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

June 1, 2022

MEMORANDUM TO: Christopher G. Miller, Director
Division of Reactor Oversight
Office of Nuclear Reactor Regulation

FROM: Lauren A. Nist, Chief
Operator Licensing and Human Factors Branch
Division of Reactor Oversight
Office of Nuclear Reactor Regulation

Signed by Nist, Lauren
on 06/01/22

SUBJECT: SUMMARY OF THE 2022 ANNUAL UNITED STATES NUCLEAR REGULATORY COMMISSION/INSTITUTE OF NUCLEAR POWER OPERATIONS COORDINATION MEETING ON TRAINING-RELATED ISSUES

On May 5, 2022, the U. S. Nuclear Regulatory Commission (NRC) conducted a public coordination meeting on training-related issues with the Institute of Nuclear Power Operations (INPO) via Microsoft Teams and a teleconference call. This meeting was conducted in accordance with the NRC/INPO Memorandum of Agreement dated December 20, 2020 (ML20125A374). The purpose of the meeting was to discuss items of mutual interest concerning INPO's training program accreditation process and other initiatives. Participants included representatives of the NRC's Office of Nuclear Reactor Regulation (NRR); Region III Operations Branch; INPO's Workforce Training, Education and Proficiency Division; and members of the public.

Introductions and Opening Remarks

The NRC provided opening remarks. INPO provided opening remarks, including a discussion of organizational changes since the 2021 Coordination Meeting. The NRC discussed efforts to improve the efficiency of licensed operator examinations. INPO discussed its strategy to improve the accreditation process. During opening remarks, the NRC and INPO both discussed the importance of training and qualifications, and the need to have effective communications between the two organizations.

Enclosures:
1. Meeting Attendee List
2. Meeting Agenda

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COVID-19 Response

NRC

The NRC staff have continued to administer NRC initial operator licensing examinations and perform biennial requalification program inspections, while implementing measures to maximize NRC and plant personnel safety during these activities.

Shortly after the COVID-19 public health emergency began in March 2020, the NRC developed an expedited review process for COVID-19 related requests for exemption from certain reactor operator licensing requirements related to requalification program scheduling and biennial medical examinations. No licensees requested COVID-19-related exemptions from Part 55 requirements over the last year.

The NRC staff also continue to identify challenges, lessons learned, and best practices during the pandemic. A follow-on effort is underway, which builds on the initial internal review that was conducted six months into the pandemic. The results of the initial review were issued in a report titled, "Initial Report on Challenges Lessons Learned and Best Practices from the 2020 COVID-19 Public Health Emergency Focus on Regulatory Oversight of Operating Nuclear Reactors," which was issued in January of 2021 (ADAMS Accession No. ML20308A389). Because the initial lessons learned effort was primarily based on the results of an internal staff survey, the goal of the follow-on effort is to provide broader stakeholder interactions with staff, industry, and members of the public.

INPO

INPO has continued all accreditation activities, seminars, and courses as planned, though some were conducted virtually due to the pandemic. All National Academy for Nuclear Training (NANT) activities have been restored to the "post pandemic norm" with new virtual activities added. The virtual activities have allowed more frequent engagement with facility staff, improved continuous monitoring of training, and have reached more leadership staff at the sites.

INPO stated that utility members continue to meet the Center for Disease Control prevention guidelines during the COVID-19 pandemic. Local conditions at each facility are being monitored for COVID-19 impacts while safely maintaining licensed operator proficiency and continuing training. The use of distance learning, limited capacity at facilities, and the use of personal protective equipment are some of the methods that the facility licensees are employing to mitigate the risks of COVID-19 in the workforce.

Accreditation Update

INPO reported that 15 accreditation team visits (ATVs) and 12 remote National Nuclear Accreditation Boards (NNABs) for the operations and technical training programs were conducted between May 2021 and May 2022. INPO has an additional 14 ATVs and 12 remote NNABs scheduled in 2022 for the operations and technical training programs. During 2021, NRC observers attended most of the remote NNABs, and an NRC observer attended the operations ATV at Sequoyah Nuclear Plant in August of 2021. An NRC observer will observe the Quad Cities ATV in September 2022. INPO continues to get meaningful feedback from the NRC observers.

INPO continues to work with a small modular reactor supplier to consider how to accredit its training programs. The key decision point is whether the license holder or the contractor will be a member of the NANT. INPO is holding quarterly phone conferences to consider which academy documents might have to change because of the technological differences.

Regulatory Issues

The NRC discussed three topics: recent changes to NUREG-1021, "Operator Licensing Examination Standards for Power Reactors" (ML21256A276), efforts to develop NRC staff guidance documents for Commission review of training programs at advanced reactors, and training and qualifications for plant personnel at advanced reactors.

Revision 12 of NUREG-1021 became effective on March 17, 2022. Revision 12 consolidated and streamlined the examiner standards for ease of use and maintenance. The revision also clarifies instructions for the identification and grading of performance deficiencies on the operating test, revises instructions for the selection of critical tasks and the assessment of critical and significant performance deficiencies and implements changes to support the testing of fundamentals topics on the site-specific initial licensing examination, in the place of a separate generic fundamentals examination, or GFE.

The NRC staff has been engaged in efforts to establish a risk-Informed, technology-inclusive regulatory framework for advanced reactors for optional use by applicants for new commercial advanced nuclear reactor licenses. This new framework under development is 10 CFR part 53 (Docket ID NRC-2019-0062). The NRC staff will provide the 10 CFR part 53 proposed rule package to the Commission by February 2023 and provide the final rule package, including key guidance, to the Commission by December 2024. The guidance includes criteria for the staff to review plans for training programs that may be submitted for Commission approval. This guidance is based largely on existing guidance in NUREG-1220, "Training Review Criteria and Procedures," and it will continue to focus on evaluating whether the training programs to be implemented follow a systems approach to training process.

Additionally, the NRC staff anticipates that members of industry who work with INPO to develop accredited training programs for plant personnel at advanced reactor facilities will develop eligibility criteria, including education and experience requirements, that are different from those currently in use for large light-water reactors. The NRC staff are interested in continued engagement with INPO as INPO develops new accreditation standards for small modular and advanced reactors. The staff are particularly interested in understanding the criteria that may be used to determine adequate eligibility requirements for licensed personnel, and whether any changes are envisioned that may be different from existing Commission policies, so that the staff can engage the Commission as appropriate.

Industry Learning Activities

INPO gave an update on industry learning activities. In 2021, INPO developed instructor training using virtual platforms. The virtual platforms have been effective. Seminars and courses have continued through the pandemic. The new stand-up models addressed gaps found in leadership assessments. In 2021, some activities were canceled or delayed, such as the Nuclear Operational Risk Management course at the Massachusetts Institute of Technology (NRC supports this course with NRC staff attendance). INPO will resume these courses this year. The senior management course benefits from NRC participation.

INPO discussed standup courses that included leadership development courses. The discussion included common learning courses and e-learning for the National Academy for Nuclear Training e-Learning (NANTel). Courses support leaders at all levels of the facilities and incorporate principles for the first level supervisors to the board of directors. Twenty-three new site-specific courses have been added this year and still incorporate the “line of sight to core” concepts. INPO is working with industry for future seminars.

INPO discussed development of training using NANTel. NANTel is a national web-based training system. NANTeL started in 2006 and has seen significant increases in usage over the last year. The use of e-Learning has increased with over 70,000 utility workers participating and approximately 833,000 certifications completed using industry, INPO, and the Electric Power Research Institute courses. This allows workers at multiple locations to complete interactive, on-line training for site access, fitness for duty, and radiation protection. INPO stated that this type of training can support the needs of industry into the future.

Other Items of Mutual Interest Related to Training NRC/INPO

The NRC discussed the annual report on the effectiveness of training in the nuclear power industry. The Memorandum of Agreement between INPO and the NRC says the NRC will assess the effectiveness of the industry’s training and qualification program improvements as follows: (1) conducting initial operator licensing examinations, (2) audit or monitor operator requalification examinations, (3) monitor plant and industry trends and events involving plant personnel errors, and (4) conduct inspections, as needed – these would be for-cause training inspections conducted in accordance with NRC Inspection Procedure 41500, “Training and Qualification Effectiveness.”

Up until 2018, the NRC developed an annual report to discuss these four topic areas and indications of continued training program effectiveness. Although the NRC has continued to perform the activities associated with assessing effectiveness of the industry’s training and qualification programs, a written report summarizing these activities has not been issued since 2017. The decision was made in part due to other sources of information and processes being available for the staff to make its assessment. However, the staff had received feedback that INPO was interested in receiving the report. NRC and INPO discussed the information that INPO would find valuable in this report, which includes information about issues related to training and qualification that the NRC identifies during inspections and a summary of the NRC observers’ comments on NNAB boards. The NRC staff discussed that a report covering 2018 – 2021 was in development.

INPO provided an update on several National Academy for Nuclear Training document revisions. INPO discussed meetings, lessons learned, and workshops related to nuclear training that have been conducted with training managers, now held in a virtual format.

INPO also discussed continuous monitoring, timely engagement, and dedicated points of contact with licensees when training issues occur. Plant evaluations, peer reviews, and training observations are used to help advance training to higher levels.

Additionally, INPO discussed its strategic focus area on teaching and learning strategy. INPO is in the second year of a 10-year program to improve training and performance. The NANT’s focus is on improving teaching. Focus areas include nuclear leaders being passionate learners, continuous learning through advanced teaching methods, and applying insights on adult learning. INPO plans to issue a new NANT document in this area.

Closing Remarks

In closing, the NRC and INPO agreed that this meeting was productive and future meetings would continue. The NRC staff stated it is looking forward to continued engagement on accreditation activities and continued dialogue on the major activities the NRC and INPO are working on for advanced reactors. No final positions were taken during the meeting.

SUBJECT: SUMMARY OF THE 2022 ANNUAL UNITED STATES NUCLEAR REGULATORY COMMISSION/INSTITUTE OF NUCLEAR POWER OPERATIONS COORDINATION MEETING ON TRAINING-RELATED ISSUES DATED: JUNE 1, 2022

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DATE	5/31/2022	6/1/2022

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NRC-INPO Coordination Meeting Webinar and Teleconference, May 5, 2022

ATTENDEES

Nuclear Regulatory Commission

Christopher Miller, Director, Division of Reactor Oversight, NRR
Lauren Nist, Chief, Operator Licensing and Human Factors Branch, NRR/DRO
Bernard Litkett, Operator Licensing and Human Factors Branch, NRR/DRO
Brian Tindell, Operator Licensing and Human Factors Branch, NRR/DRO
Jeff Correll, Operator Licensing and Human Factors Branch, NRR/DRO
Jessie Seymour, Operator Licensing and Human Factors Branch, NRR/DRO
Maurin Scheetz, Operator Licensing and Human Factors Branch, NRR/DRO
Skylar Cushing, Operator Licensing and Human Factors Branch, NRR/DRO
Theresa Buchanan, Operator Licensing and Human Factors Branch, NRR/DRO
Patricia Pelke, Chief, Operations Branch, RIII/ DORS
Robert Krsek, Technical Assistant for Reactors, Office of Commissioner Baran
Lynnea Wilkins, Congressional Affairs Officer

INPO Participants

Robert Gambone, Executive Director, National Academy for Nuclear Training; and Senior Vice President, Teaching and Learning
Lois Jordan, Director, Industry Training and Accreditation
Kenny Christian, Director, Industry Learning
Greg Ruppert, Manager, Teaching and Learning
Joyce Tomlinson, Senior Evaluator, Training

Members of the Public

Mr. Andrew Zach, Senate Environment and Public Works Committee
Mr. John Conly, Certrec Corporation
Julie Hartig, Beaver Valley Power Station Supervisor, Regulatory Compliance
Rani Franovich, Senior Policy Adviser, Nuclear Energy Innovation
Deann Raleigh, Curtiss Wright

ANNUAL PUBLIC MEETING AGENDA

May 5, 2022, 02:00 pm to 04:00 pm

Teams meeting and teleconference call

Time	*Topic*	***Speaker***
2:00 pm	Introductions and opening remarks	NRC/INPO
2:10 pm	COVID-19 responses taken by NRC and INPO	NRC/INPO
2:25 pm	Accreditation Update	INPO

- Initial accreditation
- Small modular reactor accreditation
- Academy documents revisions

2:30 pm	Regulatory Issues	NRC

- Revision 12 of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors"
- Key guidance documents for advanced reactors and Commission review of training programs
- Accreditation for advanced reactors

2:50 pm	Industry Learning Activities	INPO

- Stand-up courses
- Blended courses
- E-learning (NANTeL)

3:10 pm	Other Items of Mutual Interest Related to Training	NRC/INPO

- Discussion on the NRC's Annual Report on Training Effectiveness — NRC
- Meetings and workshops conducted — INPO
- Continuous Monitoring and Training focus areas — INPO
- Teaching and Learning Strategy — INPO

3:30 pm	Public Input	NRC
3:50 pm	Closing Remarks	NRC/INPO
4:00 pm	Adjourn	NRC/INPO