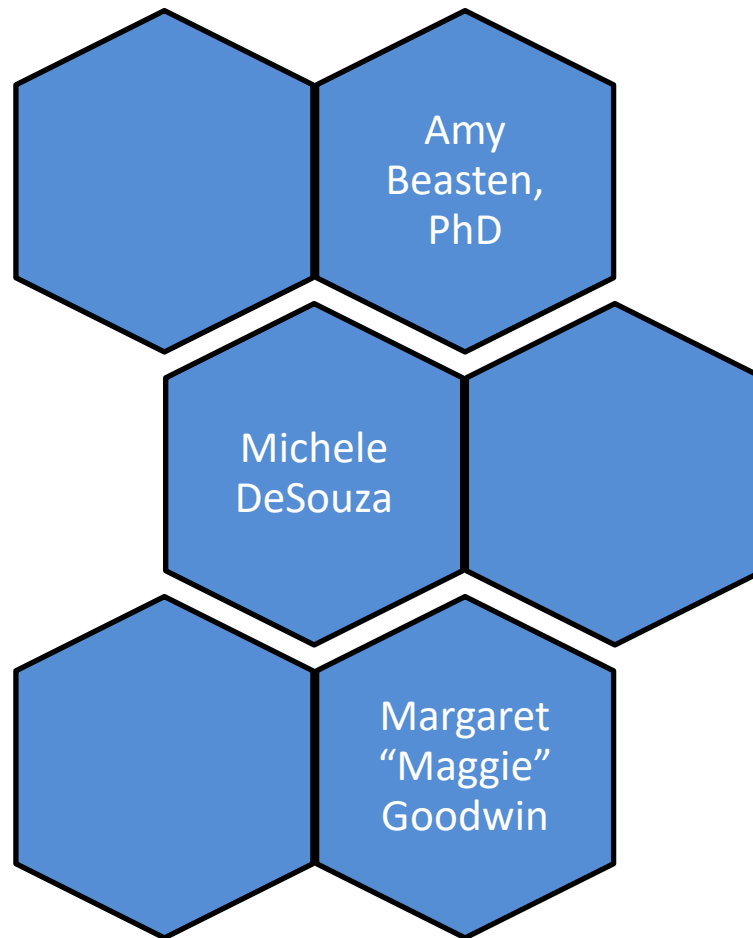


Regulatory Insights to NPUF Operator Licensing Programs

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NRC Chief Examiners



Topics of Discussion

Applications

Licensing exam content, structure, grading

FY25 exam data

Observations and training

Requalification

10 CFR 55 relevancy to NPUFs

Exemptions

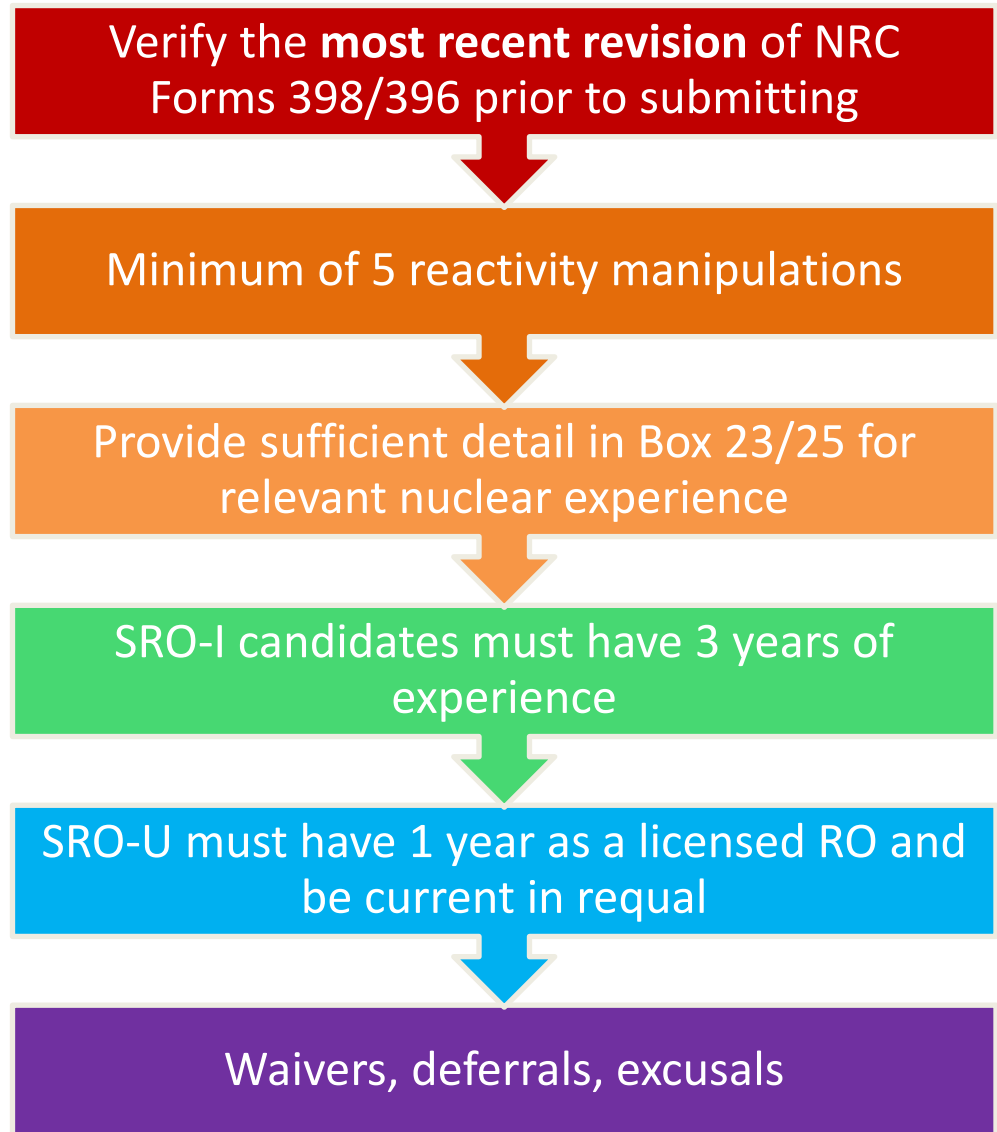
NUREG-1478, Rev 3

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Applications

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Initial Licensing Applications



• Exam Structure, Content, Grading





Exam Prep

- Confirmation letter
 - 90 days
- Facility reference documents
 - 60 days minimum
 - Documents list is in the confirmation letter

Exam Structure



Written Exam

- Category A: Reactor Theory
- Category B: Normal/Emergency Operating Procedures and Radiological Controls
- Category C: Facility and Radiation Monitoring Systems



Operations Test

- Category A: Administrative Topics
- Category B: Facility Walkthrough
- Category C: Integrated Facility Operations

Initial Licensing Exam Content

Written Exam

- See NUREG-1478

Operations test questions may include

- Describe system design and function and connection to other systems
- Understand how signals are generated by various components
- Recognize operational limits and requirements, including out of spec conditions
- Observe basic radiation protection practices



Ops Exam Grading



Predetermined benchmark for each category/topic



SAT or UNSAT is determined by the number of criteria correctly provided (70%+)

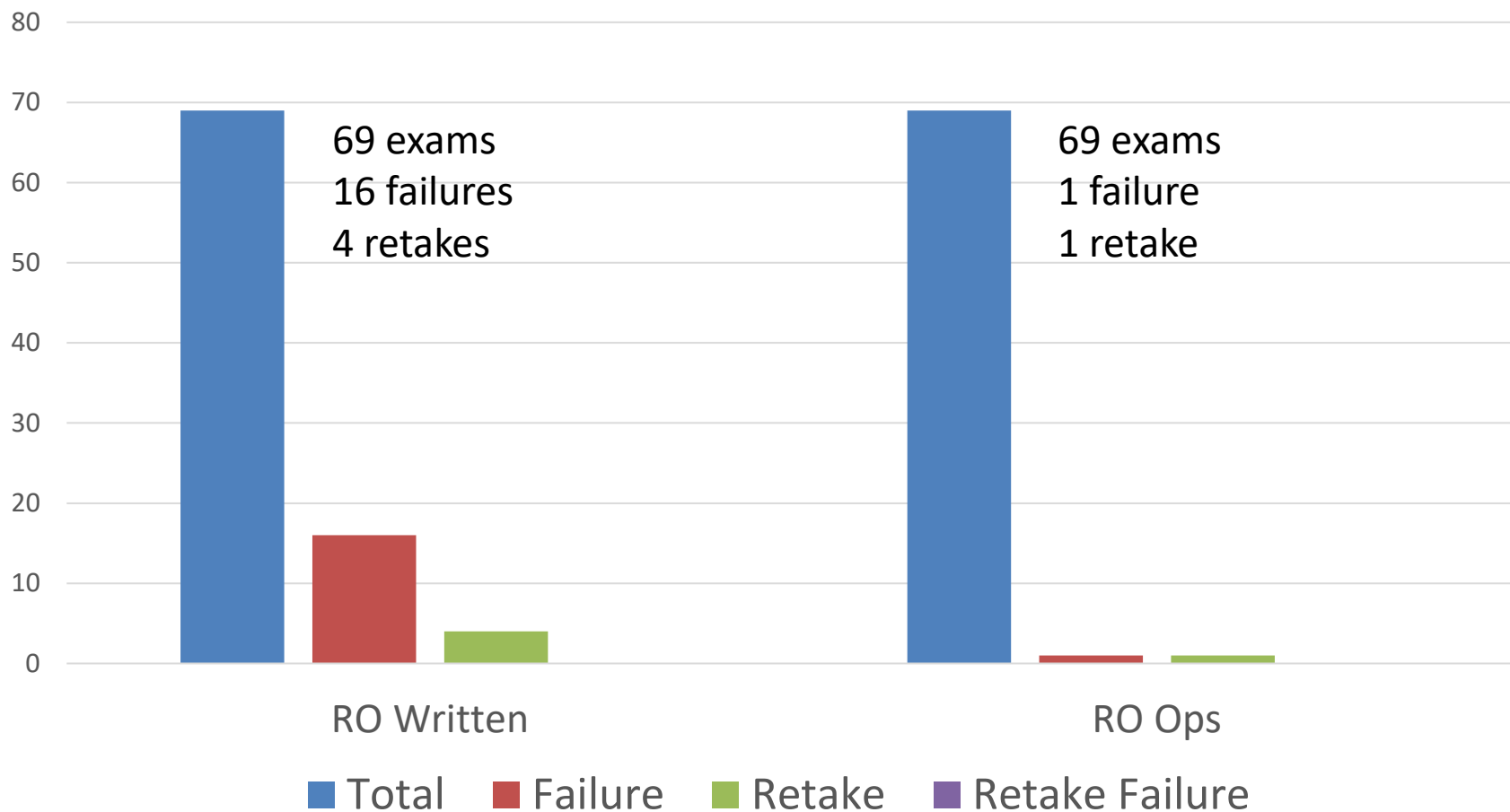


Topics are also weighted based on exam level (SRO versus RO)

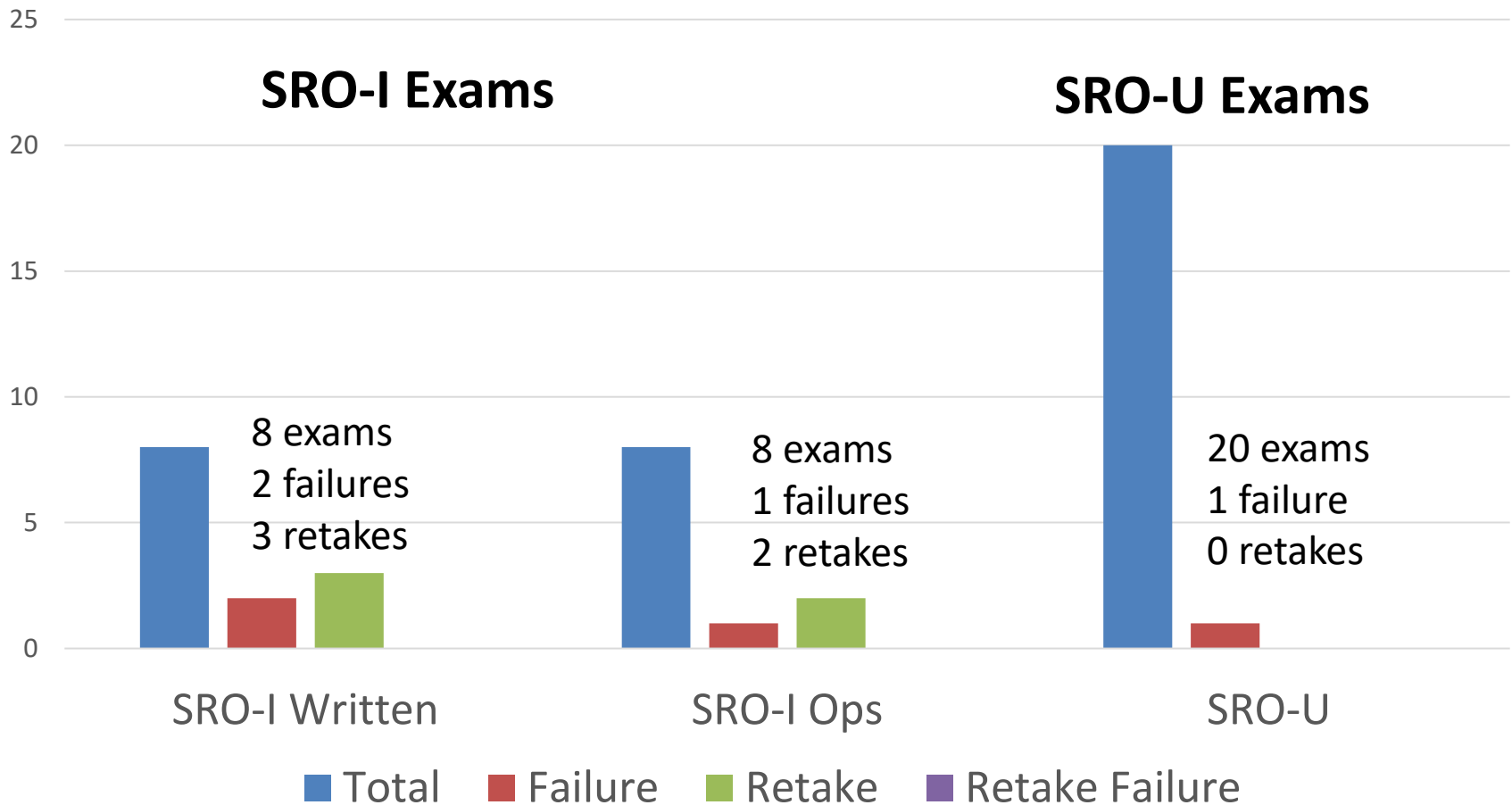
⁺ o • FY25 Data and Observations



FY25 Examination Results and Observations—RO



FY25 Examination Results and Observations—SRO



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Initial License Training

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Training



Hands on training is best



Maintenance and surveillance



Active learning



SRO candidates

+ o · Requalification



55.59(c)(7)

NPUF requal programs must generally conform to 55.59(c)(1) through (c)(6)



Deviations from 55.59(c)(1) through (c)(6) require written NRC approval



Deviations from approved plan also require written NRC approval

Requal Program, 55.59(a)

Continuous
period

- NTE 24 months

Biennial written
exam (NTE 24
months)

- Sample items specified in 55.41 and 55.43

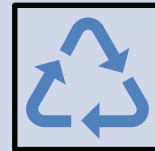
Annual operating
exams (NTE 12
months)

- Sample items specified in 55.45(a)(2) through (13)
- Note that only some aspects of the exam may be simulated, e.g. emergency/abnormal procedures

Written Requal Examination



Structured like
the initial
licensing exam



< 25% of questions from
previous exams may be
reused

Requal Ops Tests Highlights

Predefined and detailed

Adequate documentation to assess quality of test and understand weaknesses or deficiencies

3 Categories

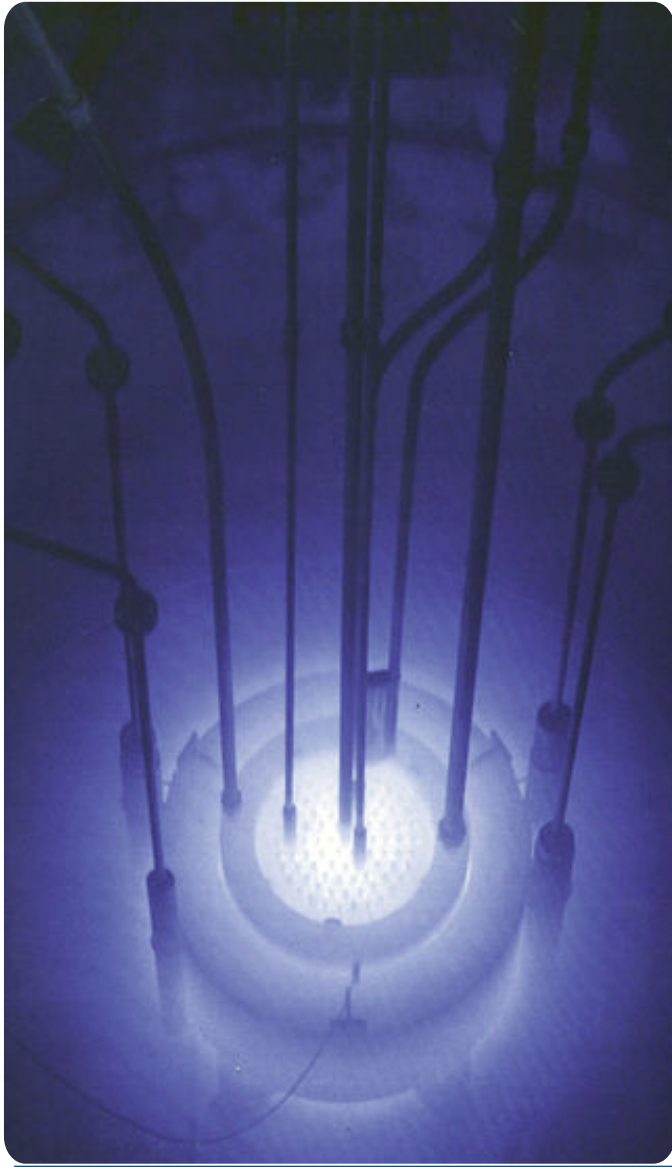
Category A: Administrative Topics
Category B: Facility Walkthrough
Category C: Facility Operations

Reactivity manipulation

Startup and/or shutdown
Power manipulation between shutdown and full power

Items that may be simulated

Abnormal/emergency procedures and/or scenarios
Instrumentation/component malfunctions



Remedial Training



Required to be completed
and documented prior to
retake



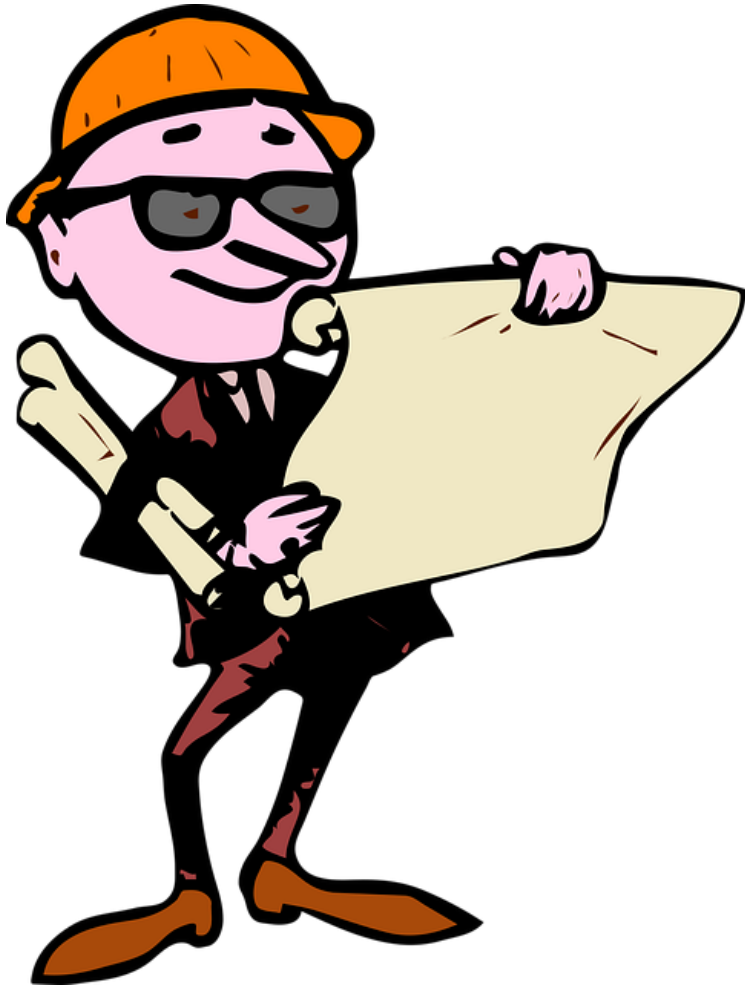
Documentation

Training
performed

Key
milestones
completed

Signatures of
completion

Examples of On-the-Job Training, 55.59(c)(3)



Control manipulations

Emergency drills/scenarios

Component/instrument failure

Review of facility design changes

Review of abnormal/emergency
procedures

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Overview of 10 CFR Part 55

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Other Relevant Regulations for NPUFs

Exemptions – 55.11



Medical Requirements – 55.21, 55.25, and 55.27



Conditions of Licenses – 55.53



Renewals – 55.57

Medical Requirements

55.21, Medical examination

- Medical examination by a **physician every two years (NTE 24 months)**

55.25, Incapacitation because of disability or illness

- Permanent changes in medical status
- **Notification to the NRC required within 30 days in accordance with 50.74(c).**

Conditions of Licenses, 55.53

55.53(e)

- Actively perform the functions of an operator or senior operator for a **minimum of four hours per calendar quarter.**

55.53(f)

- If (e) not met, verify current in requal AND complete a **minimum of six hours under RO or SRO direction as appropriate.**

An **exemption** per 55.11 may be required if 55.53(e) or 55.53(f) cannot be met

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Exemptions

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10 CFR 55.11, Exemptions

Tool for addressing inability to meet regulatory requirements

Frequently used for facilities in extended shutdown

Ask your PM or CE for resources



We Want You!



NUREG-1478, Rev 3

- New revision out for public comment!
- Submit your feedback today!

A close-up photograph of a hand raised in the air, palm facing forward. The hand is light-skinned and appears to belong to a person in a classroom. In the background, several other hands are also raised, though they are out of focus. A large green chalkboard is visible behind the hands. A white horizontal bar is positioned across the lower third of the image, containing the text "Questions?".

Questions?