



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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February 7, 2020

MEMORANDUM TO: Anthony D. Masters, Chief
Reactor Assessment Branch
Division of Reactor Oversight
Office of Nuclear Reactor Regulation

FROM: Tekia V. Govan, Project Manager */RA/*
Oversight and Support Branch
Division of Reactor Oversight
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE REACTOR OVERSIGHT PROCESS MONTHLY
PUBLIC MEETING HELD ON JANUARY 22, 2020

On January 22, 2020, the U.S. Nuclear Regulatory Commission (NRC) staff hosted a public meeting with the Nuclear Energy Institute's (NEI's) Reactor Oversight Process (ROP) Task Force executives, and other senior industry executives, to discuss the staff's progress on the ROP enhancement initiative and other ROP topics.

ROP for AP1000

The NRC staff presented its proposals for modifying the existing ROP for inspecting the Vogtle site, which will have two conventional pressurized water reactors (PWRs) and two AP1000 PWR designs (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML20007E062 and ML20007D904). The staff provided a brief overview of the ROP and a discussion of the AP1000 design and how the design was used to assess and inform the current ROP for modifications. The staff provided several examples regarding the implementation of ROP Inspection Procedures given the four-plant configuration at Vogtle. The staff provided several opportunities for questions and comments from members of the public during and at the end of the presentation. One member of the public, Mr. Ed Lyman, Union of Concerned Scientist, asked a question regarding proposed aspects of Force-on-Force Inspections at Vogtle. The NRC staff's response to this question is provided below.

Response to Question from a Member of the Public

In response to a question raised during the ROP public meeting, the staff held discussions with security inspection program staff in the NRC's Office of Nuclear Security and Incident Response. To reiterate the question, it was asked how the NRC would perform Target Set and Force-on-Force Inspections at the Vogtle site once Units 3 and 4 start operation. Mr. Lyman

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expressed a view that the differences in the technologies between the existing and newly constructed reactors would have an impact on the performance of both inspections. He expressed that separate inspections should be performed, particularly the Force-on-Force Inspection.

The Force-on-Force inspection is one of several inspections that the NRC performs to verify that a licensee has designed and implemented their protective strategy to protect against the design basis threat of radiological sabotage. Through other baseline inspections, NRC inspectors review each licensee's protective strategy design and implementation against regulatory requirements in consideration of site-specific conditions. Specific inspections of a licensee's protective strategy, security training, and equipment performance provide in-depth evaluations of a licensee's ability to protect against the design basis threat. These inspections are complementary to each other and to the Force-on-Force Inspection such that security inspectors would identify and address any flaws in the design and implementation of the licensee's protective strategy, regardless of the number of force-on-force exercises.

Likewise, the Target Set Inspection is currently performed separately from the Force-on-Force Inspection by regional specialists. Performing the inspection separately from the Force-on-Force inspection allows the inspector to adjust the inspection to the configuration of the site, as needed. For a site with multiple units of different technology, the inspection procedure provides adequate flexibility to perform a thorough review of all the units on a site.

Therefore, the NRC does not currently see a need to differentiate any of the current NRC security inspections for the Vogtle site. The NRC plans to perform all baseline security inspections at Vogtle as a single four-unit site consistent with how other multi-unit and multi-technology sites are inspected.

The concern posed by Mr. Lyman has been noted by the NRC staff. The staff acknowledged during the ROP public meeting discussion that the baseline inspection program for Vogtle would be under continuous review through the normal audit program. If the NRC determines that the inspections within the baseline are not sufficient, the program will be adjusted to address the identified gaps and inefficiencies.

Significance Determination Process

NEI Letter Regarding IMC 0609 Appendix A

By letter dated December 20, 2019, NEI requested that the NRC suspend plans to issue a pending revision to Inspection Manual Chapter (IMC) 0609, Appendix A, "The Significance Determination Process for Findings At-Power" (ADAMS Accession No. ML20009F087). Specifically, the letter communicates a concern that the revision to IMC 0609, Appendix A would unintentionally disincentivize licensees from enhancing safety through the expanded use of FLEX equipment beyond its initial purpose. The revision to IMC 0609, Appendix A, was issued with an effective date of December 20, 2019.

During the meeting, NEI and the NRC discussed the concerns outlined in the NEI letter. NEI stated that it was concerned that a subset of plants that are using FLEX to mitigate risk in areas beyond those identified in the Mitigating Strategies Orders may be disincentivized to make safety enhancements if there is the potential to receive a greater-than-Green inspection finding as a result of making those enhancements. A representative from Exelon stated that its entity

has reviewed how the changes to IMC 0609, Appendix A, would impact their plants and identified that the changes are reasonable.

The NRC reinforced that it supports use of FLEX to enhance safety and explained that in order for safety to be enhanced, the equipment must remain available to perform its function. The NRC explained that there have been 14 FLEX-related findings to date that were all evaluated as Green, and that all of those findings would remain Green if they were evaluated under the revised IMC 0609 Appendix A. The NRC invited industry stakeholders to participate in other meetings where improving the use of FLEX will be discussed, including the Risk Informed Steering Committee meetings and the 2020 Regulatory Information Conference. The NRC also invited industry stakeholders to participate in a FLEX Summit being planned for later this year to share operating experience, lessons learned, and best practices for enhancing safety by further leveraging FLEX.

During the discussion, Mr. Ed Lyman, Union of Concerned Scientists, commented that FLEX equipment should be treated consistently in the regulatory process. Specifically, if the industry is seeking a credit for the safety benefits of FLEX equipment, then the equipment must be maintained and there must be a corresponding regulatory action if it is not available.

SDP Guidance Updates for AP1000

In SECY-18-0091, “Recommendations for Modifying the Reactor Oversight Process for New Large Light Water Reactors with Passive Safety Systems such as the AP1000 (Generation III+ Reactor Designs),” dated September 12, 2018, staff provided details on what changes were anticipated for each of the SDP guidance documents in order to accommodate new reactor designs. There are five SDP documents identified in the aforementioned SECY. The status of those revisions are as follows:

- 1) IMC 0609, Appendix M, “Significance Determination Process Using Qualitative Criteria,” was issued in January 2019.
- 2) IMC 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” was issued in December 2019.
- 3) IMC 0609, Appendix G, “Shutdown Operations Significance Determination Process,” and its attachments – Attachment 1, “Shutdown Operations Significance Determination Process Phase 1 Initial Screening and Characterization of Findings,” Attachment 2, “Phase 2 Significance Determination Process Template for PWR During Shutdown,” and Attachment 3, “Phase 2 Significance Determination Process Template for BWR During Shutdown” – were issued on January 8, 2020. IMC 0609, Appendix G, and its attachments have an effective date of March 1, 2020. During the meeting NRC staff provided details on the scope and intent of the revisions to IMC 0609, Appendix G (ADAMS Accession No. ML20010F632). Overall, the revisions do not change the way Appendix G assesses the risk of a performance deficiency. Guidance was added to direct inspectors to perform a detailed risk evaluation for AP1000 findings that do not screen to Green in Phase 1 (Attachment 1). An informational section was added to IMC 0609, Appendix G, Attachment 1, to highlight relevant shutdown information for the AP1000 design. Representatives from NEI indicated that they will have some feedback on the revisions to IMC 0609, Appendix G, and will provide those in advance of the February ROP monthly public meeting.

- 4) IMC 0609, "Significance Determination Process," is undergoing internal review. Potential revisions to the document will be discussed during the February ROP monthly public meeting.
- 5) IMC 0609, Appendix H, "Containment Integrity Significance Determination Process," is undergoing internal review. Potential revisions to the document will be discussed during the February ROP monthly public meeting.

ROP Enhancement Updates

The NRC staff provided a demonstration of the revised ROP website page (<https://www.nrc.gov/reactors/operating/oversight/rop-enhancement.html>). The new format of the website provides a clear path to find the work that has been completed under the ROP enhancement project and the work that will continue as a part of ROP enhancement, Phase 2. The staff provided a summary of the Phase 2 ROP enhancement initiatives in the areas of significance determination process, radiation protection, cross cutting issues effectiveness review, security, independent spent fuel storage installation inspections, problem identification and resolution, and emergency preparedness.

Significance Determination Process (SDP)

The NRC staff provided a synopsis of continuing activities in the SDP area. The evaluation of the interactions under the current Inspection Finding Review Board (IFRB) process was discussed. The NRC staff continues to evaluate this area to determine if guidance enhancements for interactions between licensees and the NRC are necessary. The staff also discussed working with industry and other interested parties to improve assessment tools and processes in the areas of common-cause failure (CCF) and human reliability analysis (HRA). A pilot that provides an option for licensees to provide justification for unique CCF defense strategies began in April 2019 and will continue for a period of one year. Work to finalize the HRA tool to appropriately assess human error probabilities is ongoing. A workshop on this topic was held between the NRC's Office of Nuclear Regulatory Research and the Electric Power Research Institute on December 3-5, 2019 and will result in a draft report scheduled to be available by the 2nd quarter of 2020.

Radiation Protection

The NRC staff informed stakeholders that a draft updated version of inspection procedure 71124.08, "Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation," was made publicly available to support a public meeting that the NRC held on December 18, 2019, to discuss changes that impact the radiation safety cornerstones. The meeting summary for this public interaction can be found under ADAMS Accession No. ML20009D703.

Cross Cutting Issues (CCI)

The NRC staff provided an update on a public meeting held on January 10, 2020, that provided an opportunity for industry and the public to comment and ask questions about the CCI effectiveness review and the preliminary conclusions discussed at the November ROP public meeting (ADAMS Accession No. ML19322A014). The staff is considering the feedback during both public meetings.

Security

Currently, all major changes to the security inspection and assessment program are placed on hold pending Commission direction. However, the NRC staff will be making incremental changes based on insight gained during implementation of the revised inspection and assessment program.

Independent Spent Fuel Storage Installation (ISFSI)

The NRC staff provided an update on the overall status of the proposed ISFSI program recommendations. The staff discussed the final recommendations report that is under internal review and concurrence. The staff also presented the timeline for the activities that will follow the final recommendations report including the decision memorandum and presentation at the upcoming NRC Regulatory Information Conference. The staff plans to communicate the final recommendations for the ISFSI program by February 2020.

Problem Identification and Resolution (PI&R)

The NRC staff is currently revising the team charter for the PI&R initiative. Once the charter is developed, the staff will brief NRC management for further guidance and discuss next steps at a future ROP meeting.

Emergency Preparedness (EP)

The NRC staff has revised the EP training program and other associated procedures that do not require Commission approval. The scope of these changes consists of removing any ambiguity from the training documents and procedures. Recommendations presented in SECY-19-0067, are still awaiting NRC Commission direction for Phase 2 activities.

Response to EP-related NEI Whitepapers

During the September 25, 2019, ROP monthly meeting, NEI provided an overview of a White Paper entitled, "Counting of DEP Opportunities from an Actual Emergency Following a Retraction of the Emergency Declaration" (ADAMS Accession No. ML19266A321). The staff indicated that they disagree with the position presented in the White Paper, provided recommended edits (ADAMS Accession No. ML19339H435), and encourages NEI to consider enhancing the guidance in NEI 99-02 for declared events that are subsequently retracted.

Additionally, NEI resubmitted their White Paper, "Implementing a 24-Month Frequency for Emergency Preparedness Program Reviews*," in support of 10 CFR 50.54(t) (ADAMS Accession No. ML19344C419). The NRC staff found the revised NEI White Paper to be acceptable and will pursue endorsement through the next revision of Regulatory Guide 1.101, "Emergency Response Planning and Preparedness for Nuclear Power Plants."

Disposition of Public Comments on the ROP Enhancement Initiative

On June 28, 2019, the staff issued SECY-19-0067, "Recommendations for Enhancing the Reactor Oversight Process," (Agency Documents Access and Management System Accession No. ML19070A036). The staff subsequently received a request from the House Committees on Energy and Commerce and Appropriations seeking formal public comment period for SECY-19-0067 prior to the Commission voting on any changes to the ROP. In response, the NRC staff

issued a Federal Register notice (84 FR 38675), dated August 7, 2019, offering a 60-day period for the public to provide comments on the staff's ROP enhancement initiatives, as well as SECY-19-0067.

The NRC staff has provided to its Commissioners the 90 public comments received on the ROP enhancement initiative. The comments originated from members of the public (62), anonymous submitters (16), non-government organizations (3), state and local government entities (5), and industry (4). Of the comments received, 73 comments were related to the ROP or ROP enhancement and 17 comments were general in nature. The NRC staff's initial review of each of the comments resulted in the determination that the comments directly related to SECY-19-0067 did not represent new perspectives that were not already considered as part of the development of the paper. Therefore, no modifications to the staff recommendations in SECY-19-0067 are warranted. For example, there were comments supporting and comments opposing the problem identification and resolution frequency changes and baseline inspection changes. These positions were similar to what was considered during the enhancement initiative reviews and the basis for the recommendations are captured in SECY-19-0067. However, all comments were forwarded to the leads for the respective ROP enhancement initiatives and will be considered, as appropriate.

The NRC staff's presentation for this topic can be found under ADAMS Accession No. ML20016A180.

Development of a Standardized Escalation Process

Recommendation 4D from the ROP enhancement initiative was a tasking for the nuclear industry to develop a standard process for issue escalation. The industry presented this proposed process (ADAMS Accession Nos. ML20017A086 and ML20017A089) during the meeting. The NRC staff noted that this is an industry initiative and therefore, the NRC plans to take no action at this time.

Short-Term Proposal to Eliminate Planned Unavailability of the Mitigation Systems Performance Index (MSPI) Calculation

The industry provided a presentation (ADAMS Accession No. ML20022A026) on a proposal to remove planned unavailability from the MSPI performance indicator. The industry believes removal of planned unavailability from the MSPI will have a negligible impact on the performance indicator and will reduce resources spent collecting data for the indicator. A review of historical data revealed 11 instances in which the planned unavailability aspect of the MSPI drove an indicator from Green to White. The industry stated that part of the removal of planned unavailability would be an adjustment to the definition of unplanned unavailability to ensure the instances in which planned unavailability drove the indicator white would still be captured in the future. The NRC staff questioned whether, considering that this proposal is primarily driven by a desire to reduce resources with negligible safety benefit, it is worth the resource burden of change on the agency and licensees in light of the parallel ongoing industry proposal to fully replace the MSPI. While an initial proof-of-concept presentation was made at the January 2019 ROP public meeting (ADAMS Accession No. ML19017A020), industry has indicated that a more comprehensive presentation of their proposed replacement indicator would not be ready until the end of calendar year 2020. Further discussions on this short-term MSPI proposal will occur at upcoming ROP public meetings.

Performance Indicator FAQ

NEI provided an overview of FAQ 20-01 relating to unplanned scrams with complications at Nine Mile Point, Unit 1 (ADAMS Accession No. ML200017A108). During the meeting, NEI committed to providing a revised version of FAQ 20-01, which will be used as the official version of the FAQ. This revision was provided to the NRC staff on February 4, 2020 (ADAMS Accession No. ML20037B086). The NRC staff will review FAQ 20-01, and plan to discuss their draft response the next ROP monthly meeting.

Updates on Inspection Procedure 95001, “Supplemental Inspection Response to Action Matrix Column 2 Inputs”

The NRC staff provided an overview of the proposed enhancements to Inspection Procedure 95001 and related ROP documents (ADAMS Accession No. ML20014E139). The staff shared the principle areas of proposed enhancement and discussed the associated documents that describe several of the enhancement catalysts as well as solicited public comments. One area of inquiry focused on whether the assessment of extent of condition and extent of cause of significant collective (multiple white inputs) performance issues could be further clarified during the enhancement.

Communicating with the NRC staff

At the start of all ROP public meetings, the project manager provides contact information for the public to use to provide their name as a participant in the meeting. This contact information is also provided for submitting questions and comments to the NRC technical staff. Please note that any questions and/or comments pertaining to the ROP enhancement project can be sent to Tekia.Govan@nrc.gov or Russell.Gibbs@nrc.gov. Questions and/or comments will be forward to the appropriate NRC staff. The staff also mentioned the role out of the “Contact Us about ROP” page on the new ROP website, which can also be used to submit questions and comments regarding the ROP initiative (<https://www.nrc.gov/reactors/operating/oversight/contactus.html>).

Conclusion

At the end of the meeting, NRC and industry management gave closing remarks. NEI expressed appreciation for the open dialogue and willingness of NRC staff to hear industry views, even in areas where NRC staff and industry may not be aligned. The NRC management stressed the importance of NRC being focused on providing reasonable assurance of public health and safety when considering changes to the ROP.

The enclosure provides the attendance list for this meeting.

Enclosure:
As stated

Docket Nos.: 52-025
52-026

SUBJECT: SUMMARY OF THE REACTOR OVERSIGHT PROCESS MONTHLY PUBLIC MEETING ON JANUARY 22, 2020, DATED FEBRUARY 7, 2020.

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ADAMS Accession No.: ML20044D298

* = via email

OFFICE	NRR/DRO/IRSB/PM	NRR/DRO/IRSB	NRR/DRO/IRAB/BC
NAME	TGovan	BCurran* (with edits)	AMasters*
DATE	02/07/2020	02/10/2020	02/13/2020

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LIST OF ATTENDEES

REACTOR OVERSIGHT PROCESS MONTHLY PUBLIC MEETING

January 22, 2020, 9:00 AM to 4:30 PM

Name	Organization	Name	Organization
Danny McGinnis	Dominion Energy	Mike McCoppin	NRC
Faramarz Pournia	Southern Nuclear	Jeff Mitman	NRC
Jim Slider	NEI	David Aird	NRC
David Mannai	PSEG Nuclear LLC	Daniel Merzke	NRC
Larry Parker	STARS Alliance	Chris Miller	NRC
Edwin Lyman	Union of Concerned Scientists	Eric Schrader	NRC
Marty Murphy	Xcel Energy	Russell Gibbs	NRC
Shannon Rafferty-Czincila	Exelon	Matt Young	NRC
Stephanie Pyle	Entergy	Tekia Govan	NRC
David Young	NEI	Don Helton	NRC
David Gudger	Exelon	Ross Telson	NRC
Tony Zimmerman	Duke Energy	Antonio Zoulis	NRC
Chris Earls	NEI	Phil McKenna	NRC
Carlos Sisco	Winston Strawn LLC	Anthony Masters	NRC
Brandon Schultz	Exelon	Mike Montecalvo	NRC
Brandon Overton	NuScale Power	Robert Krsek	NRC
Bradley Williams	Senate Environment and Public Works Committee	Tom Hipschman	NRC
George Gellrich	Exelon	Russ Felts	NRC
Justin Wearne	NEI	Jeff Bream	NRC
Steven Leighty	Southern Nuclear	Beth Sienel	NRC
Jean Fleming	PSEG	Bridget Curran	NRC
Ken Heffner	Certrec	Derek Widmayer	NRC
Robin Ritzman	Curtiss Wright	Eric Miller	NRC
Leonard Sueper	Xcel Energy	Eric Thomas	NRC
Lance Sterling	STP	Oliver Lareynic	NRC
Doug True	NEI	Bob Kahler	NRC
Scott Diven	Exelon	Mohammed Shuaibi	NRC
Diane Robinson	Curtiss Wright	Michelle Kichline	NRC

A. Masters

Name	Organization	Name	Organization
Mirela Gavrilas	NRC	Matt Leech	NRC
Jeremy Tapp	NRC	Mitt Hamberstone	NRC
Ami Agrawal	NRC	Charles Murray	NRC
Mike Franovich	NRC		
Andrea Johnson	NRC	David Garmon-Candelaria	NRC
Alex Garmoe	NRC	Manuel Crespo	NRC
Drew Richards	STP	Jennifer England	NRC
James Vaughn	Exelon	Jimi Yerokun	NRC
Jason Zorn	Exelon	Joylynn Quinones	NRC
Jerry Hiatt	NEI	Michael Smith	NRC
Kelli Roberts	Southern Nuclear	Laura Kozak	NRC
Ron Reynolds	Exelon	Michael Hay	NRC
Russell Thompson	TVA	Paul Rades	NRC
Steve Catron	NextEra	Ramon Azua	NRC
Mary Presley	EPRI	Ray Kellar	NRC
		Stephanie Marrow	NRC