



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 25, 2019

MEMORANDUM TO: Antonios M. Zoulis, Acting Chief
PRA Oversight Branch
Division of Risk Assessment
Office of Nuclear Reactor Regulation

FROM: Alexander H. Schwab, Reliability */RA/*
and Risk Analyst
PRA Oversight Branch
Division of Risk Assessment
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MARCH 21, 2019 PUBLIC MEETING TO
CONTINUE DISCUSSIONS BETWEEN THE U.S. NUCLEAR
REGULATORY COMMISSION AND INDUSTRY RISK-
INFORMED STEERING COMMITTEES

On March 21, 2019, the U.S. Nuclear Regulatory Commission (NRC) staff held a Category 2 public meeting between the NRC and industry Risk Informed Steering Committees (RISCs). The meeting notice and presentations used to facilitate discussion are available in the Agencywide Documents Access and Management System (ADAMS), at Accession Number ML19077A189 and Accession Number MLXXXXXXXXXX, respectively. The list of meeting participants is provided as an enclosure to this document. Staff did not receive any public meeting feedback forms as a result of this meeting.

Both the NRC and Industry had opening remarks and discussed the agenda. During these discussions staff provided status updates on 50.69 License Amendment Request reviews, Technical Specification Task Force (TSTF) 505, New Probabilistic Risk Assessment (PRA) Methods, Fire PRA Realism, Treatment of FLEX in Risk Informed Decision Making, Tornado Missile Risk Evaluator (TMRE), Open Phase Condition (OPC), the Low Safety Significance Issue Resolution Working group, risk informing security, prioritization of risk related efforts, and the update to the NRC RISC Charter. The industry RISC discussed High Energy Arc Faults (HEAFs). Details on each of these topics can be seen below.

Opening Remarks

The NRC opened by requesting that the industry provide prioritization of the different ongoing risk related efforts. This would allow NRC management insights into resource allocation.

10CFR 50.69

The NRC mentioned that all the plants on the milestone list are on schedule with 2 exceptions. These exceptions involve treatment of key assumptions and uncertainties as discussed in NUREG-1855.

CONTACT: Alexander H. Schwab, NRR/DRA
301 415-8539

TSTF 505

The Industry stated their position that Facts and Observations (F&Os) reviewed during a 50.69 application review should not be reopened for a TSTF 505 application.

The NRC disagreed and remarked that F&Os may have different implications for a TSTF 505 application requiring additional review, and that if the more complicated TSTF 505 review occurred before the 50.69 review, then the F&Os would not likely need to be revisited.

New Methods

The NRC asked about the timing of the selection of the pilot plants for new methods, and industry replied that they should have the pilot plant lined up by late April or early May. The NRC mentioned that there is further work to be done before NRC will be able to endorse an approach for disposition of new methods.

Fire Probabilistic Risk Assessment Realism

Industry requested that Electric Power Research Institute (EPRI) receive input faster on FAQ's from the NRC. They also indicated that if the NRC didn't have the resources, EPRI could push forward and publish the report without NRC input to ensure timeliness. The industry believes that current calculated plant fire risk could be a factor of 10 lower using the new methods and/or approaches.

The NRC remarked that they would work to make sure that appropriate resources were applied to ensure timely resolution of FAQs.

Crediting FLEX in Risk-Informed Decision Making

Industry remarked that the soon to be published NRC expert elicitation paper on Human Reliability Analysis (HRA) on FLEX equipment is conservative thus leading to insufficient FLEX credit.

The NRC responded by saying the work is draft and not final and that the topic warrants elevated management attention on both sides to produce realistic HRA estimates. The NRC will work with the industry to identify the next steps.

TMRE (Tornado Missile Risk Evaluator)

The NRC remarked that the industry should be working on a roadmap to guide remaining implementors on how to use the pilot plant Safety Evaluations and Nuclear Energy Institute (NEI) 17-02. The NRC also stated that they could provide quick turnaround on a TMRE topical report review. Industry stated that they would consider this.

HEAFs (High Energy Arc Faults)

Industry remarked that they wanted to make sure that the HEAF testing is accounting for the proper zone of influence and the fragility of the equipment in the zone.

Low Safety Significance Issue Resolution Working Group

The NRC explained that the purpose of the working group is to find and document an approach for resolving issues of low safety significance and in the process more efficiently allocate resources. Industry remarked that they were very supportive of the working group's goal. However, the industry also offered that the final approach should not be itself resource intensive.

OPC (Open Phase Condition)

The NRC summarized the previous day's public meeting at which the NRC gave feedback on an industry whitepaper. The whitepaper provided proposed risk informed guidance on whether the licensees had to keep their Open Phase Isolation System (OPIS) in alarm only versus automatic actuation mode. The NRC also stated that if the Voluntary Industry Initiative (VII) was modified to allow for staying in alarm only, the NRC would need to inspect the implementation of the VII for some licensees who chose to stay in alarm only.

The NRC and industry agreed that the white paper was a good example in using risk informed decision making.

Risk-Informing Security

Industry stated that there was an NRC public meeting on the subject earlier in the day, and that they planned to keep those activities separate from the RISC. The NRC asked if there were any advanced reactors insights that could help the current fleet. The industry replied that there wasn't anything at this point.

Prioritization of Risk Related Efforts

The NRC ask for suggestions on how they should prioritize NRC resources on the previously discussed issues. Industry indicated that 1) the issue of EPRI FAQ closure on Fire PRA realism research, and 2) the F&O closure issue should be prioritized. The NRC requested continuing input on prioritization.

NRC RISC Charter Update

The NRC explained where it is in updating the RISC charter to increase the charter's relevance to other NRC offices other than NRR. There was some discussion on whether it would be beneficial to divide up the RISC meetings so that there could be a broader discussion on risk-related issues at the beginning of the meeting relevant to all offices before splitting into a more detailed discussion for the operating reactor fleet.

Closing Remarks

The public was given an opportunity to ask questions or make comments, no one chose to do so. The NRC RISC chair then thanked the participants and closed the meeting.

Enclosures:

1. List of Meeting Attendees
2. Risk Informed Steering Committee NRC Activity Status
3. 2019 Chart of RISC Milestones – March 2019

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DISCUSSIONS BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION
AND INDUSTRY RISK-INFORMED STEERING COMMITTEES DATED: 4/25/2019

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Alexander Schwab, NRR

Antonios Zoulis, NRR

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OFFICE	NRR/DRA/APOB	NRR/DRA/APOB: (A) BC
NAME	ASchwab	AZoulis*
DATE	4/25/2019	4/23/2019

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LIST OF MEETING ATTENDEES

Name	Organization
John Lubinski	NRC
George Gellrich	Exelon
Gregory Krueger	NEI
Roy Linthicum	PWROG
Sunil Weerakkody	NRC
Mike Cheok	NRC
Doug True	NEI
Bob Bement	APS/Palo Verde
Victoria Anderson	NEI
Chris Nolan	Duke Energy
Jeff Stone	Exelon
Shawn St. Germain	INL
Ed Miller	NRC
Eric Benner	NRC
Alexander Schwab	NRC
Dick Speer	Ares Security Corp
Mandy Halter	Entergy
Jana Bergman	Curtiss-Wright
John Monninger	NRC
Mike Wentzel	NRC
Mehdi Reisi Fard	NRC
Tim Reed	NRC
Jeff Mitman	NRC
Michael Montecalvo	NRC
Yang Hsien J. Chang	NRC
Kelli Voelsing	EPRI
Stephen Grier	NEI
Rick Grantom*	JCNRM
Tim Sande*	Enercon
Keith Tetter*	NRC
Justin Hiller*	Ameren Missouri
Jermaine Heath*	NRC
Robert Rishel*	Duke Energy
Anders Gilbertson*	NRC
Larry Nicholson*	Certrec Corporation
Candace De Messieres*	NRC
Jeff Circle*	NRC
Julio Lara*	NRC

*Participated by teleconference