

Examination Challenges and Lessons Learned

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Discussion Goals

- Convey to Stakeholders the challenges examiners have experienced since the last exam writers conference.
- Present the positive aspects of the examination process the examiners have experienced.
- Solicit Feedback on how we can do our job better (more efficiently).

Challenges

- Examination Submittals being less than adequate.
- Written Portion
- Administrative JPMs
- Walkthrough JPMs
- Scenarios

Written Examinations

- Level of difficulty
- Plausible distractors
- Operational Validity
- K/A Suppression (fuel handling facilities/equip)

Written Examinations

- SRO only questions
 - Being able to answer the question with only:
 - RO knowledge
 - System knowledge
 - Relating SRO performance activities while performing on the simulator to the development of SRO only questions

Written Examinations

- Presentation on SRO only questions and question psychometrics later in conference.
- Support for plausibility of distractors.
(saves time during the review process)

Written Examinations

- Chief Examiner provides the licensee with comments on the 401-9.
- Licensee responds to comments...
 - Coming into the office
 - Telephone
- Staff not performing many changes to the comments prior to coming in to the office to discuss. Relying on the individuals present at the meeting to “fix” the questions.

Administrative JPMs

- Many administrative JPMs have only one critical step.
- Surveillance to perform a SDM used as an equipment control JPM.
- JPM times not accurate
- Keys (standards) not always accurate
- Most JPMs the same for the RO and SRO

Walkthrough JPMs

- JPMs have one critical step and are very short in nature. (system understanding)
- JPM does not include procedure notes, cautions, etc. (examiners need more than just the actions the applicant will perform)

Scenarios

- Critical Tasks (when is task met?) (is it critical for this scenario?)
- Minimum number of malfunctions/tasks not being met, until after the major transient.
- Very few verifiable actions for board operators.

“Validation: The key to a fair and discriminating examination.”

- Every examiner survey mentioned “Exam Validation” as a challenge!

Validation - Written

- Validation prior to submittal
 - Resources – experienced operation staff
- Written Examinations-should be validated for:
 - Content
 - Operational validity
 - K/A Match
 - Understanding /readability (does it make sense)

Validation - Written

- Staff who are validating the examination should be familiar with current plant operations.
- Use of only trainers to validate can result in the “way we used to do it”, or the way another plant did it.

Validation - JPMs

- Examiners need to know where components are actually located. (especially electrical fuses etc)
- How a specific piece of equipment operates. (air regulators for PORV)
- Validation time normally set by training staff that have knowledge of the JPM.

Validation - JPMs

- Validate the termination of the JPM
- How long is took an average operator to perform
- Length of time to administer (including set-up)

Administration

- Make sure packages to give applicants are complete.

(several items missing in packages that prevented the applicants from performing the task correctly)

Administration

- Make sure simulator scenarios, JPMs, and written exams are the correct revisions. (Many changes occur from start to finish of the examination)
- Make sure all of the scenarios, JPMs, and examination questions are developed from the correct revision of the procedures.

Positives

- Licensees starting exam development earlier.
- Some are placing a shift SRO or RO on the exam development team.
- Staff work well with examiners, and are very professional.

Positives

- Most RII Licensees have welcomed, and seem comfortable with, the clarification provided regarding Tech Specs.
- Some increased communication between exam developers and chief examiner/NRC.

Communications

- Communicate early and often with Chief Examiner.
- Communicate with your management.
- If Chief is not available, or you have an issue that needs to be rectified, feel free to call the Branch Chief.



Your Thoughts?