

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			
1N	F	3													E	B, CR, 41.5 Need reference that is not TS bases to be RO level question. Fixed
2N	H	3													S	B, CR, 41.7
3M	F	3													S	B, CR, 41.7 Need original question Done
4N	H	2													S	A, CR, 41.6
5B	H	3													S	A, CR, 41.7, N97
6B	F	3										X		U	D, CR, 43.5 – It is SRO only because it requires the candidate to evaluate a given set of plant conditions and make a procedure selection based on this assessment. Submitted new question	
7N	H	3													S	C, CR, 41.4
8N	H	3													S	D, CR, 41.4
9N	F	2													S	D, CR, 41.10

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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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
10N	F	3													S	C, CR, 41.10
11N	F	3													S	A, CR, 41.7
12N	F	3													E	B, CR, 41.4 – minor enhancements
13M	H	3													S	A, CR, 41.10, N03 need original question. done
14N	F	4													S	B, CR, 41.7
15N	F	3		X											E	A, CR, 41.8 – The experienced test taker would probably select distractor A if the answer were not known since it is the lowest of the four distractors. Suggest the first distractor be something less than 13 feet. Second, remove the “greater than” symbol from all four distractors since the minimum level is, in fact, 13 feet. revised
16B	H	2													S	A, CR, 41.7
17B	H	3													S	C, CR, 41.1, N99 - Need original question. Done – changed to Bank
18N	H	3													S	B, CR, 41.11
19N	F	3													S	B, CR, 41.4
20N	H	3													S	C, CR, 41.5
21N	H	3													S	D, CR, 41.4
22N	H	3													S	A, CR, 41.7
23N	H	2													S	D, CR, 41.4
24N	F	3										X		U	C, CR, 41.10 - Revise to make RO level knowledge fixed	
25N	F	2													S	D, CR, 41.6
26B	F	2													E	C, CR, 41.11 N07 - Current reading of 100 mr/hr is not “at” the max normal op value as stated in distractor “c.” fixed
27N	F	2													S	C, CR, 4.7
28B	H	3													E	B, CR, 4.7, N00 – Distractor “b” contains a cue. fixed
29N	H	3													E	A, CR, 41.7 - Reword stem for clarification done
30N	H	3													E	D, CR, 41.5 - Distractors don’t answer the question. Revised stem
31N	F	2													S	B, CR, 41.7
32B	H	3													S	B, CR, 41.7, N97

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
33N	H	3													S	D, CR, 41.7
34N	H	2													S	A, CR, 41.7
35N	F	2													S	B, CR, 41.10
36M	H	3													E	B, CR, 41.6, N97 - need original question <i>done</i> - minor enhancements
37M	H	3										X			U	A, CR, 41.6, N00 - KA requires "procedures to correct/control/mitigate..." Also, need original question. <i>fixed</i>
38N	F	2													S	D, CR, 41.6
39B	H	3													E	D, CR, 41.7 minor enhancements – <i>removed cue from stem</i>
40N	F	3													U	C, OR, 41.7 Direct lookup with reference – <i>revised, removed ref</i>
41N	H	3													E	C, CR, 41.7 – Both G33-F004 in the stem and G33-F054 in the correct distractor C have the same noun name. Revise noun names to include RWCU pump suction and discharge valves. <i>fixed</i>
42N	H	3													S	C, CR, 41.7
43N	H	3													S	B, CR, 41.3
44N	H	2													S	D, CR, 41.13
45B	F	2													S	D, CR, 41.7, N07
46B	H	3													E	C, CR, 41.4 N97 – Clarify distractors C & D. <i>done</i>
47N	H	3													S	C, CR, 41.4
48N	F	3				X									E	C, CR, 41.4 – Need to revise distractor wording
49N	F	3													S	A, CR, 41.4
50N	F	3													S	B, CR, 41.4
51N	H	3	X												U	C, CR, 41.7 – The stem asks about changes in reactive load or KVA. KVA is not reactive load; KVAR is reactive load. <i>fixed</i>
52N	H	3													E	A, CR, 41.4 – KA requires "procedures to correct/control/mitigate..." <i>fixed</i>
53B	H	3													S	B, CR, 41.4, N04
54N	H	3													S	B, CR, 41.10
55B	H	3													E	C, CR, 41.6, N99 – Delete the second part (i.e. following "due to") of the distractors

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only				
																because it provides unnecessary cuing. Done	
56N	F	3													S	C, CR, 41.7	
57M	H	3													E	D, CR, 41.7, N03 - need original question done – minor enhancements to distractors	
58N	H	4													S	A, CR, 41.5	
59B	F	4											X		U	A, CR, 43.7 – SRO only because it is testing on the refuel bridge and has no correlation to actions/activities in the control room. Selected new KA and submitted new question	
60N	F	3					X							X		U	A, CR, 41.10 – It could be argued there is more than one correct answer. It is correct that it is preferred to send the RPV energy to the main condenser to conserve the margin to the HCTL. It is also true that the reason for maintaining the margin to the HCTL is to preclude exceeding the PCPL. Therefore, distractors a and d could be argued to both be correct. Also, is EOP bases RO level knowledge? Submitted new question
61N	H	2													S	A, CR, 41.4	
62B	F	3													S	A, CR, 41.4 N97	
63N	F	3													S	C, CR, 41.4	
64B	F	4													S	D, CR, 41.4, N00	
65N	F	3													S	B, CR, 41.6	
66B	F	2										X			U	D, CR, 41.5 - Doesn't test ability to use the plant computer. Submitted new question	
67B	F	2	X												E	C, CR, 41.10, N99 – Revise the question in the stem to “What is required following this evolution?” fixed	
68B	F	4													S	B, CR, 41.10	
69N	F	2													S	C, CR, 41.10 - Need reference. Done	
70N	F	3					X								E	C, CR, 41.10 – Distractor d could be considered a subset of distractor c since both of them allow entry into the switchyard. Change distractors a and d to “...directly enter the switchyard...” fixed	
71N	F	2													S	B, CR, 41.10	
72N	F	2													S	B, CR, 41.12	
73B	H	3													S	D, CR, 41.7 N99	

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74B	H	3													S	B, CR, 41.10 N93
75N	F	2													E	B, CR, 43.7 – need learning objective done

RO TOTALS:	B= 18	F= 37 / 49%	E= 18													Additional Notes:
	M= 6	H= 38 / 51%	U= 8													
	N= 51		S= 49													

SRO TOTALS:	B=	F=	E=													Additional Notes:
	M=	H=	U=													
	N=		S=													

GENERAL COMMENTS:

- Bank questions are indicated by B; Modified are indicated by M; New questions are indicated by N.
- Chief Examiner comments are indicated in *blue*.
- Average difficulty is 2.8.
- The answer distribution is: RO / SRO
 A = 17 (23%)
 B = 22 (29%)
 C = 20 (27%)
 D = 16 (21%)
- There are zero RO questions with proposed references.

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76N	H	3													S	D, CR, 43.5
77N	H	3											X		U	A, CR, 41.10 – Not SRO-only. Entry conditions to major EOP's and RPS trip setpoints is RO knowledge. Note: add the word "to" between due and TSV in distracters b & d so they read correctly. submitted new question
78N	H	3											X		U	B, CR, 41.10 – This is an RO question since there is no procedure selection (all the distractors reference the same procedure) and tests on AOP entry conditions and specific operator actions. submitted new question
79N	H	3													S	B, CR, 43.5
80N	H	3													E	A, CR, 43.5 – minor enhancements made
81N	F	3											X		U	B, CR, 41.5 – This is an RO question because it tests on operating limits, indications, locations of component controls. Resubmitted new question

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82N	H	3													S	D, CR, 43.5
83N	F	3													E	B, CR, 43.2 minor enhancements made
84N	H	3													E	B, CR, 43.5 minor enhancements made
85N	H	3													E	A, OR, 43.5 enhancements made
86N	H	2	X									X	X		U	C, OR, 41.10 – This is an RO question because it tests on specific operator actions to be taken in response to a set of conditions. KA requires “Predict impact of high supp pool temp and use procedures to correct/control/mitigate.” Referenced procedures and eliminated handout
87N	H	3													E	D, CR, 43.5 enhancements made
88N	H	3													E	C, OR, 43.5 minor enhancements made
89N	H	3													E	B, CR, 43.5 enhancements made
90N	F	2				X						X	X		U	A, CR, 41.10 – This is an RO question because it tests on specific operator actions to be taken in response to a set of conditions. It is a KA mismatch because it does not address the “predict the impact” part of the KA. It is graded as difficulty level 1 because it is intuitive the first action would be to attempt to start the pump that failed to auto start, and distracters c and d don’t make sense. submitted new question
91N	H	3											X		U	C, CR, 41.10 – This is an RO question because it tests on systems knowledge and specific operator actions to be taken in response to a set of conditions. revised question with procedure entry in all distractors
92N	H	4													S	C, CR, 43.2
93N	H	2													E	B, CR, 43.5 minor enhancements made
94N	F	3	X												U	D, OR, 41.10/43.1 – Direct lookup with handout – too hard without handout. submitted new question
95N	F	3													S	C, CR, 43.7
96N	F	2													S	C, CR, 43.3
97N	F	3													E	C, CR, 43.4 minor enhancements made
98N	F	3													E	A, CR, 43.4/5 minor enhancements made
99N	F	3													S	C, CR, 43.5
100N	F	3										X			U	C, CR, 41.10 – This is an RO question because it tests on specific operator actions to be taken in response to a set of conditions. revised question with procedure entry in

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																all distractors	
RO TOTALS:					B=			F=								E=	Additional Notes:
					M=			H=								U=	
					N=											S=	
SRO TOTALS:					B= 00			F= 10								E= 10	Additional Notes:
					M= 00			H= 15								U= 8	
					N= 25											S= 7	
<u>GENERAL COMMENTS:</u>																	
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2. Chief Examiner comments are indicated in <i>blue</i> .																	
3. Average difficulty is 2.8.																	
4. The answer distribution is: A = 5 (20%) B = 7 (28%) C = 9 (36%) D = 4 (16%)																	
5. There one question with proposed references.																	
6. CR = Closed Reference OR = Open Reference																	