

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	Back- ward	Q= K/A	SRO Only			
1	F	2	X											N	E	A, 41.10. Does CW FSAR differentiate between "Leak" and "SBLOCA"? If so, would need to alter stem for consistency with the explanation for Distracter A. Change to SB LOCA.
2	H	2												B	E	A, 41.10, OR.
3	H	3				X								N	E	B, 41.8. Distracter D is effectively "All of the Above", which shouldn't be used. Revised
4	H	3	X											B	E	C, 41.2. Does Distracter A mean that heat transfer is via forced circ? Change A to forced circ + condenser +10% atm steam dumps. Add "only" to the end of B and C. Done
5	H	3												N	E	B, 41.10.
6	H	3												N	S	C, 41.5 / .7
7	H	3												B	E	D, 41.7. Setpoints required? Removed

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 B 5 (easy B difficult) rating scale (questions in the 2 B 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 AU@ ratings (e.g., how the Appendix B psychometric attributes are not being met).

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8	F	2					X							N	E	B, 41.5, .10. Is "D" plausible? Revised
9	H	3												B	E	A, 41.10. Consider making one of the distracters Unidentified Leakage < 1gpm, so that all 3 incorrect answers aren't the same category (Identified Leakage < 10 gpm). Revised to unidentified leakage.
10	H	3												B	E	D, 41.10.
11	F	3												N	S	A, 41.7.
12	F	3												N	S	B, 41.7.
13	H	3												N	S	A, 41.7 /.10.
14	H	3												B	E	B, 41.7. Does NN01 have an alternate supply? Yes
15	H	3												N	E	A, 41.10. Add "... in accordance with E-1?" to the beginning of the stem question. Done
16	H	4										X		N	U S	A, 41.10. K/A M/M. Tests on use of figures, not components. Replaced question
17	H	4												B	E	B, 41.10.
18	H	2												B	S	B, 41.10. OR.
19	H	2												N	E	A, 41.1
20	H	4												N	E	C, 41.10. Knowledge of FSAR BAST limit from memory? Yes. Delete first sentence in stem, re-order distractors.
21	H	2										X		N	U S	D, 41.7. K/A requires applicant to determine the occurrence of a fuel handling incident, but that is given to the applicant in the stem. Deleted 3rd bullet, revised stem.
22	H	3				X								N	U S	D, 41.10. B and C are not credible. For B, keeping RCS pressure lower puts it closer to saturation. For C, keeping RCS pressure lower than SG ensures backfill. Revised "B" and "C"
23	H	4												N	E	B, 41.10.
24	H	3												N	S	B, 41.10.
25	H	2												N	E	A, 41.7. Borderline LOD= 1. Revised

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26	F	3										X		B N	U S	D, 41.10. Does not test on ability to operate or monitor components or functions of control and safety systems. Rewrote question.
27	H	3												N	E	A, 41.10. Add "/hr" after each cooldown rate. Add "IAW ES-0.2" to stem.
28	H	2	X											B	E	D, 41.2. Add amplification to stem that we are looking for the final state, since initially both MFRV and MFBV are controlling.
29	F	3												N	E	C, 41.7.
30	H	3												B	E	C, 41.7. Specify "...NCP discharge" on distracters A and D.
31	F	3												B	S	B, 41.7.
32	H	2												M	E	C, 41.8. Copy of original Bank question? Added
33	H	3												B	E	A, 41.3.
34	H	4												B	E	D, 41.10
35	H	3												B	S	C, 41.7
36	H	2												N	S	B, 41.7
37	F	2												B	S	D, 41.7
38	F H	4 3	X											N	U S	C, 41.10 LOD=1 Rewrote
39	F	2	X											N	U S	A, 41.7 LOD = 1 Modified stem
40	F	2				X								N	E	C, 41.10, Recommend in stem replacing "...more limiting values" with "adverse containment values."
41	F H	2 4				X								B N	U S	D, 41.7, Will Distracter A valves receive OPEN signal if they are initially in a closed position? Distracter B not plausible. Wrote new question
42	F	3												N	S	D, 41.10
43	H	3												N	E	A, 41.4
44	H	3												B	S	B, 41.1
45	H	2												B	E	C, 41.4, Change stem to "Which SGs are being supplied by AFW?"

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46	H	3				X								B	U S	D, 41.5, Need to explain what makes Distracters A B C credible. Otherwise LOD=1. Rewrote question.
47	F	3												N	S	C, 41.7
48	F	4							X					N	S	B, 41.8. Verify that you expect your operators to have DG Surveillance parameters memorized. On OJT qual card.
49	F	3												B	S	D, 41.8,
50	H	4												N	S	A, 41.8
51	H	2												N	E	D, 41.7, maybe a better question is "which alarm will have the highest priority?"
52	H	2												N	E	D, 41.11. Isn't "B" also correct given the explanation for "D"? Enhanced explanation for "D"
53	H	3												N	S	D, 41.8,
54	H	3												B	S	C, 41.4
55	F	3												N	S	D, 41.12
56	H	3	X											B	U S	B, 41.10, If the reference procedure is used, can't get to initial conditions in stem. Step 1.b RNO isolates letdown. Revised question
57	H	3												N	S	B, 41.8,
58	H	2												B	S	B, 41.6
59	H	2												B	S	A, 41.4
60	H	2												B	S	D, 41.7
61	H	4												N	E	A, 41.10
62	H	2												B	S	C, 41.5
63	H	3												N	E	A, 41.4, Change temperatures to 557 on B and C response.
64	H	3												M	S	C, 41.4
65	H	3												N	S	D, 41.4
66	F	2												N	S	C, 41.10

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67	F	2	X											N B	U S	C, OR, 41.10, Given the reference, this appears to be a direct lookup. Only knowledge needed is voltage. Replaced KA and question
68	F	4												N	S	A, 41.10
69	F	4 2	X											N B	U S	D, 41.10, Well known surv requirement. LOD=1. Replaced
70	F	2												B	S	C, 41.10
71	F	2												N	S	C, 41.10
72	F	3												B	E	C, 41.12, Suggest one answer be 1500 mRem, Best distracter. Eliminate D (4500 mRem) Revised
73	F	3												N	S	D, 41.12
74	F	4 2	X											B	U S	C, 41.10, Answer given in stem. Functional Restoration Guidelines are FRG's Replaced question
75	F	2												B	S	A, 41.10
76	H	2												B	E	A, 43.5, As written, I can easily eliminate response C and D and only need to decide the correct procedure. Swap first part of response (1) between B and C. B will now read (1)hot leg break and C will be (1) Vapor Space Break. Fixed
77	H	3												N	E	B, 43.5
78	H	3												N	S	C, 43.5
79	H	3												N	S	D, 43.2
80	H	3												B	E	B, 43.5, Change to operate "both" containment spray pumps
81	H	3												N	S	C, 43.2
82	H	3										X		N	U S	B, 43.2. What automatic safety function did not take place? C11 was a control function and appears to be removed from CW by CMP 95-1008. Replaced KA
83	F	2												N	E	D, 43.5 Make question gender neutral (he/she)
84	H	3												B	S	A, OR, 43.5
85	H	3												B	E	D, 43.5

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86	H	3												N	S	C, 43.1 & 5
87	H	3												B	E	D, 43.2 'C' explanation needs cleaning up. Change 'D' When only 1 AFW train is restored, be in Hot Standby in the following 6 hours. Done
88	H	3												N	E	C, 43.5
89	H	3												B	E	C, 43.5 Change B.1 and C.1 distracters to ' Lube oil temperature will be low" This is better distracter. Done
90	H	3												N	E	B, 43.5 The procedure reference is for the Containment Isolation CCW Bypass valves. Correct all CRS Actions for these valves to say bypass valves. Done
91	F	2				X								B	U S	D, 43.7, Is the EDO a specific person, or a position that might be filled by a SRO? See explanation B. Changed "B" and "C" to Director Nuclear Ops
92	H	3												N	E	A, 43.5, Change (1) to say, 'what direction is provided to mitigate the above given conditions? Done
93	H	3												B	E	B, 43.5
94	F	2												N	E	A, 43.1 For C1 and D1, change to read "due to the declaration of an emergency" Done
95	F	3												N	E	A, 43.5
96	F	3												N	E	D, 43.5 Match capitalization in answers to the procedure.
97	F	3												N	S	D, 43.5
98	F	2												N	E	D, 43.4
99	H	3										X		N	U S	A, 43.5 Question is not generic. See ES-401 D.2.a, last sentence of first paragraph. Rewrote question
100	F	3												N	E	D, 43.5 Can applicant argue that Probable and Imminent are the same for answer C? No For "D" – capitalize "CODE RED" as in procedure. Done
RO TOTALS:			B= 31 (41%)					F= 25 (33%)				E= 31 (41%)		Additional Notes:		
			M= 2 (3%)					H= 50 (67%)				U= 12 (16%)				
			N= 42 (56%)									S= 32 (43%)				

SRO TOTALS:	B= 8 (32%)	F= 8 (32%)	E= 16 (64%)	Additional Notes:
	M= 0	H= 17 (68%)	U= 3 (12%)	
	N= 17 (68%)	S= 6 (24%)		
<u>GENERAL COMMENTS:</u>				
1. Chief Examiner comments are indicated in red.				
2. Average difficulty is <u>2.77</u> on the RO exam and <u>3.04</u> on the SRO exam.				