	LOK			Psych	ometric	Flaws			Job Conte	nt Flaws		Ot	her		
Q#	LOK	LOD	Stem			Cred		Job		#/	Back	Q=	SRO	U/E/S	Explanation
	(F/H)		Focus	Cues	T/F	Dist	Partial	Link	Minutia	Units	ward	K/A	Only		•
1B	Н	2											Í	S	
2	Н	3				Х	Χ							E/S	B is true and the same as D; editing distractors
3B	Н	3				Х								E/S	change "remains constant" to "Higher"; changed
4B	Н	3												S	
5B	Н	3												S	
6B	Н	4					E							E/S	Distractor C is technically correct since this action will mitigate the rise in the B CCW surge tank. Recommend changing the distractor or be more specific in the stem. editing stem.
7	Н	2	Х											E/S	change "immediate" to "initial observable" in stem; changed
8B	F	3	E											E/S	Recommend stating in the stem that power is above P-7; changed
9	F	3												E/S	Recommend removing "Of the following choices" from the stem. changed
10	Н	3												S	
11	F	3												S	
12	F	3												S	
13	H	2												S	
14	F	3												S	TI : (1) :
15 <del>B</del>	F	2	U			U	U							U/S	The premise of the question is good, but needs rework.  Answer D is implausible since traps are in place to remove excess moisture. Answer A could be correct when the steam system is not operating (lay-up). The stem needs to be more specific as to plant conditions. replaced
16M	Н	3				Х								E/S	use 506 and 508 twice in the distractors; fixed
17	Н	3												S	
18M	Н	2												S	
19M	Н	2												S	
20B	F	2												S	
21	F	2	Х											E/S	Change 0935 to 0945 in stem; fixed
22B	F	2	U											U/S	As written, this is a GFES level question. Recommend rewriting to make it more plant oriented or choose another KA; also, there is no correct answer listed since the correlation with distance is inverse square, not exponential; new KA and new question

	LOK			Psych	ometric	Flaws			Job Conte	nt Flaws	;	Ot	her		
Q#	(F/H)	LOD	Stem Focus	Cues	T/F	Cred Dist	Partial	Job Link	Minutia	#/ Units	Back ward	Q= K/A	SRO Only	U/E/S	Explanation
23	Н	3												S	
24B	Н	2												S	
25	Н	2												S	
26	Н	3					U							U/S	The setpoint for 91A is 105psig. This is the same point where the unselected air dryer comes on-line. It seems there are 2 correct answers, B and C. replaced C and D
27	F	3												S	
28	F	2												S	
29	Н	3												S	
30B	ĘΗ	2										U		U/S	KA mismatch. new KA and question.
31B	F	2												S	
32B	Н	3					Е							E/S	change stem to "plant stable at 100%"; fixed
33	F	3												E/S	Change the "OR" in distractor B to "AND".
34B	H*	2												S	
35B	F	3												S	
36	F	2												S	
37	Н	3												S	
38	F	3												S	
39	F	3												S	
40	Н	4										Χ		U/S	doesn't test knowledge of REASONS per KA; modified
41B	Н	4												S	
42	Н	3												S	
43B	Н	3												S	
44	Н	3	E			E								E/S	Recommend changing the distractors to add 8 minutes for total time CCW is lost to RCPs of 10 minutes.  Remove the 2 or the 3 minutes. Improve the stem to make it clear that the answer is how much longer before the RCPs must be tripped. fixed
45B	F	2												S	
46B	F	3												S	
47B	Н	3	Х											E/S	reword "describes a plant concern"; fixed
48B	Н	3												E/S	add "ONLY" to A and C; fixed
49B	Н	3				U								U/S	Distractors C and D have low discriminatory value since the stem says that the pipe break is at the S/G, and it should be known by all operators that the valves do not butt up against the generators. C and D fixed

o# LOK			Psych	ometric	Flaws			Job Conte	nt Flaws	;	Ot	her			
Q#	(F/H)	LOD	Stem Focus	Cues	T/F	Cred Dist	Partial	Job Link	Minutia	#/ Units	Back ward	Q= K/A	SRO Only	U/E/S	Explanation
50B	F	1				U				<b>5</b>			Jy	U/S	A is not plausible since the loads branch off the bus. D has low discriminatory value since the MFP and turbine systems are non-1E; answer is too obvious and easy. replaced
51	Н	2	E			Е								E/S	The 7% with no discernment as to whether it is WR or NR is incorrect. The minimum level is 7% NR. (B and D) This is in accordance with both the EOP and Basis. fixed
52B	F	3												S	
53B	F	4				Е								E/S	Need to expand on what "the transient" is in distractor A. fixed
54	F	2												S	
55B	F	3	Ш											E/S	The basis document alludes to using other plausible indications for leak isolation which could lead to more than one correct answer, specifically D. Recommend rewording stem to ensure that cooldown is not in progress or anything else that could arguably mask a pressure increase. fixed
56B	Н	4												E/S	Each distractor has one action. Remove the is/are parenthetical plurals from the stem. fixed
57B	F	2												S	change stem to "parameters' initial change will be to DECREASE?" fixed
58	F	3												S	
59B	F	2												E/S	Recommend reference HDP-ZZ-01500 in the stem. fixed
60B	Н	3												S	
61	F	2				Е								S	
62B 63B	H	3				E								S E/S	C and D need work for credibility; A needs clarification; reworked.
64	Н	3				E						Х		U/S	Distractor D is not plausible because FR-C is not Integrity; doesn't test knowledge of REASONS per KA; replaced
65B	Н	2												S	
66B	Н	3												S	
67B	Н	2												S	
68B	F	3					Х							E/S	doesn't the correct answer depend on the particular valve? clarified

	LOK			Psych	ometric	Flaws			Job Conte	nt Flaws	3	Ot	her		
Q#	(F/H)	LOD	Stem Focus	Cues	T/F	Cred Dist	Partial	Job Link	Minutia	#/ Units	Back ward	Q= K/A	SRO Only	U/E/S	Explanation
69B	F	2				Е	Х							E/S	Distractor D is not credible; fixed
70B	F	3												S	·
71B	F	4				Е	Х							U/S	Distractor C is not credible (or is it possibly correct?). replace C
72B	H/F	3												E/S	Is 500F correct? No reference for this. rework
73	F	3												S	
74	F	3												S	
75	F	3												S	
76	Н	2												S	
77B	Н	4		х		x								E/S	Each distractor states close the block valve. As stated in the stem, the block valve is already closed, and therefore is not an action to be taken. Also, maintaining power within 1 hour is not a credible distractor since the block valve is already energized and is not an action required by TS. fixed
78	Н	4	U											U/S	Justification for transition to ECA 3.1 assumes RCS subcooling <50F. The stem does not indicate this condition. RCS subcooling is >50F. No indication of adverse containment is given. No indication of intact steam generator pressure is given. Based on this, this question cannot be answered. fixed stem
79	Н	3												E/S	Initial conditions (power) in stem? fixed
80B	Н	3					Е							E/S	Distractor B could be argued as correct. fixed
81	Н	3											x	U/S	This appears to be an RO-LOK question. Only three specific items are required to answer this question: What is the setpoint for auto isolation to RADWASTE; are the RCP's cooled by the RADWASTE connection, and do we scram when RCP seal cooling is not lost?  new KA and question
82B	Н	3												S	
83B	Н	3												S	
84B	Н	3												S	
85	Н	3										U		U/S	Basis document BD-FR-C.2 states PORVS are preferred to prevent lifting of the safety valves during pressure excursions and to limit the effect of the excursions. This requires no knowledge of a safety limit or LCO. replaced

	LOK			Psych	ometric	Flaws			Job Conte	nt Flaws	3	Ot	her		
Q#	(F/H)	LOD	Stem Focus	Cues	T/F	Cred Dist	Partial	Job Link	Minutia	#/ Units	Back ward	Q= K/A	SRO Only	U/E/S	Explanation
86	Н	2										Х		U/S	doesn't deal with failure modes of instrumentation per KA; randomly selected new K/A.
87	Н	3												S	
88B	Н	2											Х	U/S	is this SRO? fixed
89B	F	2	Х		U	X								U/S	True false statements. This is basically asking which of the following is true where a "loss of offsite power" is placed in front of every statement. C isn't credible; stem is unclear; replaced
90B	Н	2				Х								E/S	make A more credible; fixed
91	Н	2												S	
92B	Н	3												S	
93B	Н	3												S	
94B	Н	4				Х								E/S	"GREEN" makes D not credible; fixed
95B	F	2	Χ			Х								E/S	Minimum by what standard? fixed
96B	F	3												E/S	verify reference changed reference
97	F	2											X	U/S	is this SRO only? replace
98B	F	2												E/S	Are the listed doses DDE or TEDE or TODE? fixed
99	F	2	U			U								U/S	Low discriminatory value since PARS are not issued for SAE. The question is confusing as worded. replaced
100B	Н	4												S	

### ES-401

# Written Examination Review Worksheet

# Form ES-401-9

	LOK			Psycho	ometric	Flaws			Job Conte	nt Flaws		Otl	her		
Q#	(F/H)	LOD	Stem Focus	Cues	T/F	Cred Dist	Partial	Job Link	Minutia	#/ Units	Back ward	Q= K/A	SRO Only	U/E/S	Explanation
	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:														
	<ul> <li>The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).</li> <li>The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).</li> <li>The answer choices are a collection of unrelated true/false statements.</li> <li>The distractors are not credible; single implausible distractors should be repaired, more than one is unacceptable.</li> <li>One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).</li> </ul>														
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. 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?
- 7. At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).