

April 1, 2016

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

FROM: Andrew Patz, Reactor Operations Engineer */RA/*
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Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE REACTOR OVERSIGHT PROCESS WORKING
GROUP PUBLIC MEETING HELD ON MARCH 17, 2016

On March 17, 2016, the U.S. Nuclear Regulatory Commission (NRC) staff hosted the Reactor Oversight Process (ROP) Working Group (WG) public meeting with the Nuclear Energy Institute (NEI) ROP Task Force and other industry representatives. Meeting attendees discussed topics related to the Significance Determination Process (SDP), ROP for new reactor designs, and ended with a Problem Identification and Resolution (PI&R) working group discussion.

Enclosure 1 contains the meeting attendance list.

Enclosure 2 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16090A062) contains the handouts discussed during the meeting.

Enclosure 3 (ADAMS Accession No. ML16090A062) 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 reviewed the topics and feedback from the March 1, 2016, public meeting. Topics included: (1) use of incremental core damage probability vs delta core damage frequency in SDP assessments involving Initiating Events, (2) Pressurized Water Reactor Owners Group topical report on shutdown seals, (3) Risk Assessment Standardization Project (RASP) Handbook guidance on external flooding, and (4) credit of mitigating strategies/FLEX in risk-informed decision making.

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The Security Training and Support Branch (STSB) staff from the Office of Nuclear Security and Incident Response had no updates for March.

The Reactor Inspection Branch (IRIB) staff provided an update on the pilot revisions to the Component Design Basis Inspection (CDBI) process. Because of the shortened inspection time period (two vs. three onsite weeks), feedback received from the inspectors is that it is difficult to resolve all issues identified during the pilot CDBI inspections before leaving the site. The shortened inspection time period also has stressed both the NRC inspectors and the licensee staff. Industry believes that the stress is partly caused by the NRC CDBI inspection team sampling in the higher end of the allowable sample range for the pilot CDBI inspection. NRC staff stated that feedback and concerns from the industry will be addressed before making final revisions to the CDBI inspection procedure. NRC staff plans to issue the revised CDBI inspection, which will incorporate lessons learned from the pilot CDBI inspections, before calendar year 2017.

The Performance Assessment Branch (IPAB) staff updated meeting participants on the impact of Project Aim on the ROP. The Industry Trends Program, mid-cycle assessment process, and Inspection Procedure (IP) 71151, "Performance Indicator Verification," may see reductions in NRC resources as part of Project Aim efforts. However, these programs will continue until the Commission confirms whether they will be cut or reduced.

IPAB staff also noted that development of the FLEX mitigating strategies SDP, Inspection Manual Chapter (IMC) 0609, Appendix O, is continuing. Currently, the draft version of the IMC is out for review and comment with the NRC regional staff. In its current state, Appendix O would screen findings to Green for any FLEX performance deficiency as long as the overarching FLEX function (core cooling, containment cooling, or spent fuel pool cooling) is not lost for greater than 72 hours.

In the lessons learned document for San Onofre Nuclear Generating Station shutdown (ML15015A419), NRC staff had intended to issue a Regulatory Issue Summary (RIS) once clarifying changes had been made to the Enforcement Manual regarding use of Confirmatory Action Letters. Those changes to the Enforcement Manual have been made, but since the changes are straightforward and minor, the staff believes that spending resources on developing a RIS is not warranted and therefore a RIS will not be issued. Meeting attendees from industry agreed that this was an acceptable approach.

Frequently Asked Questions

In the area of the PI program, staff and industry discussed the following PI FAQ (see Enclosure 3):

- FAQ 16-01: This FAQ is considered Tentative Final. This generic FAQ concerns timely PRA model updates following discovery of an inaccuracy affecting Mitigating System Performance Index at D.C. Cook. At the March ROP public meeting, NRC staff presented a proposed response. Industry representatives committed to reviewing the response and contributing a recommendation for a minor revision to NEI 99-02 for clarification at the April ROP public meeting.

Staff and industry discussed recent concerns of load-following plants that may not be able to report the Reactor Coolant System Activity PI due to not meeting the criteria for sampling within a one month period. While this issue has not occurred yet, it was agreed that it could be a possibility. Working group members agreed to bring in proposals to address this issue at a later date.

The industry raised concerns about the lack of guidance for engineering analyses related to evaluating the Safety System Functional Failure PI as allowed by NEI 99-02. Inspectors have voiced concerns about what is the necessary rigor of an engineering analysis and whether operator manual actions should be credited. Staff committed to researching this topic and proposing some additional guidance either to be incorporated into NEI 99-02 or IP 71151.

Enhancing the SDP

NRC staff presented an update (see Enclosure 2 for presentation slides) and solicited comments from the public on the progress to enhancing the SDP. The key topics included:

- The Integrated Risk-Informed Decision Making (IRDM) enhancements will now be separate from the SDP streamlining enhancements. The IRDM enhancements working group will be led by the Division of Risk Assessment and will primarily focus on Appendix M to IMC 0609, "Significance Determination Process."
- The staff plans to implement the Inspection Finding Review Board process to ensure cradle to grave management (to improve timeliness and reduce unnecessary resource expenditure) of any inspection findings that do not screen to Green.
- The updated versions of IMC 0609, IMC 0609 Attachments 1 and 4, and IMC 0307, "Reactor Oversight Process Self-Assessment Program," Appendix A, will be provided to the regions for internal review and comment in April.
- In order to increase timeliness, the inspectors and the Significance Enforcement Review Panel (SERP) should focus on using readily available information for the SDP. Readily available information is defined as, "Information used to determine the safety or security significance of the inspection finding taking into account the objective to produce a timely regulatory decision consistent with the SDP timeliness metric of ≤ 90 days."
- The timeliness metrics will also be redone so that 120 days are allowed from issue identification to final exit on performance deficiency, the last date to issue inspection report is 45 days after the exit, and the final significance determination letter is issued 90 days after the inspection report. Therefore, there is a maximum of 255 days from issue identification to issuance of a final significance determination letter.

The staff intends to pilot these enhanced SDP tools beginning in approximately June 2016 and ending when enough data have been gathered. Staff expects that processing two greater-than-green findings per region would provide a sufficient sample.

ROP for New Reactors

NRC staff presented updates on the ROP for new reactors project. The goal of this project is to review the current ROP processes, procedures, and methods to evaluate whether they can accurately assess the newer generation of passive safety system reactors. The staff will then revise the current program as necessary. The staff noted its intent to develop a project plan to designate and track major milestones going forward in developing and implementing the ROP

for new reactors. The staff presented a draft structures, systems, and components (SSC) performance verification matrix (ML16076A212, also included in Enclosure 2). This matrix is intended to list all AP1000 risk-significant and safety-significant SSCs, describe the safety function of these SSCs, and describe how these SSCs will be inspected/monitored during the ROP (i.e., through inspection or performance indicator). The matrix will be populated and revised as the staff develops the ROP for AP1000, and will ultimately support the development of an AP1000 Risk Information Matrix (RIM). During the development of the ROP, RIMs served as guides to plan the type and number of activities to inspect each year for each reactor site. The AP1000 RIM will serve the same purpose as the staff reviews and develops the ROP for applicability to the AP1000 units. The staff requested that industry come to the April 2016 ROP public meeting with any comments on the draft performance verification matrix and inputs for consideration in the project plan. The revised matrix and project plan will then be discussed in detail during the May 2016 ROP public meeting.

NEI affirmed plans to submit a white paper related to the AP1000 ROP. This white paper will address what aspects of the AP1000 operation could potentially be verified by performance indicator. NRC staff indicated that they also intend to develop a white paper regarding use of performance indicators. NRC staff noted its intent to make both the staff and industry white papers publicly available prior to the May 2016 ROP public meeting and discuss them during that meeting.

The staff also briefly discussed the results of the NRC's Transition Working Group, which were documented in the report, "Assessment of the Staff's Readiness to Transition Regulatory Oversight and Licensing as New Reactors Proceed from Construction to Operation," dated September 9, 2014 (ADAMS Accession No. ML14031A387). This report contained 21 NRC staff readiness issues that must be addressed to ensure the staff is prepared as the AP1000 units proceed from construction to operation. One of the readiness issues requires the staff to issue a detailed integrated transition implementation plan. The staff plans to make the draft detailed integrated transition implementation plan publicly available prior to the May 2016 ROP public meeting and discuss the plan in detail during that meeting. The staff will consider public comments and plans to issue the final detailed integrated transition implementation plan by the end of CY 2016.

PI&R WG Public Workshop

The PI&R WG conducted a public workshop during which staff: (a) reviewed key elements of the project charter (ML15290A004), (b) discussed progress to date, (c) shared preliminary PI&R inspection and assessment enhancement insights, (d) briefed related initiatives, and (e) solicited public comments (see Enclosure 2 for presentation). NRC staff briefed the PI&R initiative intentions to: (a) better focus IP 71152 on inspecting and assessing licensee PI&R processes, (b) identify and use performance markers and cumulative inspection insights that correlate with PI&R process challenges, and (c) promote biennial PI&R assessments of improved objectivity, repeatability, and transparency that can be effectively employed in a graded manner to inform other ROP processes.

During discussions among NRC staff and workshop attendees, a concern was voiced about NRC programs requiring excellence, similar to work already done by the Institute of Nuclear Power Operators, instead of ensuring plants are operated with adequate safety in accordance with Federal Regulations. Staff reinforced that the aim of the PI&R initiative is to enhance

baseline PI&R inspection and assessment in order to better identify and differentiate those licensees with significant PI&R program challenges, not to seek excellence. In this way the NRC seeks to identify and respond more effectively to poor PI&R performance before it leads to significant safety impacts.

NRC staff briefed a proposed ROP change that compliments but was *not* motivated by the PI&R enhancement initiative. The proposed change is intended to improve the transparency and reliability of NRC follow-up inspection of licensees that have transitioned from Action Matrix Column 1 due to significant PI or finding inputs. Such inputs trigger supplemental inspections. Under certain circumstances, the supplemental inspection may be closed prior to licensee completion of planned corrective actions to prevent recurrence (CAPRs) or associated licensee CAPR effectiveness reviews. The change, if adopted, might include an Action Matrix notation which would be removed following satisfactory inspection of completed licensee actions. A concern was voiced about potential unintended consequences associated with this initiative in that differentiating the characterization and inspection of licensees in this way equated to an additional Action Matrix column.

Post-Workshop Clarifications & Considerations

During the PI&R public workshop, a concern was voiced regarding differentiating the characterization and inspection of licensees for whom a supplemental inspection might be closed prior to NRC inspection of completed licensee CAPRs or associated effectiveness reviews. Staff note that the current IP 71152 baseline inspection already requires inspectors to review all licensee corrective actions associated with greater-than-green inspection findings that have not been previously completed and subsequently reviewed. The review of all completed licensee corrective actions for greater-than-green findings provides additional assurance that the corrective actions for risk-significant performance issues are sufficient to address the root and contributing causes and prevent recurrence. As an alternative to holding supplemental inspections open in all instances pending implementation of CAPRs and effectiveness reviews, the proposed change preserves transparency and reliability of this baseline inspection activity which is important to safety. As this follow-up inspection is already required to satisfy IP 71152 baseline inspection, it does not constitute an additional Action Matrix action.

The PI&R working group charter stops short of integrating enhanced PI&R assessment insights into other ROP processes. However, at the time the PI&R charter was approved, other ROP process improvements were already under consideration having been motivated by periodic ROP assessment and feedback processes. Those changes may benefit from enhanced PI&R assessment. They could prompt, but may not be limited to, changes in: (a) IMC 0305, "Operating Reactor Assessment Program," and the Action Matrix (b) IP 95001, -2, -3, Supplemental Inspections, (c) IMC 0609 Appendix M, "Significance Determination Process Using Qualitative Criteria," (d) IP 71152, "Problem Identification and Resolution," and/or (e) public "ROP Action Matrix Summary and Current Regulatory Oversight" website at < http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/actionmatrix_summary.html >.

An inquiry was made following the workshop as to whether there would be additional opportunities for public engagement. The following PI&R Charter milestones in progress or upcoming and comment are provided:

Activity (Within Scope of Charter)	Start Target	Duration (Wks.)	Complete Target	Comment
Develop Enhanced PI&R and Generate Consensus	11/2/15	20	3/18/16	Project estimated 6 to 12 weeks behind targets
Integrate Enhanced PI&R into Impacted IPs and IMCs	2/5/16	8	4/1/16	
PI&R-Enhanced IP/IMC Comment Period	4/1/16	4	5/2/16	
Resolve Cmmts. & Publish PI&R-Enhanced IPs/IMCs	5/1/16	4	6/1/16	
Brief/Train All Stakeholders on Enhanced PI&R	6/1/16	4	7/1/16	
Effective Date of Revised IPs & IMCs (End Phase I)	7/1/16	0	7/1/16	

A public teleconference will be held on April 13, 2016, to discuss FAQs and minor updates to the SDP Streamlining, ROP for New Reactors, and the PI&R working group. The next in-person ROP WG public meeting is scheduled to be held on May 18, 2016.

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Enclosures:

1. Attendance List
2. Handouts Discussed
3. FAQ Log

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***concurring via email**

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NAME	APatz	DWillis	NSanfilippo	APatz
DATE	3/28/16	4/01/16	3/29/16	4/01/16

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**REACTOR OVERSIGHT PROCESS PUBLIC MEETING
ATTENDANCE LIST
March 17, 2016**

Nathan Sanfilippo	NRC	Nick Rochford	First Energy
Dori Willis	NRC	Bruce Mrowca	ISL
Sunil Weerakkody	NRC	Steve Catron	NextEra
Andrew Patz	NRC	John Giddens	Southern
Andrew Waugh	NRC	Kelli Roberts	Southern
Chase Franklin	NRC	Timothy Steele	Southern
Zack Hollcraft	NRC	Marin Murphy	Xcel Energy
Russell Gibbs	NRC	Lenny Sueper	Xcel Energy
Ron Frahm	NRC	Fred Mashburn*	TVA
Eliza Hilton	NRC	Peter Wilson*	TVA
Diane Render	NRC	Carlos Cisco*	Winston
Fernando Ferrante	NRC	Veena Gubbi	
Ayesha Athar	NRC	Wendy Brost	
Benjamin Mabbott	NRC	Steve McCoy	
Brandon Hartle	NRC	Jason Hall	
Robert Krsek	NRC	*participated via teleconference and/or	
Ayo Ayegbusi	NRC	online meeting	
Steve Campbell	NRC		
Molly Keefe	NRC		
Laura Kozak	NRC		
Andrea Johnson	NRC		
Ann Marie Stone	NRC		
John Rutkowski	NRC		
Shakur Walker*	NRC		
Marsha Gamberoni*	NRC		
Anthony Masters*	NRC		
Shane Sandal*	NRC		
Rebecca Sigmon*	NRC		
Ryan Taylor*	NRC		
James Slider	NEI		
Ken Heffner	Certrec		
Deann Raleigh	Curtiss Wright		
Diane Aitken*	Dominion		
James Pak	Dominion		
Chris Nolan	Duke Energy		
Tony Zimmerman	Duke Energy		
Jeff Hardy	Entergy		
Wally Beck	Exelon		
Ron Gaston	Exelon		
Jim Landale	Exelon		
Roy Linthicum	Exelon		
Greg Halnon	First Energy		
Robin Ritzman	First Energy		