

# POLICY ISSUE INFORMATION

April 5, 2013

SECY-13-0037

FOR: The Commissioners

FROM: R. W. Borchardt  
Executive Director for Operations

SUBJECT: REACTOR OVERSIGHT PROCESS SELF-ASSESSMENT FOR  
CALENDAR YEAR 2012

## PURPOSE:

The purpose of this paper is to present the results of the U.S. Nuclear Regulatory Commission (NRC) staff's annual self-assessment of the Reactor Oversight Process (ROP) for calendar year (CY) 2012. This paper does not address any resource implications.

## SUMMARY:

The results of the CY 2012 self-assessment indicate that the ROP met its program goals and achieved its intended outcomes. The staff found that the ROP met the agency's strategic goals of ensuring safety and security through objective, risk-informed, understandable, and predictable oversight. The staff implemented several ROP improvements in CY 2012, and will continue to solicit input from the NRC's internal and external stakeholders to further improve the ROP based on feedback and lessons learned.

## BACKGROUND:

The staff performed the CY 2012 self-assessment in accordance with Inspection Manual Chapter (IMC) 0307, "Reactor Oversight Process Self-Assessment Program," dated March 23, 2009. The staff has issued an ROP self-assessment Commission paper every year since the NRC implemented the ROP in 2000, and staff has briefed the Commission annually on the results following the Agency Action Review Meeting (AARM). The Commission provides the staff with direction in the form of a staff requirements memorandum (SRM) as a result of the briefing. In SRM M120601, "Briefing on the Results of the Agency Action Review Meeting," dated June 12, 2012, the Commission did not identify any new requirements for staff action.

The ROP self-assessment program uses program evaluations and performance metrics to evaluate the overall effectiveness of the ROP in meeting its preestablished goals and intended outcomes. The ROP includes the four specific program goals of being objective, risk-informed, understandable, and predictable, as well as the applicable organizational excellence objectives

CONTACT: Ronald K. Frahm, Jr., NRR/DIRS  
301-415-2986

(e.g., openness and effectiveness) from the NRC's Strategic Plan for Fiscal Years (FY) 2008–2013. The program goals and organizational excellence objectives support the NRC's mission and its strategic goals of safety and security. IMC 0307 specifies the intended outcomes of the ROP, which help form its basis and are incorporated into the ROP processes.

#### DISCUSSION:

The staff conducted numerous activities and obtained data from many sources to ensure that it performed a comprehensive and robust self-assessment for CY 2012. Data sources included the ROP performance metrics described in IMC 0307, internal and external stakeholder feedback, and direction and insight that the Commission has provided in recent years. The staff analyzed this information to gauge ROP effectiveness and potential areas for improvement. The scope of the staff's self-assessment included key ROP program areas, ROP communication activities, independent and focused evaluations, ROP resources, and resident inspector (RI) demographics and staffing.

#### **ROP Program Area Evaluations**

The staff performed evaluations in the four key ROP program areas: the performance indicator (PI) program, inspection program, significance determination process (SDP), and assessment program. The staff noted that the PI program continued to offer insights into ensuring plant safety and security, and the staff made several improvements to PI program guidance and implementation in CY 2012. NRC inspectors independently verified that licensees operated plants safely and securely, and the staff improved the inspection program through ongoing enhancements to inspection procedures and continual integration of operating experience. The SDP continued to be an effective tool for determining the safety and security significance of inspection findings, and the staff made several improvements to the SDP guidance and made significant progress on other SDP initiatives. Staff implementation of the assessment program ensured that the NRC and licensees took appropriate actions to address performance issues in CY 2012, commensurate with their safety significance. As discussed in Enclosure 1, "Reactor Oversight Process Program Area Evaluations," the staff's evaluation of the two new deviations from the Action Matrix noted that IMC 2515, "Light-Water Reactor Inspection Program -- Operations Phase," dated November 19, 2012, allows for additional focused inspection for special or infrequently performed activities. To improve the transparency of these provisions, the staff plans to augment the program guidance to allow the regions to publicly document the application of additional inspection resources within the baseline inspection program and thereby reserve the Action Matrix deviation process solely for regulatory action that is inconsistent with the range of actions described in the pertinent column of the Action Matrix. In addition, the staff successfully reintegrated the Security Cornerstone into the assessment program as described in SECY-11-0073, "Staff Proposal to Reintegrate Security into the Action Matrix of the Reactor Oversight Process Assessment Program." Enclosure 1 provides details on these ROP program evaluations.

#### **ROP Communications and Performance Metrics**

The staff continued to improve the ROP based on feedback from internal and external stakeholders. The staff used a variety of communication vehicles to ensure that stakeholders have access to ROP information and have ample opportunity to provide feedback. The staff continued to conduct monthly public meetings with internal and external stakeholders, to use the

internal feedback process, and to hold periodic meetings and telephone conferences with internal stakeholders to discuss potential improvements to the ROP. The staff also maintained the ROP Web pages to ensure that they communicate accurate and timely information to all stakeholders. In addition, as part its ROP enhancement initiative described below, the staff is revising and developing communication tools to improve public awareness of the ROP.

The staff gathered direct feedback from NRC inspectors and management responsible for ROP implementation through the biennial internal survey in CY 2012. Most of the internal survey questions and responses contributed directly to the annual ROP performance metrics and self-assessment. The number of respondents decreased by 24 percent since the last internal survey was conducted in CY 2010. Although the approval rates dipped slightly for a significant number of survey measures this year, the responses were generally positive, with stable or improving trends over time in most areas. Some respondents noted concerns and areas for improvement, and the staff has considered or will evaluate them for possible opportunities to improve the ROP as discussed in this paper and the ROP performance metric report (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13063A009). The staff will also develop a more comprehensive response to the survey comments and make this consolidated response available to internal stakeholders. The staff noted a relatively low number of survey respondents compared to the large number of internal stakeholders throughout the agency involved in the maintenance and implementation of the ROP. Therefore, the staff plans to explore ways to improve or replace the survey tool to improve objectivity in the measurement of ROP performance and minimize the reliance on more subjective measures such as stakeholder perception.

Thirty-eight of the 45 performance metrics for the ROP met the established criteria as defined in IMC 0307, Appendix A, "Reactor Oversight Process Self-Assessment Metrics," dated March 23, 2009. The seven metrics that were not met included one in the PI program area, three in the assessment program area, and three in the overall ROP area. The program area metrics are discussed in the program area evaluations in Enclosure 1. In addition, an overall metric, "Stakeholders Perceive the ROP to be Understandable," was not met because there has been a declining trend in respondents' agreement that the ROP information is effectively communicated using plain language. Another overall metric, "Stakeholders Perceive the NRC to be Responsive to their Inputs and Comments," was not met because respondents indicated significantly less agreement in the timeliness of the ROP feedback process as compared to past surveys. Lastly, a third overall metric, "Stakeholders Perceive that the ROP is implemented as Defined," was not met because some stakeholders responded that aspects of the ROP are not implemented consistently throughout the agency. The staff's analysis of the performance metrics and actions taken to address the missed metrics, as well as its analysis of the survey responses, are further discussed in the annual performance metric report. Late in CY 2012, the staff revised some of the metrics and/or their criteria to improve their usefulness in evaluating the effectiveness of the ROP and to make the metrics more objective and measurable. The staff intends to use the revised Appendix A to IMC 0307 when performing its CY 2013 self-assessment.

### **Independent and Focused Evaluations**

Based on feedback from headquarters and regional management and external stakeholders, the staff initiated an ROP enhancement effort to take a fresh look at several key areas of the ROP, including: (1) enhancing the baseline inspection program to improve its efficiency and

effectiveness, (2) improving ROP communications and openness, (3) improving the timeliness of supplemental inspections, and (4) responding to longstanding substantive cross-cutting issues. Efforts are underway to address the first two items as discussed in this paper, but the final two items and any additional considerations have been deferred pending completion of the independent assessment described below.

At the same time the staff was commencing its ROP enhancement, the Commission directed the staff to pursue an independent review of the ROP's objectives and implementation in its SRM to SECY-12-0081, "Risk-Informed Regulatory Framework for New Reactors," dated October 22, 2012. As a result, the staff initiated an independent assessment of the program to identify potential enhancements or areas for further examination. The review team is composed of NRC staff that have past experience with, but do not have current responsibility for, ROP maintenance or implementation. The independent assessment team expects to complete its report in June 2013. The staff will forward the report to the Commission and evaluate the potential for ROP enhancements based on the results, conclusions, and any recommendations.

The Government Accountability Office (GAO) commenced an audit of NRC Oversight of Commercial Reactor Safety in CY 2012 in response to a request made by the Senate Committee on Environment and Public Works. The GAO is focusing on processes, documentation, and consistency within the ROP and enforcement programs. The staff expects the audit report to be issued in CY 2013 and will evaluate the GAO's conclusions and recommendations for potential program improvements.

In the SRM for SECY-11-0076, "Improving the Public Radiation Safety Cornerstone of the Reactor Oversight Process," dated November 8, 2011, the Commission approved the staff's plan to work with internal and external stakeholders on potential enhancements to the Public Radiation Safety cornerstone of the ROP. In CY 2012, the staff hosted a public meeting with interested stakeholders to discuss the SRM, and the topic was further discussed during subsequent ROP working group meetings. Participants agreed that the existing PI and SDP within this ROP cornerstone had an appropriate focus on public dose, and no additional changes were recommended to either of these program areas. However, the participants noted that providing additional transparency of industry's and NRC's efforts to protect groundwater would improve public confidence in this area, consistent with the openness principle of good regulation. Therefore, the staff is augmenting NRC inspection program guidance to direct the inspectors to document nonconformances with or failures to meet the industry's Groundwater Protection Initiative and the Underground Piping and Tanks Integrity Initiative in NRC inspection reports. Documentation of licensee performance in meeting these initiatives also will enable NRC staff to monitor their effectiveness and present any information that demonstrates that they are not being conducted in a committed and enduring fashion. This enhancement was summarized and provided in a note to the Commissioners assistants dated December 14, 2012.

The staff continued to implement the ROP reliability initiatives in 2012. The Deputy Regional Administrators initiated these activities to improve ROP implementation through sharing inspection resources, conducting benchmarking visits to other NRC regions, assessing inspection report quality, and discussing reliability topics, such as the distinction between minor and more-than-minor issues. In 2012, the Problem Identification & Resolution (PI&R) inspection program was selected for an in-depth review. The report prepared as a result of this effort is currently being evaluated for additional enhancements to the inspection program.

The staff received and evaluated feedback from licensees as part of the regulatory impact process. Over the past year, the staff received and compiled feedback from numerous site visits to reactor sites across all four regional offices. The favorable percentage was slightly higher than previous years, and the few unfavorable comments received appear to be isolated. Enclosure 2, "Regulatory Impact Summary," discusses the feedback and the staff's evaluation.

The NRC also collects and analyzes industry-wide data to monitor the overall safety performance of operating plants and to serve as indicators of ROP effectiveness. The staff is reporting the FY 2012 results of the Industry Trends Program to the Commission in an annual paper that complements this paper. The results of the Industry Trends Program, along with the results of this annual self-assessment, will be reviewed at the AARM.

### **ROP Resources**

Overall staff effort to implement the ROP in CY 2012 remained consistent with previous years. Fluctuations were noted in the resource expenditures for baseline, plant-specific, and generic safety issue inspections, which demonstrates the typical level of variation from year to year. Enclosure 3, "Reactor Oversight Process Resources," further discusses ROP resources.

### **Resident Inspector Demographics and Site Staffing**

Based on the annual resident demographic and site staffing analysis, the staff concluded that sites continue to be staffed with knowledgeable and experienced resident inspectors (RIs) and senior resident inspectors (SRIs). Staff turnover rates in both the RI and SRI ranks have remained relatively stable. Enclosure 4, "Resident Inspector Demographics," provides the staff's analyses of the 2012 RI and SRI demographics and site staffing.

### **CONCLUSIONS:**

The self-assessment results for CY 2012 indicate that the ROP met its program goals and achieved its intended outcomes. The ROP was successful in being objective, risk informed, understandable, and predictable. The ROP also ensured openness and effectiveness in support of the agency's mission and its strategic goals of safety and security. The NRC appropriately monitored operating nuclear power plant activities and focused agency resources on performance issues in CY 2012, and plants continued to receive a level of oversight commensurate with their performance. Because some performance metrics were missed and other opportunities for improvement were identified, the staff plans to address these areas to further improve various aspects of the ROP. The staff did not make any specific commitments as a result of the CY 2012 self-assessment, but it will continue to make program improvements based on feedback and lessons learned.

The Commissioners

- 6 -

COORDINATION:

The Office of the General Counsel has reviewed this Commission paper and has no legal objection. The Office of the Chief Financial Officer has reviewed this Commission paper and determined that there is no unforeseen financial impact.

*/RA/*

R. W. Borchardt  
Executive Director  
for Operations

Enclosures:

1. Reactor Oversight Process Program Area Evaluations
2. Regulatory Impact Summary
3. Reactor Oversight Process Resources
4. Resident Inspector Demographics

COORDINATION:

The Office of the General Counsel has reviewed this Commission paper and has no legal objection. The Office of the Chief Financial Officer has reviewed this Commission paper and determined that there is no unforeseen financial impact.

**/RA/**

R. W. Borchardt  
Executive Director  
for Operations

Enclosures:

1. Reactor Oversight Process Program Area Evaluations
2. Regulatory Impact Summary
3. Reactor Oversight Process Resources
4. Resident Inspector Demographics

WITS 201100134 (NRR)  
WITS 201100200 (NRR)  
WITS 200700335 (NSIR)

**ADAMS ACCESSION No.:** ML13058A283 SECY paper; ML13058A263 Pkg; \*Concurrence via email

<b>OFFICE</b>	NRR/DIRS/IPAB	Tech Editor*	NRR/DIRS/IPAB:BC	NRR/DIRS/IRIB:BC	OGC
<b>NAME</b>	RFrahm	JDoherty	RFranovich	TKobetz	MYoung/NLO
<b>DATE</b>	02/13/2013	02/13/2013	02/27/2013	02/27/2013	03/20/2013
<b>OFFICE</b>	RGN I*	RGN II*	RGN III*	RGN IV*	NSIR*
<b>NAME</b>	RPowell	GHopper	JLara	RKellar	MDapas
<b>DATE</b>	03/27/2013	03/13/2013	03/27/2013	03/12/2013	03/13/2013
<b>OFFICE</b>	NRR/PMDA:D	OCFO	DIRS	NRR:D	EDO
<b>NAME</b>	SAbraham	GPederson*	HNieh	ELeeds (JUhle for)	RBorchardt
<b>DATE</b>	03/05/2013	03/12/2013	03/27/2013	03/29/2013	04/5 /2013

**OFFICIAL RECORD COPY**