

APPENDIX E - REGION IV OPERATING TEST JOB PERFORMANCE MEASURE QUALITY REVIEW MATRIX											
JPM#	1. Dyn (D/S)	2. LOD (1-5)	3. Attributes					4. Job Content Errors		5. U/E/S	6. Explanation (See below for instructions)
			IC Focus	Cues	Critical Steps	Scope (N/B)	Over-lap	Job-Link	Minutia		
P1	S	3								S	Combines elements of Admin and field actions. OK.
P2	S	3								S	
P3	S	3								S	Involves acquiring material to perform. Validation should include close scrutiny of actions.
S1	D	3								S	
S2	D	3								S	
S3	D	3								S	
S4	D	3								S	
S5	D	3								S	
S6	D	3								S	May require some time compression.
S7	D	3								S	
S8	D	3								S	Has a lot of critical steps.

Instructions for Completing Matrix

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1. Determine whether the task is dynamic (D) or static (S). A dynamic task is one that involves continuous monitoring and response to varying parameters. A static task is basically a system reconfiguration or realignment.
2. Determine level of difficulty (LOD) using established 1-5 rating scale. Levels 1 and 5 represent inappropriate (low or high) discriminatory level for the license being tested.
3. Check the appropriate box when an attribute weakness is identified:
 - The initiating cue is not sufficiently clear to ensure the operator understands the task and how to begin.
 - The JPM does not contain sufficient cues that are objective (not leading).
 - All critical steps (elements) have not been properly identified.
 - Scope of the task is either too narrow (N) or too broad (B).
 - Excessive overlap with other part of operating test or written examination.
4. Check the appropriate box when a job content error is identified:
 - Topics not linked to job content (e.g., disguised task, not required in real job).
 - Task is trivial and without safety significance.
5. Based on the reviewer's judgment, is the JPM as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
6. Provide a brief description of problem in the explanation column. Provide conclusion on whether JPM SET criteria satisfied (i.e., number/distribution of safety functions, A.3 and A.4 integrated with parts B/C, Admin topics per section meet ES).

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			IC Focus	Cues	Critical Steps	Scope (N/B)	Over-lap	Job-Link	Minutia		
RO-A2	N/A	3								S	
S/RO-A1/A2	N/A	3								S	
RO-A3	N/A	3								S	
S/RO-A1-1	N/A	3								S	

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ROSRO A1-2	N/A	3								S	
RO A-3	N/A	3								S	
SRO A-2	N/A	3								S	
SRO A-4	N/A	3								S	
ROSRO A1-1	N/A	3								S	

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6. Provide a brief description of problem in the explanation column. Provide conclusion on whether JPM SET criteria satisfied (i.e., number/distribution of safety functions, A.3 and A.4 integrated with parts B/C, Admin topics per section meet ES).

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	Backward	Q=K/A	SRO Only			
1B	F	2											-		S	
2M	F	3											-		S	
3B	H	2											-		S	
4	H	3											-		S	
5	F	3											-		S	
6	H	3					X						-		U	all answers seem correct;
7M	H	3				X							-		U	D not credible since B is subset of D;
8	H	3											-		S	
9	H	3											-		S	
10	H	3											-		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 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).

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	Backward	Q=K/A	SRO Only			
11	F	3	X										-		E	change stem to "Which ONE (1) of the following is true regarding power to SSPS B input relays? Power is supplied by:"
12B	H	3					X						-		E	references do not support answer;
13B	F	3											-		S	
14M	F	2											-		S	
15	H	3											-		S	
16	H	3											X		E	explanation for B doesn't make sense; KA on Q doesn't match outline;
17B	F	3	X										X		U	stem doesn't say whether the CSAS actuation is spurious or not; doesn't test knowledge of operator responsibilities regarding CCS per KA;
18	H	3					X						-		U	is there a correct answer? Won't the control system close the other steam dumps and maintain Tave and Power about constant?
19	H	3											-		E	change "will" to "to" in stem;
20	H	3											-		S	
21	H	3											-		E	change stem to "synchronized and loaded...";
22	F	3											-		S	
23B*	H	3											-		E	doesn't qualify as "modified" - must be counted as "bank"; typo in KA block of Q;
24	H	3	X			X							X		U	how does the reader know HS-A isn't in ISO/RUN? D is not credible; doesn't test knowledge of the effect of loss/ malfunction of the FUEL OIL STORAGE TANKS will have on the EDG per KA;
25	H	3				X							-		E	A is not credible since D is a subset of it;
26	H	2				X							X		U	A, B, and D are not credible (subsets); doesn't test knowledge of connection/relationship btwn SWS and its EMERGENCY HEAT LOADS per KA; explanation doesn't match question;
27	H	3											X		U	doesn't test knowledge of IAS features/interlocks providing for MANUAL/ AUTOMATIC TRANSFERS OF CONTROL per KA;
28B	F	3											-		S	

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	Backward	Q=K/A	SRO Only			
29	H	3					X						-		E	do the falling rods "result in" a trip?
30B	H	3											-		E	stem says "no action by the crew" - so how is "plant load reduced"?; indicate that 17% in C is PZR Level;
31	F	3											-		S	
32M	H	2											-		E	typo in KA block of Q;
33B	F	3											-		S	
34B	H	2				X							-		U	A, C, and D are not credible; explanation of A doesn't match A;
35B	F	3											-		S	
36	F	3											-		S	
37B	F	3											X		U	NRC 2002 - NRC identified; doesn't test knowledge of effect of loss/malfunction of WGDS will have on ARM and PRM per KA;
38	F	3											-		S	
39	H	3											-		S	
40	H	2											-		S	
41	H	3											-		S	
42B	H	3											-		S	
43B	H	2				X							-		U	NRC 2004; B and C are not credible;
44	H	3											-		S	
45	H	2				X							X		U	A and B are not credible; doesn't test ability to determine/interpret TS limits for RCS pressure per KA;
46	F	3											-		S	
47	H	3				X							-		E	add "only" to A;
48M	H	3				X							-		E	add "only" to B;

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	Backward	Q=K/A	SRO Only		
49	H	3										-		S	
50B	H	3										-		S	
51M?	H	3										-		E	Q called "new", but appears to have been "modified" from attached parent;
52	H	3										-		S	
53	H	3										-		S	
54B	F	2										-		S	NRC 2002 - NRC identified;
55	H	3		X		X						-		U	change B to "...to prevent pump cavitation."; handout cues answer;
56B	F	3										X		U	doesn't test ability to OPERATE/MONITOR desired operating results during steam line rupture per KA;
57	F	3										-		E	change D to "...acknowledged only if...";
58B	F	2										-		S	
59	F	2										X		U	doesn't test knowledge of biological effects and units for exposure per KA;
60	H	3										X	X	U	uses backward logic; doesn't test knowledge of reasons for coolant chemistry effects during rediagnosis per KA;
61B*	F	3										-		E	doesn't count as "modified" - must count as "bank"; change stem to "...blocking the low steamline pressure SI";
62B	F	3										-		S	
63B	F	3										-		S	
64	F	3										-		S	
65	H	3										-		S	
66B	F	2										-		S	NRC 2002 - NRC identified;

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
67B	F	2											-		E	explanation of B doesn't match B;
68B	F	3											-		S	
69	H	3											-		S	
70B*	H	2											-		E	doesn't count as "modified" - must count as "bank";
71B	H	3											-		S	
72	H	3											-		S	
73	F	2											-		S	
74	H	3											-		S	
75B	F	2				X							-		U	C and D not credible;
76B	H	3		X		X							X	-	U	KA on Q doesn't match KA on outline; handout makes B and D not credible;
77B	F	2											-	-	S	
78	H	2											-	-	S	
79	H	3		X		X							-	X	U	handout makes B and D not credible; this is RO-level knowledge (55.41.b.10);
80	H	3											-	-	E	typo in KA block; is the stem missing the word "sink"?
81	H	3											-	-	S	
82	H	2											X	-	E	KA on Q doesn't match KA on outline;
83	H	3											-	-	S	
84	H	3											X	X	U	KA on Q doesn't match KA on outline; this is RO-level knowledge;
85	H	3				X	X						-	-	U	cannot tell the difference between A and B; D is not credible (reference to RWST alarm not mentioned in stem);

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only		
86B	H	2										-	-	S	
87B	H	3					X					-	-	E	edit B and D to make them identical except for initiating SI;
88B	H	4							X			-	-	E	is this required to be known by memory?
89	H	3										-	X	U	this is RO-level;
90	F	2				X						-	X	U	C and D are not credible; this is RO-level;
91	H	2				X						-	X	U	D not credible (recommend replacing with actions for 2 rods misaligned within a group); explanation of A is incorrect; this is RO-level;
92	F	2										-	-	E	add "only" to A and D;
93	H	3				X						-	-	U	A is not credible;
94B	H	3										-	-	S	
95B	F	3										-	-	S	
96B	H	3		X								-	-	U	ODP handout not provided; TS handout provides direct lookup;
97B	F	2										-	X	U	NRC 2002 - NRC identified; this is RO-level (55.41.b.13)
98M	H	2										-	X	U	this is RO-level (55.41.b.12)
99B	H	3										-	-	S	NRC 2002 - NRC identified;
100	F	2										-	-	S	
27B 6M	45H 30F		3X	1X		11X	4X				1X	10X		16U 18E	RO TOTALS
10B 1M	19H 6F			3X		6X	2X		1X			3X	7X	11U 5E	SRO TOTALS
															GENERAL COMMENTS: 1.
															NOTE: Bank questions are indicated by B ; Modified are indicated by M ; comment resolution is indicated in <i>blue</i> ;