

*CLINTON*  
INITIAL LICENSE EXAM

JULY 16 THRU 23, 2001

ES-401-9,  
"Written Examination Review Worksheet"

ES-401

Written Examination  
Review Worksheet

Form ES-401-9

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws					5. Other		56. U/E/S	67. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q/ K/A	SRO Only			
1*	F	2													S	
2*	H	3													E	<u>NRC Comments:</u> Somewhat of a cue to ask "why" but not "why not" when the answer contains the "why". Add "why not" to the stem question.  <u>Licensee's Resolution:</u> Agreed with NRC comments.
3*	H	3													E	<u>NRC Comments:</u> Downcap "CAME IN AND HAS BEEN IN ONE MINUTE" in the stem.  LOD - is this system knowledge?  <u>Licensee's Resolution:</u> Licensee stated that this information (conductivity) was taught and is expected system knowledge with a level of difficulty of a 3.
4*	H	2													S	
5*	F	2													S	
6*	H	2				X									U1	<u>NRC Comments:</u> Why are distractors a and b credible (auto start of pump and low pressure) if an outlet valve fails closed - more credible (and true) if valve fails open.  <u>Licensee's Resolution:</u> Distractors a and b were replaced with "credible," although incorrect answers.
7*	H	2													S	<u>NRC Comments:</u> Question stem asks what can be done to prevent HPCS injection yet the answer is to initiate HPCS while holding the valve control switch in close.  <u>Licensee's Resolution:</u> "Initiate" in this context does not mean "begin injection," it means to initiate or commence the "prevention" actions.

[illegible]

[illegible]



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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q K/A	SRO Only		
53	F	2												S	
54	F	3												S	
55	H	3												S	
56	H	3												S	
57	F	3												S	
58	F	2											X	S	10CFR55.43(b)(2)
59	F	2					X							U3	<p><u>NRC Comments:</u> Why isn't distractor a correct?</p> <p><u>Licensee's Resolution:</u> Changed distractor a to include "written" making it clearly wrong.</p>
60	H	3												S	
61	F	2												S	
62	H	2					X						X	U4	<p><u>NRC Comments:</u> Why isn't distractor c also correct.</p> <p><u>Licensee's Resolution:</u> Changed the stem to include a condition wherein RPV water level was -15 inches and lowering. This makes distractor c wrong.</p>
63	F	2											X	S	10CFR55.43(b)( 3)
64	F	2												S	
65	H	3										ok	X	S	10CFR55.43(b)( 2)
66	F	3										ok		S	
67	H	3										ok		S	

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q. K/A	SRO Only		
68	H													E	<p><u>NRC Comments:</u> Does not meet SRO-only criteria. Question is basic GET type, does not test SRO-unique knowledge or responsibility.</p> <p><u>Licensee's Resolution:</u> Licensee agreed and made this a RO level question on the SRO test. This did not impact the overall number of SRO questions (still had 25 questions).</p>
69	H	2										ok		S	
70	F	2										ok		S	
71	F	2										ok	X	S	10CFR55.43(b)(4)
72	H	2										ok		S	
73	F	3										ok		S	
74	F	2										ok		S	
75	F	2										ok		S	
76	F	2					X					ok		U5	<p><u>NRC Comments:</u> Question asks for the minimal number of persons that is procedurally required to be available for fire brigade - the answer is 5 however, by procedure, the licensee is allowed to have less than 5 for up to 2 hours as long as actions are being taken (call out) to get back up to 5. Need to make sure this is defensible.</p> <p><u>Licensee's Resolution:</u> Question was replaced with another fire protection related question. The replacement question was determined to meet requirements of NUREG-1021.</p>
77	F	4										ok	X	S	10CFR55.43(b)(5) - although the candidate is not asked which procedure would be entered, the candidate must have this knowledge to answer the question. Therefore this meets 10CFR55.43(b)(5).

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q K/A	SRO Only		
78	H	2										ok		S	<p><u>NRC Comments:</u> Need to verify that distractor d is not correct. The apparent correct answer is to scram the unit when both recirc pumps are lost. Distractor d states to shutdown the plant - need to make sure this can be supported.</p> <p><u>Licensee's Resolution:</u> Licensee stated that the shutdown and scram are two different activities and that the applicants cannot argue that "d" is correct.</p>
79	F	2										ok		E	<p><u>NRC Comments:</u> Add "condenser" to distractor b for consistency with distractor d.</p> <p><u>Licensee's Resolution:</u> Licensee agreed and changed distractor b.</p>
80	H	3										ok		S	
81	H	2										ok		S	
82	F											X		U6	<p><u>NRC Comments:</u> Question stem states a loss of AC and asks for the effect on battery capacity (KA 295003AK1.01). The selected K/A is 295004 AK1.04 which is loss of DC power.</p> <p><u>Licensee's Resolution:</u> Licensee agreed to submit a different question. The replacement question was determined to meet requirements of NUREG-1021.</p>
83	H	2										ok		S	
84	H	2										ok		S	
85	H	2										ok		S	
86	H	2										ok	X	S	10CFR55.43(b)(5)
87	H	2										ok		S	



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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q K/A	SRO Only		
88	H	2										ok		E	<p><u>NRC Comments:</u> Distractor c would be a better distractor if remove "wide range" instrument. As is the distractor includes readings of 1, 0, 3 and -160. If the candidate didn't understand level indication, he would rule out this thinking that -160 could not be correct when others listed are near 1 inch. Therefore, remove the -160 (wide range) indication.</p> <p><u>Licensee's Resolution:</u> Licensee agreed and replaced "wide range" with "narrow range."</p>
89	F	1												S	
90	F	3										ok	X	S	10CFR55.43(b)(5) - need to direct IMs through procedure.
91	F											X		U7	<p><u>NRC Comments:</u> This is a systems question - how does one operate the chiller system. The selected K/A is 295012 AA1.01 which is how to operate drywell ventilation on high drywell temperature.</p> <p><u>Licensee's Resolution:</u> Licensee agreed and replaced the question. The replacement question was determined to meet requirements of NUREG-1021.</p>
92	F	2										ok		S	
93	H	3										ok	X	S	10CFR55.43(b)(5)
94	F	3										ok	X	S	10CFR55.43(b)( 5)
95												X		U8	<p><u>NRC Comments:</u> Selected K/A 295015 Ak2.03 deals with an incomplete SCRAM and relationship with rod control information system. The question is a system question concerning indication on the RCIS - an incomplete scram is mentioned in the stem however, this information is not needed to answer the question.</p> <p><u>Licensee's Resolution:</u> Licensee agreed and replaced the question. The replacement question was determined to meet requirements of NUREG-1021.</p>
96	H	3										ok		S	

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q K/A	SRO Only		
97	H	3										ok		S	<p><u>NRC Comments:</u> Selected K/A is 295017 AA1.07 which deals with high offsite release and ability to monitor process rad monitors. The question asks for entry conditions into EOPs.</p> <p><u>Licensee's Resolution:</u> It was difficult to write a question on this K/A. The K/A is appropriate because one has to recognize which is the offsite monitor and determine understand what needs to be done at a specific reading.</p> <p>Chief Examiner agreed that K/A was difficult - determined that question as written was acceptable - K/A match was sufficient.</p>
98	H	2										ok		S	
99	F	3		E								ok		E	<p><u>NRC Comments:</u> Reword distractor c to 1VP...will auto start. This will be consistent with other distractors and would eliminate repeating information from stem in the distractor.</p> <p><u>Licensee's Resolution:</u> Licensee agreed and made the change.</p>
100	H	3										ok		S	
101	F	2										ok		S	
102	H	2										ok		S	
103												X			<p><u>NRC Comments:</u> Selected KA is 295023 AK1.01 which deals with refueling accidents and radiation exposure. The question as written deals with what are the restrictions on performing core alterations - systems question.</p> <p><u>Licensee's Resolution:</u> Licensee agreed and replaced the question. The replacement question was determined to meet requirements of NUREG-1021.</p>
104	F	2										ok		S	

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q. K/A	SRO Only			
105	F	2										ok	X	S	<u>NRC Comments:</u> Can't link to 10CFR55.43(b), (5) looks like the closest match but question does not deal with bases.  <u>Licensee's Resolution:</u> Agreed. Decided to make this an RO level question on the SRO test. This is acceptable because the facility had 25 SRO-only level questions.	
106	H	3										ok		E	<u>NRC Comments:</u> Down cap "As Is" in distractor a.  Question is not adequately modified. Facility added a phrase in each distractor; however, this extra information is not needed to correctly identify the answer. (bank)  <u>Licensee's Resolution:</u> Licensee agreed but left question as-is since only an enhancement.	
107	H	2										ok	X	S		
108	H	3										ok		S		
109	H	3										ok	X	S	<u>NRC Comments:</u> 10CFR55.43(b)( 1)  Please explain why distractor c is not also correct.  <u>Licensee's Resolution:</u> Distractor c is not correct because the convention is to read the lower curve and not to interpolate the data. Modified the answers to ensure method of interpreting graph did not allow for multiple correct answers.	
110												ok		S		
111	H	3										ok		S		
112	F	2										ok	X	S	10CFR55.43(b)(5)	
113	F	3										ok		S		
114	F	2										ok		S		
115	F	2										ok		S		

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116	H	2		X								ok		U9	<p><u>NRC Comments:</u> Distractor a is only distractor which contains RWCU - which is also in the stem. Suggest adding other areas or mention SGBT in stem.</p> <p><u>Licensee's Resolution:</u> License agreed and modified the stem to provide conditions that correspond to the procedures listed in the distractors (in an effort to keep the applicant from focusing on RWCU).</p>
117	H	2										ok		S	
118	H	2										ok	X	S	10CFR55.43(b)(5)
119	H	3										ok	X	S	10CFR55.43(b)(5)
120												ok		S	
121	F	2										ok		S	
122	H	2										ok	X	S	10CFR55.43(b)( 5)
123	H	2										ok		S	
124	F	2										ok		S	
125	F	2										ok		S	
126	H	2										ok	X	S	10CFR55.43(b)(5)
127	F	2										ok	X	S	10CFR55.43(b)(5)
128	F	2										ok	X	S	10CFR55.43(b)(2)

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Instructions																
[Refer to <u>Section D of ES-401 and Appendix B</u> 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 style="list-style-type: none"> <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>• More than one distractor is not credible.</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:															
	<ul style="list-style-type: none"> <li>• 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).</li> <li>• 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).</li> <li>• The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).</li> <li>• The question requires reverse logic or application compared to the job requirements.</li> </ul>															
5.	<u>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.</u>															
6.	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?															
67.	For any "U" ratings, at a minimum, explain how the Appendix B psychometric attributes are not being met.															
* Questions reviewed as part of the minimum required sample and, for which, the reference was checked.																