



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

December 22, 2022

**MEMORANDUM TO:** Lauren Nist, Chief  
Operator Licensing and Human Factors Branch  
Division of Reactor Oversight  
Office of Nuclear Reactor Regulation

**FROM:** Jeff Correll, Reactor Engineer (Examiner)  
Operator Licensing and Human Factors Branch  
Division of Reactor Oversight  
Office of Nuclear Reactor Regulation

**SUBJECT:** SUMMARY OF DECEMBER 2, 2022, PUBLIC MEETING WITH  
REPRESENTATIVES OF INDUSTRY

A handwritten signature in black ink, appearing to read "Jeff Correll".

Signed by Correll, Jeffrey  
on 12/22/22

On December 2, 2022, the U.S. Nuclear Regulatory Commission (NRC) staff held a public meeting with representatives of the Nuclear Energy Institute's Licensed Operator Focus Group; Entergy; NextEra Energy, Inc.; and other representatives of the industry.

The purpose of the meeting was for the NRC staff and industry representatives to discuss the administration of the NRC's Operator Licensing Program. Specifically, the NRC staff and industry representatives discussed several topics of interest, including examination scheduling, Revision 12 of NUREG-1021, ongoing rulemaking efforts, and plans for future revisions to NUREG-1021.

**Enclosures:**

1. List of Attendees
2. Agenda
3. Discussion Summary

**CONTACT:** Jeff Correll, NRR/DRO/IOLB  
(301) 415-2414

SUBJECT: SUMMARY OF DECEMBER 2, 2022, PUBLIC MEETING WITH  
 REPRESENTATIVES OF INDUSTRY DATED DECEMBER 22, 2022

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OFFICE	NRR/DRO/IOLB	NRR/DRO/IOLB:C
NAME	JCorrell	LNist
DATE	12/20/2022	12/22/2022

LIST OF ATTENDEES – DECEMBER 2, 2022, PUBLIC MEETING WITH REPRESENTATIVES OF INDUSTRY	
Name	Organization
Chris Miller	NRC*
Lauren Nist	NRC*
Jesse Seymour	NRC*
Brian Tindell	NRC*
Jeff Correll	NRC*
Theresa Buchanan	NRC
Maurin Scheetz	NRC
Skylar Cushing	NRC
Bernard Litkett	NRC
Tom Stephen	NRC
April Nguyen	NRC
Heather Gepford	NRC
Bob Orlikowski	NRC
Jim Nance	NRC

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Ikeda Betts	NRC
Bruce Bartlett	NRC
Jordon Alston	NRC
Christopher Tyree	NRC
Matt Emrich	NRC
Laura Smith	NRC
Ricky Vivanco	NRC
Michele DeSouza	NRC
Joyce Tomlinson	Institute of Nuclear Power Operations (INPO)
Tim Riti	Nuclear Energy Institute*
Kostas Dovas	Constellation Energy*
Tom Dean	Constellation Energy*
Fred Bruns	Constellation*
LIST OF ATTENDEES – DECEMBER 2, 2022, PUBLIC MEETING WITH REPRESENTATIVES OF INDUSTRY	
Name	Organization
Steve Dennis	Public Service Enterprise Group*
Craig Prost	Energy Northwest*
Mike Peterson	Xcel Energy*
Russell Joplin	Tennessee Valley Authority
Bobby Simpson	South Texas Project
Mike Coffman	Entergy
William Moore	Dominion Energy
James Tsardakas	Constellation
Richard Stadlander	Nuclear Energy Institute
Jana Bergman	Curtiss-Wright
Eric Salzwedel	NextEra Energy
Enrique Melendez	Consejo de Seguridad Nuclear
Joey Trudeau	South Texas Project
Angelo Leone	Dominion Energy

John Tripoli	Talen Energy
Alexander Stanley	Dominion Energy
Jeffrey Temple	Dominion Energy
Steven Nevelos	Public Service Enterprise Group
Benjamin Geiss	Constellation
Phil Norgaard	Energy Harbor
Heather Eutsler	Arizona Public Service
Chris Burkhart	Unknown
Leigh Lloveras	Breakthrough Institute
Phillip Prater	Southern Co.
Shannon Shea	South Texas Project
Abdul Kadir	Pacific Gas & Electric

Note: An asterisk (\*) indicates attendance was in person. All other attendees participated via video teleconference.

AGENDA FOR THE U.S. NUCLEAR REGULATORY COMMISSION  
PUBLIC MEETING WITH INDUSTRY OPERATOR LICENSING REPRESENTATIVES  
Friday, December 02, 2022  
09:30 a.m. to 11:00 a.m. Eastern Standard Time

Hybrid meeting

<u>TOPIC</u>	<u>PRESENTER</u>
Opening Remarks	NRC/Industry
Examination Scheduling	NRC
NUREG-1021 Rev.12	NRC
Miscellaneous Topics	NRC
Ongoing Rulemaking	NRC
Plans for future revisions to NUREG-1021	NRC
Industry Topics	Industry
Public Comments	Public
Closing Remarks	NRC/Industry

## DISCUSSION SUMMARY

This public meeting between Nuclear Regulatory Commission (NRC) staff and representatives of the industry was to discuss the operator licensing (OL) program administered by the NRC staff. Specifically, the NRC staff discussed topics of interest, including examination scheduling, Revision 12 of NUREG-1021, ongoing rulemaking, and plans for future revisions to NUREG-1021.

No regulatory decisions were made during the meeting.

The NRC staff opened the meeting by recognizing the important role that licensed operators have in nuclear safety. The NRC staff presented the ongoing examination scheduling process, including the current success of the process, while emphasizing that the NRC staff has a small margin for accommodating emergent changes to the schedule. The industry representatives highlighted their need to recruit and retain the best talent in the control room and emphasized the importance of open dialogue on examination scheduling. The industry representatives also referenced scheduling concerns with relation to site staffing fluctuations and questioned if there should be more dynamic methods to schedule examinations. The NRC staff offered that open communication between the regional examiners and the facilities is the best avenue for adjusting examination schedules. The industry representatives encouraged the staff to continue to look for efficiencies in examination scheduling and utilizing examiners across the regions to support licensing exams.

The industry representatives also stated that it is important to have an accurate baseline examination schedule and asked if the current scheduling process, which uses the annual examination scheduling regulatory issue summary, was the best process for developing the schedule. They asked if there was another streamlined approach that could provide the same accurate information. The industry representatives also were interested if the NRC staff felt that they were maintaining an adequate margin for scheduling, given the increased workforce challenges in the industry. The NRC staff commented that the budgeting process for future fiscal years is based on the national examination scheduling process and that the staff is being proactive in staffing the NRC vacancies that have occurred in the last year. The staff also commented that it takes about 18 months to fully qualify an examiner, so maintaining as accurate a schedule as possible helps in workforce planning to know the number of examiners the agency will need.

The NRC staff presented the status of the NUREG-1021, Rev.12 effectiveness review. Included in the discussion of the ongoing review were examples of feedback items, or frequently asked questions, provided by the NRC staff as guidance documents available for public reference on the NRC public website. The feedback items were added in the Operator Licensing Program Feedback document linked at <https://www.nrc.gov/reactors/operator-licensing/prog-feedback.html>. The industry representatives commented that they will also be monitoring the effectiveness of NUREG-1021, Rev.12. The industry representatives also stated that they appreciated the efforts of the NRC staff in monitoring and responding to comments and questions about Rev.12 implementation. Industry representatives asked whether an interim effectiveness report was going to be presented by the NRC; the staff responded that an interim effectiveness report was expected in mid-2023. The industry representatives also stated that changes to the written examination process in Rev. 12 to NUREG-1021 would continue to provide for its selection of high-quality licensed operator applicants, and that the industry will continue to monitor for effectiveness of the training programs and the knowledge of the licensed operators. The industry representatives stated that they will make ongoing changes to the

## Public Meeting with Industry Operator Licensing Representatives

training programs in accordance with the systems approach to training process, if needed. The industry representatives stated that they do not expect examination failure rates to rise, that they are monitoring operator performance, and that they are willing to share information as they gather it.

The NRC staff presented the possible use of its Mission Analytics Portal-External, or MAP-X, for NRC Form 396 and 398 submissions and was interested in hearing feedback from the industry. The industry representatives stated that while they appreciate the advances in electronic form usage, because industry staff who use or sign the forms would need to acquire and maintain authenticated access to MAP-X, there could be additional burden upon those individuals, which would result in lack of use. The industry representatives asked whether there was an opportunity to change signature requirements on the forms to 'facility representative', such that only one individual would require access. The NRC staff acknowledged the need for efficiency in form submittals, and that there needs to be benefit for both the staff and the industry for moving to web-based form submittals through MAP-X.

The NRC staff presented ongoing rulemaking actions related to operator licensing, including the status of the proposed Part 53 rulemaking and new draft interim staff guidance on operator licensing examination programs and facility training programs, which will provide guidance to staff to review facility program materials submitted for Commission approval. The industry representatives asked if the draft guidance is available; the NRC staff provided the link for the operator licensing examination program guidance (<https://www.regulations.gov/document/NRC-2019-0062-0262>), but the facility training program guidance has not yet been released for public comment. The industry representatives asked if the new facility training program guidance was generated by benchmarking of the current systems approach to training-based programs in use for operating reactors. The staff responded that, because the material is proprietary, INPO processes and procedures were not referenced in generating the guidance. However, the staff did benchmark other government agencies, including international regulatory agencies like Canada and their application of the systems approach to training. The interim staff guidance should describe a systems approach to training similar to those currently being used at operating reactors. In addition, the industry and public will have an opportunity to provide comments on the guidance along with the proposed rule language when it is issued for public comment.

The NRC staff discussed the ongoing Alignment of Licensing Processes and Lessons Learned from New Reactor Licensing rulemaking that it expects will provide increased efficiencies in the operator licensing process for plants that are under construction (i.e., the "cold licensing" process). The industry representatives asked if there would be any opportunities to allow licensing limited senior reactor operators at similar sites, and if there are any opportunities for improvements in the rulemaking for the current fleet of operating reactors. The NRC staff responded that this topic was not a focus of the rulemaking, and the staff encouraged the industry to provide their comments related to the rulemaking during the public comment period for the proposed rule.

The NRC staff presented plans on future revisions to NUREG-1021. Potential inclusions into a future revision of NUREG-1021 will be associated with the Alignment of Licensing Processes and Lessons Learned rulemaking and after the Rev. 12 effectiveness review, as necessary. Additionally, modifications are being considered to revise or supplement NUREG-1021 for inclusion of NuScale's written exam and operating test sections, when applicable.

## **Public Meeting with Industry Operator Licensing Representatives**

An industry representative commented that there was a change in the NUREG-1021 language from Rev.11 to Rev.12 that now states that the NRC will not accept examination answer key changes following examination administration for questions where it was determined after administration that a reference would need to have been provided. Specifically, Rev. 11 said the NRC staff was “less likely” to accept the change, compared to Rev. 12, which states that the NRC staff “will not” accept the answer key change. The individual felt that the lack of a reference may be a valid reason to challenge a question and asked the staff to reconsider the issue. The NRC staff noted the observation and provided the perspective that there needs to be clarity within the post-examination review process for evaluating potential answer key revisions. Rev. 12 provides more clarity compared to Rev. 11 on that matter.

There were no public comments.