ROP Communication Activities

Communicating the activities of the Reactor Oversight Process (ROP) in a comprehensive and comprehensible way to all internal and external stakeholders of the U.S. Nuclear Regulatory Commission (NRC) is vital in order for the NRC to develop and maintain trust and confidence, encourage participation, and improve the regulatory process. The NRC staff continues to pursue a variety of communication initiatives to ensure that all stakeholders have access to ROP information and results, as well as an opportunity to provide input. These include the following examples (among others):

- publishing a *Federal Register* notice (FRN) to solicit public feedback on the ROP
- improving the ROP Web page
- continuing to improve reactor inspector initial and continung training
- continuing to implement the inspection procedure feedback process
- implementing an electronic inspector newsletter
- developing information technology (IT) initiatives for inspectors
- publishing NUREG-1649, "Reactor Oversight Process"
- providing direct feedback from the ROP Web page

The staff effectively implemented the ROP Communication Plan in calendar year (CY) 2003 and continued to focus on stakeholder involvement. The following paragraphs discuss several highlights from this past year.

Internal Stakeholder Interface

The program office staff continued to conduct biweekly conference calls with regional division- and branch-level management to discuss current issues associated with the ROP. In addition, the program office staff met periodically with regional managers to discuss more complex ROP topics and issues. The program office staff also conducted visits to the regions to give regional staff and management the opportunity to discuss the status of the ROP and current issues.

The ROP feedback process continues to provide a useful means for the NRC staff to identify concerns or issues and to recommend improvements related to ROP policies, procedures, or guidance. Feedback timeliness has improved significantly and, unlike previous years, the regional staff appears to be satisfied with the feedback process response time, based on recent discussions with regional feedback coordinators. The staff had planned to complete further enhancements to the feedback process during CY 2003, but these were put on hold as a result of competing priorities. The staff now expects to implement these enhancements, which include providing users with the ability to view open and closed feedback forms, search capability, and electronic submission of feedback forms, in CY 2004. During this period, the staff received 123 feedback forms and closed 132. Attachment 3 to this paper provides further detail concerning the number of feedback forms per program document, in the context of performance metric IP-3.

External Stakeholder Interface

The NRC staff continued to conduct routine, public working-level meetings with the Nuclear Energy Institute (NEI), the industry, and other stakeholders to discuss the status of ongoing

refinements to the ROP on an approximate monthly basis. In particular, the staff held several public meetings to discuss the status of the Mitigating Systems Performance Index (MSPI).

The staff also sponsored the annual Regulatory Information Conference (RIC) in 2003 to provide opportunities for NRC management, the NRC's regulated utilities, and other interested stakeholders to meet and communicate directly regarding safety initiatives and regulatory trends, with a specific session dedicated to ROP implementation. In addition, the staff issued an FRN on November 5, 2003, to obtain external stakeholder input regarding the efficacy of the ROP, as further discussed below. The staff had considered sponsoring a separate ROP-specific workshop in 2003, but elected not to do so based on competing priorities and insufficient resources. However, the staff included a specific question in the November 2003 FRN to ascertain whether an ROP workshop would be beneficial. While most respondents did not address this question specifically, those who did noted that there would be some potential interest and benefit. The staff once again sponsored a specific session at the RIC in 2004 to discuss ongoing ROP issues, and will evaluate the need and feasibility for a separate ROP-specific workshop in 2005.

Internal and External Surveys

Consistent with the biennial frequency prescribed by Inspection Manual Chapter (IMC) 0307, "Reactor Oversight Process Self-Assessment Program," the staff did not conduct an internal survey during this ROP cycle. However, the staff did analyze the survey comments submitted by internal stakeholders during the survey conducted in CY 2002 . Using the computer-based survey, the internal stakeholders selected from five possible answers to several specific questions, but also had the opportunity to amplify their responses or make additional comments. The internal ROP survey collected 236 responses, of which 72 contained written comments.

Based on a review of the written comments, the staff identified several repetitive themes, including public access to information, cross-cutting issues, significance determination process (SDP), procedure usability and accuracy, ROP resources, inspection approach, feedback process, and performance indicators (PIs). The analysis resulted in 10 recommendations based on the repetitive themes, and the staff immediately implemented 7, including not issuing inspection procedures without prior appropriate training and adopting 10 standard expectations for the presentation of procedure content. The staff also initiated feedback forms as a result of this analysis and entered them into the ROP feedback process to ensure that they were adequately addressed. The staff has revised (or is in the process of revising) several program documents to address the feedback, and has already closed many of the resultant feedback forms. The staff plans to conduct the next internal survey in the Fall of 2004.

After last year's external survey, the staff received feedback that some stakeholders were not informed of the FRN in a timely manner or were not given adequate time to prepare their responses. To address this concern, and in an ongoing effort to improve communication with NRC stakeholders, the staff called the respondents from the prior year to inform them that the new FRN had been issued. The staff also created a brochure containing the external survey, and mailed approximately 700 copies directly to stakeholders to solicit their responses. In addition, the staff placed a direct link to the survey information on both the ROP Web page and the "Documents for Comment" page of the NRC's external Web site to alert external

stakeholders that the staff was seeking comments on the implementation of the ROP. The staff also gave stakeholders additional time to comment on the ROP, issued a press release, and placed a copy of that release on the NRC's external Web site. In addition, the staff acknowledged receipt of each FRN response via correspondence indicating the staff's plans to address the comments in this Commission (SECY) paper, as appropriate.

As previously indicated, the staff issued an FRN on November 5, 2003, to obtain external stakeholder input regarding the efficacy of the ROP. That FRN requested responses to 20 questions corresponding to specific ROP performance metrics defined in IMC 0307, and solicited interest in a possible future workshop. The NRC received comments from the following 18 individuals and organizations (listed in chronological order as received, with the corresponding Accession numbers for the official record copy of the related response, as it appears in the NRC's Agencywide Documents Access and Management System (ADAMS)):

- Union of Concerned Scientists (ML033490375)
- Pennsylvania Department of Environmental Protection (ML033430324)
- Entergy Operations (ML040050414)
- Nuclear Energy Institute (ML040050417)
- Nuclear Management Company (ML040050419)
- Dominion Resources Services (ML040050422)
- Tennessee Valley Authority (ML040050461)
- South Texas Project Nuclear Operating Company (ML040050464)
- ScienTech (ML040050467)
- Illinois Emergency Management Agency (ML040050470)
- Three Mile Island Alert (ML040050472)
- North American Water Office (ML040050481)
- PSEG Nuclear (ML040080767)
- Anonymous NRC staff member (ML040080766 and ML040090250)
- Strategic Teaming and Resource Sharing (ML040090252)
- Southern California Edison (ML040090253)
- The State of Arizona, Division of Emergency Management (ML040130732)
- Region IV Utility Group (ML040230543)

In addition to these formal FRN responses, Mr. Riccio from Greenpeace provided specific comments when he briefed the Commission on May 15, 2003. As the Commission requested in a staff requirements memorandum (SRM) dated June 10, 2003 (M030515), the staff evaluated Mr. Riccio's comments along with other stakeholder comments while performing this annual ROP self-assessment. The staff's analysis of the specific responses appears in the ROP performance metrics report in Attachment 3 and the applicable portions of the program area discussions and status of previous issues in Attachments 1 and 2, respectively.

The survey responses were generally in line with responses from previous years, as were the number and distribution of the responses. Approximately half of the 18 responses came from NEI or utilities endorsing the NEI response, while 3 came from State agencies and 5 (including Mr. Riccio's comments) came from public interest groups. In addition, for the first time since the inception of the ROP, one of the FRN responses came from an anonymous NRC staff member. The actual content of the responses was generally positive, with concerns being raised specifically about SDP complexity and subjectivity, the effectiveness of the PI program, NRC responsiveness or lack thereof, and other perceived needed improvements to the ROP.

Only 30 percent of the responses directly answered the survey questions; most commented on issues that directly related to the respondent's own interests or endorsed the comments in another response. Future surveys may need to account for this anomaly by requesting "multiple choice" answers to questions (similar to the internal survey) and allowing for a final open-ended comment question.

The two most troubling aspects of the survey results are the anonymous NRC employee submission and the perceived lack of NRC response to comments. The NRC employee stated that he or she submitted comments via the external survey under the belief that he or she must remain anonymous because management does not want internal criticism; the comments must be public because the feedback system does not work; and after 4 years of ROP implementation, conclusions can reasonably be drawn. Additionally, a common theme in many responses was the apparent lack of NRC response to comments. Many of those surveyed believe the NRC has ignored their previous comments or, at the very least, been slow to act, and that the respondent has no way to obtain feedback or responses from the NRC.

The staff was surprised by both of these issues. The public outreach and stakeholder involvement in the decision making process during development and implementation of the ROP have both been unprecedented, and the staff continues to focus on stakeholder involvement. In addition, the staff implemented several initiatives to improve the effectiveness of the external survey (as previously discussed), and addresses the major comments in the annual self-assessment each year. The staff believes that there is a distinct difference between being unresponsive and not adopting all recommended improvements to the program. The staff must carefully consider the appropriate balance between all stakeholders points of view and the goals of the ROP when considering any significant changes to the process. The staff will continue to acknowledge each FRN response, indicating the staff's plans to address the comments in this SECY paper, as appropriate. However, the staff does not have the resources to provide a direct reply to each FRN response detailing how it handled the respondent's specific comments.

Inspector Training Program Improvements

During CY 2003, the staff continued its efforts to improve the initial and continuing inspector training programs as described in IMC 1245, "Qualification Program for the Office of Nuclear Reactor Regulation [NRR] Programs." Specifically, the staff updated several appendices to IMC 1245 relating to initial qualification, including the basic-level training and certification journal, the general proficiency training and qualification journal, and several specialized inspector technical proficiency training and qualification journals. Based on feedback received during the 2002 internal survey, the staff also implemented a policy to provide training to inspectors before issuing new or significantly revised guidance.

The staff further improved the overall inspector training program in 2003 by establishing the IMC 1245 Management Steering Group to provide a structured means for monitoring and maintaining the initial inspector training and qualification program, and for monitoring and maintaining the knowledge and skills of qualified inspectors. The primary goal of IMC 1245 is to produce and maintain well-qualified, competent inspectors. Continuing and refresher training, as defined in IMC 1245, is used to refresh and improve the inspector's knowledge and job-related skills to meet the needs of the inspection program. While the program office has

the primary responsibility for IMC 1245, a partnership between the program office and the regions is needed to create a training and qualification program that is of high quality and remains effective. Experience has shown that this partnership has been highly effective in establishing and maintaining a quality qualification program.

The staff also greatly improved the continuing inspector training program by implementing a new method for providing effective and efficient training to all inspectors through Web-based read-and-sign courses. The Web-based read-and sign-training initiative offers the following benefits:

• Training on special or emergent topics can be developed and completed in a timely manner.
• Training can be interactive and thought provoking.
• Training can be completed at the inspector's convenience.
• Training materials can be distributed electronically.
• Training records are easily recorded and maintained.

In CY 2003, the staff developed and distributed three read-and-sign training courses to address specific recommendations from the Davis-Besse Lessons Learned Task Force (DBLLTF) regarding Inspection Procedure (IP) 71152, "Identification and Resolution of Problems"; lessons learned from the Columbia shuttle accident; and boric acid corrosion and primary water stress corrosion cracking (PWSCC). Specifically, the staff revised IP 71152 to provide longer-term followup of issues that have not progressed to findings. Along with revising the procedure, the staff developed Web-based read-and-sign training to educate inspectors about the changes to the procedures and the new associated inspection activities.

The staff used the Web-based read-and-sign training concerning the Columbia shuttle accident to illustrate the importance of maintaining a questioning attitude toward safety and the negative consequences that can potentially occur when the questioning attitude is lost or compromised. This training provided examples of how issues concerning an organization's safety culture can lead to technological failures, and provided insights into investigation techniques that can be used to assess safety-significant issues or events. Finally, this training illustrated the importance of a robust corrective action program, and highlighted the corrective action program weaknesses that contributed to the shuttle accident.

The Web-based read-and-sign training concerning boric acid corrosion and PWSCC familiarized regional inspectors with the NRC's current understanding of and approach to monitoring these destructive forces. The training stressed that previous assumptions may not be correct in stating that reactor coolant system leakage onto a hot surface would boil off and not cause corrosion. The NRC now recognizes that the previous assumptions did not represent the total range of situations under which boric acid corrosion could occur, so the training was intended to emphasize that boric acid could be much more active than was assumed in the past. The staff is currently developing inspection procedures to provide detailed guidance on how to inspect for boric acid corrosion and stress corrosion cracking, and inspectors will receive training before those new procedures are issued.

The staff is also in the process of developing and distributing ROP refresher training for NRC management and staff and expects to complete the training by the end of CY 2004. The IMC 1245 Management Steering Group will continue to monitor the inspector training process,

and additional Web-based read-and-sign and procedure-specific training is anticipated in CY 2004.

ROP Web Page Developments

The staff continued to improve the ROP Web pages to ensure that they are useful tools for communicating accurate and timely ROP information to all stakeholders. The most important step taken was the issuing of IMC 0306, "Information Technology Support for the Reactor Oversight Process," which acts as the guidance document for ROP-related information technology. This manual chapter provides information and processes related to the timely and accurate input and utilization of both the Reactor Program System (RPS) and the ROP Web page. Most notably, IMC 0306 establishes a formal process for evaluating and certifying the data compiled for assessing plant performance.

The staff also used the ROP Web page to disseminate useful information to the public as needs warranted. The public Web pages have provided information concerning the developments and progress at the Davis-Besse Nuclear Power Station, as well as other short-fused issues. The Web page now contains a section dedicated to the Browns Ferry 1 recovery effort in order to ensure that information is readily available. Also, the staff utilized the ROP Web page as an additional method of delivering the annual external survey to stakeholders and has continued to maintain a section devoted to the status of the MSPI activities. In addition, the staff continued to utilize the direct feedback mechanism from the ROP Web page and has responded to several questions and concerns regarding the ROP.

The staff facilitated the recent shift in responsibility for PI collection and maintenance from NEI to the Institute of Nuclear Power Operations (INPO) and its Consolidated Data Entry (CDE) System. The first quarterly PI submittal using the CDE system was successfully completed for all plants in January 2004. This change in responsibility is among the efforts to continually improve and enhance the collection and distribution of data and minimize redundant data collection processes. Efforts are ongoing to increase both the accuracy and automation of the ROP Web page to maximize its uses and benefits.

The staff also completely redesigned and reconstructed the internal ROP Web page, known as "ROP Digital City," to better meet the needs of internal stakeholders and provide maximum flexibility as a communication tool. This Web page now has an entirely different format, which allows the main page to act as a hub to the various types of available information. Additionally, the staff added a new bulletin style area, known as "What's New," to allow for simple, timely information and updates about the page and the program. The Web page also provides direct links to other Web sites in cases where information is duplicated on those other sites to prevent inaccuracies associated with the disparate update schedules for the various sites. Most importantly, the internal ROP Web page is now being employed for direct training and information. The site is now the jump-off point for the new read-and-sign training program and contains a quiz on the *Code of Federal Regulations* (CFR), which is used in inspector qualifications. The new information initiatives include access to the Inspector Newsletter, SDP Active Issues matrix, and Reactor Operating Experience. The staff will continue to develop new methods and enhance existing assets to further maximize the potential and effectiveness of the internal ROP Web page.

Information Technology Initiatives for Inspectors

The staff is currently developing an Inspector Electronic Support System (IESS) that will transfer knowledge organized to meet inspectors' needs. The organized structure will enhance the efficiency of inspection preparation. Some of the IESS components include an inspector community bulletin board, industry lessons learned, operating experience tailored for inspection procedures, and sources of technical information. The inspector community bulletin board is also expected to enhance internal communication among inspectors and sharing of practices across regional organizations. The IESS will have an inspector task focus guided by the Baseline Inspection Program.

One of the first IESS components to be implemented was the inspector newsletter. In January 2002, the Inspection Program Branch (IIPB) in NRR's Division of Inspection Program Management issued the first of several electronic inspector newsletters. The inspector newsletter differs from previous newsletters in that instead of communicating ROP policy, as was needed at the start of the ROP, this newsletter shares best inspector practices. The staff established an editorial board, which consists of at least one regional branch chief from each region's Division of Reactor Safety and/or Division of Reactor Projects, and several IIPB staff members who serve as managing and technical editors. The editorial board recommends articles, solicits inspector input and feedback, and approves the contents of the newsletter. The newsletter is issued bimonthly and each issue is approximately 6–8 pages in length. The content of the newsletter consists of articles that are of value to inspectors, technical best practices, an operating experience corner, and several human interest stories. IIPB has received extremely positive feedback from inspectors on the usefulness of the newsletter.

The IIPB staff also continued to collaborate with the Office of the Chief Information Officer (OCIO) to introduce and leverage new technologies and to share regional practices. Regions I and III have provided a resident and region-based inspector to participate in OCIO-sponsored quarterly focus meetings on a regular basis. The regional participants have added tremendous value to these meetings by making presentations to the group on the use of personal digital assistants (PDAs), pen scanners, and pen tablets and by voicing concerns and issues that pertain to all inspectors.

In addition, the IIPB staff started two pilots during CY 2003. One is the use of pen tablets for inspectors, and the other is an assessment of a digital pen for use by inspectors. Previous IIPB pilots of PDAs and pen scanners clearly demonstrated the usefulness of these tools for inspectors. The IIPB staff recommended that regions utilize a "cafeteria style" approach in providing these tools to inspectors, giving tools to inspectors who request them rather than force fitting to all inspectors. NRR will continue to take the lead in developing pilots that may be of benefit to inspectors. Regions are required to request funding for inspectors' IT tools through the budget process. However, in FY 2003, IIPB was able to obtain unplanned funding from NRR to distribute pen scanners to the regions.