

POINT BEACH

OCTOBER 2000

**NRC COMMENTS ON
WRITTEN
EXAMINATION**

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	* B/M/N	67. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q ≠ K/A	SRO Only			
1	F	2										ok		S	M	
2	H	3										ok		S	N	
3	F	2										ok		S	M	Marginally modified.
4	F	2										ok		S	B-P	
5	F	2										*		S	B	NRC Comment: K/A is 026AK3.04 which relates to a loss of CCW flow with respect to the effect on RCPs. Question deals with loss of charging flow to the RCPs. Indirect relationship.
6	H	3										ok		S	N	During administration: A question was asked regarding how the PZR spray valves were closed. The proctor responded that the "chick switched" were used. As-administered exam reflects this change.

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.

* Source of question: Bank/Modified/New. B-P means used on previous NRC exam, pre-validated.

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q# K/A	SRO Only			
7	F	2										ok		E	B	<p><u>NRC Comments:</u> Reference document does not fully support answer. The question essentially asks why is a faulted SG (steam line break) isolated. The answer states to maximize FW to non-faulted and to minimize RCS cooldown. Reference states maximize FW for <u>FW line break</u>; RCS cooldown and minimize mass/energy loss for steam line break.</p> <p><u>Licensee's Resolution:</u> Removed 'if the fault is upstream of MSIV and outside containment'</p>
8	F											ok		S	M	
9	H	2		X		X						*		U1	B	<p><u>NRC Comments:</u> No correct answer. Distractor d (answer) states that P-7 is made up. Stem states that power is at 28%. P-7 TT/RT are blocked when power is less than 9.5% (P-7 made up)</p> <p>Distractor d only one that references low vacuum condition - cue.</p> <p>Weak link to K/A. While stem sets up a condenser vacuum problem, question is really testing knowledge of RPS.</p> <p><u>Licensee's Resolution:</u> Changed distractors (final version) to eliminate P-7 and P-9 references.</p>
10	F	3										ok		S	N	
11	H													E	N	<p><u>NRC Comments:</u> Put assumptions first - consistency with exam.</p>
12	F	2												E	B	<p><u>NRC Comments:</u> Change "followed by" in distractors a and b to "coincident with" to be consistent with distractor c (answer).</p> <p><u>Licensee's Resolution:</u> Changes, as discussed, were made.</p>
13	F	2												S	N	
14	FH													S	N	<p><u>NRC Comments:</u> Question is similar to NUREG 1021, Appendix B, Attachment 2, Example C.3 with exception that formula will be given in references. No mention of availability of formula will be made within the question. Raised this question to a low 2.</p>
15	H	2												E	N	<p><u>NRC Comments:</u> Answer is most logical based on <u>type</u> of information presented (ie. Can rule out distractor c since no containment parameters are given)</p> <p><u>Licensee's Resolution:</u> Added information regarding containment pressure in the stem.</p>

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q# K/A	SRO Only			
16	F	2												S	N	<u>During Administration:</u> Added "alarm" in distractor a and c to be consistent with other distractors.
17	H	3												S	B-P	
18	H	2		*										E	M	<p><u>NRC Comments:</u> Distractors a, b, and c all relate to reactivity changes (trip reactor, shutdown reactor, lower power) while the answer (d) deals with selector switch position. This could cue the applicant to the correct answer.</p> <p>Recommend changes which reflect procedure (a - trip reactor, b-reduce power to 75% within 8 hours, c- determine SDM within 1 hour)</p> <p><u>Licensee's Resolution:</u> Changed distractors to align with Technical Specification requirements - disconnect RCCA, perform shutdown margin calc.</p>
19	F	2												S	B	
20	F	3										X		U2	B	<p><u>NRC Comments:</u> K/A 008 deals with a PZR vapor space accident (Relief valve lifting) Question deals with effect of malfunction on PZR LCS. K/A 0028AK1.01 is more appropriate for this question.</p> <p><u>Licensee's Resolution:</u> Changed question.</p>
20N	F	2										ok		S	N	<u>During Administration:</u> Incorrect unit for PORV - changed Unit 1 to Unit 2
21	H	3										ok		S	N	
22	FH											X		U3	N	<p><u>NRC Comments:</u> K/A W/E04 EK1.1 deals with the operational implications of ECCS during a LOCA outside of containment. The question deals with what is the effect of having a frozen SI recirc line. A more appropriate K/A is 006000A3.05 (Ability to monitor auto operation of SI) or 006000K4.06 (Knowledge of design features for min recirc)</p> <p><u>Licensee's Resolution:</u> Agreed. Changed question.</p>
22N	H	2										ok		S	N	
23	H	2										ok		S*	N	<p><u>NRC Comments:</u> Not RO level. Requires assessment of conditions and determining appropriate procedure. Originally assessed as "U"</p> <p><u>Licensee's Resolution:</u> Question is at RO-level. Question is asking for EOP entry conditions.</p>

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q# K/A	SRO Only			
24	H	2				*						ok		E	B	<p><u>NRC Comments:</u> Distractor d contains a cue. Stem states that all systems function as designed. Distractor d states the automatic start of G02 and G04 did not occur. Somewhat implies that actuation was expected. Suggest rewording</p> <p><u>Licensee's Resolution:</u> Agreed. Changed to DG auto load to respective buses.</p>
25	F	2										ok		S	B	
26	F	2										ok		S	B-P	
27	F	2			X							ok		U4	B	<p><u>NRC Comments:</u> Distractors are all T/F statements - don't need stem to answer question. A. - logic is 1/2 not 2/2 B. - Manual operation to block a reactor trip; not automatic action D. - removing control power will cause trip.</p> <p><u>Licensee's Resolution:</u> Agreed. Changed question.</p>
27N	F	2										ok		S	N	
28	FH	2										ok		S	N	<p><u>NRC Comments:</u> Change from H to F because applicant only needs to know what the TS limit is. Each distractor states a SGTR occurred; therefore this information is not needed in the stem.</p> <p><u>Licensee's Resolution:</u> Agreed.</p>
29	H	2										ok		S	N	
30	H	3										ok		E	N	<p><u>NRC Comments:</u> Change "RCS pressure" statement to "PZR PORVs are cycling/ have opened?"</p> <p>Modify the following: b. to read prevent cycling of PORVs and conserve inventory" instead of accumulator statement.</p> <p>d. By removing transferring water from PZR (is this possible?) to re-establish PRZ level and maintain inventory.</p> <p><u>Licensee's Resolution:</u> Made suggested changes - reordered distractors by length.</p>

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q# K/A	SRO Only			
31	F	2										ok		E	N	<p><u>NRC Comments:</u> Question matches K/A but LOD is low 2 since 3 distractors allow continuation of UNSCHEDULED release while the answer is to isolate - obvious.</p> <p><u>Licensee's Resolution:</u> Agreed. Changed distractor a to include isolating path.</p>
32	F	2										ok		S	B	
33	F	2										X		U5	N M	<p><u>NRC Comments:</u> K/A 000061 deals with area radiation monitors. Question deals with effluent radiation monitors.</p> <p><u>Licensee's Resolution:</u></p> <p>Agreed. Changed question.</p>
33N	F	2										ok		S	N	
34	H	3										ok		S	N B-P	
35	H	2				X						X		U* S	N	<p><u>NRC Comments:</u> K/A 056AA2.18 deals with LOOP and effect on instrumentation. Question deals with knowledge of SI entry conditions. Stem states a LOOP occurred but this information is irrelevant to answering the question.</p> <p><u>Licensee's Resolution:</u> Licensee stated that the recorders are unaffected by a loss of off-site power. K/A is not applicable to the site.</p> <p>Since topic (056) was randomly selected, NRC agreed to keep question, but for future use of the question allowed licensee to change K/A to generic. K/A G2.4.1 (Tier 3)</p>
36	F	3										ok		S	B	
37	H	3										ok		S	N	
38	H	4										ok		S	N	
39	H	2										ok		S	N	
40	H	2										ok		S	M	

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q ≠ K/A	SRO Only			
41	F	2												E	B	<u>NRC Comments:</u> Distractor c not credible - why would a pressure control valve close on high temperature? <u>Licensee's Resolution:</u> Agreed. Changed distractor of letdown isolation valve, not letdown pressure control valve. Also, changed order of distractors (by length)
42	H	2												E	B	<u>NRC Comments:</u> Need units for RCS pressure. <u>Licensee's Resolution:</u> added.
43	H	2												S	BM	The stem has not been modified significantly. The licensee added info that the SI occurred due to low PZR pressure and changed PZR level from 12% to 15%. Distractor a (answer) different from original question but other distractors identical.
44	H	2												S	B	
45	H	3												S	B	
46	F	2												S	B	Low 2
47	H	3					X							U6	N	<u>NRC Comments:</u> Distractors a, b and d are correct. RCS subcooling will not be available since core exit thermocouples are not available (distractors a, b, and d). <u>Licensee's Resolution:</u> Agreed. Added 'only' to distractors a and b. Reordered distractor according to length.
48	H	2												S	N	
49	F	2												E	B	<u>NRC Comments:</u> Distractors have lots of words. Consider changing to a fill in the blank format. <u>Licensee's Resolution:</u> Understood NRC comment but decided to keep as is.
50	F	2										ok		E	B	<u>NRC Comments:</u> Down cap Steam, Feed and Pump in distractor d for consistency. <u>Licensee's Resolution:</u> Agreed.
51	F H	1										ok		S	N	Low 2
52	F	2										ok		S	B-P	

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q ≠ K/A	SRO Only			
53	H	2										ok		S	N	<u>NRC Comments:</u> Distractor c tests minutia - we don't expect candidate to know 60% vs 70% - step not required to be memorized. <u>Licensee Resolution:</u> Information is system knowledge, not procedure memorization.
54	F H	2										ok		S	N	
55	F	2										ok		S	B	
56	F	2										ok		S	N	
57	F	2										ok		S	N	
58	F	2										ok		S	N	
59	F	2					X					ok		U7	N	<u>NRC Comments:</u> Distractor d states a and b are correct; therefore distractor a and distractor b are correct. (Three correct answers) Need to add "ONLY" after distractor a and b and write out a/b for distractor d. (Capitalize AND) <u>Licensee's Resolution:</u> Agreed. Changes made.
60	H	2										ok		S	M	
61	H	2												S	N	Low 2
62	F	2												S	B	
63	H	2												S	B	
64	H	2												E	B	<u>NRC Comments:</u> Distractors c and d are not very credible - easy to eliminate based on logic. (Block source range stuff before power range stuff). Suggest changing distractors to : A. 1, 3, 2, 4 B. 1, 3, 4, 2 C. 3, 1, 2, 4 D. 3, 1, 4, 2 These will determine whether candidate knows to block or verify permissive first. <u>Licensee's Resolution:</u> Changes made.
65	F	2												S	B	

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q# K/A	SRO Only			
66	H	3												S	N B-P	
67	F	2												S	B	
68	F	2												E	M	<u>NRC Comments:</u> Capitalize EXHAUST, SUPPLY - distractors are a bit long to read. <u>Licensee's Resolution:</u> Agreed.
69	FH	2												S	N	<u>NRC Comments:</u> F - don't need first part of stem to answer the question - only the bolded portion. <u>Licensee's Resolution:</u> Agreed.
70	H	2										ok		S	N	
71	H	2										ok		S	N	
72	H	2										ok		E	N	<u>NRC Comments:</u> Capitalize Unit in stem. Remove "due to human performance" - not needed <u>Licensee's Resolution:</u> Agreed..
73	H	2										ok		S	N	
74	F	2					X					ok		U8	B	<u>NRC Comments:</u> Why isn't distractor d correct? If the answer is "high temp, battery life would be shorten" then couldn't one argue that "high temp, battery capacity would not be affected" is also correct? <u>Licensee's Resolution:</u> Agreed. Changed distractor d by replacing "not be affected" with "lengthened"
75	F	2										ok		S	N	Low 2
76	H	4										ok		E	N	<u>NRC Comments:</u> Missing quotation mark in stem Status of 2B SI pump should be listed first in stem Put in past tense <u>Licensee's Resolution:</u> Agreed. Made changes.
77	F	2										ok		S	N	Low 2
78	H	2										ok		S	N	
79	H	3										ok		S	N	Remove "," in distractor a

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q≠K/A	SRO Only			
80	H	2								X		ok		U9	M	<p><u>NRC Comments:</u> Question asks what happens if FT626 fails - only distractors b and c contain RHR626 . 624 and 625 are not designated FCV but are HCV. P&ID does not show these as flow control valves as they are called in distractors a and d. Technically incorrect question.</p> <p><u>Licensee's Resolution:</u></p> <p>Agreed. Changed valve references to proper names (RH)</p>
81	F	2												E	N	<p><u>NRC Comments:</u> Distractor a incorrect because it can't stabilize above the rise value. Distractor b incorrect because it can't fit in question stem. (Rise THEN stabilize at same value?)</p> <p><u>Licensee's Resolution:</u> Agreed. Changed distractor a to read "100" instead of "0".</p>
82	F	3												S	N	Infrequently used system.
83	F	2												S	B	
84	H	3												E	N	Put "condenser" in front of "steam" in distractor a
85	F	2		X										U10	N	<p><u>NRC Comments:</u> Distractor a (answer) is only distractor that doesn't mention/involve turbine stop valve closure</p> <p>Also, change from "negative question" to a positively asked question.</p> <p><u>Licensee's Resolution:</u> Agreed. Reworded question.</p>
86				X										U11	N	<p><u>NRC Comments:</u> Distractor a (answer) only distractor involving "freeze" which is in the stem. Suggest modifying distractor d to state traveling water screen freeze.</p> <p><u>Licensee's Resolution:</u> Agreed. Made changes.</p>
87	H	2												E	M	<p><u>NRC Comments:</u> Stem states SI. SI means CI occurred. Suggest removing SI in stem. Also, Mixed units for sump level?</p> <p><u>Licensee's Resolution:</u> Agreed. Removed SI in stem and removed sump B information as it was not needed.</p>
88	F	2												S	N	
89	H	4						X					SRO	U12	B	<p><u>NRC Comments:</u> SRO level, not RO</p> <p><u>Licensee's Resolution:</u> Agreed. Rewrote to RO level. Kept question as SRO-only for SRO test.</p>

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q# K/A	SRO Only			
90	F	2										ok		S	N	
91	H	2										ok		S	N	
92	H	3										ok	X	U13	B	<u>NRC Comments:</u> SRO level, not RO <u>Licensee's Resolution:</u> Agreed. Rewrote to RO level.
92N	H	3										ok		S	N	
93	H	2										ok		E	N	<u>NRC Comments:</u> Capitalize MAXIMUM. Suggest changing distractors to match other limits: 5R, 10R, 15R, 25R. <u>Licensee's Resolution:</u> Agreed. Also removed ">"
94	F	1										ok		U14	N	<u>NRC Comments:</u> Answer is obvious - consider "dry run the task at the jobsite to identify potential problems" instead of "duct tape on the hoist" <u>Licensee's Resolution:</u> Agreed. Made suggested changes.
95	F											ok		E	B	<u>NRC Comments:</u> Distractors are confusing "Yes, not reassign" seems awkward <u>Licensee's Resolution:</u> Agreed. Reworded to "yes, assign her"
96	F	2										ok		S	M	
97	F	3										ok		E	B	Teaching in stem - reworded.
98	F	1										ok		U15	MB	<u>NRC Comments:</u> LOD low, unacceptable. <u>Licensee's Resolution:</u> Agreed. Submitted new question
98N	F	2										ok		S	N	
99	F	2										ok		S	B	
100	H	2										ok		S	MB	Added a statement at the end of each distractor. The stem and first part of distractors are identical - added statement adds nothing to question.
S4	F	2											SRO	S	B	
S16	H	2											SRO	E	B	Down cap Feet in stem and Vessel Level in distractor d.

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S19	H	3											SRO	E	N	<p><u>NRC Comments:</u> Too much information in distractors c and d. Eliminate "due to improper ice melt operation" in distractor c and "Improper chlorination leading to" and "subsequent shear pin breakage" in distractor d.</p> <p><u>Licensee's Resolution:</u> Agreed. Changes made.</p>
S20	F	2											SRO	E	N	<p><u>NRC Comments:</u> Put "The DOS should" in the stem and not in each distractor. Put distractor d in same format as distractor b. Suggest reword as: D. Relieve the third operator, who will proceed to the scene as the fire brigade leader.</p> <p><u>Licensee's Resolution:</u> Agreed. Changes made.</p>
S24	F	2										ok	SRO	S	B-P	
S28	F	2										ok	SRO	S	M	Marginally modified.
S30	F	2										ok	X SRO	U16	B	<p><u>NRC Comments:</u> This question is a systems question, not limitation on license.</p> <p><u>Licensee's Resolution:</u> Agreed. Added limitations to license information to distractors.</p>
S39	H	3										ok	SRO	S	B	
S40	F	3										ok	SRO	S	N	
S42	F	2										ok	SRO	S	B	
S47	H	3										ok	RO	E	N	<p>Question is <u>correctly</u> written at RO-level</p> <p>Down cap Both in distractors a and d.</p>
S49	F	4							X			ok	SRO	U17	N	<p><u>NRC Comments:</u> Question tests memorization of TS instead of TS concepts. Suggest modifying distractors a and c to other possible TS such as: verify step differences or check quadrant power tilt instead of knowing whether you check rod position once/twice per shift.</p> <p><u>Licensee's Resolution:</u> Agreed. Changes made.</p>
S51	F	1										ok	RO	S	N	Low 2. Question is <u>correctly</u> written at RO-level
S53	H	2										ok	SRO	S	N	

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S55	H	3				X						ok	SRO	U18	N	<p><u>NRC Comments:</u> Distractors a and d not credible. The stem states that a design base LOCA occurred. Why would a candidate believe that adverse containment conditions (distractor a) would not exist?. Why would a candidate believe that containment design pressure would be exceeded when ALL equipment functioned normally (distractor d)? Suggest keeping a (unless facility can modify) but modify distractor d by removing "design" and replace with "will exceed 60 psig". Although 60psig is design pressure, it tests whether candidate knows design pressure. In addition, this value is stated in the EOPs. Also, modify distractor c to "45 to 60" instead of "45 and 57". "57" is too specific and may cue candidate.</p> <p><u>Licensee's Resolution:</u> Agreed. Changes made.</p>
S59	H	4 2				X						ok	SRO	U19	N	<p><u>NRC Comments:</u> Question is too easy. Distractors dates are too spaced such that distractors a and b are the only credible distractors. To increase LOD, suggest testing knowledge/application of TS 15.4.0.3 - discovery of missed surveillance: On November 3, it was discovered that the last monthly surveillance for the safety related batteries was performed on October 1, 2000. When is this surveillance REQUIRED to be performed?</p> <p>A. Immediately B. Within 8 hours C. Within 24 hours D. By November 7, 2000</p> <p><u>Licensee's Resolution:</u> Agreed. Changes made.</p>
S69	H	2										ok	SRO	E	N	<p>Low 2</p> <p>Modify distractors c and d to 10 and 11 minutes respectively. Closer to answer than 12 and 16 minutes.</p>
S72	F	2										ok	X	U20	B-P	<p><u>NRC Comments:</u> Question was an RO question on the 1999 exam; therefore, not SRO only.</p> <p><u>Licensee's Resolution:</u> Agreed. Replaced question.</p>
S72N	F	2										ok	SRO	S	B	
S79	H		X									X	X	U21	N	<p><u>NRC Comments:</u> KA 103A2.03 deals with the impact of CI on containment. Question deals with actuation logic of containment isolation. Systems type question, not limitation of license.</p> <p><u>Licensee's Resolution:</u> Agreed. Replaced question.</p>

Point Beach October 2000 Exam

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		56. U/E/S	* B/M/N	67. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q# K/A	SRO Only			
S79N	H	3										ok	SRO	S	N	
S82	H	2										ok	X SRO	U22	B M	<p><u>NRC Comments:</u> This question was not sufficiently modified. One can answer the question without looking at the modified portion. The licensee added procedural requirements at the end of each distractor - but this information does not affect the answer.</p> <p>For example, previously the answer was "2P-11A will start on low pressure..." The new answer is "2P-11A will start on low pressure....and AOP 9B and AOP 18B should be entered.</p> <p>Since the information regarding the procedures is not needed to answer the question, this question becomes an RO-systems type question.</p> <p><u>Licensee's Resolution:</u> Agreed. Revised distractors a and b to make similar to c and d. This change made question SRO-level.</p>
S84	F	2											SRO	S	B	
S85	H	3											SRO	S	M	
S87	F	3											SRO	S	B	
S88	H	3											SRO	S	N	
S90	H	2*											SRO	E	M	<p><u>NRC Comments:</u> TS change from 1800 to 2100 ppm boron makes this question a LOD 2 instead of a 1.</p>
S93	F	1											X SRO	S	B-P	<p><u>NRC Comments:</u> This question is LOD 1 (what do you do when you are contaminated) and is not SRO-only question! But this question appeared on a 1999 NRC exam as SRO only - therefore, it is acceptable.</p>
S94	H	1											SRO	U23	N	<p><u>NRC Comments:</u> LOD of 1 - distractor b (note 3) does not appear on given TS page; therefore, immediately eliminated. Note 5 (distractor d) doesn't apply to Re 215 - eliminated. Suggest making RE214 ALSO inoperable and change distractor b to be Note 1. At least, this causes applicant to think about 2 items inoperable.</p> <p><u>Licensee's Resolution:</u> Agreed. Suggested change made.</p>
S96	H	2											SRO	S	N	

Point Beach October 2000 Exam

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		56. U/E/S	* B/M/N	67. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q* K/A	SRO Only			
S97	F	1												**		<u>NRC Comments:</u> This question was original RO question 98 which was determined to be unacceptable because of it's low LOD. The licensee failed to remove this question from the SRO test. The Chief Examiner did not find the error until after the test was administered. Because of the applicant's scores on the examination, removal of this question from the examination would not have resulted in any failures. Conversely, adding another question (and assuming total failure on the question) would not have resulted in an individual failure.
S98	F	2											SRO	S	N	
S99	F	2											X	U24	N	<u>NRC Comments:</u> Not SRO-only. ROs expected to know prodical for annunciator response during emergencies. <u>Licensee's Resolution:</u> Agreed. Made RO-level question on SRO test.

24 Unsatisfactory questions/127 Originally submitted questions = 18.89%

RO #20

Examination Outline Cross-reference:	LEVEL	RO	SRO
	Tier #	<u>1</u>	<u>1</u>
	Group #	<u>2</u>	<u>2</u>
	K/A #	<u>008AK2.02</u>	
	Importance Rating	<u>2.7</u>	<u>2.7</u>

Proposed Question: SEE ATTACHED

RO#20/SRO#26

Proposed Answer: B

Explanation (Optional):

Technical Reference(s): General Physics GFE Materials (Attach if not previously provided)

Proposed references to be provided to applicants during examination: NONELearning Objective: 055.03.LP2438.003.002 (As available)

Question Source: Bank # _____

Modified Bank # _____ (Note changes or attach parent)

New ✓

Question Cognitive Level: Memory or Fundamental Knowledge ✓

Comprehension or Analysis _____

10 CFR Part 55 Content: 55.41 ✓

55.43 _____

Comments: During NRC review, it was discovered that the original question as submitted did not match the K/A because it had to be specific to the PORV. Resubmitted a new question.

1. 055.00.LP0000.000 016////////

The following plant conditions exist:

- Unit 2 is operating at full power.
- I & C testing is in progress.
- 1 RC-430 (PORV) inadvertently opens and sticks in this position.
- A Unit 2 reactor/turbine trip and safety injection subsequently occur.
- Two additional minutes have elapsed with no operator action.

Based on these conditions, which of the following choices provides the most accurate indication of the following sensor/detector ?

(Assume answers correspond to the same order of the detector given)

Pressurizer Level (LT-427) is going _____, Pressurizer Pressure (PT-430) is going _____, and Pressurizer Temperature (TE-424) is going _____.

A. up, up, up.

✓B. up, down, down.

C. down, down, up.

D. down, up, down.

RO#22

Examination Outline Cross-reference:	LEVEL	RO	SRO
	Tier #	<u>1</u>	<u>1</u>
	Group #	<u>2</u>	<u>1</u>
	K/A #	<u>W/E04EK1.1</u>	
	Importance Rating	<u>3.5</u>	<u>3.9</u>

Proposed Question: SEE ATTACHED
RO#22/SRO#5

Proposed Answer: A

Explanation (Optional):

Technical Reference(s): EOP-0 (Attach if not
TRHB 11.8 previously
FSAR 6.2-12 provided)

Proposed references to be provided to applicants during examination: NONE

Learning Objective: 031.00.LP0000.000.007 (As available)

Question Source: Bank # _____
Modified Bank # _____ (Note changes or attach parent)
New ✓

Question Cognitive Level: Memory or Fundamental Knowledge _____
Comprehension or Analysis ✓

10 CFR Part 55 Content: 55.41 ✓
55.43 _____

Comments: This was an actual plant event which occurred in the winter of 1999 due to façade freeze protection being lost to the SI recirculation line. Resubmitted this question after exam review because the lead examiner had K/A match concerns with meeting the LOCA outside containment criteria.

1. 031.00.LP0000.000 021////////

Given the following plant conditions:

- Unit 1 Safety Injection (SI) has occurred.
- Containment pressure is .5 psig (1/2 psig) and steady.
- RCS pressure is 1300 psig and slowly dropping.
- Auxiliary Building Radiation Levels are in ALERT on RMS.
- Letdown fails to isolate.
- All other equipment functions as designed.

Based on these conditions, with NO operator action, which one of the following statements is TRUE with regard to long-term plant response ?

- ✓A. Containment sump recirculation will be unavailable.
- B. RWST level will be depleted in less than 30 minutes.
- C. PORVs will cycle as necessary to control RCS pressure.
- D. Containment spray will occur at 15 psig containment pressure.

RO#27

Examination Outline Cross-reference:	LEVEL	RO	SRO
	Tier #	<u>1</u>	<u>1</u>
	Group #	<u>2</u>	<u>2</u>
	K/A #	<u>033.AA1.02</u>	
	Importance Rating	<u>3.0</u>	<u>3.1</u>

Proposed Question: SEE ATTACHED
RO#27/SRO#33

Proposed Answer: C

Explanation (Optional):

Technical Reference(s): ICP 10.2 (Attach if not
Power Point LP previously
provided)

Proposed references to be provided to applicants during examination: NONE

Learning Objective: 053.03.LP2416.003.003 (As available)

Question Source: Bank # _____
Modified Bank # _____ (Note changes or attach parent)
New ✓

Question Cognitive Level: Memory or Fundamental Knowledge ✓
Comprehension or Analysis _____

10 CFR Part 55 Content: 55.41 ✓
55.43 _____

Comments: During exam review the Lead Examiner stated that the original question as submitted was a series of true/false statements. Question was replaced with a new question.

1. Given the following plant conditions:

- Unit 1 is at full operating power.
- A Loss of NI-35 (Intermediate Nuclear Range Channel) voltage occurs.
- The DSS/DOS directs that NI-35 be removed from service per ICP 10.2, "Routine Maintenance Procedure Removal of Safeguards or Protection Sensor from Service".

Which of the following actions must be performed per ICP 10.2 on the affected channel drawer, to prevent an automatic reactor trip from occurring ?

- A. Pull control power fuses.
- B. Pull instrument power fuses.
- ✓C. Place level trip switch to "BYPASS".
- D. Place operation selector switch to " 10^{-9} ".

Examination Outline Cross-reference:	LEVEL	RO	SRO
	Tier #	<u>1</u>	<u>1</u>
	Group #	<u>2</u>	<u>2</u>
	K/A #	<u>061AK3.02</u>	
	Importance Rating	<u>3.4</u>	<u>3.6</u>

Proposed Question: SEE ATTACHED
RO#33/SRO#38

Proposed Answer: A

Explanation (Optional):

Technical Reference(s): RMSASRB CI2RE-107 (Attach if not
RMSASRB 2.0 previously
provided)

Proposed references to be provided to applicants during examination: NONE

Learning Objective: 053.00.LP0000.0000.001 (As available)

Question Source: Bank # _____
Modified Bank # _____ (Note changes or attach parent)
New ✓

Question Cognitive Level: Memory or Fundamental Knowledge ✓
Comprehension or Analysis _____

10 CFR Part 55 Content: 55.41 ✓
55.43 _____

Comments: During exam review, the lead examiner pointed out that the K/A asked for an ARM vs process monitor and requested a new question written to match K/A. New question submitted.

1. The following plant conditions exist:

- Both units are operating at full power.
- 2RE-107 (Seal Table Area Monitor) has gone into alert and then cleared several times during your shift.
- No plant evolutions or abnormalities are noted.

Based on these plant conditions, which of the following choices best represents the guidance that should be used and reason(s) for this guidance ?

(RMSASRB, "Radiation Monitoring System Alarm Setpoint and Response Book")
(RECM, "Radiation Effluent Control Manual")

- ✓A. The RMSASRB guidance should be used to determine if random spiking or actual radiation is the cause.
- B. The RMSASRB guidance should be used to ensure 2RE-107's associated control functions have properly responded.
- C. The RECM guidance should be used to determine if random spiking or actual radiation is the cause.
- D. The RECM guidance should be used to ensure 2RE-107's associated control functions have properly responded.

Examination Outline Cross-reference:	LEVEL	RO	SRO
	Tier #	<u>1</u>	<u>1</u>
	Group #	<u>3</u>	<u>3</u>
	K/A #	<u>2.4.1</u>	
	Importance Rating	<u>4.3</u>	<u>4.6</u>

Proposed Question: SEE ATTACHED
RO#35/SRO#43

Proposed Answer: B

Explanation (Optional):

Technical Reference(s): EOP-0.1 Foldout Page (Attach if not
previously
provided)

Proposed references to be provided to applicants during examination: NONE

Learning Objective: 043.00.LP0000.000.005 (As available)

Question Source: Bank # _____
Modified Bank # _____ (Note changes or attach parent)
New ✓

Question Cognitive Level: Memory or Fundamental Knowledge _____
Comprehension or Analysis ✓

10 CFR Part 55 Content: 55.41 ✓
55.43 _____

Comments: This question was originally submitted under K/A #
056AA2.18. Upon exam review with Lead Examiner, it was
noted that this K/A does not apply to a Loss of Off-Site
Power. At PBNP the recorders referred to in the K/A are
unaffected by a loss of off-site power. It was agreed that the
question could remain but was better suited using K/A 2.4.1.

Examination Outline Cross-reference:	LEVEL	RO	SRO
	Tier #	<u>3</u>	<u>3</u>
	Group #	<u> </u>	
	K/A #	<u>2.2.24</u>	
	Importance Rating	<u>2.6</u>	<u>3.8</u>

Proposed Question: SEE ATTACHED
RO#92/SRO#89

Proposed Answer: C

Explanation (Optional):

Technical Reference(s): Technical Specification 15.3.3.D, 15.3.7, 15.3.3, 15.3.2, 15.3.4 (Attach if not previously provided)

Proposed references to be provided to applicants during examination: TS 15.3.3

Learning Objective: 051.06.LP0086.012.001 (As available)

Question Source: Bank #
Modified Bank # (Note changes or attach parent)
New ✓

Question Cognitive Level: Memory or Fundamental Knowledge
Comprehension or Analysis ✓

10 CFR Part 55 Content: 55.41 ✓
55.43

Comments: During exam review, the lead examiner requested we replace this question due to it being more at an SRO level. We discussed the fact that we require our ROs to know TS in our program and it is difficult to meet the K/A otherwise. We agreed to resubmit a TS that was more reasonable for an RO.

Examination Outline Cross-reference:	LEVEL	RO	SRO
	Tier #	_____	2
	Group #	_____	2
	K/A #	_____	2.1.10
	Importance Rating	_____	3.9

Proposed Question: SEE ATTACHED
SRO#72

Proposed Answer: _____ A _____

Explanation (Optional):

Technical Reference(s): RP-1C (Attach if not
TS previously
provided)

Proposed references to be provided to applicants during examination: NONE

Learning Objective: 055.00.LP0000.000.008 (As available)

Question Source: Bank # TRCR 55.0
Modified Bank # _____ (Note changes or attach parent)
New _____

Question Cognitive Level: Memory or Fundamental Knowledge ✓
Comprehension or Analysis _____

10 CFR Part 55 Content: 55.41 _____
55.43 ✓ (7)

Comments: During exam review, the lead examiner requested a new question be submitted because this question related to refueling had been asked on a previous NRC exam to ROs and therefore was not a SRO only question. We resubmitted a new question.

1. Which one of the following items may be temporarily suspended during core alterations ?

- ✓A. Residual heat removal flow in the core.
- B. Neutron flux monitoring in the control room.
- C. Radiation monitoring in the fuel handling area.
- D. Direct communications between the fuel handling area and the control room.

Examination Outline Cross-reference:	LEVEL	RO	SRO
	Tier #	_____	2
	Group #	_____	2
	K/A #	103A2.03	
	Importance Rating	_____	3.8

Proposed Question: SEE ATTACHED
SRO#79

Proposed Answer: _____ A _____

Explanation (Optional):

Technical Reference(s): ARB C01 B2-5 (Attach if not
Logic Sheet # 21 previously
provided)

Proposed references to be provided to applicants during examination: NONE

Learning Objective: 031.00.LP0000.000.016 (As available)

Question Source: Bank # _____
Modified Bank # _____ (Note changes or attach parent)
New ✓

Question Cognitive Level: Memory or Fundamental Knowledge _____
Comprehension or Analysis ✓

10 CFR Part 55 Content: 55.41 _____
55.43 ✓ (1,5)

Comments: During exam review, the lead examiner requested that we
rewrite this question because it did not fully match the K/A.

1. Given the following plant conditions:

- Unit 1 is operating at full power.
- I & C testing is in progress
- C01 B 2-5 (Unit 1 Containment Isolation) annunciates.
- All of the Unit 1 lights on the Containment Isolation (CI) panel on C01 illuminate solid white.
- Assume no immediate operator actions occur.

Based only on these plant conditions, which of the following choices best predicts a plant outcome and appropriate procedure that should be used to mitigate this situation ?

(EOP-0, "Reactor Trip or Safety Injection")

(AOP-9B, "Component Cooling System Malfunctions")

- ✓A. Letdown line isolation occurs and EOP-0 should be entered.
- B. Safety Injection actuation occurs and EOP-0 should be entered.
- C. Seal injection isolation to RCPs occurs and AOP-9B should be entered.
- D. Component cooling water isolation to radwaste components occurs and AOP-9B should be entered.