

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SR O Only				
1	F	3											Y	N	B	S	
2	H	4											Y	N	N	U S	Are you certain that annunciator 901-4 A-1 RRCS MAROR FAILURE will NOT alarm for a failure from 96% speed to 20% speed? If it did alarm I would say there is no correct answer. Resolution: Stem changed to a failure that will not cause a RRCS MAROR FAILURE alarm.
3	H	3											Y	N	B	S	
4	H	3											Y	N	N	S	
5	H	2											Y	N	N	E S	Consider changing the correct answer to " has had a trip of the running CRD pump." Resolution: Change made
6	H	3											Y	N	N	S	
7	F	3											Y	N	B	S	
8	F	3											Y	N	B	S	

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 a 1(easy) to 5 (difficult); (questions with a difficulty between 2 and 4 are acceptable)
- Check the appropriate box if a psychometric flaw is identified:
 - "Stem Focus": The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
 - "Cues": The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc.).
 - "T/F": The answer choices are a collection of unrelated true/false statements.
 - "Cred. Dist": The distractors are not credible; single implausible distractors should be repaired, more than one is unacceptable.
 - "Partial": 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:
 - "Job Link": 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).
 - "Minutia": 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).
 - "# / Units": The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
 - "Backward": 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 K/As that are *designated SRO-only* (K/A and license level mismatches are unacceptable)
- Enter question's source: (B)ank, (M)odified, or (N)ew. Verify that (M)odified questions meet the 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" Status ratings (e.g., how the Appendix B psychometric attributes are not being met).

ES-401
ES-401-9

Written Examination Review Worksheet

Form

* every third question was checked for initial review and verification of references
+ all question KA were checked

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation		
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SR O Only					
9	H	2											Y	N	N	?	S	When the HPCI water level reaches 50" flooding out the electrical equipment will the water level be below the level of the secondary containment doors? If water is at the door level "D" could be correct. Resolution: Walk down of the HPCI room confirmed doors above the 50" level.
10	H	3											Y	N	B	S		
11	H	3											Y	N	N	S		
12	H	3											Y	N	N	U	S	I would argue that "C" not "A" is the correct answer, because the Div I RHR loop is not lined up for shutdown cooling the pumps are not available to provide cooling. Resolution: Stem changed to state that loop "A" of RHR is in standby.
13	M	4											Y	N	N	E	S	Change the stem to make it clear we are only asking what actions the <u>Unit 1</u> operator must take. With Unit 2 in a refueling outage he would have other actions. Resolution: Change made
14	H	2											Y	N	N	S		
15	H	2											Y	N	N	S		
16	H	3											Y	N	N	?	S	Is there any auto start signal that will start the 1A instrument air compressor when it is in standby? Resolution: There is No auto start signal. No change needed.
17	H	3											Y	N	B	S		
18	M	2											Y	N	B	S		
19	M	3											Y	N	B	S		
20	H	3											Y	N	N	S		
21	H	2											Y	N	N	U	S	I am not aware that cavitation causes "overheating" of the pump. The only concern I am aware of is erosion damage to the pump. If overheating is not a concern there is no correct answer.

																	Resolution: From GFES training candidates are aware that overheating can be caused by pump cavitation.
22	H	3										Y	N	B	S		
23	M	3				x						Y	N	B	U S		Distractors "A" and "C" are not credible. No one would believe we would trip the plant to maintain testing flexibility. Resolution: Distractors changed to be based on EOP bases.
24	H	3										Y	N	N	S		

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Laws					4. Job Content Laws				5. Other		6. Source (B/ M / N)	7. Status (U / E / S)	8. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	# / Units	Backward	Q – K/A	SR O Only				
25	H	2											Y	N	N	S	
26	H	3											Y	N	N	S	
27	H	3											Y	N	N	E S	Add "IRM" to the question stem, i.e. "the NSO depresses and holds the IRM DRIVE OUT pushbutton. Resolution: No change need the same button withdraws both the SRMs and the IRMs.
28	M	3											Y	N	N	S	
29	H	3											Y	N	N	S	
30	H	3											Y	N	N	S	
31	H	3											Y	N	B	S	
32	H	3											Y	N	N	S	
33	M	3											Y	N	B	S	
34	M	3											Y	N	N	S	
35	H	3											Y	N	N	S	
36	M	2											Y	N	B	S	
37	M	3											Y	N	B	S	
38	M	3											Y	N	N	S	
39	M	3											Y	N	N	S	
40	H	3											Y	N	B	S	
41	M	3											Y	N	N	S	
42	H	3											Y	N	N	E S	Rather than, "After five minutes, the ANSO noted the Standby Gas Treatment System (SBGTS) indications shown above." Can we say, "After five minutes, the ANSO checks the Standby Gas Treatment System (SBGTS) for proper operation." Resolution: Changes made

43	H	4										Y	N	N	S	
44	M	3										Y	N	N	S	
45	M	2										Y	N	B	S	
46	M	3										Y	N	B	S	
47	H	2										Y	N	N	S	
48	M	3										Y	N	N	S	
49	H	3										Y	N	N	S	
50	H	3										Y	N	B	S	
51	H	2										Y	N	B	S	
52	M	2										Y	N	B	S	
53	M	4										Y	N	B	S	
54	H	3										Y	N	N	S	
55	H	4										Y	N	B	E S	Consider changing the phrase "WILL NOT ALLOW" to "PROCEDURALLY PROHIBIT" to make it clear we are not talking about a hardware limit. Resolution: Stem revised
56	M	2	X									Y	N	B	U	There is no correct answer to this question. If the Ro has been active for the past six months he must have had 2 quarters of minimum watches. Write the stem with specific dates. i.e. Today is May 15 th which of... to take the watch on August 1. Resolution: Stem revised to add clarity
57	M	3										Y	N	N	S	
58	M	4										Y	N	N	S	
59	M	4										Y	N	B	S	
60	M	4										Y	N	B	S	
61	H	3										Y	N	N	S	

62	M	2										Y	N	N	S	
63	M	4										Y	N	N	S	
64	M	2										Y	N	N	S	
65	M	4										Y	N	N	S	
66	M	2										Y	N	N	S	
67	H	4										Y	N	B	S	
68	M	3										Y	N	N	S	
69	H	4										Y	N	N	S	
70	M	2										Y	N	B	S	
71	H	2										Y	N	B	S	
72	H	3										Y	N	M	S	
73	H	2										Y	N	N	S	
74	H	3										Y	N	N	S	
75	H	3										Y	N	B	S	
76	H	3										Y	Y	N	E	In each of the answers add the procedure name and number i.e. B. The US using QOA 6900-10 LOSS OF TURBINE BUILDING BUS 1A-2 this action will require declaring the Unit 2 battery inoperable. Resolution: Procedural references added.

77	H	4										Y	Y	N	S	
78	H	3										Y	Y	N	E	Add a phrase to each of the answers linking it to QGA 101 i.e. A, Dispatch an operator to close the 2C Circ Water Pump discharge valve, in order to maintain the ability to control pressure in accordance with QGA 101 PRESURE Leg. Resolution: Procedural references added.
79	H	3										Y	Y	N	S	
80	H	3										Y	N	N	U S	I would say this question can be answered solely with system knowledge and therefore is not SRO level. Resolution: No change this question is based on a SRO only training objective.
81	H	3										Y	Y	B	S	
82	H	3	X									Y	Y	N	E	Does the stem make it clear that a Reactor trip has occurred? Change the stem to ..., Using QGA 100 what direction would the SRO give as the transient continued? Resolution: Procedural references added.
83	M	3										Y	Y	B	S	
84	H	3										Y	Y	N	E	Add a procedure tip to each of the answers i.e. Per QGA 100, Inhibit ADS. Or. Change the stem to QGA 100 and QGA 200 have been entered. Based on the above information above, the SRO will place the first priority on which ONE of the following actions? Resolution: Procedural references added.
85	H	4										Y	Y	N	S	
86	H	3										Y	Y	N	E	ADD to the stem. "QGA 100 and 200 have been entered." As the second sentence. Resolution: Procedural references added.
87	H	3										Y	Y	B	S	
88	H	3										Y	Y	B	S	
89	H	4										Y	Y	N	S	
90	H	2										Y	Y	B	S	
91	H	2										Y	Y	N	S	Why have you removed the pressure value of the procedure excerpt? Resolution: This is information required to be known from memory.

92	H	3										Y	Y	M	S	
93	H	3										Y	Y	N	E	Add procedural numbers and names to part (2) of answers "A" "C" & "D". Resolution: Procedural references added.
94	H	3										Y	Y	B	S	
95	M	3										Y	Y	N	S	
96	M	4										Y	Y	B	S	
97	M	2										Y	Y	B	S	
98	H	3										Y	Y	N	S	
99	H	3										Y	Y	N	S	
100	M	2										Y	Y	B	S	