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NRC Operator Licensing Public Meeting

December 2, 2022

Safety Message

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NRC Headquarters Complex

Emergency Evacuation Routes & Assembly Locations

Zone 2				Zone 1				Zone 3
ADM OCIO	NMSS NIH	ACRS NSIR OCFO	ASLBP OCHCO RES	NRR	COMM OI OCA OPA OE SBCR OCAA	OEDO OIG OIP	OGC SECY	NRC and NIH Staff & Contractors follow FDA protocol

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Opening Remarks

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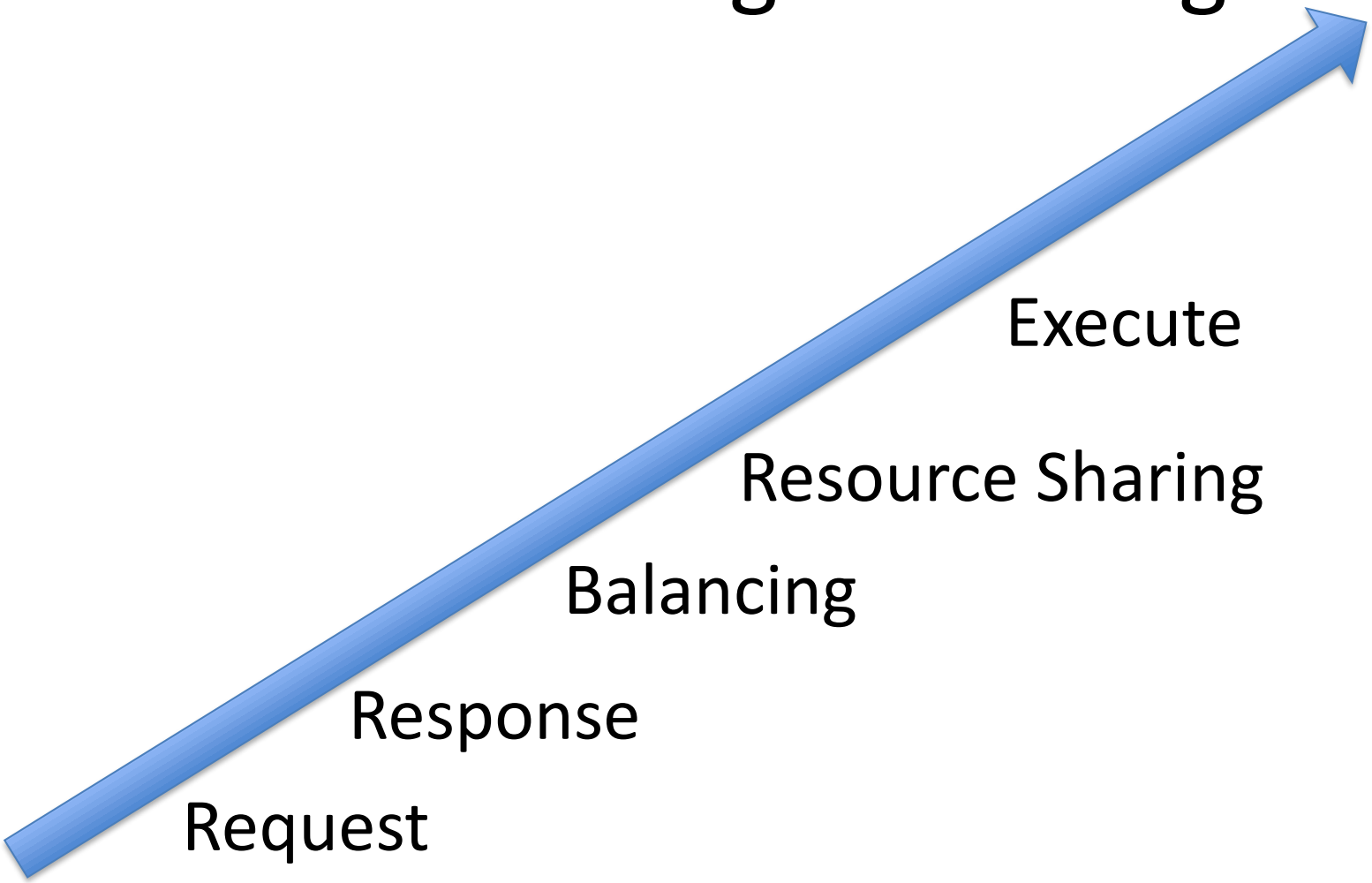
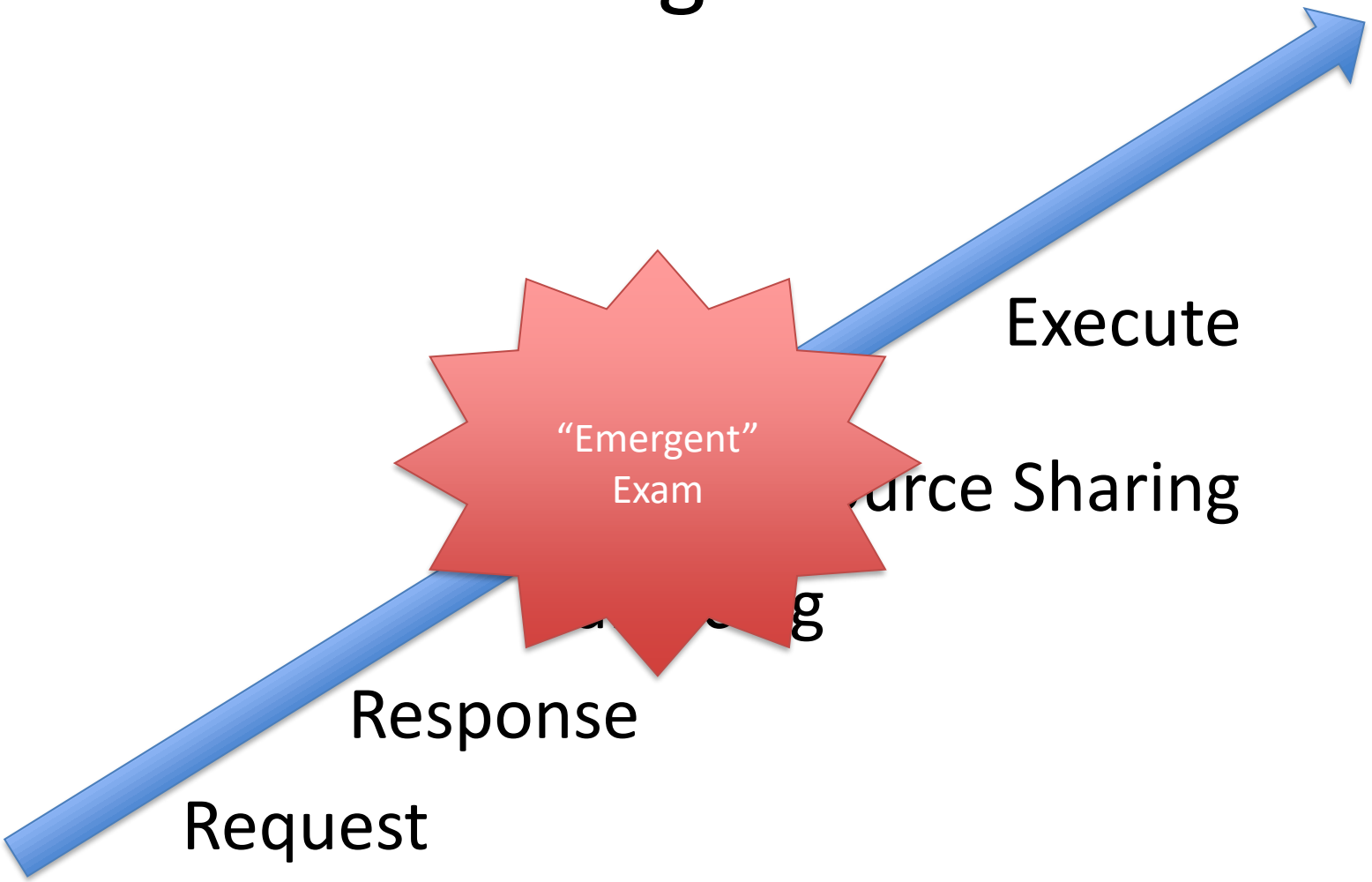
Operator Licensing Examination Scheduling

Brian Tindell
brian.tindell@nrc.gov

Exam scheduling is working.



Examiner margins are small.



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FAQ | AGREEMENT STATES | FACILITY LOCATOR | WHAT'S NEW | SITE HELP | INDEX A-Z | CONTACT US | EMAIL UPDATES

REPORT A SAFETY CONCERN

SEARCH

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Power Reactors | Operating Reactors | Operator Licensing

Research & Test Reactors | New Reactors | Research Activities

Nuclear Reactor Quick Links

Spotlight

- Job Openings (EXIT)
- Environmental Justice
- Pilgrim Water Releases
- International Strategy 2021-2025
- Tribal Liaison Program (EXIT)
- Mission Analytics Portal External (EXIT)
- Transformation at the NRC - Updated
- OIG Hotline (EXIT)
- Rulemaking Activity

Latest News

- West Virginia Hospital to Take Corrective Actions Under Settlement Agreement with NRC
- NRC to Conduct Special Inspection at University of Texas at Austin Research Reactor
- NRC Publishes Annual Report to Congress on Nuclear Security Inspections
- NRC Announces Headquarters and Regional Leadership Appointments

Public Meetings

Next Commission Webcast
[December 6, 2022 at 10:00 a.m. (EST)]

NOVEMBER 2022 today

SUN	MON	TUE	WED	THU	FRI	SAT
		01	02	03	04	05
06	07	08	09	10	11	12

https://www.nrc.gov/reactors/operator-licensing.html

10:20 AM
11/15/2022

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Operator Licensing | NRC.gov

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Processing Facilities

Operating Reactors

New Reactors

Spotlight

Choose a Section

- What We Regulate
- How We Regulate

What We Regulate

The NRC licenses all individuals who either operate or supervise the operation of the controls of a commercially owned nuclear power reactor or a test/research (i.e., non-power) reactor in the United States. Although the regulations in this area generally apply to both power and research and test reactors, this site focuses primarily on the operator licensing activities at power reactor facilities. For more information on research and test reactors operator licensing, please refer to Operator Licensing for Research and Test Reactors.

As of July 2019, there are approximately 3,900 active NRC-licensed power reactor operators in the United States.

TOP

How We Regulate

NRC regulates the licensing of reactor operators and senior operators through a combination of regulatory requirements: initial licensing, including written examinations and operating tests; oversight of requalification training and examination programs, including enforcement. For more detail, see:

- Regulations, Guidance, and Communications
- Licensing Process
- Examination Schedule and Results
- Oversight Program
- Public Involvement
- Related Documents and Other Resour
- Generic Communications Related to Op
- History of Rulemaking Activities for Oper r Licensi
- Operator Licensing Program Feedback
- Contact Us About Operator Licensing

TOP

Page Last Reviewed/Updated Monday, September 26, 2022

Certificate

How to Submit Operator Licensing Documents via EIE

Past Generic Fundamentals Examinations and Banks
BWR
PWR

Operator Licensing Examination and Biennial Requalification Inspection schedule

https://www.nrc.gov/reactors/operator-licensing/examination.html

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Examination Schedule And Resul

nrc.gov/reactors/operator-licensing/examination.html

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Navigation

- Regulations, Guidance, and Communications
- Licensing Process for Operators
- Examination Schedule and Results
- Oversight Program
- Public Involvement in Operator Licensing
- Related Documents and Other Resources
- History of Rulemaking Activities for Operator Licensing
- Program Feedback
- Contact Us

Examination Schedule and Results

On this page:

- Operator Licensing Examination Performance Trends
- Operator Licensing Examination and Biennial Requalification Inspection schedule

The operator licensing examination schedule and the results of the initial operator licensing ...und below.

The operator licensing examinations are administered in each of the four (4) NRC regions, at ... The location and frequency of the operator licensing examination are determined by the facility licensee's n...

Title 10, Part 55, of the Code of Federal Regulations (10 CFR Part 55) requires that applicants for reactor operat... reactor operator (SRO) licenses must pass both a written examination and an operating test (both initially and for requal... SRO applicant must score an 80% or better on the overall written examination (100 questions) and a 70% or better on the SRO ... portion of the written examination (25 questions) and pass the operating test. The RO applicants must score an 80% or better on the written examination (75 questions) and pass the operating test.

Operator Licensing Examination Performance Trends

The following 15 graphs illustrate the results of the initial operator licensing examinations (applicants taking retake exams are excluded). The graphs provide historical data of the performance of reactor operator (RO) and senior reactor operator (SRO) license applicants in both the written examination and the operating test. The graphs are presented based on the fiscal year (FY) in which the examination was administered for each of the last 10 FYs.

As can be seen from the first 10 graphs listed, in general, the performance of the RO and SRO license applicants has slightly increased over the past 10 years. This is caused by a number of factors which may include, but are not limited to, changes to standards and the facility licensees' initiative to have more selective and stringent training programs. Yet, the performance of the RO and SRO applicants over the past 10 years still displays several relatively consistent characteristics. For RO license applicants, the overall pass-rate is approximately 84% or greater, with the averages trending from around 94% to 98%. For SRO license applicants, the overall pass-rate is approximately 85% or greater, with the averages trending from around 93% to 96%. The overall written examination grades are

https://www.nrc.gov/reactors/operator-licensing/examination.html#schedules

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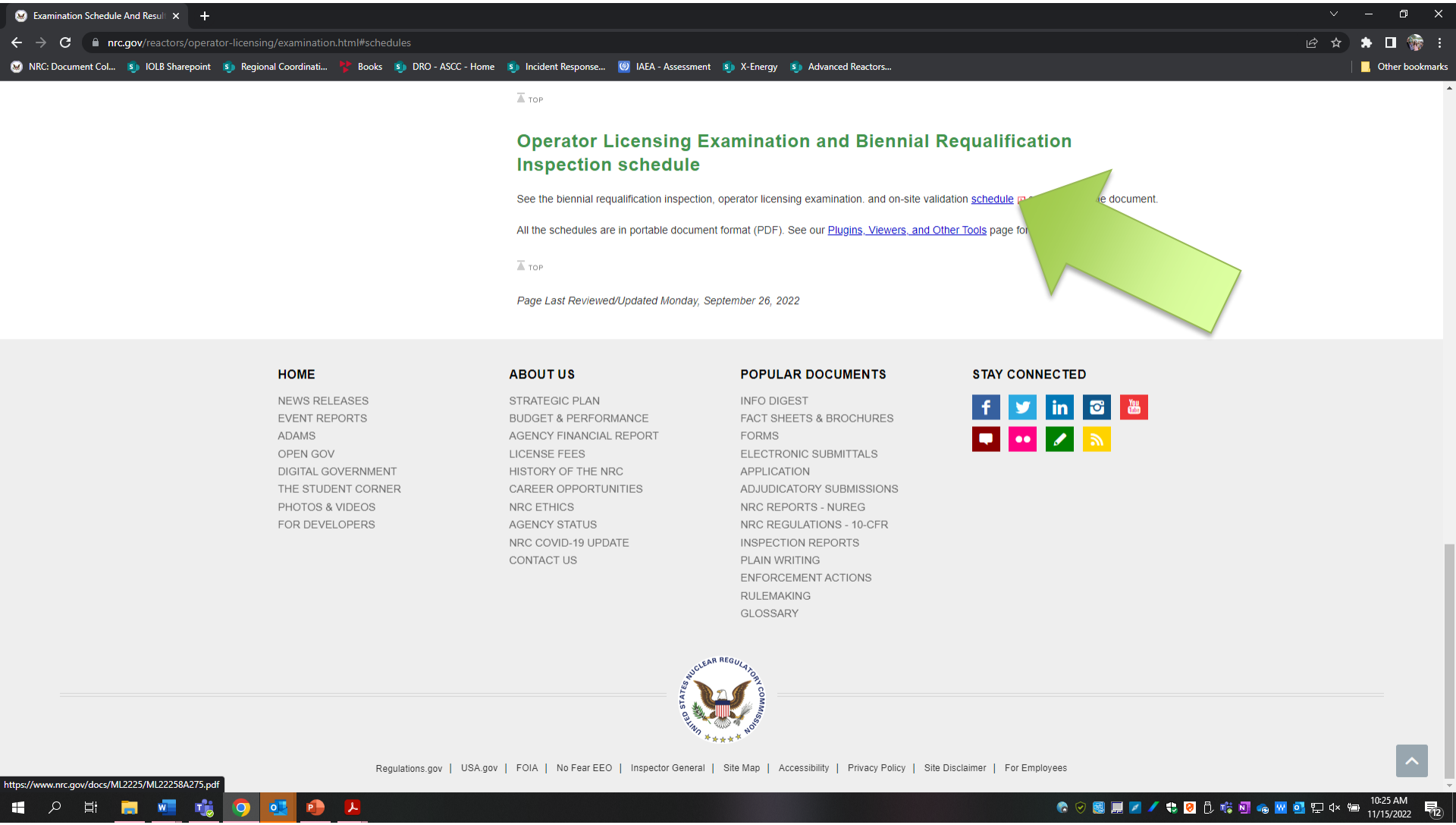
11/15/2022



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File Edit View E-Sign Window Help

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2024 National Examination Schedule - 3rd QTR

BRQ EXAD NEXAD OV NOV

	June	July				August				September				
	06/30/2024	07/07/2024	07/14/2024	07/21/2024	07/28/2024	08/04/2024	08/11/2024	08/18/2024	08/25/2024	09/01/2024	09/08/2024	09/15/2024	09/22/2024	09/29/2024
R1		GINN OV 0/0/0 2 exmrs (R1)		GINN EXAD 4/4/4 2 exmrs (R1)				MILL OV 0/0/0 2 exmrs (R1)	BV OV 0/0/0 4 exmrs (R1) Lally (CE)			MILL EXAD 4/4/4 2 exmrs (R1)		
R2						WB OV 0/0/0 2 exmrs (R2)					BRU BRQ 2 exmrs (R2)		WB BRQ 2 exmrs (R2)	
											WB EXAD 6/6/3 4 exmrs (R2)			
											ROB EXAD 6/2/4 3 exmrs (R2)			
		FAR BRQ 2 exmrs (R2)			CAT BRQ 2 exmrs (R2)	ROB OV 0/0/0 3 exmrs (R2)		CAT OV 0/0/0 3 exmrs (R2)			BF BRQ 2 exmrs (R2)		CAT EXAD 4/4/4 3 exmrs (R2)	
R3								PRAI EXAD 6/10/2 2 exmrs (R3) 1 exmr (R4)					LASA EXAD 5/7/0 3 exmrs (R3)	
		PRAI OV 0/0/0 2 exmrs (R3) 1 exmr (R4)		COOK EXAD 8/7/3 4 exmrs (R3) 1 exmr (R4)	COOK EXAD 8/7/3 4 exmrs (R3) 1 exmr (R4)		PRAI EXAD 6/10/2 2 exmrs (R3) 1 exmr (R4)	LASA OV 0/0/0 3 exmrs (R3)			MONT OV 0/0/0 3 exmrs (R3)	POIN BRQ 2 exmrs (R3)	CLIN OV 0/0/0 2 exmrs (R3)	LASA EXAD 5/7/0 3 exmrs (R3)
R4		STP OV 0/0/0 1 exmr (R4)	ANO BRQ 1 exmr (R4)				RBS OV 0/0/0 1 exmr (R4)	STP EXAD 8/13/0 1 exmr (R4)			RBS BRQ 1 exmr (R4)	PALO BRQ 1 exmr (R4)	CP BRQ 1 exmr (R4)	RBS EXAD 6/3/3 1 exmr (R4)

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Questions & Comments

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NUREG-1021 Revision 12

Maurin Scheetz
maurin.scheetz@nrc.gov

We are monitoring the implementation of NUREG-1021 Rev 12

- 21 initial licensing exams have been given under Revision 12
- Effectiveness Review underway to track major changes:
  - Performance on generic fundamental questions
  - Quality of generic fundamental questions
  - Licensed operator performance in the plant
  - Use of critical task methodology
  - No. of critical performance and significant performance deficiencies
  - No. of failures and requests for informal NRC staff review
  - Implementation of ACAD-10-001 Rev 2
  - General feedback

Effectiveness Review Plan ML22138A409

We issued 5 new OLPFs to help clarify the revised Critical Task Methodology (ES-3.3)

3.3.1 Regarding the following criterion for identifying critical tasks: *Tasks that directly lead to the restoration of one or more safety functions*. Is this referring to vendor-specific safety functions or the safety functions listed in the applicable K/A catalog?

3.3.2 Can an automatic reactor trip/engineered safeguard feature actuation/setpoint be used as the boundary condition for a CT? If yes, and if this type of boundary condition is exceeded, then would the associated PD be a CPD or an SPD?

3.3.3 Can manually tripping the reactor be used as a critical task?

3.3.4 Does the requirement for a CT to have a performance feedback element apply to the boundary condition element of the CT?

3.3.5 When is it appropriate to use an alternative boundary condition?

OLPFs are on the NRC public website

- NRC's OL public website: https://www.nrc.gov/reactors/operator-licensing.html

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MAP-X for NRC Forms 396 and 398

Skylar Cushing
skylar.cushing@nrc.gov

Questions & Comments

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Ongoing Rulemaking

Jesse Seymour, jesse.seymour@nrc.gov
Theresa Buchanan, theresa.buchanan@nrc.gov
Jeff Correll, jeffrey.correll@nrc.gov
Maurin Scheetz, maurin.scheetz@nrc.gov

Ongoing Rulemaking – Part 53

- The preliminary Part 53 rule has been fully drafted
- Draft guidance documents that support the preliminary rule's implementation in the areas of staffing, operator licensing, and human factors engineering have been prepared
- It's expected that this preliminary rule will be provided to the Commission early next year with issuance as a proposed rule later in 2023
- A public comment period will be provided thereafter

Ongoing Rulemaking – Part 53

- The preliminary rule includes many new features, such as:
  - the ability to customize operator staffing based on plant-specific needs
  - a modernized and flexible approach to the traditional STA role
  - provisions for automatic load following
  - the ability for facilities to design their own operator licensing exam programs and administer their own exams
  - enhanced flexibilities to use alternatives to full-scope simulators
  - an entirely new type of licensed operator that would be licensed under a general license approach

Operator Licensing Exam Guidance

- Purpose
  - Assists staff reviews and approvals of the operator licensing examination program for applications under 10 CFR Part 53
  - Provides guidance for review of tailored initial and requalification examination programs
    - Specifically licensed operators (SROs and ROs)
    - Generally licensed operators (GLROs)
  - Assists staff review of proficiency programs for SROs and ROs
  - Assists staff review of exemptions from 10 CFR Part 55 for non-large light water, commercial power reactor examination programs

Operator Licensing Exam Guidance

- Goals of staff review
  - Ensure facility applicants/licensees identify knowledge, skills, and abilities (KSAs) necessary for safe operation and to fulfill operator licensing functions as the content for examinations
  - Establish reliable guidelines for staff review of exam programs developed based on current best practices from expertise and research on the measurement and testing of KSAs
- Topics: KSA list for examination content, test development, validity, scoring, reliability, simulation facilities, administration of exam, how to change the exam program, considerations for requalification programs, and other topics associated with the initial licensing of operators

Facility Training Program Guidance

- Facility Training Program Guidance has been drafted
- Draft guidance document supports the NRC staff's review of training programs.
- This guidance covers:
  - Scope of facility training programs
  - The 5 phases of the systems approach to training
- Guidance is currently in review and expected to be available for public comment early in 2023.

A rulemaking is in progress that would improve operator licensing for plants under construction

- *Alignment of Licensing Processes and Lessons Learned from New Reactor Licensing* - Docket ID NRC-2009-0196
- Proposed rule as it relates to 10 CFR Part 55:
  - Clarifies how the plant-referenced simulator applies to plant that is under construction
  - Allows the use of suitable alternatives for in-plant JPMs when plant is under construction
  - Allows licensee to request waiver of examination and test requirements when applicant applies for a license for unit(s) of the same design
  - Requires licensee to maintain an applicant's KSAs when there is time gap between passing initial licensing examination and participation as a licensed operator in the licensed operator requalification program
- Rulemaking currently with Commission for approval to publish as a proposed rule later this year and final rule in June 2024

Questions & Comments

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NUREG-1021 Revision 13

Maurin Scheetz
maurin.scheetz@nrc.gov

NUREG-1021 will likely be revised in the next 5 years

- Draft revision 13 to NUREG-1021 will be issued with the proposed Part 50/52 alignment rulemaking; shows only the changes to support the rulemaking
- Other reasons we would revise NUREG-1021:
  - If changes are necessary, following the NUREG-1021 revision 12 effectiveness review
  - To incorporate examination standards for NuScale SMR written examinations and operating tests (possible as a supplement to NUREG-1021)

Questions & Comments

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Industry Topics & Open Discussion

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Public Comments

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Closing Comments

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For feedback about the public meeting, please contact:

brian.tindell@nrc.gov
jeffrey.correll@nrc.gov