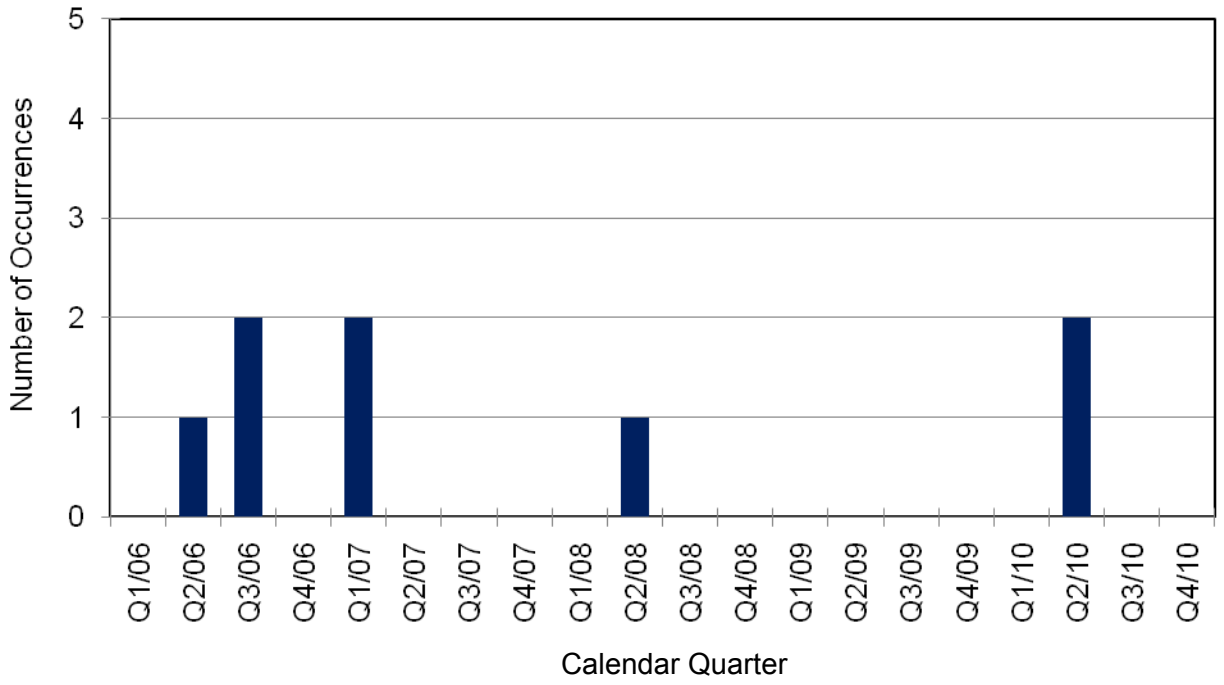
PI-1 Consistent Results Given Same Guidance

Definition: Independently verify performance indicators (PIs) using Inspection Procedure (IP) 71151, "PI Verification." Count all PIs that either (a) result in a crossed threshold based on a data correction by the licensee (as noted in the resultant inspection report), or (b) have been determined to be discrepant by the staff in accordance with IP 71150, "Discrepant or Unreported Performance Indicator Data."

Criteria: Expect few occurrences, with a stable or declining trend.

Goals Supported: Objective, Predictable

The graph represents the number of significant deficiencies and/or discrepant PIs reported for each quarter.



Analysis: "Significant deficiencies" are issues identified by the U.S. Nuclear Regulatory Commission (NRC) during the PI verification inspection process that caused the PI to cross a threshold or become invalid because of insufficient data. During this assessment period, two PIs crossed a threshold based on data correction by the staff (Wolf Creek). Over the past 5 years, there has been a noticeable declining trend.

Metric Criteria Met: Yes

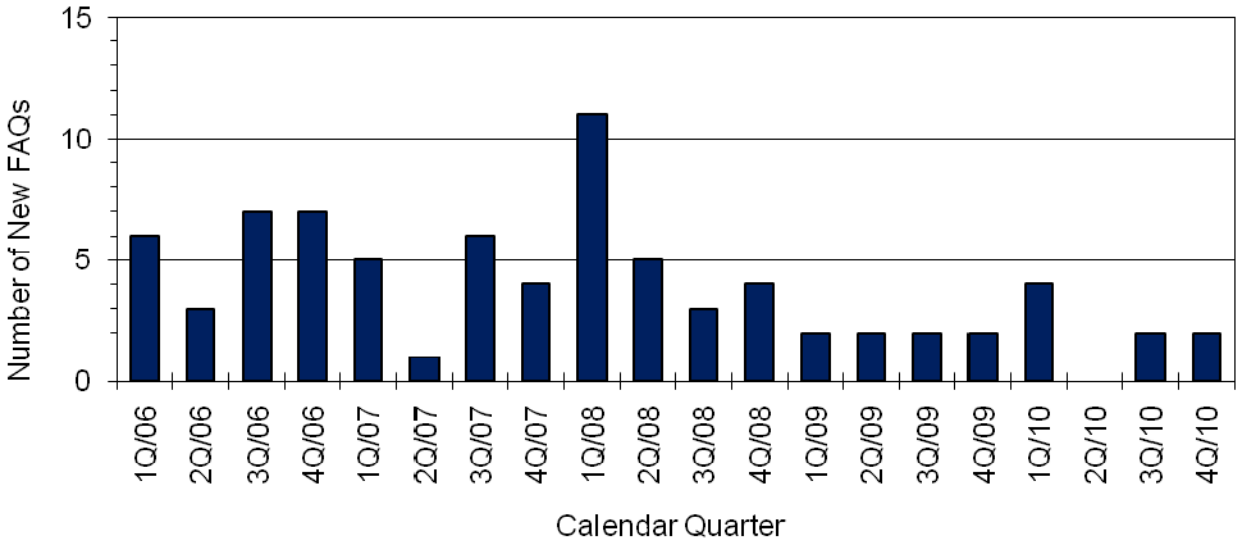
PI-2 Questions Regarding Interpretation of PI Guidance

Definition: Quarterly, count the number of frequently asked questions (FAQs).

Criteria: Expect low numbers, with a stable or declining trend.

Goals Supported: Understandable, Risk-Informed, Predictable

The graph represents the total number of new FAQs introduced during the Reactor Oversight Process (ROP) NRC/Industry Working Group meetings held during the respective quarter.



Analysis: The number of new FAQs introduced in calendar year (CY) 2010 was tied for the lowest annual total (CY 2009) during the past 5 years. In CY 2010 and 2009, there was an average of two new FAQs per quarter.

Since an FAQ can be open for more than one quarter, this metric definition might lead to double-counting of the same FAQ. The staff will initiate a feedback form to clarify the metric definition by specifying that only new FAQs that are introduced to the ROP NRC/Industry Working Group in each quarter are considered inputs to this metric for that quarter.

Metric Criteria Met: Yes

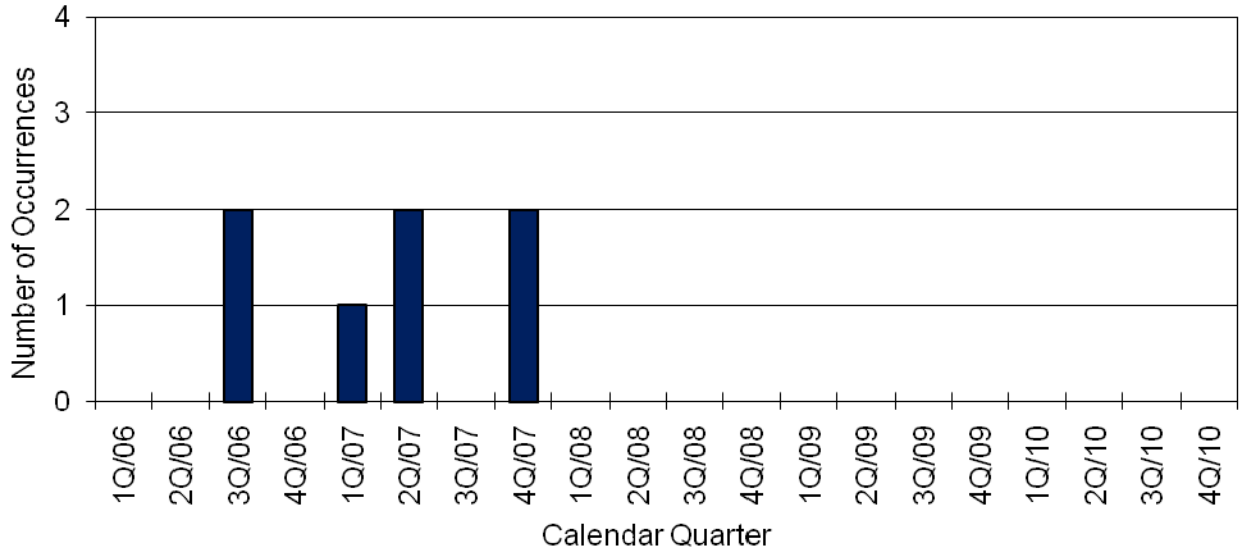
PI-3 Timely Indication of Declining Plant Performance

Definition: Quarterly, track PIs that cross multiple thresholds (e.g., green to yellow or white to red). Evaluate and characterize these results to allow timely indication of declining performance.

Criteria: Expect few occurrences, with a stable or declining trend.

Goals Supported: Risk-Informed, Effective

The graph represents the number of PIs that crossed multiple thresholds reported for each quarter.



Analysis: During this assessment period (CY 2010), there were no occurrences of a PI that crossed multiple thresholds.

Metric Criteria Met: Yes

PI-4 PI Program Provides Insights To Help Ensure Plant Safety and/or Security

Definition: Survey external and internal stakeholders asking whether the PI program provides useful insights, particularly when combined with the inspection program, to help ensure plant safety and/or security.

Criteria: Expect stable or increasingly positive perceptions over time.

Goals Supported: Effective, Risk-Informed, Open

Three internal survey questions addressed this metric. The table below presents the questions and the percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
PIs provide useful information on risk-significant areas.	*70%*	*67%*	*71%*	*74%*	*74%*
PIs provide useful insights and, when combined with the inspection program, help ensure plant safety.	*68%*	*68%*	*71%*	*71%*[1]	*77%*
PIs provide an objective indication of declining safety performance.	*43%*	*45%*	*58%*	*61%*[2]	*71%*

[1] *In prior years' surveys, the staff framed this question in the context of the PIs maintaining safety unilaterally, not in combination with the inspection program.*
[2] *In prior years' surveys, the staff framed this question using the term "adequate" rather than "objective."*

Analysis: Internal stakeholders continue to generally agree that the PI program provides useful insights. The data supporting this metric indicate a generally stable trend and positive perception for these measures when compared with the previous surveys. However, multiple comments challenged the PI program's ability to provide insights to help ensure plant safety and/or security. Many respondents indicated that licensees are able to manage the PIs, thereby reducing their effectiveness in identifying declining performance. Some respondents stated that the PIs do not provide useful insights or information to assess licensee performance. The staff will respond to this feedback in the consolidated response to stakeholder comments from the ROP internal survey.

Metric Criteria Met: Yes

PI-5 Timely PI Data Reporting and Dissemination

Definition: Within 5 weeks of the end of each calendar quarter, track (count) late PI postings on the NRC's external Web site. Also note the number of late submittals from licensees that did not meet the 21-day timeliness goal.

Criteria: Expect few occurrences, with a stable or declining trend.

Goals Supported: Effective, Open, Predictable

Analysis: There have been no late PI data postings on the NRC's external Web site since the inception of the ROP. There were three late PI data submittals in CY 2010 (one in the first quarter and two in the second quarter). Each submittal was only 1 day late and had no significant effect on the NRC's ability to properly process the PI data in a timely manner.

The staff removed the graph for this metric because it was of little value since there have never been any late PI data postings on the external Web site.

Metric Criteria Met: Yes

PI-6 Stakeholders Perceive Appropriate Overlap Between the PI Program and the Inspection Program

Definition: Survey external and internal stakeholders asking if appropriate overlap exists between the PI program and the inspection program.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Effective, Open

One internal survey question addressed this metric. The table below presents the question and the percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
PIs provide an appropriate level of overlap with the inspection program.	*74%*	*78%*	*78%*	*79%*	*88%*

Analysis: The data reflect an increasingly positive perception. Internal stakeholders generally agree that an appropriate overlap exists between the PI program and inspection program. The data supporting this metric indicate a positive trend and perception.

Metric Criteria Met: Yes

PI-7 Clarity of Performance Indicator Guidance

Definition: Survey external and internal stakeholders asking if Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," provides clear guidance regarding PIs.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Understandable, Open, Objective

Two internal survey questions addressed this metric. The table below presents the questions and the percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
PIs are clearly defined.	*71%*	*79%*	*82%*	*79%*	*80%*
PIs are understandable.	*76%*	*87%*	*82%*	*72%*	*78%*

Analysis: The data reflect an increasingly positive perception. Internal stakeholders continue to generally agree that PIs are clearly defined and understandable. Several respondents stated that the MSPI indicators are too complicated and difficult to understand. One respondent noted that the MSPI indicators are contrary to the NRC's desire to be open and transparent. The staff will respond to this feedback in the consolidated response to stakeholder comments from the ROP internal survey.

Metric Criteria Met: Yes

PI-8 PI Program Contributes to the Identification of Performance Outliers in an Objective and Predictable Manner

Definition: Survey external and internal stakeholders asking if the PI program effectively contributes to the identification of performance outliers based on risk-informed, objective, and predictable indicators.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Risk-Informed, Objective, Predictable, Open

One internal survey question addressed this metric. The table below presents the question and the percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
PIs effectively contribute to the identification of performance outliers based on risk-informed, objective, and predictable indicators.	*N/A*	*N/A*	*61%*	*65%*[1]	*73%*

[1] *In prior years' surveys, the staff framed this question in a context that emphasized the contribution of the MSPI to the identification of performance outliers.*

Analysis: The data reflect an increasingly positive perception. However, many respondents stated that the PI thresholds are not set low enough and, as a result, do not provide a meaningful indication of performance outliers. The staff will respond to this feedback in the consolidated response to stakeholder comments from the ROP internal survey.

Metric Criteria Met: Yes

II. INSPECTION PROGRAM (IP) METRICS

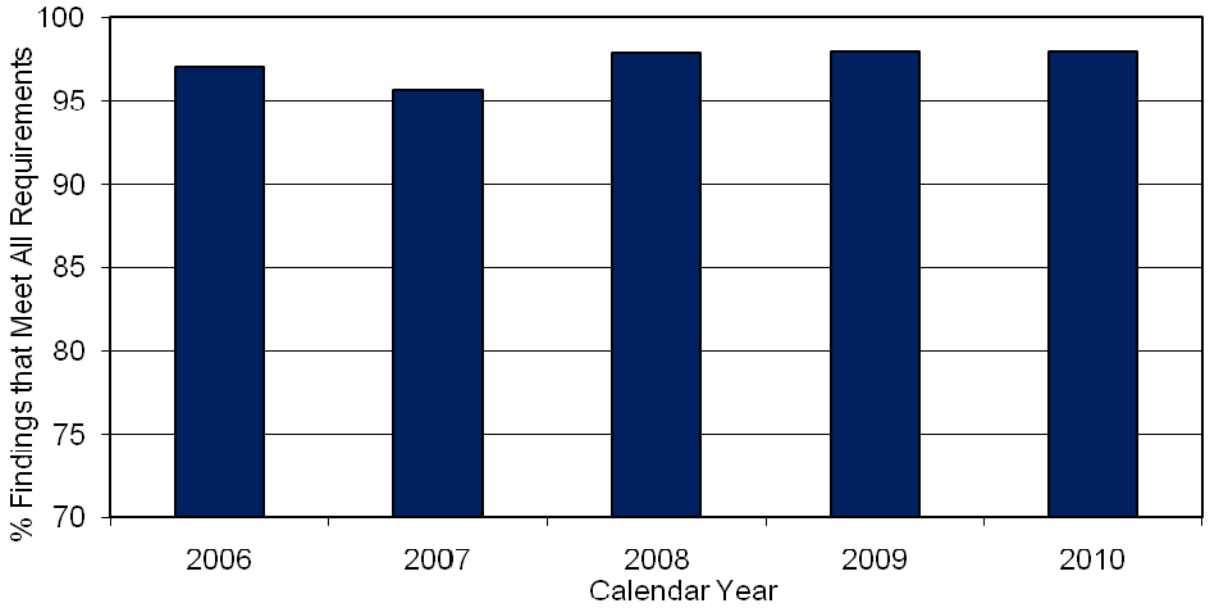
IP-1 Inspection Findings Documented in Accordance with Requirements

Definition: Audit inspection reports in relation to program requirements (Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports") for documenting green findings, greater-than-green findings, and violations. Report the percentage of findings that meet the program requirements.

Criteria: Expect a stable or improving trend in the percentage of findings documented in accordance with program requirements.

Goals Supported: Objective, Risk-Informed, Predictable

The chart below presents the percentage of audited inspection findings that were documented in accordance with IMC 0612 requirements.



Analysis: In CY 2010, the staff audited 43 nonsecurity inspection reports issued by the regional offices. The staff found that 97 percent of sampled findings were documented in accordance with IMC 0612 requirements. The data confirm that a stable trend has been maintained since CY 2006.

Metric Criteria Met: Yes

IP-2 Completion of Baseline Inspection Program

Definition: Annual completion of baseline inspection program.

Criteria: Defined as per IMC 2515, “Light-Water Reactor Inspection Program - Operations Phase.”

Goals Supported: Predictable, Effective

Analysis: The inspection program independently verified that licensees operated plants safely and securely in CY 2010 and identified and corrected performance issues in a timely manner in accordance with IMC 2515 and IMC 2201, “Security and Safeguards Inspection Program for Commercial Nuclear Power Reactors.” Each region documented completion of the baseline inspection program in a memorandum available in the Agencywide Documents Access and Management System (ADAMS) at Accession Nos. ML110450581 for Region I, ML110530471 for Region II, ML110480368 for Region III, and ML110460590 for Region IV. Additionally, the Office of Nuclear Security and Incident Response completed all security baseline inspections in CY 2010, as documented in a nonpublicly available memorandum (ML110320010). All regions completed their baseline inspections in CY 2010 within the allocated resources.

Metric Criteria Met: Yes

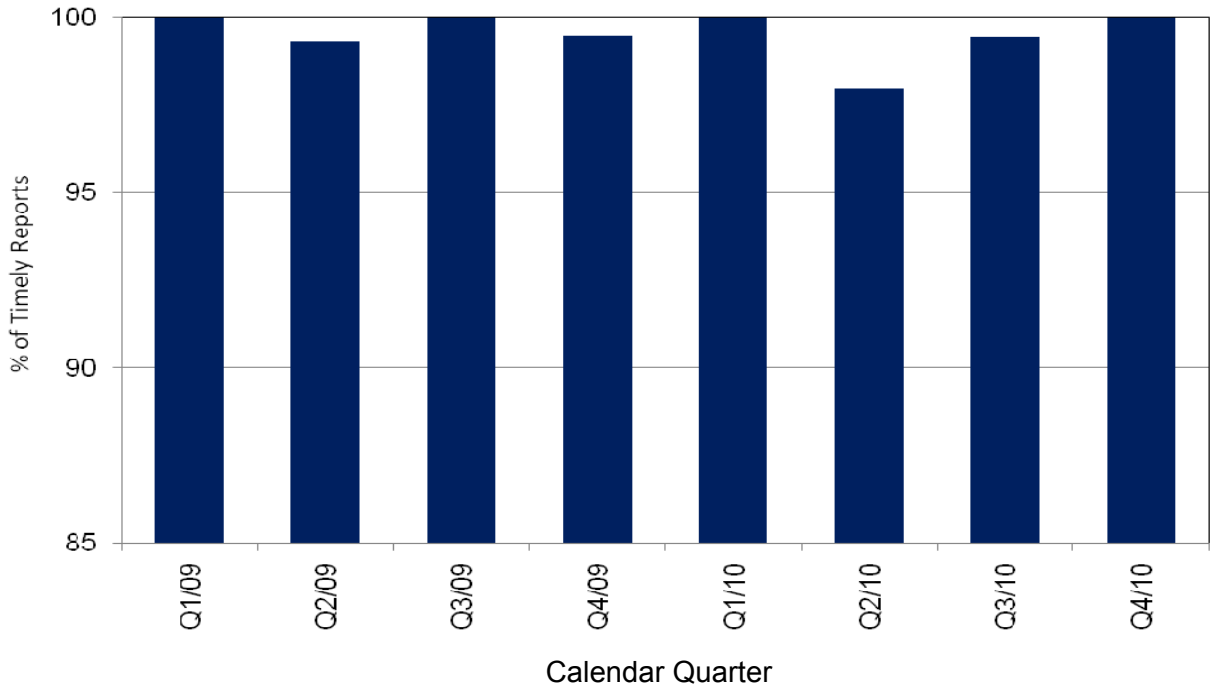
IP-3 Inspection Reports Are Timely

Definition: Obtain Reactor Program System (RPS) data on the total number of reports issued and the number issued within timeliness goals as stipulated in IMC 0612.

Criteria: Expect 90 percent of inspection reports to be issued within program's timeliness goals.

Goals Supported: Effective, Open, Predictable

The chart below presents the percentage of inspection reports that were issued on time.



Analysis: During CY 2010, the NRC issued 587 inspection reports. The regions met or exceeded the inspection report timeliness goal of 90 percent in each quarter throughout the year. In CY 2010, 583 out of 587 (99.3 percent) inspection reports met the timeliness requirements in IMC 0612.

Metric Criterion Met: Yes

IP-4 Temporary Instructions Are Completed Timely

Definition: Audit the time to complete temporary instructions (TIs) by region or Office. Compare the completion status in RPS to TI requirements. Report by region or Office the number of TIs closed within goals.

Criteria: Expect all TIs to be completed within TI requirements.

Goals Supported: Effective, Predictable

Analysis: In CY 2010, the staff completed TI 2515/173, "Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative," and TI 2515/175, "Emergency Response Organization, Drill/Exercise Performance Indicator, Program Review." The staff completed these TIs at all plants within the established deadlines, therefore, the metric criterion was met.

Metric Criteria Met: Yes

IP-5 Inspection Reports Are Relevant, Useful, and Written in Plain Language

Definition: Survey external and internal stakeholders asking whether the information contained in inspection reports is relevant, useful, and written in plain English.

Criterion: Expect stable or increasingly positive perception over time.

Goals Supported: Effective, Understandable, Open

Seven internal survey questions addressed this metric. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
The information contained in inspection reports is relevant.	*N/A*	*N/A*	*N/A*	*88%*	*88%*
The information contained in inspection reports is useful.	*N/A*	*N/A*	*N/A*	*77%*	*77%*
The information contained in inspection reports is written in plain English.	*N/A*	*N/A*	*N/A*	*85%*	*85%*
The information contained in inspection reports is communicated in a timely fashion.	*N/A*	*N/A*	*94%*	*95%*	*90%*
The information contained in inspection reports is communicated accurately.	*93%*	*87%*	*96%*	*93%*	*97%*
Security inspection reports and their cover letters provide sufficient information to licensees.	*N/A*	*N/A*	*N/A*	*87%*	*93%*
Security inspection reports and their cover letters provide sufficient information to the public.	*N/A*	*N/A*	*N/A*	*47%*	*53%*

Analysis: Majority of those internal stakeholders who provided feedback responded favorably to this metric. The staff did not conduct an external survey in CY 2010, consistent with its biennial frequency defined by IMC 0307.

Metric Criterion Met: Yes

IP-6 Inspection Program Effectiveness and Adequacy in Covering Areas Important to Plant Safety and/or Security

Definition: Survey external and internal stakeholders asking whether the inspection program adequately covers areas that are important to plant safety and/or security and is effective in identifying and ensuring the prompt correction of performance deficiencies.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Effective, Risk-Informed, Open

Nineteen internal survey questions addressed this metric. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
Baseline inspection program appropriately inspects for and identifies risk-significant issues.	*73%*	*79%*	*89%*	*88%*	*94%*
Baseline inspection program leads to objective findings whose significance can be clearly documented.	*69%*	*73%*	*81%*	*84%*	*90%*
Baseline inspection program provides appropriate coverage of plant activities and operations important to safety.	*67%*	*77%*	*83%*	*81%*	*90%*
Baseline inspection program provides sufficient latitude to allow inspectors to pursue potential areas of concern (via plant status, Problem Identification and Resolution (PI&R) samples, smart samples, etc.).	*N/A*	*N/A*	*N/A*	*73%*	*85%*
Baseline inspection program appropriately ensures the prompt correction of performance deficiencies.	*N/A*	*N/A*	*N/A*	*71%*	*73%*
Baseline inspection procedures provide estimates that reflect the effort required to complete the procedure.	*58%*	*57%*	*65%*	*58%*	*68%*
Baseline inspection procedures are adequate to address intended cornerstone attributes.	*80%*	*86%*	*94%*	*91%*	*91%*
Baseline inspection procedures are conducted at an appropriate frequency.	*79%*	*84%*	*86%*	*86%*	*92%*
Baseline inspection procedures are clearly written.	*78%*	*73%*	*85%*	*77%*	*85%*

Baseline inspection procedures place sufficient emphasis on field observation and inspections.	*N/A*	*N/A*	*83%*	*78%*[1]	*86%*
Baseline inspection procedures adequately sample risk-significant aspects of each inspected area.	*72%*	*80%*	*87%*	*90%*	*91%*
The program provides opportunities to gather insights into aspects of a licensee's safety culture.	*N/A*	*N/A*	*65%*	*59%*	*74%*[2]
Issuing noncited violations and relying on the licensee's corrective action program provide for an adequate approach to resolve issues of very low safety significance (i.e., green findings).	*N/A*	*N/A*	*80%*	*84%*	*87%*
The security baseline procedures cover all the areas important to plant security.	*N/A*	*N/A*	*N/A*	*89%*	*95%*
The force-on-force evaluations provide a reasonable test of the plant's security force effectiveness.	*N/A*	*N/A*	*N/A*	*78%*	*79%*
The baseline inspection resources are sufficient to gain an accurate measure of plant security performance.	*N/A*	*N/A*	*N/A*	*80%*	*84%*
The baseline inspection procedures are conducted at an appropriate frequency.	*N/A*	*N/A*	*N/A*	*90%*	*97%*
Baseline inspection program provides appropriate coverage of plant activities and operations important to security.	*N/A*	*N/A*	*N/A*	*89%*	*91%*
The baseline inspection procedures make adequate use of operating experience to inform inspectors of issues important to safety in the inspectable areas.	*N/A*	*N/A*	*N/A*	*N/A*	*72%*

[1] The staff revised this question in the CY 2008 survey to shift emphasis from "planning" to "field observations and inspections."
[2] Changed from "…provide adequate guidance on safety culture aspects."

Analysis: The internal feedback received indicated a generally positive perception. In general, the internal stakeholders believed that the inspection program was effective in ensuring that areas important to safety are appropriately addressed. There were some comments on the need to improve the inspection resource estimates required to complete the baseline inspection procedures. Additionally, there was a suggestion to improve the use of operating experience to inform inspectors of issues important to safety in the inspectable areas.

Metric Criteria Met: Yes

IP-7 Analysis of Baseline Inspection Procedures

Definition: Annually, review each baseline inspection procedure to determine its effectiveness and contribution to the overall effectiveness of the baseline inspection program. The objectives of the review are: (1) to determine if changes in scope, frequency, or level of effort are needed based on recent experience, (2) to determine if a change to the estimated hours for completion is needed, (3) to define or change what constitutes minimum completion of each inspectable area, if needed, and (4) to critically evaluate all of the inspectable areas together along with the PI program to ensure that the inspectable areas are adequately monitored for safety performance. In addition, a more detailed review and realignment of inspection resources will be performed at least biennially in accordance with Appendix B, "ROP Realignment Process," to IMC 0307. The focus of this effort is to adjust existing inspection resources to improve the effectiveness of the inspection program in identifying significant licensee performance deficiencies.

Criteria: None; trend only. Summarize and evaluate the individual inspection procedure reviews and propose program adjustments as necessary to address noted inefficiencies. Provide basis for any meaningful increase or decrease in procedure scope, frequency, or level of effort as a result of the review.

Goals Supported: Effective, Risk-Informed

Analysis: The staff performed its annual review of each baseline inspection procedure for CY 2010 as part of the biennial ROP realignment review that is scheduled to be completed during CY 2011. The review focused on identifying potential areas for improvement in the baseline inspection program and any notable changes in inspection results. Starting in CY 2012, the baseline inspection program will reflect the changes to the baseline inspection program resulting from the CY 2011 ROP realignment review.

Metric Criteria Met: Yes

III. SIGNIFICANCE DETERMINATION PROCESS METRICS

SDP-1 The Significance Determination Process (SDP) Results Are Predictable and Repeatable and Focus Stakeholder Attention on Significant Safety Issues

Definition: Annually, audit a representative sample (up to four per region) of inspection findings against the standard criteria set forth in IMC 0609, "Significance Determination Process," and its appendices. To the extent available, samples should include potentially greater-than-green findings that were presented to the Significance Determination Process/Enforcement Review Panel (SERP). Findings should contain sufficient detail to enable an independent auditor to trace through the available documentation and reach the same significance color characterization.

Criteria: The target goal is that at least 90 percent of SDP results are determined to be predictable and repeatable. Any SDP outcomes determined to be nonconserva tive will be evaluated, and appropriate programmatic changes will be implemented.

Goals Supported: Risk-Informed, Predictable

Analysis: In CY 2010, 14 findings had greater-than-green significance. The staff audited two findings from each region for a representative sample of eight findings having greater-than-green significance. The final risk significance of each finding was evaluated using the risk-informed process detailed in IMC 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations." The documentation of the final risk characterization of each finding included adequate detail to support the final risk-significance determination; therefore, the final risk significance of each finding was predictable and repeatable. The staff determined that, since CY 2005, 100 percent of samples chosen for review were predictable and repeatable.

Metric Criteria Met: Yes

SDP-2 SDP Outcomes Are Risk-Informed and Accepted by Stakeholders

Definition: Track the total number of appeals of final SDP results.

Criteria: Expect zero appeals of SDP significance findings that result in a final determination being overturned across all regions. All successful appeals will be assessed to determine causal factors and to recommend process improvements.

Goals Supported: Risk-Informed, Objective, Predictable

Analysis: There were no appeals for findings of white, yellow, or red significance in CY 2010. The metric is met since there were no successful appeals of significance determinations.

Metric Criteria Met: Yes

SDP-3 Inspection Staff Is Proficient and Finds Value in Using the SDP

Definition: Survey internal stakeholders by using specific quantitative survey questions that focus on training, effectiveness, and efficiency.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Effective, Understandable, Risk-Informed

Nine internal survey questions addressed this metric. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
The inspection staff is proficient in using the reactor safety Phase 1 & 2 SDPs.	*20%*	*36%*	*54%*	*63%*	*82%[1]*
The inspection staff is proficient in using the nonreactor safety Phase 1 & 2 SDPs.	*26%*	*41%*	*57%*	*57%*	*71%[2]*
Initial and/or periodic training is effective in understanding and using the SDPs.	*33%*	*38%*	*56%*	*55%*	*73%[3]*
Program guidance documents are adequate in understanding and using the SDPs.	*32%*	*41%*	*63%*	*66%*	*76%[4]*
Resource (time and personnel, etc.) expenditures are appropriate.	*32%*	*41%*	*60%*	*68%*	*69%*
SDP focuses NRC attention on safety-significant issues.	*71%*	*75%*	*83%*	*85%*	*85%*
SDP provides a basis for effective communication of inspection findings to the licensee.	*73%*	*78%*	*84%*	*83%*	*87%*
SDP provides a basis for effective communication of inspection findings to the public.	*60%*	*60%*	*73%*	*68%*	*70%*
SDP focuses appropriate NRC attention on security-significant issues.	*N/A*	*N/A*	*N/A*	*83%*	*84%*

[1] Question changed in CY 2010 from "Reactor safety SDPs are easy to use."
[2] Question changed in CY 2010 from "Non-reactor safety SDPs are easy to use."
[3] Question changed in CY 2010 from "SDP training is effective."
[4] Question changed in CY 2010 from "Program guidance documents are clear."

Analysis: The data reflect a generally positive perception. A majority of the internal stakeholders indicated that they are proficient in using the reactor safety and nonreactor safety SDPs. The internal stakeholders further indicated that training is effective and that program guidance is adequate in helping the staff to understand and use the SDP. The response was consistent with the previous survey regarding whether the SDP focuses on safety issues, contributes to effective communications with the licensee and public, and uses the appropriate resources.

Metric Criteria Met: Yes

SDP-4 The SDP Results in an Appropriate Regulatory Response to Performance Issues

Definition: Survey external and internal stakeholders asking if the SDP results in an appropriate regulatory response to performance issues.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Understandable, Objective, Predictable, Open

Four internal survey questions addressed this metric. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
SDP results provide for an appropriate regulatory response to performance issues.	*N/A*	*N/A*	*N/A*	*77%*	*83%*
SDP results are consistent and repeatable.	*N/A*	*N/A*	*74%*	*74%*[1]	*74%*
SDP results are predictable and understandable.	*N/A*	*N/A*	*N/A*	*68%*	*74%*
Management correctly uses SDP to make risk-informed decisions.	*N/A*	*N/A*	*N/A*	*N/A*	*79%*

[1] *The staff revised this measure in CY 2008 to include the word "repeatable."*

Analysis: Internal stakeholders continue to generally agree that SDP results fostered an appropriate regulatory response to performance issues. However, three out of four survey questions that support the metric have limited data. The staff will continue to evaluate the measures for meaningful trends in future surveys.

Metric Criteria Met: Yes

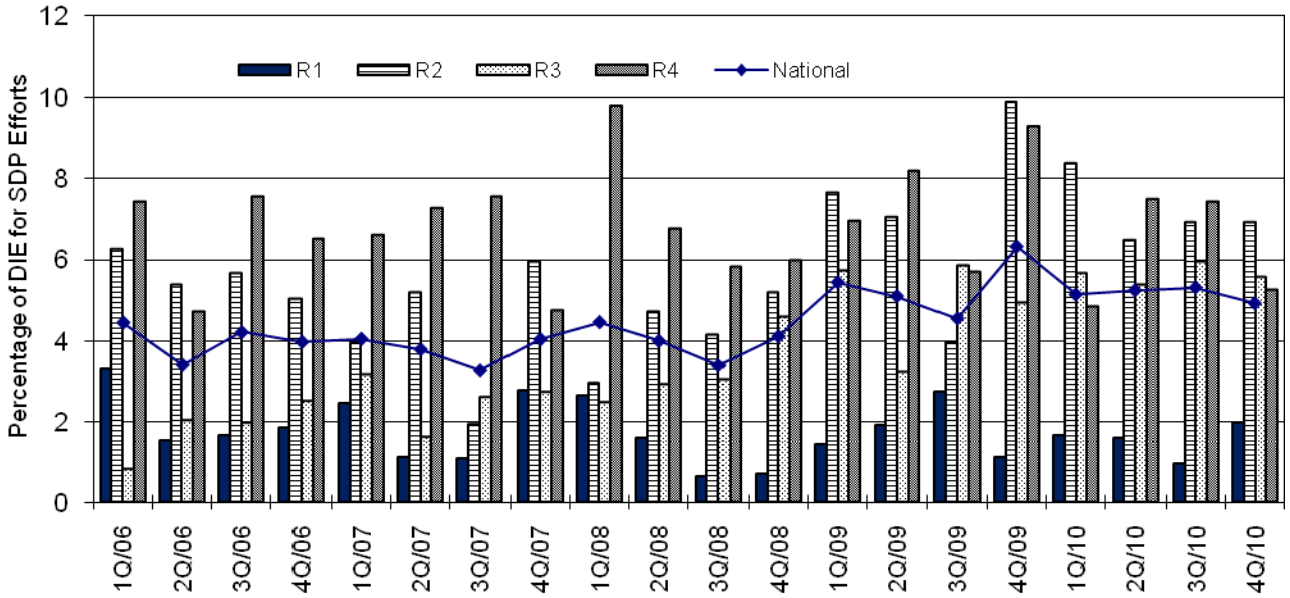
SDP-5 Resources (Direct Charges and Support Activities) Expended Are Appropriate

Definition: Track the percentage of total resource expenditures attributed to SDP activities to determine the effort expended by the regions in completing SDP evaluations as a percentage of the total regional direct inspection effort (DIE).

Criteria: Total SDP expenditures should not exceed 10 percent of the total regional DIE and should show a stable or declining trend.

Goals Supported: Effective, Predictable

The graph below presents the percentage of SDP resource expenditures to total DIE per region.



Analysis: Regional expenditures associated with SDP evaluations remain below the target goal of 10 percent of the total DIE. The national average also has remained stable over the past 5 years.

Metric Criteria Met: Yes

SDP-6 **Final Significance Determinations Are Timely**

Definition: Conduct a quarterly audit of RPS data to identify the total number of inspection items finalized as greater-than-green that were under review for more than 90 days since:

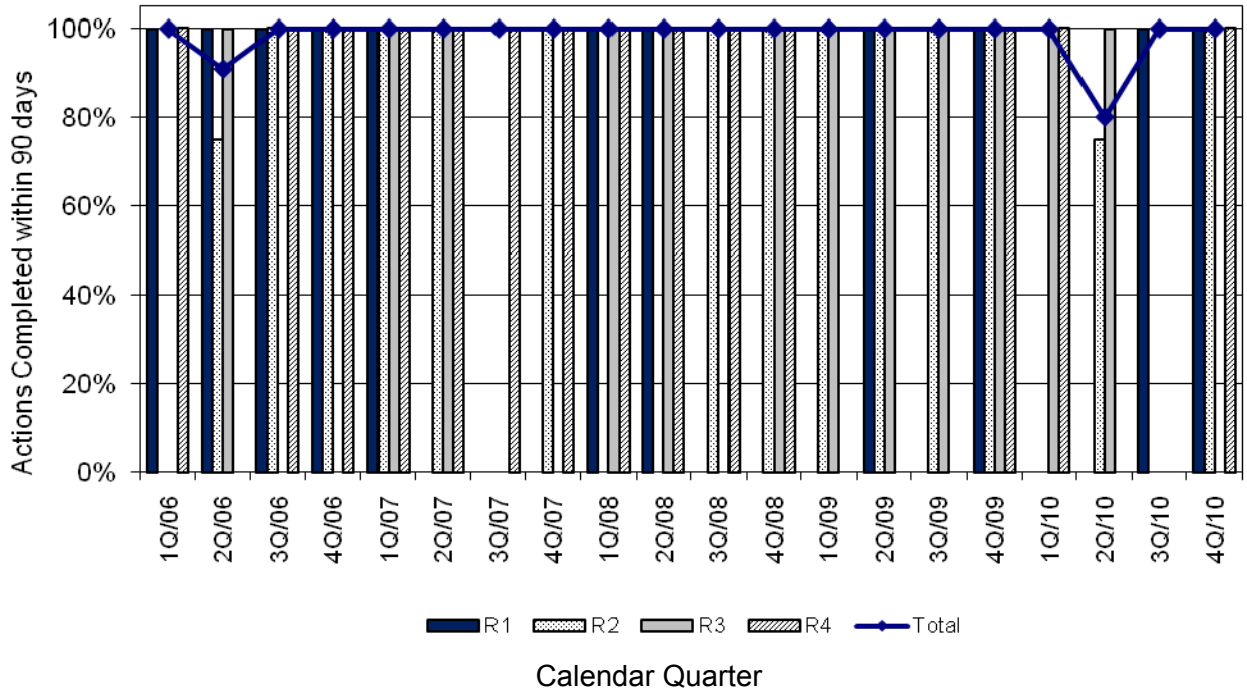
(1) the date of initial licensee notification of the preliminary significance in an inspection report, or

(2) the item was otherwise documented in an inspection report as an apparent violation pending completion of a significance determination and not counted in the above category.

Criteria: At least 90 percent of all SDP results that are counted per the criteria above should be finalized within 90 days. All issues older than 90 days will be assessed to determine causal factors and to recommend process improvements.

Goals Supported: Effective, Open, Predictable

The graph below presents the percentage of SDP results that were completed within 90 days.



Analysis: The completion of final significance determinations has been consistently timely for the past 5 years. Only 1 finding out of a total of 14 exceeded the 90-day goal. Since more than 90 percent of all SDP results were finalized within 90 days in CY 2010, the metric is met.

Metric Criteria Met: Yes

IV. ASSESSMENT PROGRAM METRICS

AS-1 Actions Are Determined by Quantifiable Assessment Inputs (i.e., PIs and SDP Results) and Are Commensurate with the Risk of the Issue and Overall Plant Risk

Definition: Audit all assessment-related letters and count the number of Action Matrix deviations. Evaluate the causes of these deviations and identify changes to the ROP, if any, to improve the guidance documents.

Criteria: Expect few deviations, with a stable or declining (i.e., improving) trend.

Goals Supported: Objective, Risk-Informed, Open

The table below shows the number of new and renewed deviations in effect each year since CY 2002. There were no deviations in CY 2000 and CY 2001.

CY	2002	2003	2004	2005	2006	2007	2008	2009	2010
New Deviations	1	1	2	3	1	1	0	0	3
Renewed Deviations	0	0	1	1	2	2	1*	0	0

** This deviation was renewed in December 2008 and was in effect in CY 2009.*

Analysis: There have been 19 Action Matrix deviations since the beginning of the ROP in CY 2000. Of the three new deviations in CY 2010, two have been closed.

On April 5, 2010, the Executive Director for Operations (EDO) approved an Action Matrix deviation for increased oversight of the Vermont Yankee Nuclear Power Station related to onsite ground water contamination. Increased NRC oversight of the characterization, mitigation, and remediation of the tritium contamination was necessary because of the extraordinary level of interest and concern expressed by stakeholders, including numerous congressional, State, and local officials. Although there was not a public health and safety issue, additional independent inspections and assessments by the NRC of the licensee's activities, as well as increased external stakeholder communications and outreach, were necessary to address stakeholder concerns. The actions for this deviation represented a customized approach that considered unique factors beyond the plant's Action Matrix column designation; therefore, the staff does not intend to revise IMC 0305, "Operating Reactor Assessment Program." In addition, through the ROP self-assessment, the staff is evaluating the implications of this Action Matrix deviation for the Public Radiation Safety cornerstone.

On April 30, 2010, the EDO approved an Action Matrix deviation for increased oversight of the San Onofre Nuclear Generating Station (SONGS). This deviation was related to longstanding human performance issues, protracted challenges in problem identification and resolution, and a significant increase in allegations. The region requested the deviation because it had exhausted the

oversight provisions prescribed by IMC 0305, and the licensee had not improved its performance in the cross-cutting areas. This deviation was closed on December 31, 2010. The staff is creating an infrequently performed inspection procedure, IP 40100, "Independent Safety Culture Assessment Follow-up," for reviewing, in part, safety culture assessments performed in response to longstanding substantive cross-cutting Issues (SCCIs). In addition, the staff is exploring alternative ways to implement the agency's new safety culture policy statement, which may affect the staff's oversight of licensee performance in the cross-cutting areas.

On September 29, 2010, the EDO approved an Action Matrix deviation for Browns Ferry Units 1, 2, and 3 to permit the plants to remain in Column 3 because the supplemental inspection was not completed within four quarters. The region was not able to complete the inspection within four quarters because (1) a high number of activities at the site delayed licensee's readiness, (2) high regional inspection workload impacted the NRC's readiness for the supplemental inspection, and (3) NRC staff misinterpreted IMC 0305, "Operating Reactor Assessment Program," regarding the definition of a repetitive degraded cornerstone. The region requested the deviation because the supplemental inspection was not completed within four quarters for reasons unrelated to licensee performance. The supplemental inspection was completed in October 2010. The plants transitioned to Column 1 and the deviation was closed on December 3, 2010. The staff is clarifying IMC 0305 to avoid further misinterpretation. The staff considered revising guidance to allow an additional quarter before transitioning a plant to Column 4 for a repetitive degraded cornerstone. However, the staff determined that the time of transition is appropriate for encouraging timely responses from licensees and the NRC to declining licensee performance. NRC inspection effort is not required to be postponed until a licensee indicates that it is ready. The NRC can begin and partially complete a supplemental inspection in advance so that additional follow-up can be more efficient and timely (see ROP Feedback Form 0305-1392).

Three new deviations in CY 2010 caused a spike in the performance measure associated with this metric. Although the spike does not constitute a trend, staff considers this metric not met consistent with metric determinations in prior years. As noted above, the staff is proposing changes to the ROP to address the underlying causes of the deviations.

Metric Criteria Met: No

AS-2 Number and Scope of Additional Actions Recommended as a Result of the Agency Action Review Meeting Beyond Those Actions Already Taken Are Limited

Definition: Review the results of the Agency Action Review Meeting (AARM).

Criteria: Expect few additional actions, with a stable or declining (i.e., improving) trend.

Goals Supported: Understandable, Predictable, Objective

Analysis: The AARM was held on April 27, 2010, in Bethesda, MD. No reactor facilities met the criteria for being discussed at the April 2010 AARM. After reviewing the ROP self-assessment results, the completed or planned courses of action, and continued improvement to the safety and security PIs, NRC senior managers determined that the ROP is meeting the agency's strategic goals. NRC senior managers also reviewed the Industry Trends Program results for fiscal year (FY) 2009 and did not identify any statistically significant adverse trends in industry safety performance through the end of FY 2009. Based on the AARM discussions, NRC senior managers determined that no actions beyond those already planned for reactor facilities were necessary.

The next AARM is scheduled for April 20, 2011.

Metric Criteria Met: Yes

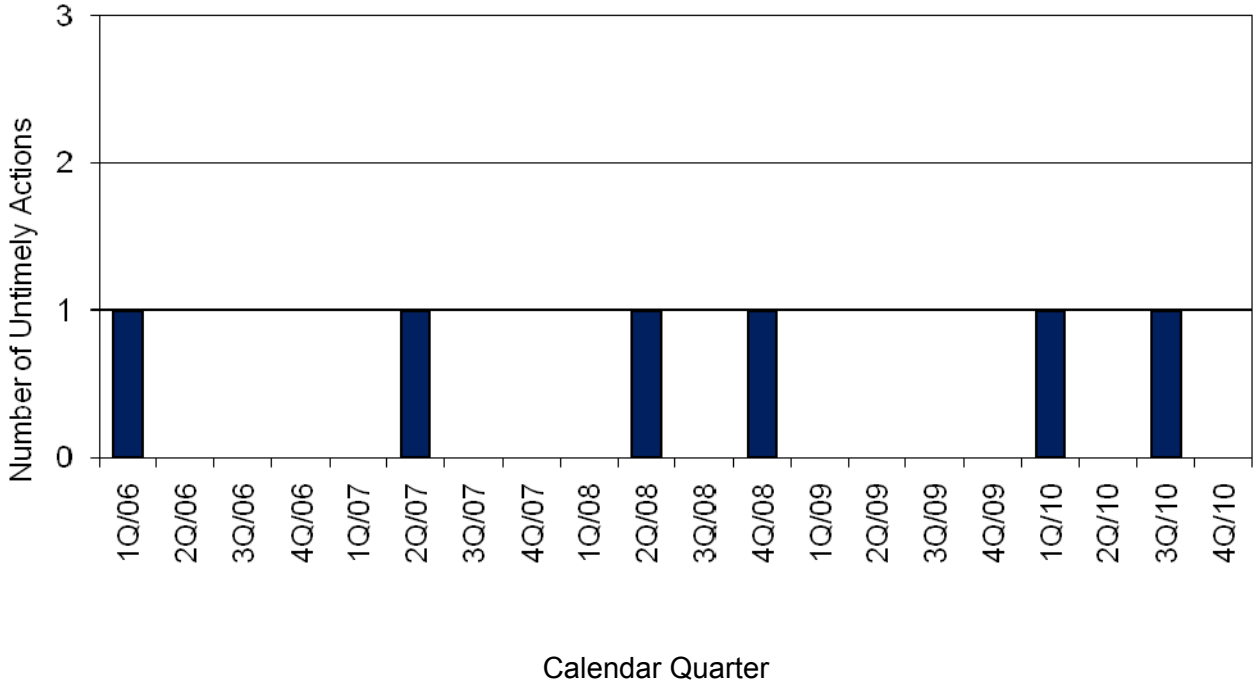
AS-3 Assessment Program Results (Assessment Reviews, Assessment Letters, and Public Meetings) Are Completed in a Timely Manner

Definition: Track the number of instances in which the timeliness goals stipulated in IMC 0305, "Operating Reactor Assessment Program," were not met for (1) the conduct of quarterly, mid-cycle, and end-of-cycle reviews, (2) the issuance of assessment letters, and (3) the conduct of public meetings.

Criteria: Expect few instances in which timeliness goals were not met, with a stable or declining trend.

Goals Supported: Effective, Open, Predictable

The chart below presents the number of untimely actions per calendar quarter.



Analysis: Timeliness goals for assessment-related activities include: (1) quarterly reviews are completed within 5 weeks after the end of the first and third quarters, (2) mid-cycle reviews are completed within 7 weeks after the end of the second quarter, (3) end-of-cycle reviews are completed within 7 weeks after the end of the fourth quarter, (4) assessment letters are issued within 2 weeks after the quarterly review and within 9 weeks after the mid-cycle and end-of-cycle reviews, and (5) public meetings are completed within 16 weeks after the end of the assessment period.

All except for two annual assessment letters met the timeliness goals. Since there were only two instances where the timeliness goals were not met and the trend is stable over the years, this metric is met.

Metric Criteria Met: Yes

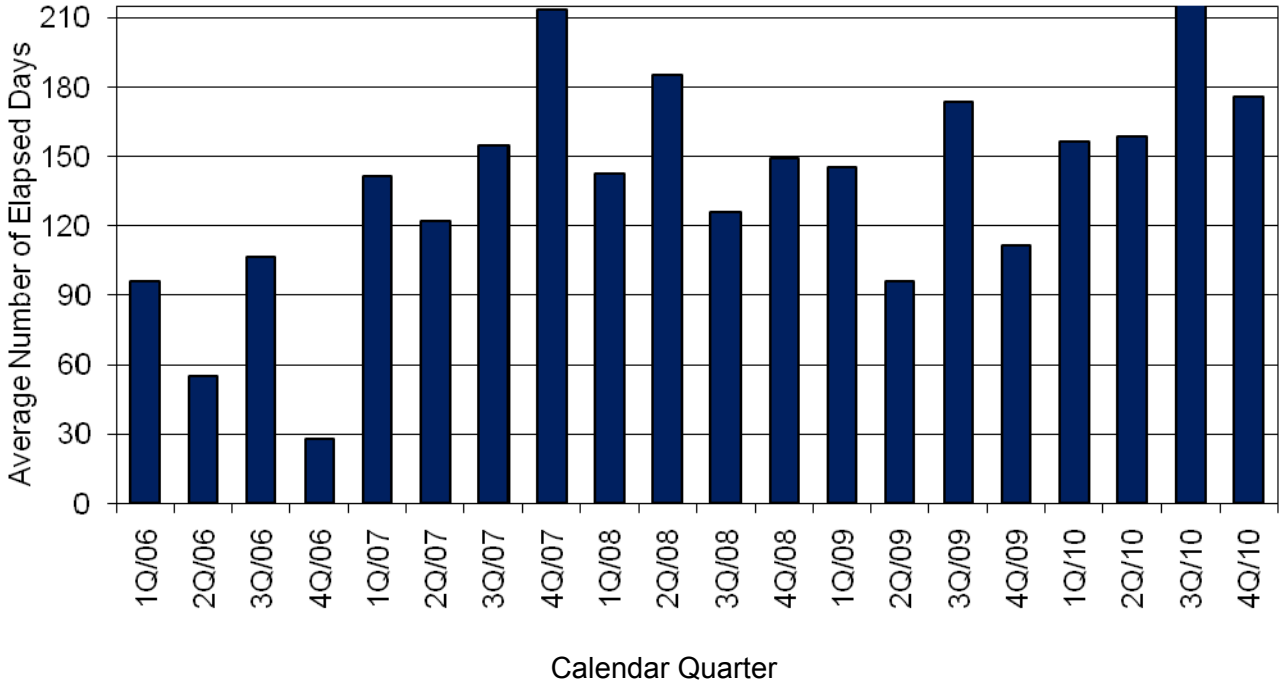
AS-4 The NRC's Response to Performance Issues Is Timely

Definition: Count the number of days between issuance of an assessment letter discussing an issue having more than very low safety significance and completion of the supplemental inspection (by exit meeting date, not issuance of the inspection report).

Criteria: Expect a stable or declining trend.

Goals Supported: Effective, Predictable

The chart below presents the average number of days between the issuance of the assessment letter and the completion date of the supplemental inspection for safety-significant findings per calendar quarter.



Analysis: Data collected to date indicate an increase in the elapsed time between the issuance of an assessment letter and the completion of the corresponding supplemental inspection over previous years. The average in CY 2010 was the highest yearly average of all prior years. To be consistent with metric determinations from prior years, the staff considers this metric not met. The staff reviewed the data to identify the root cause for improvement opportunities. The delays in performing the follow-up inspections were often caused by the licensee not being ready for the inspection. The staff recognizes that, while the licensee readiness should be considered in scheduling a supplemental inspection, the timeliness goal still needs to be met to ensure regulatory actions are timely. A feedback form will be initiated to recommend that ROP guidance be clarified to reinforce this fundamental program objective.

Metric Criteria Met: No

AS-5 The NRC Takes Appropriate Actions To Address Performance Issues

Definition: Survey external and internal stakeholders asking whether the NRC takes appropriate actions to address performance issues for those plants outside the Licensee Response Column of the Action Matrix.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Effective, Understandable, Open

Thirteen internal survey questions address this metric. The table below presents the questions and the resultant percentages of agreement.

ROP Assessment Measures	***2002***	***2004***	***2006***	***2008***	***2010***
The assessment process provides an appropriate range of regulatory actions in response to safety issues.	*78%*	*80%*	*89%*	*92%*	*86%*
The assessment process provides for timely resolution of issues commensurate with safety significance.	*N/A*	*N/A*	*74%*	*80%*	*75%*
The assessment process properly incorporates enforcement actions.	*N/A*	*N/A*	*82%*	*84%*	*82%*
The assessment process focuses resources on areas of greatest safety significance.	*80%*	*81%*	*78%*	*82%*	*85%*
The assessment process minimizes duplication/rework in preparation for assessment meetings (i.e., mid-cycle, end-of-cycle, agency action review, public meetings).	*N/A*	*N/A*	*65%*	*59%*	*68%*
The assessment process provides objective assessments of licensee performance.	*78%*	*84%*	*88%*	*81%*	*89%*
The assessment process provides understandable regulatory guidance to assess licensee performance.	*76%*	*77%*	*91%*	*81%*	*82%*
The assessment process uses appropriate actions to address performance issues for those licensees outside of the Licensee Response Column of the Action Matrix.	*80%*	*85%*	*87%*	*87%*	*89%*

The assessment process provides sufficient attention to licensees whose performance is in the Licensee Response Column (i.e., appropriateness of the baseline inspection and performance indicators for these licensees).	*76%*	*81%*	*88%*	*88%*	*89%*
The assessment process establishes reasonable timeliness goals for documentation, data collection, etc.	*N/A*	*N/A*	*89%*	*85%*	*85%*
Security Assessment Measures	***2002***	***2004***	***2006***	***2008***	***2010***
The security assessment process provides an appropriate range of regulatory actions in response to security issues.	*N/A*	*N/A*	*N/A*	*88%*	*89%*[1]
The security assessment process provides for timely resolution of issues commensurate with security significance.	*N/A*	*N/A*	*N/A*	*89%*	*80%*[1]
The security assessment process focuses resources on areas of greatest security significance.	*N/A*	*N/A*	*N/A*	*93%*	*86%*[1]

[1] *Adds "security" before "assessment" for clarity.*

Analysis: Internal stakeholders continued to generally agree that the NRC takes appropriate actions to address performance issues. Several survey comments indicate that the assessment process is understandable, objective, and predictable. However, some survey respondents believe the cross-cutting areas are subjective. The staff will respond to the feedback in the consolidated response to stakeholder comments from the ROP internal survey.

The data supporting this metric indicate a stable or improving trend over time. However, all three survey questions that support the metric in the security assessment area have limited data. The staff will continue to evaluate the measures for meaningful trends in future surveys.

Metric Criteria Met: Yes

AS-6 Assessment Reports Are Relevant, Useful, and Written in Plain Language

Definition: Survey external and internal stakeholders asking whether the information contained in assessment reports is relevant, useful, and written in plain English.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Understandable, Effective, Open

Five internal survey questions address this metric. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
The information contained in the assessment letters is relevant.	*N/A*	*N/A*	*N/A*	*90%*	*88%*
The information contained in the assessment letters is useful.	*N/A*	*N/A*	*N/A*	*79%*	*78%*
The information contained in the assessment letters is written in plain English.	*N/A*	*N/A*	*N/A*	*83%*	*84%*
The information contained in the assessment letters is communicated in a timely fashion.	*N/A*	*N/A*	*N/A*	*90%*	*86%*
The information contained in the assessment letters is communicated accurately.	*N/A*	*N/A*	*N/A*	*94%*	*97%*

Analysis: Survey respondents generally agreed that the information contained in assessment letters is relevant, useful, and written in plain language. The data supporting this metric indicate a stable and positive perception over time. However, all five survey questions that support the metric have limited data. The staff will continue to evaluate the measures for meaningful trends in future surveys.

Metric Criteria Met: Yes

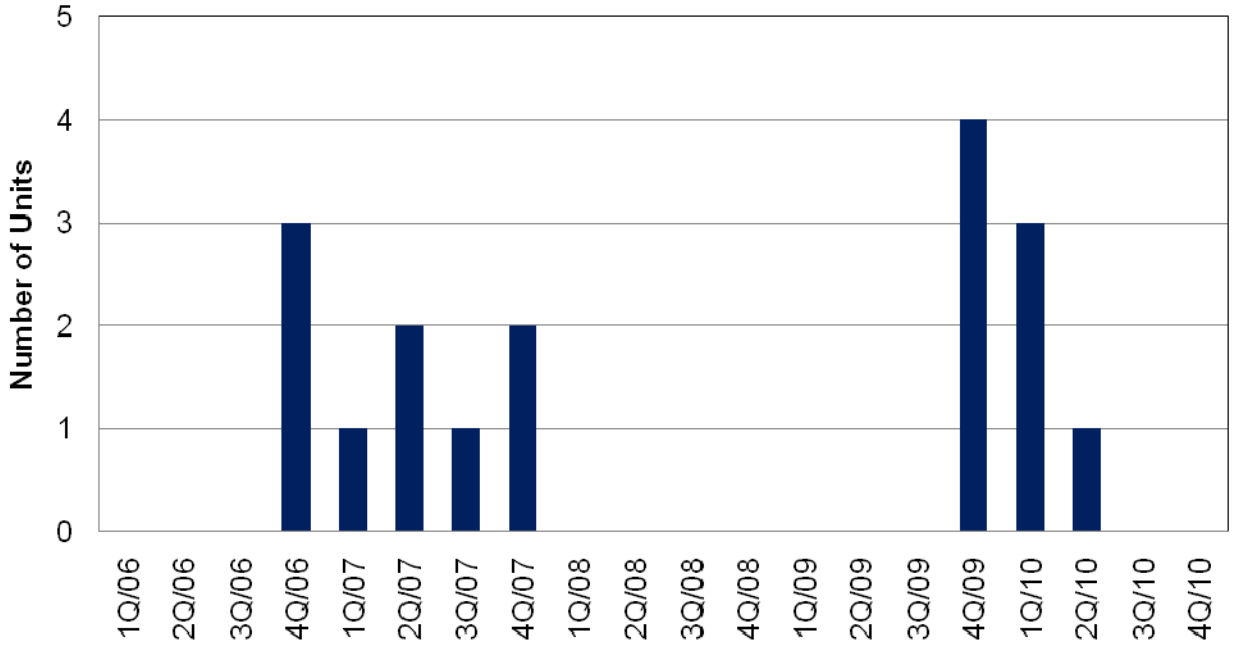
AS-7 **Degradations in Plant Performance Are Gradual and Allow Adequate Agency Engagement of the Licensees**

Definition: Track the number of instances each quarter in which plants move more than one column to the right in the Action Matrix (as indicated on the Action Matrix Summary).

Criteria: Expect few instances in which plant performance causes a plant to move more than one column to the right in the Action Matrix. Provide a qualitative explanation of each instance in which this occurs. Expect a stable or declining trend.

Goals Supported: Risk-Informed, Predictable

The chart below shows the number of units that moved more than one column to the right in the Action Matrix per calendar quarter.



Analysis: In the fourth quarter of 2009, one three-unit site and one one-unit site moved from Column 1 to Column 3. In the first quarter of 2010, one three-unit site moved from Column 1 to Column 3. In the second quarter of 2010, one unit moved from Column 1 to Column 3. In all instances, the plants received yellow findings that were unique to each site (i.e., the findings were not a result from a generic issue). Of the eight units that have moved more than one column to the right from the fourth quarter of 2009 to the present, six of the units belong to three-unit sites, and each three-unit site was affected by one yellow finding. Multiple three-unit sites would account for the recent increase compared to

previous years. A similar spike occurred in the 2006–2007 timeframe. The data reveal a spike at the end of CY 2009 and a decreasing trend in CY 2010. In addition, the total count in CY 2010 was within historic range. Therefore, the staff considers this metric is met.

Upon reflection, the staff questions the utility of this metric. The ROP was not expected to preclude plants from crossing more than one column to the right in the Action Matrix. The ROP was designed to provide adequate margin in the assessment of licensee performance so that appropriate licensee and NRC actions are taken before ***unacceptable*** performance occurs (SECY-99-007). Therefore, this metric does not indicate whether or not the ROP is functioning as it was originally intended. The staff will initiate a Feedback Form to evaluate the value of this metric as an indicator of ROP effectiveness.

Metric Criteria Met: Yes

AS-8 Perceived Effectiveness of Safety Culture Enhancements to ROP

Definition: Survey external and internal stakeholders asking whether the ROP safety culture enhancements help in identifying licensee safety culture weaknesses and focusing licensee and NRC attention appropriately.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Effective, Open

Analysis: The internal survey questions were revised from the 2008 survey to solicit feedback about specific aspects of the ROP safety culture enhancements. The table below presents the questions and the resultant percentages of agreement.

ROP 2002–2008 Internal Survey Results

Measure	***2002***	***2004***	***2006***	***2008***
1. The assessment process allows effective consideration of safety culture aspects.	*N/A*	*N/A*	*67%*	*68%*
2. The assessment process integrates and provides insights into substantive cross-cutting issues.	*N/A*	*N/A*	*70%*	*66%*
3. The ROP safety culture enhancements (in both assessment and inspection areas) help in identifying licensee safety culture weaknesses and focusing licensee and NRC attention appropriately.	*N/A*	*N/A*	*62%*	*59%*

ROP 2010 Internal Survey Results

ROP Cross-Cutting Process Measure	***2002–2008***	***2010***
The cross-cutting issue process provides insights into a licensee's safety culture (see Measures 1 and 2 above).	*~68%*	*66%*
The cross-cutting issue process supports the objectives of the ROP (risk-informed, objective, predictable, and understandable).	*N/A*	*66%*
The thresholds for requesting a licensee to perform a safety culture assessment in response to longstanding substantive cross-cutting issues are appropriate.	*N/A*	*71%*

The ROP provides adequate guidance for evaluating safety culture assessments performed in response to longstanding, substantive cross-cutting issues.	*N/A*	*53%*
ROP Safety-Culture-Related Guidance Measure	***2002–2008***	***2010***
The ROP safety-culture-related guidance helps identify licensee safety culture weaknesses (see Measure 3 above).	*~60%*	*62%*
The ROP safety-culture-related guidance helps focus licensee and NRC attention appropriately (see Measure 3 above).	*~60%*	*64%*
Adequate resources (time and personnel) are available to implement the ROP safety-culture-related guidance.	*N/A*	*55%*
The ROP safety-culture-related guidance meets the objectives of the ROP (risk-informed, objective, predictable, and understandable).	*N/A*	*65%*
Supplemental Inspection Procedure Measure	***2002–2008***	***2010***
Adequate guidance exists for reviewing the licensee's evaluation of the safety culture components (see Measure 1 above).	*~68%*	*72%*
Adequate guidance exists for evaluating licensees' safety culture assessments.	*N/A*	*68%*
Adequate guidance exists for performing safety culture assessments.	*N/A*	*62%*

Internal stakeholders generally agree that the safety culture enhancement to the ROP is effective. Because of the changes to the questions from 2008 to 2010, it is difficult to compare the survey results. However, in the categories where the results can be compared, the 2010 response rates show a slight improvement from the 2008 survey. Nevertheless, there is still room for improvement.

Some internal stakeholders expressed concerns regarding implementation of the substantive cross-cutting issue (SCCI) process. The staff has created Safety Culture Implementation Team (SCIT) to develop options for implementing the safety culture policy statement in the ROP. As part of this effort, the SCIT plans to enhance the current ROP guidance and training regarding safety culture and the handling of SCCIs. The staff will respond in more detail to this feedback in the consolidated response to stakeholder comments from the ROP internal survey.

Metric Criteria Met: Yes

V. OVERALL REACTOR OVERSIGHT PROCESS METRICS

O-1 Stakeholders Perceive the ROP To Be Predictable and Objective

Definition: Survey external and internal stakeholders asking if ROP oversight activities are predictable (i.e., controlled by the process) and reasonably objective (i.e., based on supported facts, rather than relying on subjective judgment).

Criteria: Expect a stable or increasingly positive perception over time.

Goals Supported: Objective, Predictable, Effective, Open

Three internal survey questions addressed this metric. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
ROP generally is reasonably objective (i.e., based on supported facts, rather than relying on subjective judgment).	*82%*	*81%*	*88%*	*87%*	*94%[1]*
ROP generally is predictable (well controlled by the process) to oversight.	*69%*	*73%*	*88%[3]*	*91%*	*91%[2]*
ROP generally is a consistent approach to oversight.	*85%*	*84%*	*85%[3]*	*85%*	*91%*

[1] Changed from "…provides appropriate objectivity to the process."
[2] Changed from "…provides a predictable approach to oversight."
[3] In prior years' surveys, the staff framed these two questions in the context of comparing the attributes with the previous oversight process.

Analysis: Internal stakeholders continue to generally agree that the ROP is predictable and objective. The data supporting this metric indicate a generally increasing trend and positive perception for these measures when compared with the previous survey in CY 2008.

Metric Criteria Met: Yes

O-2 Stakeholders Perceive the ROP To Be Risk Informed

Definition: Survey external and internal stakeholders asking if the ROP is risk informed, in that actions and outcomes are appropriately graduated on the basis of increased significance.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Risk-Informed, Effective, Open

Two internal survey questions addressed this metric. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
ROP generally provides an effective risk-informed approach to oversight	*73%*	*74%*	*79%*	*83%*	*89%*
ROP generally is risk-informed (actions and outcomes that are appropriately graduated on the basis of increased significance).	*N/A*	*N/A*	*N/A*	*N/A*	*89%*

Analysis: Internal stakeholders generally agree that the ROP provides an effective, risk-informed approach to oversight and that actions are appropriate at each risk-significance level. This metric reveals a generally positive perception. However, one of the two survey questions that support the metric has limited data. The staff will continue to evaluate the measures for meaningful trends in future surveys.

Metric Criteria Met: Yes

O-3 Stakeholders Perceive the ROP To Be Understandable

Definition: Survey external and internal stakeholders asking if the ROP is understandable and if the processes, procedures, and products are clear and written in plain English.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Understandable, Effective, Open

Six internal survey questions addressed this metric. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
The ROP generally provides appropriate communication effectiveness through use of plain English in official correspondence (e.g., inspection reports, assessment reports, letters to licensees).	*74%*	*79%*	*82%*	*86%*	*88%*
The information on plant performance (e.g., inspection reports, PI data, Plant Issue Matrix (PIM] data, etc.) provided on the ROP Web page is timely.	*N/A*	*N/A*	*94%*	*91%*	*82%*
The information on plant performance provided on the ROP Web page is understandable and written in plain English.	*87%*	*89%*	*93%*	*88%*	*86%*
The information on plant performance provided on the ROP Web page is accurate.	*N/A*	*N/A*	*95%*	*95%*	*91%*
The information on plant performance provided on the ROP Web page is adequate to keep NRC internal stakeholders informed.	*N/A*	*N/A*	*94%*	*89%*	*90%*
The information on plant performance provided on the ROP Web page is organized for easy retrieval.	*N/A*	*N/A*	*87%*	*81%*	*78%*

Analysis: The data reflect a generally positive perception. Internal stakeholders continue to generally agree that the ROP is understandable and written in plain English. The staff noticed a slight decline in agreements on the timeliness, accuracy, ease

of retrieval, and understandability of information presented in the ROP Web page. However, the long-term trends are still stable. Survey comments also indicate concerns with the timeliness of updates and ease of information retrieval. The staff will respond to this feedback in the consolidated response to stakeholder comments from the ROP internal survey.

Metric Criteria Met: Yes

O-4 Stakeholders Perceive That the ROP Provides Adequate Regulatory Assurance That Plants Are Operated and Maintained Safely and Securely

Definition: Survey external and internal stakeholders asking if the ROP provides adequate regulatory assurance, when combined with other NRC regulatory processes, that plants are being operated and maintained safely and securely.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Effective, Open

Three internal survey questions addressed this metric. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
The ROP generally provides appropriate assurance that plants are being operated safely.	*80%*	*84%*	*90%*	*89%*	*90%*
The ROP generally provides appropriate regulatory attention to licensees with performance problems.	*76%*	*81%*	*88%*	*88%*	*90%*
The ROP generally provides appropriate identification of declining safety performance before there is a significant reduction in safety margins.	*51%*	*57%*	*68%*	*73%*	*74%*

Analysis: Internal stakeholders continue to generally agree that the ROP maintains safety. The data supporting this metric indicate a stable trend and a positive perception for these measures when compared with the responses to previous surveys.

Metric Criteria Met: Yes

O-5 Stakeholders Perceive the ROP To Be Effective (e.g., High Quality, Efficient, Realistic, and Timely)

Definition: Survey external and internal stakeholders asking whether NRC actions related to the ROP are high quality, efficient, realistic, and timely.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Effective, Open

Four internal survey questions addressed this metric. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
The ROP generally provides a realistic approach to oversight.	*74%*	*75%*	*84%*	*86%*	*93%*
The ROP generally provides a timely approach to oversight.	*64%*	*67%*	*79%[1]*	*90%*	*88%*
The ROP generally is efficient and effective.	*70%*	*71%*	*77%[1]*	*78%*	*80%[2]*
The ROP appropriately captures relevant operating experience and incorporates it into the ROP.	*N/A*	*N/A*	*N/A*	*N/A*	*86%*

[1] In prior years' surveys, the staff framed these two questions in the context of comparing the attributes with the previous oversight process.
[2] Changed from "…provides appropriate efficiency and effectiveness to the oversight process."

Analysis: Most internal stakeholders agree that the ROP provides a realistic, timely, efficient, and effective approach to oversight. The data supporting this metric reveal a stable and improving trend and a positive perception of these measures when compared with the responses to previous surveys. The new survey measure also indicated that a majority of stakeholders believe the ROP captures relevant operating experience.

Metric Criteria Met: Yes

O-6 Stakeholders Perceive That the ROP Ensures Openness

Definition: Survey external and internal stakeholders asking if the ROP ensures openness in the regulatory process.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Open, Effective

Two internal survey questions addressed this metric. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
The ROP generally provides sufficient information to keep the public informed of the agency oversight activities related to the plants.	*78%*	*77%*	*89%*	*85%*	*89%*
The ROP generally allows appropriate communication between inspectors and licensees.	*82%*	*86%*	*95%*	*93%*	*94%*[1]

[1] *Changed from "…provides appropriate inspector and licensee communication."*

Analysis: Internal stakeholders continue to generally agree that the ROP ensures openness. The data supporting this metric indicate a stable trend and an overall positive perception of these measures when compared with the previous years' survey results.

Metric Criteria Met: Yes

O-7 Opportunities for Public Participation in the Process

Definition: Survey external and internal stakeholders asking if there are sufficient opportunities for the public to participate in the process.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Open, Effective

Two questions were added to measure this metric in 2010. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
The ROP generally provides sufficient opportunities for the public to participate in the process.	*N/A*	*N/A*	*N/A*	*N/A*	*86%*
The ROP generally provides sufficient opportunities for internal stakeholders to participate in the process.	*N/A*	*N/A*	*N/A*	*N/A*	*92%*

Analysis: This metric reveals a generally positive perception. Since both survey questions supporting the metric are new, they provide limited data. The staff will continue to evaluate the measures for meaningful trends in future surveys.

Metric Criteria Met: Yes

O-8 Stakeholders Perceive the NRC To Be Responsive to Their Inputs and Comments

Definition: Survey external and internal stakeholders asking if the NRC is responsive to the public's inputs and comments on the ROP.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Open, Effective

Four internal survey questions addressed this metric. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
Responses to feedback forms in the ROP feedback process are timely.	*30%*	*47%*	*50%*	*58%*	*65%*
Responses to feedback forms in the ROP feedback process provide sufficient staff interaction.	*N/A*	*N/A*	*N/A*	*N/A*	*72%*
Responses to feedback forms in the ROP feedback process provide effective feedback resolution and inspection program changes.	*N/A*	*N/A*	*N/A*	*N/A*	*71%*
Responses to feedback forms in the ROP feedback process result in effective program change.	*N/A*	*N/A*	*N/A*	*N/A*	*68%*

Analysis: Internal stakeholders generally agree that the agency is responsive to their feedback and input. The ROP feedback process is effective in allowing the NRC staff to identify concerns or issues and to recommend improvements related to ROP policies, procedures, or guidance.

The data supporting this metric indicate a positive perception of the feedback form in the feedback process, with an increase in the timeliness of responses to feedback forms. Three of the survey questions that support the metric have limited data, and the staff will continue to evaluate the measures for a meaningful trend. Survey comments suggested some ways to improve the feedback process, and the staff will evaluate and respond to those comments in the consolidated response.

Metric Criteria Met: Yes

O-9 Stakeholders Perceive That the ROP Is Implemented as Defined

Definition: Survey external and internal stakeholders asking if the ROP has been implemented as defined by program documents.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Predictable, Understandable, Open

One question was added to measure this metric. The table below presents the question and the resultant percentage of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
The ROP generally is implemented consistently as defined by program documents.	*N/A*	*N/A*	*N/A*	*N/A*	*84%*

Analysis: The data supporting this metric indicate a positive perception that the ROP is implemented in accordance with program documents and, as such, yields fairly reliable outcomes. Since the survey question that supports the metric is new, it provided limited data. The staff will continue to evaluate this measure for a meaningful trend in future surveys.

Metric Criteria Met: Yes

O-10 Stakeholders Perceive That the ROP Does Not Result in Unintended Consequences

Definition: Survey external and internal stakeholders asking if the ROP results in unintended consequences.

Criteria: Expect stable or increasingly positive perception over time.

Goals Supported: Effective, Open

Three internal survey questions addressed this metric. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
The ROP generally provides assurance that there will be no unintended consequences.	*N/A*	*N/A*	*N/A*	*64%*	*65%*
The ROP generally allocates sufficient resources needed to oversee licensees.	*N/A*	*N/A*	*75%*	*74%*	*74%*[1]
The ROP generally encourages the licensees to self-improve.	*N/A*	*N/A*	*67%*	*82%*	*78%*[2]

[1] *Changed from "…provides appropriate resources needed to oversee licensees."*
[2] *Changed from "…provides encouragement to the licensees for self improvement."*

Analysis: The data reflect a generally positive perception. The data supporting this metric indicate a stable trend of these measures when compared with the previous years' survey results. One of the survey questions that support the metric has limited data, and the staff will continue to evaluate the measures for a meaningful trend.

Metric Criteria Met: Yes

O-11 Analysis of the NRC's Responses to Significant Events

Definition: Review reports from incident investigation teams (IITs) and augmented inspection teams (AITs) to collect lessons learned regarding ROP programmatic deficiencies (i.e., did the baseline inspection program inspect this area? did the SDP accurately characterize resultant findings?). IITs already have the provision to determine NRC program deficiencies. The Office of Nuclear Reactor Regulation/Division of Inspection and Regional Support will review AITs to identify any weaknesses.

Criteria: Expect no major programmatic voids.

Goals Supported: Effective, Predictable

Analysis: No IITs were conducted during CY 2010. One AIT was conducted in CY 2010 at H.B. Robinson Steam Electric Plant Unit 2. The staff is developing lessons learned in parallel with the 2011 ROP realignment for program weaknesses or voids. One focus of the 2011 ROP realignment is operator qualification and training. One ROP feedback form was received as a result of this augmented inspection. The staff is currently evaluating the feedback for possible incorporation into existing reactive inspection procedures.

Metric Criteria Met: Yes

O-12 Analysis of Inspection Hours and Resource Expenditures

Definition: Annually, collect and analyze resource data (e.g., DIE, preparation and documentation, plant status hours) for baseline, supplemental/plant-specific, and safety issues inspections, and other ROP activities.

Criteria:

(1) Significant deviations are not expected on an annual basis. Explore reasons for any deviations that may be evident.

(2) Track and trend resource usage for the baseline inspection program and supplemental/plant-specific inspections. Analyze causes of any significant departure from established trend.

(3) Track and trend resource usage for preparation, documentation, and other ROP activities and assess the effects on budgeted resources.

NOTE: This metric is intended primarily for tracking and trending resource usage for the ROP. The results are used to improve the efficiency and effectiveness of the ROP and to make management and budget decisions. A detailed ROP resource analysis is included in the annual Commission paper on ROP self-assessment.

Goals Supported: Effective, Predictable

Analysis: Overall staff effort in CY 2010 increased by 4.2 percent compared with CY 2009.

Baseline inspection hours include DIE, baseline inspection preparation and documentation, and plant status activity. Baseline inspection hours remained essentially unchanged in CY 2010 compared with CY 2009.

Plant-specific inspections include supplemental inspections conducted in response to greater-than-green inspection findings and PIs, reactive inspections such as augmented team inspections and special inspections performed in response to events, and the infrequently performed inspections listed in NRC IMC 2515, Appendix C, “Special and Infrequently Performed Inspections,” and IMC 2201, Appendix C, “Generic, Special, and Infrequent Inspections,” which are not part of the baseline or supplemental inspection program.

Plant-specific inspection effort increased noticeably in CY 2010 compared with CY 2009 as a result of several significant special inspections at the Crystal River and Davis-Besse sites and an augmented team inspection at Robinson. Significant plant-specific inspection activity was also reported at the Byron, Fermi, LaSalle, Perry, and Vermont Yankee sites. The overwhelming majority of plant-specific inspections in 2010 were not supplemental inspections in response to inspection findings or PIs but were instead related to operational events and other plant issues.

Generic safety issue (GSI) inspections are typically one-time inspections of specific safety and security issues with significant variation in effort possible from year to year. The hours expended for GSI inspections in CY 2010 are unremarkable and reflect increased activity in this area compared with CY 2009. The hours expended during the 2008–2010 period demonstrate the variation in the level of effort which is possible in this area from year to year.

The effort reported for “other activities” including inspection-related travel, SDP, and routine communication (which encompasses regional support, enforcement support, and review of technical documents) increased in CY 2010. The increase was primarily in routine communication activities and inspection-related travel.

The regional effort for licensee performance assessment continues to remain relatively level compared to recent years.

Metric Criteria Met: Yes

O-13 Analysis of Resident Inspector Demographics and Experience

Definition: Annually, collect and analyze data in order to determine the relevant inspection experience of the resident inspector (RI) and senior resident inspector (SRI) population. The following four parameters will be measured and analyzed for both RIs and SRIs to ensure that the NRC maintains a highly qualified resident inspection staff:

(1) "NRC time" is the total number of years the individual has accumulated as an NRC employee.

(2) "Total resident time" is the total number of years the individual has accumulated as an RI or SRI.

(3) "Current site time" is the total number of years spent as an RI or SRI at the current site.

(4) "Relevant non-NRC experience" is nuclear power experience acquired outside of the NRC. Examples of relevant non-NRC experience are operation, engineering, maintenance, or construction experience with commercial nuclear power plants, naval shipyards, U.S. Department of Energy facilities, or the U.S. Navy nuclear power program.

Criteria: None; trend only. Provide reasons for any meaningful increase or decrease in these resident demographic metrics.

NOTE: This metric is intended primarily for tracking and trending resident inspection experience. The results are used to make any modifications to the RI and/or SRI programs necessary to attract and retain highly qualified inspectors to the respective programs. The annual Commission paper on ROP self-assessment presents a detailed resident demographic and staffing analysis, including additional graphs, data, and analysis for this metric.

Goals Supported: Effective, Predictable

Analysis: Analysis of the 2010 Resident Inspector Group

The RI demographic data for 2010 (see Table 1) indicates that the RI turnover rate had been on a downward trend from 2007 through 2009 (46 percent, 31 percent, and 22 percent). It stabilized at 23 percent for 2010. Of the 16 RIs who left their sites during 2010, 6 were promoted to SRI positions, 8 were either promoted or laterally reassigned to a regional office or Headquarters, and 2 resigned from the NRC.

The high (46 percent) turnover in 2007 resulted in about half of the RIs being in new assignments, which likely contributed to the reduced turnover in the following 3 years. In addition, the current real estate market has been a negative incentive for turnover and caused several SRIs and RIs to apply for extensions beyond 7 years. Finally, the staff has implemented initiatives to attract and retain RIs, and these may also have contributed to the reduction in turnover. The staff will continue to monitor the effect of these initiatives on resident staff turnover.

NRC time (nationally) had steadily increased but then decreased in 2010. Relevant non-NRC experience has steadily decreased, especially in 2009 and 2010 (see Table 2).

Table 1 RI Turnover

	2006	2007	2008	2009	2010
Promoted to SRI	11	13	10	6	6
Promoted/Reassigned	2	13	8	7	8
Retired	1	3	1	0	0
Resigned	0	4	3	2	2
Total	**14**	**33**	**22**	**15**	**16**
Turnover Rate	20%	46%	31%	22%	23%

Table 2 RIs
(Median Values in Years)

	2006	2007	2008	2009	2010
NRC Time	4.04	4.25	4.48	5.42	4.53
Total Resident Time	2.39	1.87	1.28	1.79	2.25
Current Site Time	2.23	1.85	1.28	1.79	2.19
Relevant Non-NRC Experience	10.75	10.38	9.00	6.25	5.25

Analysis of the 2010 Senior Resident Inspector Group

SRI demographic data for 2010 (Table 3) indicate that the SRI turnover rate for 2007 through 2009 steadily declined (26 percent, 18 percent, and 11 percent), but stabilized in 2010 at 11 percent. The previously discussed factors that influenced the reduction in RI turnover also likely influenced the reduction in SRI turnover. In 2010, 7 of 66 SRIs left their SRI position at a specific site. Of these, one was promoted, three were reassigned (including SRIs who were laterally reassigned to another site), one retired, and two resigned from the NRC. Table 4 shows national trends for experience criteria from 2006 through 2010 and indicates little variation nationally.

Table 3 SRI Turnover

	2006	2007	2008	2009	2010
Promoted	7	7	5	4	1
Reassigned	7	7	4	2	3
Retired	1	1	1	0	1
Resigned	1	2	2	1	2
Total	**16**	**17**	**12**	**7**	**7**
Turnover Rate	24%	26%	18%	11%	11%

Table 4 SRIs
(Median Values in Years)

	2006	2007	2008	2009	2010
NRC Time	9.28	10.11	10.86	10.86	9.68
Total Resident Time	7.77	7.93	6.78	7.71	8.19
Current Site Time	3.21	2.52	2.28	2.44	3.17
Relevant Non-NRC Experience	9.08	10.04	9.38	9.51	10.00

The staff concluded that the staffing of RI and SRI positions with knowledgeable employees continues to be adequate to protect public health and safety. The RI/SRI program continues to attract experienced engineers, as indicated by the high level of relevant non-NRC experience found in the SRI group. However, turnover rates in recent years have resulted in variations in onsite inspection experience, challenges in filling vacant RI/SRI positions, and a significant effort by management and inspection staff to provide continuity of regulatory oversight. These current issues may present challenges in implementing the inspection program. The staff will continue to monitor RI and SRI demographics and site staffing in 2011.

Metric Criteria Met: Yes

O-14 Analysis of Site Staffing

Definition: Annually, collect and analyze data to measure the permanent inspector staffing levels at each of the reactor sites for both RIs and SRIs in order to evaluate the agency's ability to provide continuity of regulatory oversight.

The staff developed a site staffing metric of 90 percent programwide in response to a recommendation by the Davis-Besse Lessons Learned Task Force (DBLLTF). The purpose of the metric is to evaluate the agency's ability to provide continuity of regulatory oversight through timely assignment of permanent RI/SRI staff. Specifically, DBLLTF Item 3.3.5.3 recommends that the staff establish a measurement for RI/SRI staffing, including program expectations to satisfy minimum staffing levels.

Criteria: The criterion is set at 90 percent program wide. Any single site that falls below 90 percent will be individually evaluated. Provide reasons for any meaningful increase or decrease in the inspector staffing level at reactor sites.

NOTE: Inspectors assigned to the site permanently or through a rotation with a minimum duration of 6 weeks shall be counted. Inspectors on 6-week or longer rotational assignments will be identified as such. Inspectors assigned to the site for less than 6 weeks will not be counted but should be indicated as such. Additionally, the regions shall indicate sites where permanently assigned RIs or SRIs are away from the site for an extended time (one continuous period greater than 6 weeks). Only inspectors who have attained at least a basic inspector certification status, as defined by Appendix A, "Basic-Level Training and Qualification Journal," to IMC 1245, "Qualification Program for Operating Reactor Programs," shall be counted.

Data will indicate the number of days a qualified RI and SRI are permanently assigned to the site during the year divided by the number of days in the year. Number of days spent on training, meetings away from the site, participation in team inspections, leave, or other temporary duties (e.g., acting for Branch Chiefs in their absence) will not be counted against the metric unless the absence exceeds 6 continuous weeks.

Goals Supported: Effective, Predictable

Analysis: Despite the turnover rates in the RI and SRI positions, the regions succeeded in meeting their site staffing metric of 90 percent. The average site staffing for all regions was 98.53 percent in CY 2010. However, three sites fell below the 90-percent site staffing requirement. All three sites were staffed above the 80.5 percent level and were supplemented by region-based inspectors to assist in

completing the baseline inspection program. Meeting this metric was challenging and had a significant impact on inspectors and management. The following table tracks the number of sites since 2007 that were under the 90-percent site staffing goal. That number has steadily decreased.

Number of Sites Under 90-Percent Site Staffing

	2007	2008	2009	2010
Number of Sites	9	5	5	3

Metric Criteria Met: Yes

O-15 Analysis of ROP Training and Qualifications

Definition: Annually, evaluate the implementation of IMC 1245, particularly as it pertains to ROP implementation.

Criteria: None; trend only. Summarize and evaluate the training accomplished over the previous year and propose program improvements as necessary to address noted concerns.

NOTE: This metric is intended primarily for tracking and trending the effectiveness of the ROP training and qualifications programs. The annual Commission paper on ROP self-assessment includes a discussion of training effectiveness.

Goals Supported: Effective, Predictable, Understandable

Eight internal survey questions addressed this metric. This survey added three questions and dropped one of the six questions started in 2006. Two of the three new questions replaced questions related to safety culture training. The table below presents the questions and the resultant percentages of agreement.

Measure	***2002***	***2004***	***2006***	***2008***	***2010***
Sufficient training is provided to effectively implement the ROP.	*N/A*	*N/A*	*75%*	*70%*	*80%*
Sufficient training is provided to understand the changes in the ROP.	*N/A*	*N/A*	*N/A*	*N/A*	*67%*
Training, in addition to that specified in IMC 1245, is made available to assist in professional development.	*N/A*	*N/A*	*78%*	*76%*	*83%*
Sufficient rotational opportunities are available to assist in professional development.	*N/A*	*N/A*	*82%*	*81%*	*70%*
Inspectors are encouraged to identify issues that do not immediately fit into the ROP inspection procedures.	*N/A*	*N/A*	*68%*	*69%*	*67%*
Inspectors are encouraged to maintain a questioning attitude.	*N/A*	*N/A*	*94%*	*91%*	*95%*
Adequate training is available regarding how to evaluate safety culture assessments.	*N/A*	*N/A*	*N/A*	*N/A*	*41%*
Adequate training material is available to understand and implement the ROP safety-culture-related guidance.	*N/A*	*N/A*	*N/A*	*N/A*	*48%*

Analysis: The staff continued to improve the initial and continuing inspector training programs in order to produce and maintain well-qualified, competent inspectors. The NRC reviewed recommendations identified by the staff in accordance with

the ROP feedback process and incorporated the improvements into inspector training standards, as appropriate. For example, the staff developed and implemented additional SDP training in CY 2010 to ensure that the inspectors remain efficient and effective in determining the safety and security significance of identified performance issues. In addition, NSIR staff completed the development of the first (pilot) cyber security training course for inspectors.

The data and comments from the internal survey reflected a generally positive perception of inspector training. Although inspectors were generally satisfied with the training to implement the ROP, the effectiveness of safety culture training received relatively low ratings. NRR has created an internal working group chartered with developing options to implement the agency's safety culture policy statement. As part of this effort, the working group will propose additional enhancements and updates to the inspector qualification training program and related guidance documents. In addition, the staff is continuing efforts to develop safety culture training as part of a larger effort to create a safety culture assessor qualification program.

Metric Criteria Met: Yes

O-16 Analysis of Regulatory Impact

Definition: Annually, collect and analyze licensee feedback and develop a summary of regulatory impact forms that are critical of the ROP.

Criteria: None; trend only. Summarize and evaluate the feedback received and propose program improvements as necessary to address common concerns.

NOTE: This metric is intended primarily for tracking and trending regulatory impact. The annual Commission paper on ROP self-assessment includes a detailed regulatory impact summary.

Goals Supported: Effective, Open, Understandable

Analysis: Over the past year, the staff received and compiled feedback from 105 site visits to 45 reactor sites across all four regions. These visits resulted in 229 distinct comments that fell into two main categories— inspector performance and formal communications with licensees. Of the comments compiled, 93 percent were favorable and 7 percent were unfavorable. The number of comments increased moderately in 2010, while the distribution of comments and the favorable percentage were similar to those in previous years. Enclosure 2 of the 2010 annual ROP self-assessment SECY (ADAMS Accession No. ML110590458) provides a summary of the feedback received and the staff's evaluation and actions to address the noted concerns.

Metric Criteria Met: Yes