

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	H@	2										Y		B	S	
2	H	3										Y		B	S	
3	H	3										Y		B	S	
4	F@	3										Y		B	S	
5	H	2										Y		B	S	
6	H	3										Y		B	S	
7	F	2										Y		B	S	
8	H	2										N		B	U	Meets K/A for cmt integrity (219000, 216000, or 230000) but not 203000 for LPCI Injection Mode! Is LPCI injecting? Do torus sprays or torus cooling valves have auto close features? RE: Injection signal in but may not be injecting. Change level to -20" and lowering.
9	H@	3										Y		N	S	All 3 trains of SDC are energized from bus 23-1??? RE: Not all SDC is from same bus. Keep Q as is.
10	H	3										Y		M	S	
11	F	2										Y		B	S	
12	F	2										Y		B	S	
13	H@	3										Y		B	E	What does DAN 903-3 A-1 say for why area must be evacuated? References provided are insufficient. RE: DAN requires evacuating area on high radiation levels. No change to Q.
14	F@	2										Y		B	S	
15	F	2										Y		N	S	
16	F	2				X						N		B	U	Explain why this is not a memory question?? Also, what does this have to do with High Offsite Release Rate? Don't you announce starting pumps? Suggest distractors as 2 pump starts and 2 alarm conditions instead of all pump starts and Rx criticality.  RE: Changed distractors to 2 pump starts and 2 alarm conditions. Other pump starts do not require PA since pumps are inaccessible.

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																	Higher LOK due to application of rule.
17	F@	2						?				Y		B	E		Capitalize CAN NOT? Are RO's req'd to know EOP step basis? RE: Yes, EO's are expected to know this information. Capitalized NOT!
18	H	3										Y		B	S		
19	H	2										Y		N	S		
20	F	2										?		B	U S		Doesn't appear to match K/A. Do you have any procedures that would restrict an offsite release based on meteorological conditions? How is the lift in progress material to the question? RE: Blow out panels are release path. Keep question as is.
21	H	3										Y		B	S		
22	F@	2										Y		B	S		
23	H	3										Y		B	S		
24	H	3										Y		N	S		
25	F	3										Y		N	S		
26	F@	2										Y		B	S		
27	F	2										Y		B	S		
28	F@	2										Y		B	S		
29	H	2										Y		N	S		
30	H	3										Y		B	S		
31	H	2										Y		B	S		
32	H	2										Y		B	S		
33	F@	2										Y		N	S		
34	F	2		X								Y		B	E		Answer provided in DEOP 100 first Contingency box in Press leg. Suggest white out on 350 psig in EOP Contingency block. RE: Will whiteout '350' in DEOP 100 contingency block.

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35	H	3										Y		B	S	
36	H@	3										Y		B	S	
37	F	2										Y		B	S	
38	H	2										Y		N	S	
39	H@	2										Y		B	S	
40	F	2										Y		N	U	Question stem written for U3, distractors written for U2! Re: Changed Q during exam such that question stem written for U2.
41	H	2										Y		N	S	
42	H	2										Y		N	S	
43	F	2										Y		N	S	
44	H@	4 2										Y		N	U	Need to increase level of difficulty here!! RE: Q had a 45% failure rate due to ground checks different between units. Change 2 distractors from 5 volts to 10 volts in case applicants add grounds.
45	F	2										Y		N	S	
46	F	2										Y		N	S	
47	F	2										Y		N	S	
48	H@	2										Y		B	S	
49	F	2										Y		M	S	
50	F@	3										Y		B	S	
51	F	3										Y		B	S	
52	H	3										Y		N	S	
53	H@	2										Y		N	S	
54	H	2										Y		M	S	
55	F	2										Y		N	S	

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
56	H	2										Y		B	S	
57	F	2										Y		B	S	
58	H@	2										Y		B	S	
59	H	3										Y		B	S	
60	H	3										Y		B	S	
61	H@	2										Y		N	S	
62	H	2										Y		B	S	
63	H	2										Y		B	S	
64	F@	2										Y		B	S	
65	F	2										Y		N	S	
66	F@	2										Y		N	S	
67	F	2										Y		N	S	
68	F	2										Y		N	S	
69	H@	3										Y		N	S	
70	F	2										Y		B	S	
71	H@	2										Y		B	S	
72	H	3										Y		B	S	
73	F	3										Y		M	S	
74	F	2										Y		B	S	
75	H@	3										Y		N	S	

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1	H@	2	*									Y		B	E	Why are EP charts provided as references for this Q? Too easy – direct lookup. RE: Braidwood missed EP call on this exact situation due to start of 15 minutes clock.. Req'd training at station. Changed distractors so that applicants have to chose when 15 minute clock starts.
2	H	2	*									Y		N	S	
3	H@	3										Y		B	S	
4	F	2										Y		B	S	
5	H	3										Y		B	S	
6	F	2	*									Y		B	S	81
7	F@	2										Y		B	S	
8	F	2										Y		N	S	
9	H	2										Y		B	S	84
10	H	3										Y		B	S	
11	H	3										Y		B	E	I imminent less than 2 minutes? Inserting CRAM rods may not be incorrect as initial operator action. Start from 23" Hg in lieu of 24"? RE: At EOL, need lots of CRAM rods to bite power. Only leaves 1 min 20 sec before reach req'd scram. Not enough time to insert CRAM rods. Leave Q as is.
12	H@	2										Y		N	S	87
13	H	2										Y		N	S	
14	H	3				X						Y		N	U S	Are all DW coolers powered from Bus 33-1? If no, 'C' could be correct answer also! RE: DW coolers powered from Buses 38 & 39. Also C distractor not correct since there was no isolation of DW cooling – no PCIS Level 2 present in Q stem! Leave Q as is.
15	H	2										Y		N	S	
16	H	4										Y		B	S	91

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19	H	3										Y		B	S	
20	H@	3										Y		N	S	
21	H	2										Y		N	S	
22	H	2										Y		N	S	97
23	F@	2		X								Y		B	U	Used 'temporary' in stem and in correct distractor. Suggest using 'portable' in lieu of temporary in distractor. RE: Replaced temporary with portable.
24	H	3										Y		N	S	
25	F	2										Y		N	S	

## Instructions

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

1. Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
2. 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).
3. 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).
4. 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.
5. 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).
6. Enter question source: (B)ank, (M)odified, or (N)ew. Check that (M)odified questions meet criteria of ES-401 Section D.2.f.
7. 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?
8. At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).

@ - Denotes 30 initial review questions that verified references, K/A conformance, level of difficulty and level of knowledge.  
RKWalton 1/20/2010