

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			
1	H	3				D								B	E	Replace D.
2	H	3	X											B	E	Remove "small break" from 1 st bullet.
3	H	2	X											M	E	Clarify RCS temperature – CET.
4	F	2	X											M	E	Put "T" signal into another distractor. Adjust Q stem.
5	H	2	X											B	E	Delete bullet about PZR press controller failing.
6	F	2	X											M	E	Is "verify" an action? Start w/ rods in manual. Switch rods to auto.
7	H	1	X											B	U	Specify RCS temperature. Modify distractors to increase LOD.
8	H	3	X											N	E	Add "no operator action." Make SG "B" WR level 45%.

Instructions

[Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]

- Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
- Enter the level of difficulty (LOD) of each question using a 1 – 5 (easy – difficult) rating scale (questions in the 2 – 4 range are acceptable).
- Check the appropriate box if a psychometric flaw is identified:
 - The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
 - The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).
 - The answer choices are a collection of unrelated true/false statements.
 - The distractors are not credible; single implausible distractors should be repaired, more than one is unacceptable.
 - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).
- Check the appropriate box if a job content error is identified:
 - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
 - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
 - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
 - The question requires reverse logic or application compared to the job requirements.
- Check questions that are sampled for conformance with the approved K/A and those that are *designated SRO-only* (K/A and license level mismatches are unacceptable).
- Enter question source: (B)ank, (M)odified, or (N)ew. Check that (M)odified questions meet criteria of ES-401 Section D.2.f.
- Based on the reviewer's judgment, is the question as written (U)nsatisfactory (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
- At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).

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9	F	2				D								B	E	Replace D.
10	H	3		X										M	E	In B replace "should have" with "will."
11	F	1	X	X										B	U	F vs H. 4 th bullet is a cue ("A") - change.
12	H	3												N	E	Delete "major."
13	F	2												B	S	
14	H	2			X									N	E	Collection of T/F. Change first part A, B, or D.
15	H	2		X										B	E	Provide normal/elevated CNMT/PAB values. Make RCS 1750.
16	H	2										X		B	U	Reselect – KA better for simulator evaluation.
17	F	2	X			B								M	E	Truncate stem. B not plausible – change to bleed flow.
18	H	3												N	S	
19	H	2				D								N	E	Change D to increase.
20	H	2												B	S	
21	H	3												B	S	
22	F	3												B	S	
23	H	3												N	S	
24	F	2				A,C								N	U	Replace SG parameters with RCS parameters in A & C.
25	F	2	X											B	E	Replace "one RCP running" w/ another parameter.
26	F	2										X		B	U	Q addresses E-3 vs FR-H.2 SG overpressure. Re-write.
27	F	2												B	S	
28	H	2												N	S	

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29	H	2	X											N	E	Choice B – replace “water” with “waste.” Cap “FULL OPEN” in D.
30	F	2	X											B	E	Add “based upon these conditions...” to Q stem.
31	H	3												B	S	
32	H	3	X											B	E	H vs F. Replace 1 st bullet w/ RCS temp.
33	F	2												B	S	
34	H	3												N	S	
35	H	2	X											B	E	Spell out EPS.
36	H	2	X											B	E	Choice C conflicts with 4 th bullet.
37	H	3	X											B	E	Capitalize “not energized” and “energized” in 4 th & 5 th bullets.
38	H	2												B	S	H vs F. Add “2 of 4” to D for balance.
39	H	3												B	S	
40	H	2	X											B	E	Make CNMT press 8#. Add Phase B to choice B.
41	H	3												M	S	
42	H	2												B	S	
43	F	2	X											B	E	Replace value in C & D with RWST Lo-Lo Level alarm.
44	H	2	X				A							M	E	Make CNMT press 16#. Choice A - Phase B vs Phase A.
45	F	2					C,D							B	U	Use constant/variable SG levels for C&D.
46	H	2	X											M	E	Add “if any” to stem.
47	F	3												M	S	
48	F	2	X											B	E	Add “There are” to all of the choices.

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49	F	3				D								B	E	Make choice D be "connected in parallel.
50	F	3												M	S	
51	F	2												B	S	
52	H	2												B	S	
53	H	2	X											B	E	Change 3 rd bullet to SG "A" is completely depressurized.
54	F	2												B	S	
55	H	2	X											N	E	Need a two part Q for two part answers.
56	H	2				B,C								M	E	B & C too close. Replace C.
57	H	3	X			D								B	E	Edit 1 st sentence. Add "if at all." Add "No effect" as a choice.
58	H	3												N	S	
59	H	2												B	S	
60	F	2												M	S	
61	H	3	X											M	E	Make 2 nd bullet RCS Tave.
62	H	2												B	S	
63	F	3				A,D								B	E	A & D too close. Replace one.
64	H	3												B	S	
65	H	3	X											N	E	Delete 3 rd sub-bullet under 3 rd bullet.
66	F	2												B	S	
67	F	2				A								B	E	Replace stratification with accumulation is A.
68	F	4												N	S	

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69	F	2												B	S	
70	F	2	X											N	E	Add "as per procedure XXX."
71	H	3												B	S	
72	F	2												B	S	
73	H	3	X											B	E	Delete 1 st bullet about being in Mode 5
74	H	3												B	S	
75	F	2												N	S	
76	H	2												N	S	
77	H	3	X											M	E	Add "per procedure XXX" to choices.
78	H	2	X											M	E	Change 4 th & 5 th bullets to be stable.
79	H	3	X											B	E	1 st bullet SGTR on SG "C." Delete 4 th & 5 th bullets. Add "and why?"
80	H	2	X											N	E	Change SG levels to 0, 4, 2, & 10%, respectively.
81	H	2	X											B	E	Make one SG level less than 14%. Clarify Q for "next" action.
82	H	2												N	S	
83	F	2											X	B	U	Not SRO only. No assessment. Address rapid borate.
84	F	2											X	B	U	Not SRO only. General procedure knowledge. Re-write Q.
85	H	3	X	X										B	E	Shorten B&D to eliminate cues. Add procedures in B & D.
86	H	3	X											B	E	Add "as per OS1201.10" to A & D.

Seabrook Operating Examination Comments

Simulator Scenarios

Scenario 1

Turnover: Recommend manual control of a SG FCV as a component “bean” for BOP.

Event 1: Add dilution values.

Event 2: Cannot credit BOP

Event 3: Delay malfunction from 5 to 10 minutes.

Event 5: May not count for board operators as it is a lead-in for the major transient.

Event 6: SG “B” and “C” safety valves stick open instead of SG “C” and “D.”

Scenario 2

Event 1: Pre-brief down power prior to taking the watch. Target down power at 1100MW.

Event 5: There are no actions taken by anyone. Delete. Replace with SCCW pump trip.

Event 6: Locally trip the reactor AFTER emergency boration started.

Event 6: Include #1 TSV & #3 TCV failures are not on the D-1 sheet.

Event 7: Can credit the US with this malfunction.

Event 7: Eliminate this as a critical task.

Event 8: D-1 Sheet has PORV ‘A’, Scenario Guide has PORV ‘B’

Scenario 3

Events 1&2: Swap to do down power first.

Event 3 & 4: Swap event order.

Scenario 4

Turnover: Why state that no release is in progress? Delete.

Event 7: Fail some Train B valves to make failure meaningful.

CCT #1 is not a critical task (unless Auto SI fails to occur).

CCT's 3 & 4 should be just one CT.

Simulator JPMs

General:

The cue sheets given to the applicant should only contain Initial Conditions and the Initiating Cue. Simply IC statements.

Sa: Start at step 1 of FR-H.1.

Sb: Editorial.

Sc: Start with SA-C-4A running and then trips to cause applicant to respond.

Sd: Provide alternate paths (OS, AOP, ARP) in JPM for evaluator.

Se: Provide note for evaluator regarding use of MPCS group display for parameters.
Change initiating cue to “restore to normal level to clear the alarm.”
Provide reset level alarm setpoint and TS band

Seabrook Operating Examination Comments

Step 7 is not critical.

Sf: Change cue for proper alternate path response.
Add note for possible simulator glitch.

Sg: Editorial.

Sh: Provide CNMT pressure to avoid contact with parallel JPM.

In-Plant JPMs

JPM A: After RTBs fail to open, ask for recommendation if applicant does not proceed.
Supply alternate methods of tripping the reactor.

JPM B: Move cue to IC and shorten IC.

JPM C: Low discriminatory value for licensed operator – purely an AO task. Replace.
For replacement JPM shorten IC.

RO Admin JPMs

Dilution Calculation: Start with lower T-ave to force applicant to incorporate correction factor.

QPTR Calculation: Delete IC 6 and add time to IC 5.

SDM Calculation: Cue – Perform SDM calculation.
Remove MOL and replace with 12000 MWD/MTU
Make last JPM step critical.

COP RM Setpoints: This JPM appears on 2007 RO exam admin outline (2 exams ago).
Move 2nd & 3rd cue to IC page.
Change JPM due to 2X above background.

SRO Admin JPMs

EPlan JPM: Just classify the event and complete the notification form.

Rad Protection: Make activity a life saving event instead of equipment repair.

QPTR Review: Clarify key and circle max value.

SDM Review: Change initiating cue: "Review SDM calculation and report your findings."
Remove MOL and replace with 12000 MWD/MTU.

Notification JPM: Change to SI pump and charging pump OOS => TS 3.0.3
Cue: Report Regulatory notifications, if any, justify your answer.

Seabrook Operating Examination Comments