

MEMORANDUM TO: Mark A. Satorius, Chief
Performance Assessment Section
Inspection Program Branch
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

FROM: John W. Thompson, Senior Reactor Operations Engineer
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Division of Inspection Program Management
Office of Nuclear Reactor Regulation

SUBJECT: PUBLIC MEETING SUMMARY ON THE MITIGATING SYSTEMS
PERFORMANCE INDEX AND REACTOR OVERSIGHT PROCESS
MONTHLY MEETINGS HELD ON MAY 21 and 22, 2003

On May 21 and 22, 2003, a combined Mitigating Systems Performance Index/Reactor Oversight Process (MSPI/ROP) public meeting was held at the One White Flint North Building, Room 13B4. The main issues discussed at the meeting were the success criteria for the MSPI pilot, industry's response to the staff's proposed MSPI timeline of scheduled activities and milestones that was handed out at the previous public meeting, an update of Office of Research (RES's) activities involving the independent verification and Simplified Plant Analysis Risk (SPAR) model work, and further research of the resolutions of the invalid/insensitive technical issues.

During the meeting, the staff indicated that all MSPI stakeholders need to be aware that not only does the 1-11 formal success criteria outlined in Regulatory Issues Summary (RIS) 02-014, Supplement 1 need to be addressed by the MSPI Working Group, but the agency's goals and objectives outlined in the original RIS 02-014 need to be addressed as well. These goals and objectives are: 1) differences between data collected for the current Safety System Unavailability (SSU) Performance Indicator (PIs) and the MSPI; 2) the comparability of the data reported for the SSU PI and the MSPI; 3) the ability of licensees to report the requested data accurately and with minimal need for clarification; 4) the ability of the MSPI to reduce the potential for unintended consequences; and 5) the agency goals of maintain safety, increase public confidence, improve the efficiency and effectiveness of Nuclear Regulatory Commission (NRC) processes, and reduce unnecessary regulatory burden.

The staff is working to address all of the success criteria (the five listed above and the eleven technical success criteria).

During the technical presentation portion of the public meeting, the staff presented their latest efforts on the SPAR model upgrades for the pilot plants and continuing efforts on the invalid/insensitive open issues. The staff stated that work to enhance SPAR models for a MSPI pilot plants that are already completed. The completed plants are Braidwood, SONGS, Salem, Palo Verde, and Prairie Island. The other pilot plant reviews will be completed by early

July 2003. All meeting participants were reminded that an important variable in the timeline is the Advisory Committee on Reactor safeguards (ACRS) subcommittee briefing on the MSPI pilot currently scheduled for July 8. The staff will make adjustments to the timeline if any additional staff work needs to be conducted as a result of the outcome of the briefing.

During the staff's technical presentation, the invalid PI issue was discussed and its impact on the MSPI baseline data. The staff performed a comparison of models between using the data in Table 2 of Nuclear Energy Institute (NEI) 99-02, using the more recent year 2000 baseline data, or using a hybrid of both (i.e., using yr 2000 data for the prior (in essence, a Bayesian update) and mixing it with the existing Table 2 baseline data for the posterior distribution). The results indicated that with the hybrid model, the number of white findings that were determined to be invalid were reduced to zero, and the remaining number of invalid systems were reduced to 12% (from the current 33% invalid value from using the existing Table 2 data). Currently, the MSPI Working Group is undecided on the more appropriate method to use for baseline data, but it is likely that one of the three approaches will be used. The staff also presented a detailed discussion on a methodology on how to objectively apply a backstop concept for the green/white threshold for invalid systems. In essence, the known mean failure probability for any given monitored component can be multiplied by a factor, such as 10, to come up with an estimated degraded state having a failure probability of 10P. This new failure state can be expressed in a failure probability distribution, and then the mean can be taken to determine the green/white threshold.

Although the staff has not issued formal Frequently Asked Questions (FAQ) guidance for the MSPI pilot program, the MSPI Working Group agreed several months ago to follow the current ROP FAQ process. This means that the MSPI pilot FAQs will adhere to the guidelines as stated in NEI 99-02, Rev. 2 for processing FAQs. To summarize the 99-02 guidance, any FAQs contemplated by industry, whether they are pilot licensees, shadow plants, or otherwise, should review the issue with their respective resident inspector counterparts to clarify the issue and be certain of the facts or situation presented in the FAQ. If the licensee still believes there is an issue after this discussion, and there is no disagreement on basic facts, the licensee should submit an FAQ and the Industry Working Group will perform a screening to ensure consistency of format and adherence to the NEI 99-02 guidelines. The draft FAQ will then be presented to the monthly industry/staff ROP Working Group for discussion.

Meeting participants were reminded that the FAQ process is normally reserved for questions/disagreements on MSPI implementation guidelines or policy, and is not really intended to be a technical forum for analysis, evaluation of technical issues or interpretation of Technical Specifications (T/S). To this end, the licensees and regional staff are encouraged to use the traditional region/headquarters technical information assistance (TIA) interface process for such technical guidance. However, the MSPI Working Group also understood the unique challenges with resolving Probabilistic Risk Analysis (PRA) quality issues. As PRA-quality issues and policy become better defined, IIPB will issue the necessary supplemental guidance.

The May 22, 2003, ROP meeting discussed updated schedules and proposed changes to the significance determination process (SDP) manual chapter appendices, inspection procedural changes, and open and new FAQs on the PIs. Topics discussed by the staff included updated status of the ROP efficiency focus group, SDP topics for the maintenance rule and other SDPs under development and implementation schedule. The staff also provided a discussion on PI

improvements and update of the industry's self assessment program. Meeting participants also discussed ongoing and new PI FAQs (Attachment 8).

The next combined meetings of the MSPI and ROP Working Groups is scheduled for July 23 and 24, 2003, respectively.

Attachments:

1. MSPI Meeting Attendance List
2. ROP Meeting Attendance List
3. MSPI Agenda
4. ROP Agenda
5. MSPI Milestones - Industry Comments
6. MSPI Slides - Ongoing Research Results, May 21, 2003
7. MSPI FAQs & Millstone FAQs
8. ROP FAQ list
9. Draft Appendix H SDP

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DATE	06/06/03

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ATTENDANCE LIST
INDUSTRY/STAFF MSPI PUBLIC MEETING
May 21, 2003

	NAME	AFFILIATION
1.	John Thompson	NRC
2.	Eugene Cobey	NRC
3.	Donald Dube	NRC
4.	Patrick Baranowsky	NRC
5.	Donald Hickman	NRC
6.	Mark Satorius	NRC
7.	Takatsune Ito	NRC
8.	Stu Richards	NRC
9.	Glenn Meyer	NRC
10.	Thomas C. Houghton	NEI
11.	Tony Pietrangelo	NEI
12.	Bill Muokhoek	STP
13.	Dae-Wook Chung	NRC
14.	Greg Gibson	SoCal Edison
15.	Dale Ambler	Exelon
16.	Daniel Marks	APS
17.	Gerry Sowers	APS
18.	Don Olson	Dominion
19.	Gary Gilbert	Duke Energy
20.	Michael Scarpello	AEP
21.	John Tripoli	PPL Susquahanna
22.	Mike Strait	Exelon
23.	Gary Welsh	INPO
24.	Deann Ralieggh	Scientech

ATTENDANCE LIST
INDUSTRY/STAFF ROP PUBLIC WORKSHOP MEETING
May 22, 2003

1.	John Thompson	NRC
2.	Mark Satorius	NRC
3.	Donald Hickman	NRC
4.	Dave Wrona	NRC
5.	Peter Koltay	NRC
6.	Robert Kahler	NRC
7.	John Tripoli	PPL Susquahana
8.	Dale Ambler	Exelon
9.	Gary Gilbert	Duke Energy
10.	Daniel Marks	APS
11.	Adel A. El-Bassioni	NRC
12.	Takatsune Ito	NRC
13.	Kevin Williams	NRC
14.	Robert Kahler	NRC
15.	Michael Scarpello	AEP
16.	Tom Houghton	NEI
17.	Tony Pietrangelo	NEI
18.	Don Olson	Dominion
19.	Greg Gibson	SoCal Edison

MSPI WORKING GROUP PUBLIC MEETING

AGENDA

May 21, 2003

OWFN 13B4

8:00-8:15 a.m.	<u>Introductions</u>	(NRC staff/Industry)
8:15-9:00 a.m.	<u>High Level Staff Overview</u>	(All)
	1. MSPI Time Line of Pilot Activities 2. Success Criteria and Staff Goals and Objectives 3. Other Staff Activities 4. Industry Activities	
9:00-10:00 a.m.	<u>Status of Ongoing Research Results</u>	(Don Dube, RES)
	1. Independent Verification and SPAR Model Status 2. Effect of Baseline Data on MSPI Results 3. Backstop Concept	
10:00-10:15 a.m.	Public Discussion & Break	
10:15-12:00 p.m.	<u>Status of Ongoing Research Results (cont.)</u>	(D. Dube, RES)
12:00-1:00 p.m.	Lunch	
1:00 - 2:30 p.m.	<u>MSPI FAQ Discussion</u>	(All)
2:30 - 2:45 p.m.	Public Discussion & Break	
2:45 - 3:30 p.m.	<u>MSPI FAQ Discussion</u>	
3:30 - 4:00 p.m.	<u>Schedule and Near term Action Items</u>	(All)
	-Future workshop issues -Communication and training issues	

ROP MONTHLY WORKING GROUP MEETING

AGENDA

OWFN 013B4

May 22, 2003

- 08:00 a.m. Welcome and Introduction
- 08:15 a.m. General discussion on ROP inspection processes, improvements and initiatives
- 08:30 a.m. Discussion on Proposed SDP changes
- 10:15 a.m. Public Discussion & Break
- 10:30 a.m. Update on the Self Assessment Program Program
- 11:15 a.m. Discussion of FAQs Associated w/Scrams w/LONHR
- 12:00 p.m. Break for Lunch
- 1:00 p.m. Continue Discussion of Scrams w/LONHR and EP Alert and Notification System Reliability PI
- 2:15 p.m. Public Discussion & Break
- 2:30 p.m. Discussion of other FAQs
- 4:00 p.m. Adjourn