

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	Back-ward	Q=K/A	SRO Only		
1														S	
2														S	
3							X							U	condition in stem made correct answer incorrect; <i>modified condition</i>
4							X							U	stated answer was incorrect; <i>further info brought by licensee incorporated into correct answer</i>
5														S	<i>editing to make answer more clear</i>
6							X							U	'D' distractor too close to being correct answer; <i>rewrote distractor.</i>
7														S	
8														S	
9														S	
10														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.
  - More than one distractor is 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).

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11														S	editing; <i>corrected</i>
12														S	
13														S	
14														S	editorial; <i>corrected</i> .
15														S	editorial; <i>corrected</i> .
16														S	
17														S	editorial; <i>corrected</i>
18														S	
19								X						U	question did not reflect realistic situation; <i>question replaced</i> .
20														S	
21														S	
22														S	
23														S	
24														S	
25														S	
26														S	
27								X						U	distractor too close to right answer (minutia related); <i>distractor changed</i>
28														S	
29														S	
30														S	

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31															S	
32															S	
33															S	
34								X							U	distractor 'D' could be correct sometimes; <i>changed distractor</i>
35															S	
36															S	
37									X						U	procedures have been revised such that question is no longer relevant to job function; <i>question replaced.</i>
38															S	
39															S	initial conditions modified for clarity
40															S	
41															S	
42															S	
43															S	
44									X						U	low operational validity; <i>replaced with better question</i>
45								X							U	distractor 'B' could be correct in some situations, <i>made initial conditions more restrictive to make distractor always wrong</i>
46								X							U	distractor 'C' was not completely incorrect; <i>distractor was changed.</i>
47															S	
48															S	editorial; <i>corrected.</i>
49															S	added initial condition for clarity
50															S	

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51														S	
52														S	
53									X					U	operator required to know details in RNO column; <i>question was modified</i>
54														S	
55														S	
56														S	
57														S	
58														S	
59														S	
60														S	
61														S	
62														S	
63														S	
64														S	
65														S	
66														S	
67														S	
68														S	
69														S	
70						X								U	Distractor 'C' was partially correct; <i>rewrote distractor; modified otherdistractor for clarity</i>

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71															S	
72															S	
73															S	
74									X						U	answers required detailed knowledge of procedure steps; <i>refocused answer on broader topic.</i>
75															S	editing; <i>corrected edits</i>
76															S	'D' distractor unclear; <i>reworded 'D' distractor</i>
77															S	
78									X						U	distractors were requiring memorization of MCC loads; <i>distractors rewritten at a broader level</i>
79															S	
80							X								U	Distractor 'D' could be construed as correct; <i>rewrote distractor</i>
81															S	
82															S	
83															S	
84															S	
85															S	
86															S	
87							X								U	distractor 'D' was correct answer; <i>restructured initial conditions to make 'D' incorrect.</i>
88									X						U	distractor C was too close to correct answer; <i>changed distractor</i>
89															S	
90															S	

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91														S	
92														S	
93														S	
94														S	
95														S	
96														S	
97														S	
98														S	
99														S	
100														S	
101														S	
102														S	
103														S	
104														S	
105							X							U	distractor was correct, proposed answer was incorrect; rewrote distractors/answer
106														S	
107														S	
108														S	
109														S	
110														S	

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111														S	editing; corrected.
112														S	editing; corrected.
113														S	
114								X						U	initial conditions were not operationally valid; restructured question
115														S	
116														S	
117														S	
118														S	
119														S	
120														S	
121														S	
122														S	
123								X						U	limits in question found to be incorrect; replaced with new limits.
124														S	
125														S	editing; corrected.
126														S	

## Summary of Facility/NRC Comments on the Operating Examination

### **Section A - Administrative**

No significant comments made.

### **Section B - Plant Walk-through JPMs**

#### **JPM #1 Power Increase To Criticality**

The facility commented that the JPM was too difficult to complete in a timely manner with the desired effect. The JPMs purpose was to have the reactor operator identify a significant deviation from the expected critical position and take appropriate action. This would require several shimming intervals of the control rods. Each shim would require the operator to wait several minutes until count rate stabilized to record the power level. The NRC agrees that the same knowledge can be tested in a more contiguous manner by having the applicant perform the 1/M plot for the same startup procedure and take appropriate action when the deviation is noticed. The "Power Increase to Criticality" JPM was replaced with the JPM entitled, "1/M Plot During Approach to Criticality".

#### **JPM #7 Blended Makeup Calculation and Performance**

The NRC noticed that this JPM selection does not conform with the guidance in NUREG 1021 section 301 D.3.a in that the same safety function was being tested twice in subcategory B.1. The item was replaced with "Service Water System / Transfer Service Water to the Cooling Tower" which is not a duplicate safety function item.

### **Section C - Simulator Scenarios**

No significant comments made.