



Operating Test: Summary of Changes

David Trimble, Fred Guenther,
John Munro, and George Usova
Operator Licensing and Human
Performance Section, NRR

Preview

- Background
- Objectives
- Walk-through changes
- Simulator changes
- Miscellaneous changes

Background

- Biannual Focus Group meetings
- August 2000: admin topics over-weighted
- February 2001: value of normal evolutions
- Too much & too late for Supplement 1
- August 2001: short-term enhancements or long-term overhaul (including written exam)
- February 2002: simulator grading concerns
- August 2002: Revision 9 proposal

Objectives

- Reduce burden and improve efficiency
- Adhere to regulations (55.45)
- Maintain validity, reliability, safety, and public confidence
- Work within existing framework to extent possible
- Clarify and simplify

Significant Issues

- Admin test options: subtraction, integration, or addition?
- How do you grade the new walk-through?
- How can we grade the simulator more objectively?

Walk-Through: Design

- 55.45(a) includes admin topics (nix subtraction)
- 10 total too small (nix integration)
- $0.2 \times (10, 11, 12, 13, \text{ or } 14) = 2$ (nix!)
- SRO (I & U) not changed (15 & 10 total)
- ROs get more systems ($8+3=11$) & less admin (4)
- No more “Categories”
- All JPMs (with for-cause questions)
- Alternate paths
 - Systems flexibility (4 - 6 & 2 - 3)
 - Administrative JPMs?

Walk-Through: Grading

- Overall cut score: still 80% (4/5; 8/10; 12/15)
- What about admin retakes?
- SRO subordinate admin cut score: 60% (3/5)
- What about RO admin retakes?
- Conundrum: 3 admin errors vs. 3 + 1 system
- RO subordinate admin cut score: 50% (2/4)
- Admin retake with waiver: 80% (4/5 for all)

Simulator: Design

- No significant changes
- Malfunctions in lieu of normal evolutions (total number of events unchanged)
- Competencies condensed
- “Required” vice “expected” operator actions
- Review performance deficiencies (55.46)

Simulator: Grading Issues

- More competence than consequence based
- All errors (not just the critical ones) reflect on the applicants' competence
- Competencies & RFs are fragmented and redundant
- Cannot justify any RF score with no data
- Cannot justify a passing RF score without positive performance
- Improve objectivity and minimize inconsistency (AEA requires uniform conditions)

Simulator: Grading Criteria

- RO: 4 competencies
- SRO: 6 competencies
- Critical errors: no change (1=1)
- Non-critical errors: 0=3; 1=2; 2-1=2; >2=1
- Not-observed: non-mandatory; 1 / RF; limit 2; normalize remaining RFs
- New form; no more behavioral anchors

Competency Grading Worksheets

- RO: Form ES-303-3
Interpret / diagnose; procedures (&TS);
control board operations; communications
- SRO: Form ES-303-4
 - Plus: directing operations & TS compliance
 - Understanding system operation
- Sample form

Form ES-303-3

Show and discuss a sample page from Form ES-303-3 (as a separate pdf or wpd file).

Simulator: Non-Critical Errors

- Formal definition deemed unnecessary
- Measured against facility procedures and requirements
- Can NOT fail based on single low RF grade
- Weighting factors to some extent reflect the significance of the errors

Operating Test: Miscellaneous

- Peer check guidance incorporated
- Briefing on applicant discussions
- Protect pre-decisional information
- False positives and negatives
- Documentation guidance clarified (consequences, N/O's, deviations)