

**LICENSEE/NRC COMMENTS TO THE PROPOSED
WRITTEN EXAMINATION, ES-401-9
FOR THE QUAD CITIES NUCLEAR POWER STATION
INITIAL EXAM - JUNE 2007**

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															
2														E	Made minor word changes to improve human factors
3		5												U	Replaced Q since not required to know Ground Levels from memory
4															
5															
6														E	Deleted reference to 'human error' cause of condition. Removed reference to 'Old Computer Room' and replaced with Aux Electric Rm.
7														E	Made minor word changes to improve human factors.
8														E	Made minor word changes to improve human factors. Changed word order in distractor A to improve discrimination value of question.
9			X											U	Changed Mode from 4 to 3. Made other minor word changes to improve human factors.

[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~~).

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		
45															
46															
47															
48			X											U	Changed from U1 to U2 since mods completed on U2. Changed bus from ESS to Instrument bus. Changed distractor from 1A to 2B FWRV.
49														E	Changed wording for human factors consideration. Changed distractor C to reflect proper nomenclature of switchgear.
50															
51						X								U	More than one correct answer. Added assumption statement in stem of question to limit one correct answer.
52														E	Reworded question stem to eliminate references to human error.
53															
54															
55														E	Reworded 'C' distractor
56						X								U	2 correct answers. Changed distractor to include RWCU demin bypass valve instead of lower RBCCW system temperature.
57			X											U	Changed question based on input from operators. Changed stem to include multiple reed switch failures. Changed distractors to meet facility technical requirements.
58															
59															
60														E	Changed 'D' distractor
61															
62														E	Replaced 'valving error' with 'minor transient' to remove references to human error. Deleted 'bypass pump' from 'C' distractor

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		
63										X				U	Had U1 components in stem for a U2 question.
64															
65														E	Removed 'spent' from spent fuel pool. Local vernacular.
66															
67															
68															
69														E	Changed question stem to running HPCI in lieu of running RCIC since heat load from RCIC into torus is much smaller than HPCI.
70						X								U	Changed distractors B, C & D from 'valve that is opened and torqued on its backseat' to 'MO valve that is opened, deenergized and has the handwheel removed.' This prevents having multiple correct answers..
71						X								U	Changed stem and distractors since required knowledge TS LCO >1 hr.
72														E	Added RP admin procedure reference since licensee has more restrictive site limits for exceeding allowed exposure.
73														E	Added verbiage in question stem to more clearly explain exceptional condition.
74														E	Minor word changes to improve human factors.
75														E	Changed terminology for RPS status lights.
76															
77															
78														E	Lowered Rx power from 28% to 26% to allow a greater margin to TBV operation.
79														E	Reworded stem of question to delete reference to human error. Changed wording in distractors for human factors.

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		
80						X								U	Added "manual Group II and SBTG start" to the stem, to ensure applicability per 50.73(a)(2)(iv)(A) (d distractor.) Changed time from 4 hrs to 8 hrs since original time was incorrect.
81															
82						X								U	With Rev 4 to EALs, DW Temp alone is not an indication of breach of cmt fission product barrier. Added venting torust procedure in progress. Ans. Key has D as correct but A is correct. Removed numerical reference to RCS activity and replaced with 'fuel failed' in Q stem.
83						X								U	Altered the stem and distractors for easier reading. Distractor A modified since 2 possible correct answers.
84			X											U	Wrong answer in answer key
85														U	Replaced question since previous question duplicates operating test. Changed from RWCU leak to steam leak in RCIC room.
86														E	Incorporated word changes for human factors
87						X								U	Added additional surveillance reqt.
88		X		X										U	Deleted reference to needing a dwg. Replaced question since cue in stem gave away answer..
89															
90															
91															
92			X											U	2 correct answers. Added LOWEST to stem to differentiate distractor subsets.
93															
94															
95			X											U	Reformatted for 2 part question. 2 correct answers. Added MAXIMUM to stem to differentiate distractor subsets.
96														E	Reworded stem to increase clarity.
97		X												U	Replaced question due to knowledge beyond SRO memory

