

2010 NRC EXAM WRITERS WORKSHOP

# EXAM VALIDATION

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# DEFINITION

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- ✘ Exam Validation –
- ✘ the administration of the NRC exam to licensed operations personnel
  - + in an exam setting to determine the **timeliness** and
  - + to ensure the **validity** of the exam.
- ✘ Southern Nuclear Fleet procedure on your CD
  - + NMP-TR-423-F07

# MOST IMPORTANT AND LESSONS LEARNED

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- ✘ Pre check of all KA matches by exam team
  - + Take a week and look at 20 questions/day
  - + Look cog level as well
- ✘ Validators – get the right people
- ✘ OPS involvement requires:
  - + Availability
  - + preplanning
- ✘ The more eyes on the exam the better the outcome.

# VALIDATORS

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**Ensure:**

**Pre-job brief (new to us):**

NMP-TR-423-001 –

Exam Validators and Briefing Instruction on CD



# VALIDATORS

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- ✘ Looking for:
  - + technical accuracy
  - + content validity
  - + operational validity
  - + discrimination
  
- ✘ Most important
  - + Provides feedback to the Facility Authors

# GET THE RIGHT PEOPLE

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- ✘ Personnel assigned to perform the exam validation shall be **a representative sample** of the licensed operators for the level of license held.
- ✘ Most recent HLT candidates
- ✘ Average performance on Continuing Training quizzes, As-Found evaluations, and requalification exams.
- ✘ Validators that can be available to validate BOTH the Audit Exam and the NRC Exam.

# PROCESS

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- ✘ Methods:
  - + Exam setting
  - + Technical review

# WHAT ARE WE LOOKING FOR

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- ✘ Technical accuracy
- ✘ What you get depends on experience level of who you get!!!!
- ✘ Consider using 401-9 for question review



Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			

MOST VALIDATORS WILL NOT PROVIDE GREAT LOK OR LOD INFORMATION

BE SENSITIVE TO LOD OF 4 OR 5 COMMENTS

# WHAT ARE WE LOOKING FOR

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- × ALSO:
- × Big deal – too much in stem/ not enough in stem
- × Train or unit dependent
  - × Does this matter to question?

# BEST PRACTICE- COMMON REVIEW

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- × For us:
  - + Group reviews provide the best input
  - + Overhead projector provides best setting
- × Experience has shown that a common review between the Facility Author(s) and all Validators
  - + identifies more errors than individual or independent reviews
  - + each participant should maintain a questioning attitude to avoid becoming entrained in an erroneous group-thought condition

# HOW TO FAIL!

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- ✗ Rush to get done
- ✗ Get defensive and justify why you wrote it that way!
- ✗ Do the entire validation in the same day
- ✗ Fatigue of validators
  - + After shift (day or night shift)
  - + While Sick
- ✗ Attitude issues
- ✗ Not looking at questions that everyone got right



# TRACKING CHANGES

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- ✘ Use adobe and statistics for exam review to capture comments
- ✘ Don't discount questions with NO misses
- ✘ Using an excel spreadsheet to keep track of misses

# **CONTROL OF NEW AND MODIFIED TEST ITEMS AFTER EXAM VALIDATION**

- ✘ Modifications resulting from incorporating NRC comments are subject to the following review and validation requirements:
- ✘ **Replacement Test Items** –
  - + newly developed
  - + significant changes
  - + change the correct answer to a different choice
  - + remove a reference –
- ✘ Consider a new validation.

# **CONTROL OF NEW AND MODIFIED TEST ITEMS AFTER EXAM VALIDATION**

- × ‘minor editorial changes’**
  - + shall be reviewed by two (2) Authors and the Lead Instructor (supervisor) to ensure the changes do not cause the question to contain any flaws.**
  - + Good idea to have a previous validator look at these also**



# REMEMBER

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- ✘ One bad question can be the difference!!!



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**COMMENTS**

**WRITTEN EXAM VALIDATION?**

# JPMS

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- ✘ Use at least two (2) people –
  - + one (1) as evaluator and
  - + one (1) as performer.
- ✘ For SRO-only JPMSs, the performer shall be an SRO

# ADMIN JPMS - HOW TO FAIL

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- ✘ Rush through the JPMS during prep week
- ✘ Change critical tasks with little discussion
- ✘ Don't revalidate after major changes are made

# SIMULATOR VALIDATION

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- ✘ To provide an unbiased validation of the material, the Facility Author(s) shall not be filling a crew position or Simulator Operator role.



# SIMULATOR VALIDATION

- ✘ We typically run the scenario through with the exam author(s) to make sure the scenario will run.
- ✘ On another day we validate the scenario real time and try not to stop too often using operations shift crew members.
- ✘ We gather comments from the crew.

# SIMULATOR VALIDATION

- ✘ 3 people work best to run the validation:
  - + 1 to run the simulator and check communications page
  - + 1 to check scenario buttons and triggers and flow of simulator guide
  - + 1 to check procedural flow path and question why they went to certain procedures or if a different procedure could be used.

# SIMULATOR VALIDATION

- ✘ Another method that has proven successful is to validate one (1) event, then freeze the Simulator and discuss the event, then validate the next event.
- ✘ When completed, the scenario is then run again, with revisions incorporated, without breaks and discussed again upon completion.



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# **COMMENTS ON OPERATING EXAM VALIDATION?**

**THE END**