

December 16, 2015

MEMORANDUM TO: Sunil Weerakkody, Branch Chief  
PRA Operations and Human Factors Branch  
Division of Risk Assessment  
Office of Nuclear Reactor Regulation

FROM: Michael Montecalvo, Reactor Operations Engineer /RA/  
PRA Operations and Human Factors Branch  
Division of Risk Assessment  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF OCTOBER 20, 2015 PUBLIC MEETING TO  
CONTINUE DISCUSSIONS BETWEEN THE NRC AND INDUSTRY  
RISK-INFORMED STEERING COMMITTEES (RISC)

On October 20, 2015, the U.S. Nuclear Regulatory Commission (NRC) staff held a Category 2 public meeting to continue discussions between the NRC and industry Risk-Informed Steering Committees (RISC). The purpose of the meeting was to engage the industry and public in discussions on risk-informed topics of interest. The meeting notice is available in the Agencywide Documents Access and Management System (ADAMS) Accession Number ML15251A516. The RISCs received an update on the status of the Risk-Management Regulatory Framework (RMRF), had a discussion on crediting mitigating strategies (MS) in risk-informed decision making (RIDM), and received a proposed timeline from the industry Probabilistic Risk Analysis (PRA) Technical Adequacy Working Group. The RISCs also discussed some other topics of interest regarding RIDM. The presentations are available in ADAMS Accession Numbers ML15324A347, ML15324A340, and ML15334A507 respectively. A list of individuals that participated in the meeting is provided as an enclosure to this document. No feedback forms were received after the meeting.

The NRC RISC chair opened the meeting stating that he was pleased with the progress of the committees and the communications taking place between the senior management levels of the NRC and industry. He also stated that the two working groups that were formed have largely handed over their work to the line organizations and progress continues toward the goals of both of those working groups. He provided the purpose of the meeting, which was to provide an update on RMRF, to discuss crediting MS in RIDM, and to receive a timeline from the industry for continuing the work of the PRA Technical Adequacy Working Group. The industry RISC co-chair provided opening comments emphasizing the importance of the work that is being done by these committees with particular reference to resource demands on both industry and the NRC. He also stressed the importance of a balanced approach to moving forward with RIDM noting that industry believes some changes can be made efficiently especially in areas of agreement between the industry and the NRC.

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### Update on Risk Management Regulatory Framework (RMRF)

NRC staff provided an update on RMRF with specific reference to the SECY paper that will be presented to the Commission in December 2015. The staff explained that the SECY paper will cover four different topics: RMRF implementation options for power reactors, re-evaluation of Fukushima NTTF Rec. 1 Improvement Activities 1 and 2, an agency-wide risk management policy statement, and interrelationships between ongoing risk-informed activities. Regarding RMRF implementation the staff considered three options: maintain the current regulatory framework, a voluntary alternative risk-informed plant-specific licensing basis, and the NUREG 2150 recommended approach. The staff conclusion was to not pursue option 2 at the current time due to insufficient support from the industry without more detail and certainty on what the voluntary rule would entail. The staff also recommended not to pursue option 3 for the operating reactor fleet because the modest potential benefits do not justify the substantial implementation costs. Overall, the staff recommends maintaining the current framework, but it was stressed that this is not a do nothing approach. Industry and NRC staff and management agreed that the infrastructure is currently in place to take advantage of risk information in regulatory decisions. NRC staff also stated that many initiatives are currently underway to take more advantage of risk-information in decision making to yield a more efficient process.

Concerning NTTF recommendation 1 improvement activity 1, the staff determined that creating a new design-basis extension category is not necessary. Instead, staff will ensure that new regulations properly specify all regulatory attributes necessary for requirements that exceed the existing design basis by developing clear internal rulemaking guidance. Similarly, activity 2, which is related to establishing criteria for adequacy of defense-in-depth (DID), could potentially succeed in establishing predictable, objective criteria for determining the adequacy of DID for power reactor safety, the estimated resource requirements are significant and staff doesn't recommend moving forward at this time. Instead, staff will update DID guidance in RG 1.174 as directed by the Commission in SECY-11-0014 on Containment Accident Pressure.

An agency-wide risk management policy statement could potentially improve and make more consistent the regulatory framework used for all program areas. The NRC requested public comments on two draft example policy statements in November 2013 and May 2015. In general, the public comments were not supportive of an agency-wide risk management policy statement because programs can be appropriately risk-informed under the current policy and guidance. NRC staff agrees with the public commenters and believes that it would not be appropriate to divert NRC and licensee resources away from more safety-significant activities and therefore recommends against developing an agency-wide policy statement at this time. Finally, the NRC staff provided an overview of the interrelationships between ongoing risk-informed activities with the recognition that all the elements fall under the purview of the RISCs.

### Discussion on Crediting MS in RIDM

NRC staff provided an update on activities performed to date with respect to crediting MS in RIDM. The staff acknowledged that licensees have made various changes to plants (e.g., additional components, additional procedures) to address Commission Order EA 12-049, and agrees that safety of plants have/or will be improved over their pre-Fukushima levels as a result of these changes. There was recognition that the NRC PRA Policy Statement issued in 1995 supports crediting MS in PRA and that there are several NRC and NRC endorsed industry standards that can be used to credit MS in RIDM. NRC staff explained that although there is

current guidance, there are various challenges in crediting MS in future RIDM in a predictable manner. A public meeting was held in October 2015 with industry participation to discuss this effort. At that meeting the industry shared that they have formed a task force led by the Nuclear Energy Institute (NEI) that will develop white papers to provide further guidance on crediting MS in RIDM. These white papers will be provided to the NRC for review at an additional public meeting that is tentatively scheduled for December 2015.

#### Other Risk-Informed Topics of Interest

The RISCs also received a timeline from the industry for continuing the work of the PRA technical adequacy working group. The industry commented that they are waiting for a memo from the NRC working group to move forward. The NRC staff reflected on some of the difficulties that needed to be overcome from a regulatory perspective to go ahead with the proposals from the working groups. The NRC staff also commented that some of the delay is due to the staff focus on closure of existing licensing actions; however the formation of a new team within the Division of Risk Assessment Licensing Branch should alleviate some of the issue in the near future.

The NRC RISC chair stated that there are a number of efforts going on at the agency to use risk information more effectively in decision making. Beyond the efforts being actively worked, there have been some discussions about other ways to improve processes and efficiency. One specific effort mentioned was exploring the use of licensee PRA models in regulatory processes to reduce the NRC dependency on SPAR models. This topic created some intense conversation with a number of NRC staff expressing doubts about the concept. The NRC chair remarked that it was obvious that there is a need for internal discussions on the topic prior to any substantive plan can be developed.

#### Closing remarks

The industry RISC co-chair commented that the discussion topics being taken on by the NRC are encouraging and he is looking forward to having further discussions and developing future initiatives to encourage RIDM. The NRC RISC chair closed the meeting by thanking everyone for their participation and committing to continued discussions with industry regarding these initiatives.

Enclosure:  
List of Attendees

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DATE	12/16/2015	12/16/2015

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## LIST OF MEETING ATTENDEES

Name	Organization
Matt Humberstone	NRC
Bill Dean	NRC
Jim Trapp	NRC
Robert Krsek	NRC
Thomas Zachariah	NEI
Stacey Rosenberg	NRC
Tony Pietrangelo	NEI
Danny Bost	Southern Company
Joe Giitter	NRC
Victoria Anderson	NEI
Michael Montecalvo	NRC
Stuart Lewis	EPRI
Dave Gennardo	NRC
Doug True*	ERIN Engineering
Jeff Mitman	NRC
Joe Pollock	NEI
Sue Perkins-Grew	NEI
Michael Tschiltz	NEI
Paul Amico	Jensen/Hughes
Greg Krueger	Exelon
Roy Linthicum	Exelon/PWROG
Fernando Ferrante	NRC
Rich Correia	NRC
Sunil Weerakkody	NRC
Bob Bement	APS Palo Verde
Robert Rishel	Duke Energy/BWROG
Jana Bergman*	Scientech
N.P. Kadambi	ANS
Donnie Harrison	NRC
Matt Leech	NRC
John A. Nakoski	NRC
Paul Harden	Fist Energy
Brian McDermott	NRC
Lynn Mrowca	NRC
Mandy Halter	NRC
Scott Moore	NRC
Phil Tarpinian*	Exelon
John Lai*	NRC
Stanley Levinson*	AREVA
David Miskiewicz*	Engineering Planning and Management
Brad Scott*	True North Consulting
Bill McTigue*	PSEG

\* Participated by teleconference

ENCLOSURE