



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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July 28, 2016

MEMORANDUM TO: Nathan T. Sanfilippo, Chief
Performance Assessment Branch
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

FROM: Andrew D. Patz, Reactor Operations Engineer */RA/*
Performance Assessment Branch
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Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE REACTOR OVERSIGHT PROCESS WORKING
GROUP PUBLIC MEETING HELD ON JULY 14, 2016

On July 14, 2016, the U.S. Nuclear Regulatory Commission (NRC) staff hosted the Reactor Oversight Process (ROP) working group public meeting with the Nuclear Energy Institute (NEI) ROP Task Force and other industry representatives. Meeting attendees discussed various topics including revisions to Inspection Procedures (IPs) and inspection reports, changes for the Significance Determination Process (SDP), and discussion of Performance Indicators (PIs) for new reactor designs.

Enclosure 1 contains the meeting attendance list.

Enclosure 2 (Agencywide Documents Access and Management System (ADAMS) Accession No.ML16210A426) contains the presentations and handouts discussed during the meeting.

Enclosure 3 (ADAMS Accession No.ML16210A430) contains the Performance Indicator (PI) Frequently Asked Questions (FAQs) Log and the FAQs discussed during the meeting.

Branch Updates

The Probabilistic Risk Assessment (PRA) Operations and Human Factors Branch (APHB) staff informed the ROP working group meeting attendees that the staff plans to make the new drafts of the Risk Assessment of Operational Events (RASP) handbook guidance on External Flooding and Seismic Risk Quantification publicly available in the near future. In response to a question from an attendee the APHB representative clarified that since the RASP handbook is a "best practices" guidance document for NRC staff use only, there are no process requirements for

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NRC staff to request and disposition public comments prior to issuing the draft documents as final. However, if industry stakeholders have substantive comments on RASP handbook guidance, NRC staff can receive and disposition any provided comments. Additionally, the APHB representative also informed the meeting attendees that the activity on crediting Diverse and Flexible Coping Strategies (FLEX) and Mitigating Strategies equipment in risk-informed decision-making processes is an important ongoing NRC initiative.

The Security Training and Support Branch (STSB) staff from the Office of Nuclear Security and Incident Response (NSIR) provided information on two current ROP projects: evaluation of the Force-on-Force program and progress on Inspection Manual Chapter 0609, Appendix E, "Part I, Security Significance Determination Process (SDP) for Power Reactors Security Significance Determination Process (SDP)." Staff Requirements Memorandum (SRM) SRM-CMGEA14-0001, "Proposed Initiative to Conduct a Lessons-Learned Review of the NRC's Force-on-Force Inspection Program," directed the security staff to perform a lessons learned evaluation of the Force-on-Force inspection program. A working group was formed, the working group is being chaired by a senior manager from HQ and a senior manager from the Regions. The working group also included members from Office of Nuclear Reactor Regulation, Regional Branch Chiefs, Office of Enforcement, Office of General Council as well as Security Inspectors and Security Specialists. The working group has met with both internal and external stakeholder over the past year to solicit input. We received written input from NEI and we factored that input into our response to the SRM. A public meeting was held on January 12, 2016 to brief the public on the progress of the working group. A couple of the main focus areas for the working group include ensuring the Force-on-Force inspection program continues to be realistic and consistent with the design basis threat as well as update the security SDP for evaluating findings associated with unattended openings. The staff's assessment of the findings made by the group and response to the lessons learned review of the NRC's Force-on-Force Inspection Program was submitted to the Commission in May 2016. The Commission is currently voting on the submittal.

NSIR senior management chartered a task force to review IMC 0609, Appendix E. The task force completed a comprehensive review of the SDP and recommended multiple enhancements. Several of these proposed enhancements were shared with industry and NRC staff received comments and factored those comments into the SDP changes. The first change was published on October 21, 2015, which provides a screening process for findings associated with unattended opening such as underground pipes and tunnels. The staff believes that this change will provide a more predictable and repeatable tool while staying consistent with the basic principles of physical security. The staff is now working enhancements for the safeguards information (SGI) decision tree and the process for evaluating target set findings. The staff believes that further evaluation of these areas would be beneficial. The staff plans to continue to engage internal stakeholders during the third quarter of calendar year 2016 and if significant revisions are made or recommended to security SDPs the staff will engage external stakeholders to solicit input during the fourth quarter of calendar year 2016.

The Reactor Inspection Branch (IRIB) and Performance Assessment Branch (IPAB) staff provided general updates on ROP projects.

Frequently Asked Questions

In the area of the PI program, staff and industry made the following PI FAQ (Enclosure 2) tentative-final:

- FAQ 16-02: This FAQ was proposed by Tennessee Valley Authority, concerning the implementation of the Mitigating Systems Performance Index at Watts Bar 2. This FAQ proposes to implement baseline unavailability data from Unit 1 for Unit 2. The NRC staff agrees with this approach and has approved the licensee's recommendation. The NRC response will be reviewed by the ROP Working Group and discussed at the next public meeting.

IP 71003

Recently, NRC staff completed updates to Inspection Procedure (IP) 71003, "Post-Approval Site Inspection for License Renewal." These updates were made by the license renewal program office in collaboration with the regional branch chiefs and inspectors responsible for performing license renewal inspections. The inspection was updated to incorporate a Phase 4 inspection that will occur 5-10 years into the period of extended operation. The scope of the Phase 4 inspection is to review the ongoing aging management inspection and testing activities as well as the overall health of the aging management programs. The Phase 4 inspection will be performed by a 3-person team within one on-site inspection week, and ensure a sampling review of aging management activities not otherwise sufficiently sampled by the ROP. The addition of Phase 4 to IP 71003 is resource-neutral in that the inspection resources for the procedure are shifted and shared from the other three phases to accommodate the Phase 4. The updated IP is available on the NRC's public website (ML16013A260).

Inspection Report Revisions

The NRC presented an overview of the power reactor inspection report improvement initiative. Staff solicited general feedback from the meeting's participants and invited the participants to review the presentation and meeting materials and provide additional feedback.

The presentation and meeting materials have been made available to the public in ADAMS Accession No. [ML16196A299](#). Feedback can be emailed to Chris Cauffman at Christopher.Cauffman@nrc.gov. If you choose to provide feedback, we would appreciate receiving your feedback within 40 days from the date of this summary

IMC 0609, Appendix M

The staff presented an introductory brief on a proposed draft revision to IMC 0609, Appendix M "Significance Determination Process Using Qualitative Criteria," ([ML16188A010](#)). The presentation focused on the entry criteria and the framework for the decision attributes. Initial

input was provided by industry representatives with the promise to provide more critical formal comments prior to the September 2016 public meeting.

Per the staff's project plan ([ML16161A086](#)), the September 2016 meeting will be focused on receiving the industry's feedback, providing progress on the staff's efforts to develop a process for ranking a selected decision attributes, and discussing the plan for tabletop sessions to occur in January 2017.

ROP for New Reactors

Industry presented two white papers on their analysis of the application of ROP performance indicators to AP1000 reactor designs (ADAMS Accession Nos. ML16189A414 and ML16189A418). The first paper discussed the applicability of each of the current ROP PIs, noting that most of the PIs would apply as-is, but that the Unplanned Scrams with Complications PI would benefit from a third set of questions focused on passive designs and that the Mitigating Systems Performance Index (MSPI) would be discussed in more detail in the second paper. The MSPI-focused paper summarized the low likelihood of crossing a threshold if RTNSS (Regulatory Treatment of Non-Safety Systems) systems are monitored. The paper also explored the application of MSPI to the passive safety systems for AP1000. A lack of data for reliability and baseline unavailability makes an immediate start of an MSPI type indicator not possible without making assumptions. Secondly, due to the high risk worth of components combined with their low testing and operation frequency, the indicator as it currently exists could be overly sensitive. The industry white paper recommends developing new PIs or waiting for several years to develop data that could be used to determine if a risk informed indicator is possible. The staff discussed the option of a simplified risk informed metric tied to unreliability of passive system valves. Further data and study would be required to determine its viability. The staff noted its plans to meet with Westinghouse to review the AP1000 PRA results and obtain relevant risk importance information. The staff noted its intent to explore options and present their own white paper with possible indicators in advance of the September 14th ROP public meeting.

The staff discussed and shared the current draft AP1000 Safety Performance Verification Matrix, which had been revised based on feedback from industry and others since the previous meeting (see Enclosure 2). The staff noted its intent to convert this matrix into an AP1000 risk information matrix (RIM), which in turn will be used as a basis for determining the inspection frequency and the number of samples that will be conducted for the most risk significant SSCs during the ROP baseline inspection program. The staff plans to develop and present the initial draft AP1000 RIM during the September public meeting. The staff also reiterated its intent to finalizing the draft AP1000 transition implementation plan based on internal stakeholder comments and to share and discuss the draft plan at a future ROP public meeting.

Enclosures:
As stated

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Enclosures:

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ADAMS ACCESSION NO.: ML16210A395

ADAMS Package No.: ML16210A391

*concurred via email

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Memo to N. Sanfilippo from A. Patz dated July 27, 2016

SUBJECT: SUMMARY OF THE REACTOR OVERSIGHT PROCESS WORKING GROUP
PUBLIC MEETING HELD ON JULY 14, 2016

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**REACTOR OVERSIGHT PROCESS PUBLIC MEETING
ATTENDANCE LIST
July 14, 2016**

Nathan Sanfilippo	NRC	James Slider	NEI
Chris Regan	NRC	Steve Meyer	Ameren
Sunil Weerakkody	NRC	Ken Heffner	Certrec
Michele Evans	NRC	Deann Raleigh	Curtiss Wright
Chris Miller	NRC	Diane Aitken	Dominion
Joanna Bridge	NRC	James Pak	Dominion
Ron Frahm	NRC	Ryan Treadway	Duke Energy
Daniel Merzke	NRC	Jeff Hardy	Entergy
Robert Krsek	NRC	Steve McCoy*	EPM
Carl Weber	NRC	Ron Gaston	Exelon
Steve Campbell	NRC	Stephanie Hanson	Exelon
Tom Kozak	NRC	Roy Linthicum	Exelon
Ross Telson	NRC	Darani Reddick	Exelon
Chris Cauffman	NRC	Robin Ritzman	First Energy
David Werkheiser	NRC	Bruce Mrowca	ISL
Lynn Mrowca	NRC	Don Dube	Jensen Hughes
Heather Jones	NRC	Eric Katzman*	NextEra
Alonzo Richardson*	NRC	Garrett Sanders*	SCANA
		Stephanie Agee*	Southern
		John Giddens	Southern
		Peter Wilson*	TVA
		Marty Murphy	Xcel Energy
		Lenny Sueper	Xcel Energy
		Carlos Cisco*	Winston

*participated via teleconference and/or
online meeting