

**Note: Resolutions to comments in bold and italics**

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	K/A	SRO Only			
1	F	2													S	
2	F	2		X											E	Power and press. emphasized in the stem which cues correct answer also highlight in the stem MSIV . <b><i>Licensee reformatted the stem.</i></b>
3	H	3													S	
4	H	2													S	
5	F	2													S	
6	H	2-3													S	
7	H	3													S	
8	H	2													S	
9	H	2													S	set point question - okay in limited number
10	F	2													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 the appropriate box if the sampled question does not match the approved K/A or an SRO-only question is not at the SRO level.
- 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?
- For any "U" ratings, at a minimum, explain how the Appendix B psychometric attributes are not being met.

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11	H	3												S	Verify for all RO EOP question on the exams that this is <b>required</b> knowledge for an RO at your facility. We discussed that beyond the identification of entry conditions and EOP bases it is not RO level knowledge interpret and apply the EOPs given a set of conditions. <b>The licensee verified that the Ros had appropriate EOP learning objectives to test these areas.</b>
12	F	2												S	
13	F	2												S	
14	H	3												S	
15	F	2				X								U	"B&D" distractors do not appear to be plausible at 8.5" hg Vac - how do we get inventory loss? <b>Modified stem and distractors</b>
16	F	2												S	
17	F	3												S	
18	H	3												S	
19	F	2										X		U	licensee agreed. <b>Wrote new question</b>
20	F	1-2												U	set point question okay in limited numbers. However, LOD is very low does not discriminate. <b>Licensee replaced with an acceptable bank question .</b>
21	F	2												S	
22	H	3												S	
23	F	3	X				X							U	The question asks about method for tripping the turbine - "C" presents the same method for tripping the Main turbine looks to be partially correct. <b>Modified distractors.</b>
24	H	2				X								U	Distractors not plausible. How would you get a power excursion in either case even if you blew down first. Why would the MSIVs close on a reactor scram. Need to explain why these are plausible. <b>Licensee replaced question.</b>
25	F	1-2												S	set point okay in limited number
26	F	2												S	
27	H	3												S	
28	H	2					X							E	why would a broken tailpipe necessarily improve NPSH - it depends on where the break ? <b>Modified distractor.</b>



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51	F	1-2								X					U	Knowing # of inputs is minutia - not important to safe operation of the plant. LOD borderline. <b>Replaced question</b>
52	H	3													S	
53	H	3													S	
54	H	3													S	
55	F	2													S	electrical supply okay in limited #
56	H	2													S	
57	F	2													S	
58	F	2													S	
59	F	2													S	
60	H	3													S	
61	F	1-2													U	Borderline LOD system purpose question - does not discriminate. <b>Replaced question</b>
62	H	3				X									E	"C&D" don't appear plausible. <b>Changed stem</b>
63	H	3													S	
64	H	3													S	
65	H	3													S	
66	H	2													S	
67	H	2													S	
68	H	3													S	
69	H	3													S	
70	H	2				X									E	"A&C" not credible distractors. <b>Revised stem and distractors - plausible if don't understand system operation.</b>

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71	H	2												S	
72	H	2												S	
73	H	2												S	
74	H	3												S	
75	H	3												S	
76	F	3												S	
77	F	3												S	
78	H	3												S	
79	H	2												S	
80	H	2												S	
81	H	2												S	
82	F	2												S	
83	F	2												S	see minor editorial comments for stem
84	H	3												S	
85	F	2												S	
86	H	3												S	
87	H	2												S	
88	F	2												S	
89	F	2												S	
90	H	3												S	





## OPERATING EXAM COMMENTS:

- RO, A1 JPM, Perform a refuel floor evac. - Replace this JPM. Although, the task is important to safety - it doesn't discriminate for making a licensing decision, also this is redundant to the A.4 task in the sense it is another notification task. *Replaced JPM with 2 new questions.*
- RO, A.2 JPM, Develop clearance for Hot Water Heating Pump, is not a safety significant pump? Please select a safety significant pump and have the candidate determine the blocking and tagging points and indicating the valves, and breaker required positions and tagging that would be required - forms not required? Also do not provide prints have candidate locate correct prints. *Replaced with new JPM on safety significant component.*
- RO, A.3.1 question, Radiation Work permit question. What is the highest rad level on the survey map? Get a clearer easy to read survey map for the exam.
- RO, A.4 JPM, Perform required actions for injured and contaminated person. Have the CSO determine what procedure to use. Cue As CSO make required notifications. *Initiating cue revised as suggested to make less leading.*
- SRO, A.1.2 JPM, Determine TS actions when in Single Loop. Step #3 don't cue MAPLHGR is OOS provide printout and let candidate determine OOS.
- SRO, A.3 JPM, Initiating cue should be less leading, e.x. Take appropriate actions to ensure personnel safety. *Initiating cue revised as suggested to make less leading.*
- Asked licensee why the Admin. JPM that was planned for Radwaste Discharge Authorization was replaced. They had indicated on their Summary of Changes Following Initial Outline submittal that it was replaced because it was too difficult to administer. This has been used on many exams and is a good task so we agreed to discuss this further during prep week and for them to show why this determination was made. *Determined to be too complex to administer for testing purposes also after initial licensing the SROs are provided additional supervisory training on performing this function.*
- JPMs - some critical steps were not marked as critical. The following steps were revised to be critical steps: JPM #2, step 4; JPM #3, step 12; JPM #4, step 9; JPM #6, step 3; JPM #7, step 4; JPM #8, step 4.
- Scenarios - Critical Tasks in 8 of 10 cases do not meet the criteria established in NUREG 1021, Appendix D, section D.1.c, Measurable Performance Indicators. For example, in most cases no guidance is provided for when or by what point must the action be taken to be considered a failure. The licensee agreed with the comment and revised the CTs to provide further additional performance acceptance criteria.
- Licensee did not send scenario ES-D-1 forms with submittal will send.