



# Written Exam: Summary of Changes

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# Preview

- Background
- Objectives
- RO exam changes
- SRO exam issues and changes
- Miscellaneous changes

# Background

- Biannual Focus Group meetings
- 2000 - 2001: Supplement 1 developed & issued
- February 2001: Evolution vs. revolution?
- August 2001: NRC outlined possible enhancements
- February 2002: Conceptual agreement
- August 2002: Revision 9 proposal
- October 2002: Resolved outstanding issues
- Lots of give-and-take

# Objectives

- Reduce burden and improve efficiency
- Adhere to regulations (55.41 & 55.43)
- Maintain validity, reliability, safety, and public confidence
- Limit changes to other practices and criteria (e.g., content, format, difficulty)
- Incorporate risk insights
- Clarify and simplify (where possible)

# RO Exam Changes

- Systems and E/APEs now have only two groups (high and low safety significance)
- Points per group adjusted, but Tier totals are 75% of Revision 8
- Smaller sample expected to have minimal impact on reliability, safety, and confidence
- Bank/mod/new: still 75/15/10% (=56/11/8)
- HCL: still 50 – 60%
- Time “limit:” still 6 hours

# SRO Exam Significant Issues

- What should it cover?
- How long should it be?
- What about cognitive level?
- What's the right cut score?

# SRO Exam: Content

- Pretty much “status quo”
- Rejected common RO/SRO exam (rule change & union issues)
- 7 items in 10 CFR 55.43 (+14 in 55.41)
- Focus on existing K/A Catalog links (about 1000 K/As in A2, AA2, EA2, and G)
- Facility learning objectives & “missing links”
- Waivers (10 CFR 55.47)

# Form ES-401-1

Show and discuss revised Form ES-401-1 (as a separate pdf or wpd file).



## SRO Exam: Length

- Separate 25-item exam deemed too risky
- Longer exam would take more resources
- 50 RO + 25 SRO would complicate sample plan & deemed insufficient to cover 55.41
- Compromise: 75 RO + 25 SRO = 100
- RO Waivers (10 CFR 55.47)

# SRO Exam: Cognitive Level

- Adhere to K/A statements (e.g., A2 = predict impacts and/or use procedures)
- Should not compromise above to stay  $\leq 60\%$
- Worst case: 63 – 70% based on RO range
- No limit on 25 SRO questions, but not likely to be all HCL
- Final consensus: it's reasonable that SROs may have more than 60% HCL overall

# SRO Exam: Cut Scores

- Public confidence issue
- NRC prefers separate 80% on SRO items
- Compromise: 80% overall w/ 70% on SRO
- Historical precedent
- $0.7 \times 25 = 17.5$  is not a problem
- 2002 results do not suggest high failures
- Waivers (SRO-U and retakes) must get 80%

# SRO Exam: Miscellaneous

- Uses same outline as RO
- Bank/mod/new: still 75/15/10% (=19/4/2)
- New cover sheet
- Time “limits:” 3 hours / 8 hours
- SRO-U waivers: individual basis, current in requal, and active when enter training

# Written Exam: Miscellaneous

- K/A elimination guidance in new attachment
- Maximize system & E/APE coverage
- Site-specific priority option deleted
- Multi-part K/A statements (question should cover both or focus on HCL)
- All distractors should be plausible
- Post exam activities (reviews & holds)
- LSRO review pending