

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
1N	H	2										U		U	B-10, CR. This KA concern RO/SRO functions in the control room so that procedures and facility license are adhered to.
2N	H	3										U		U	C-7, CR. The KA is on a pressurizer vapor space accident and the question is on a spray valve malfunction.
3N	F	2												S	A-5, CR
4N	H	3												S	D-7, CR.
5B	F	3												S	D-10, CR, N05..
6N	H	4												S	B-4, CR, N05.
7B	H	3												S	B-7, CR, N98.
8B	F	3												S	C-5, CR, N00.
9B	F	3												S	B-10, CR.

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.
 - One or more distractors is (are) not credible.
 - 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).
- Based on the reviewer's judgment, is the question as written (U)nacceptable (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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10N	F	2				U								U	D-7, CR. Distractor C is not credible in that an experienced test taker would quickly realize C is a subset of D and therefore cannot be correct.
11N	F	2												S	A-3, CR
12N	H	3										U		U	B-10, CR. The KA focuses on controls, functions, and interlocks. The question concerns the recovery strategy.
13N	H	2												S	A-7, CR.
14N	F	2													C-10, CR.
15N	H	3													D-7, CR.
16N	H	3												S	B-10, CR.
17N	H	3												S	A-7, CR.
18N	H	2													D-4, CR. The KA is about purpose and function. The question is about an intersystem relationship.
19N	H	3												S	D-5, CR.
20N	H	2												S	A-2, CR.
21N	F	2												S	C-12, CR.
22N	H	3												S	D-5, CR.
23N	H	3										U		U	D-5, CR.
24N	H	3										U		U	C-11, CR. The KA is on radiation monitor limitations while the question asks the candidate to diagnose an event and selecting the correct Radmonitor.
25B	H	3												S	C-13, CR.
26N	H	3										U		U	D-7, CR. The KA asks for the function purpose or capacity of emergency systems given an over-cooling event
27N	H	3												S	D-10, CR.
28N	F	3												S	C-3, CR
29N	H	3												S	C-7, CR.

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30N	F	2												S	D-7, CR.
31N	F	3												S	B-10, CR.
32B	H	3												S	B-7, CR.
33N	F	3												S	C-10, CR.
34N	F	3												S	A-4, CR.
35B	F	3												S	C-7, CR.
36N	H	3												S	B-6, CR.
37N	H	3												S	D-7, CR.
38N	F	3												S	B-10, CR.
39N	H	3												S	A-4, CR.
40N	F	2												S	B-4, CR. Not sure this is a memory question.
41N	H	3												S	D-7, CR.
42N	H	3												S	C-4, CR.
43N	H	3												S	C-5, CR.
44B	H	3										U		U	B-10, CR. The question is focused on emergency feedwater and the KA is focused on main feedwater.
45N	F	3										U		U	A-13, CR. The KA requires a question involving the process radiation monitor and the question does not address this component.
46B	H	3												S	B-7, CR.
47N	F	2										U		U	A-7, CR. The KA is a two part KA and the question only addresses one part.
48N	H	3				E								E	C-8, CR. Distractor B is not very credible.

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40N	F	3												S	D-8, CR.
50B	H	4												S	B-11, CR.
51N	H	3												S	B-11, CR.
52N	H	3												S	C-7, CR.
53N	F	3			U									U	D-4, CR. All the distractors are written as T/F statements.
54N	H	3											U	U	A-43.7, CR. This question deals with a refueling malfunction on the refueling floor which makes it an SRO only question.
55N	F	3										U		U	C-10, CR. The question deals with administrative key control and the KA talks about a malfunction and use of procedures to mitigate the consequences.
56N	H	3												S	C-4, CR.
57N	H	3												S	C-7, CR.
58B	F	3												S	B-2, CR.
59N	H	3												S	B-2, CR.
60N	H	3										U	U	U	B-43.7, CR. This is a refueling question and therefore is SRO only. The KA is for RHR system and the question does not address this.
61N	H	2												S	A-5, CR.
62N	F	2										U		U	C-4, CR. This is a two part KA and the question only addresses one part.
63N	H	3												S	B-12, CR.
64N	F	2												S	A-12, CR.
65N	F	3												S	D-4, CR.
66N	H	2												S	B-4, CR.

[illegible]

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85M	H	3											U	U	C-41.10/CR. This question asks what actions should be taken given a set of plant conditions. It needs to be rewritten to focus on procedure selection.
86N	F	3											U	U	A-41.10/CR. This question is based on an administrative control function (tagging) and is therefore an RO question.

	1. LOK (F/H)	2. L O D (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
84N	H	3										U	U	U	C-41.10/CR. The KA requires a question on the affects of venting the RWST on ECCS and what procedure(s) should be used to mitigate the consequences. The question, as written, does not address this. Secondly, the question asks what actions should be taken rather than what procedure should be implemented. This makes it an RO question.
86N	H	3											U	U	D-41.7/CR. This is a systems question and is not SRO only.
88N	H	3										U		U	A-5/CR. This is a two part KA and the question only address the procedure selection part of the KA.
90N	H	2												S	C-7/CR.
91N	H	3												S	B-5/CR.
92N	H	2													A-5/OR.
93N	H	3												S	D-4/CR.
94N	H	3												S	B-2/CR.
95N	F	2											U	U	C-41.7/CR. This is a systems question making it an RO exam question. Suggest rejecting this KA as it will be extremely difficult to write an SRO question for it.
96M	F	2												S	B-3/CR.
97B	F	3												S	C-3/CR.
98M	F											U	U	U	A-41.9/10 CR. First, this appears to be an RO question since it deals with administrative procedures and decay times. Second, the KA is focused on the review and approval of a release permit while the question is focused on the bases for decay time.
99N	H											U		U	B-2/OR. The KA is from the Emergency Procedures/Plan part of the catalogue and the question deals with a tech spec scenario.
100M	H	3											U	U	A-41.7/CR. This is an RO question in that it is a systems question with an instrument failure.

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
					1	2						14	2	U=16 E=1 S=58	RO TOTALS <u>Answers</u> <u>10CFR Distribution</u> A = 41.1 = 41.8 = B = 41.2 = 41.9 = C = 41.3 = 41.10 = D = 41.4 = 41.11 = 41.5 = 41.12 = 41.6 = 41.13 = 41.7 = 41.14 =
SRO N = 19 B=2 M=4	H = 43 (57%) F = 32 (43%)					1						6	9	U-15 E-0 S-10	SRO TOTALS <u>Answers</u> <u>10CFR Distribution</u> A = 6 43.1 = 0 43.5 = 7 B = 6 43.2 = 4 43.6 = 0 C = 7 43.3 = 2 43.7 = 1 D = 6 43.4 = 1 55.41= 8
															GENERAL COMMENTS: 1. It is difficult to determine from the information provided which questions include attachments. The licensee should be contacted to confirm which questions include attachments. 2. Many of the unsat questions on the SRO portion of the exam involve questions that ask for actions to be taken (RO knowledge) rather than procedure selection. 3. The number of SRO higher cognitive questions (72%) exceeds the recommendation (60%) contained in NUREG 1021. 4. Equipment designators are frequently used without the noun name. 5. Several questions test on information that beyond what is required by the KA. 6. Most question were well written from a psychometric flaw perspective with the exceptions noted above.
															NOTE: Bank questions are indicated by B; Modified are indicated by M; New questions are indicated by N; comment resolution is indicated in <i>blue</i> ;