

**NRC COMMENTS TO THE PROPOSED
WRITTEN EXAMINATION, ES-401-9
FOR THE
CLINTON POWER STATION INITIAL EXAMINATION
AUGUST 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 | Backward | Q=K/A | SRO Only | | | |
| 1 | F | 2.0 | | | | | | | | | | | x | | S | new. |
| 2 | F | 2.0 | | | | | | | | | | | x | | S | new. |
| 3 | H | 2.0 | | | | | | | | | | | | | S | bank. |
| 4 | H | 2.0 | | | | | | | | | | | x | | S | new. |
| 5 | F | 2.0 | | | | | | | | | | | x | | E | new. In distractor c. spell occurrence. Fixed typo. |
| 6 | H | 2.0 | | | | | | | | | | | | | S | modified. |
| 7 | F | 3.0 | | | | | | | | | | | x | | S | new. |
| 8 | H | 2.0 | | | | | | | | | | | | | S | bank. Justify higher rating - appears to be fundamental. Changed to fundamental. |

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.
 - The distractors are not credible; single implausible distractors should be repaired, more than one is unacceptable.
 - 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)nsatisfactory (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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|----|--------------|--------------|-----------------------|------|-----|-------------|---------|----------------------|---------|---------|-----------|----------|----------|----------|----------------|---|
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| 9 | H | 2.0 | | | | | | | | | | | x | | U | new. See question 26. The questions test the same interlock. Facility agreed, replaced figure attached to this question to test different item within the K/A. |
| 10 | F | 2.5 | | | | | | | | | | | | | S | bank. |
| 11 | F | 2.0 | | | | | | | | | | | x | | S | new. |
| 12 | H | 2.5 | | | | | | | | | | | | | S | bank. |
| 13 | H | 2.5 | | | | | | | | | | | x | | S | new. |
| 14 | H | 2.0 | | | | | | | | | | | x | | S | new. |
| 15 | F | 2.0 | | | | | | | | | | | | | S | bank. |
| 16 | H | 2.5 | | | | | | | | | | | | | S | bank. |
| 17 | H | 3.0 | | | | | | | | | | | x | | S | new. |
| 18 | H | 2.0 | | | | | | | | | | | | | S | bank |
| 19 | F | 1.0 | | | | | | | | | | | x | | S | new. |
| 20 | F | 2.0 | | | | | | | | | | | | | S | new. |
| 21 | H | 2.0 | | | | | | | | | | | | | S | bank. Not a HIGHER skill question. Facility agrees fundamental. |
| 22 | F | 2.0 | | | | x | | | | | | | x | | U S | new. Distractor b. refers to rapid restoration, not why controls are disabled. Distractor d. refers to mis-operation by non-licensed personnel while the control room was abandoned. No one should be in the control room when it is abandoned. Mis-interpreted by the chief examiner. Distractor b. actions are at the RSP and would rapidly restore control to the control room, but that is not the design basis for the switches. The actions by the NLO were not intended to be control room actions as interpreted by the chief. |
| 23 | F | 2.0 | | | | | | | | | | | x | | E | new. replace micorcuries in the stem. Typo corrected. |
| 24 | F | 2.0 | | x | | | | | | | | | | | E | bank. The stem and the correct answer are the only two components that specifically mention reactor pressure. Attempt to find a method of disguising the correct answer. Added reactor pressure to two more distractors. |
| 25 | F | 2.0 | | | | | | | | | | | x | | U S | new. Q does not match K/A. The K/A asks about types of firefighting equipment for types of fires, the question refers to annunciators. K/A referred to monitoring. The question addresses where a fire in a |

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|----|--------------|--------------|-----------------------|------|-----|-------------|---------|----------------------|---------|---------|-----------|----------|----------|----------|----------------|--|
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| | | | | | | | | | | | | | | | | <i>certain location can be monitored. Q matches K/A.</i> |
| 26 | H | 2.0 | | | | x | | | | | | | | S | | modified. |
| 27 | H | 2.0 | | | | | | | | | | | | S | | modified. |
| 28 | H | 2.5 | | | | | | | | | | x | | E | | new. In distractor a. change on service to in service. In distractor c. un-capitalize Dryer to be consistent with other distractors. Capitalized Dryer throughout the question. |
| 29 | F | 2.0 | | | | | | | | | | x | | E | | new. Attempt to find a better distractor for b. Weak, but acceptable distractor. Replaced distractor with control room task that is more plausible. |
| 30 | F | 2.0 | | | | | | | | | | x | | S | | new. |
| 31 | H | 2.0 | | | | | | | | | | x | | S | | new. can we improve distractor b? Clinton's generator can coast to a stop with its output breaker closed. No need to change distractor. |
| 32 | F | 2.5 | | | | | | | | | | | | S | | modified. |
| 33 | F | 2.5 | | | | | | | | | | | | E | | bank. Can d. be a correct answer? how far down does the suppression pool level go during ED? Verified d. was incorrect. Correct answer was modified and moved to distractor a. |
| 34 | H | 3.0 | | | | | | | | | | x | | S | | new. |
| 35 | H | 2.5 | | | | | | | | | | x | | E | | new. Rework stem to ensure distractor b. is incorrect. Stem re-worked. |
| 36 | F | 2.0 | | | | | | | | | | x | | E | | new. Consider a different distractor for d. Its not plausible that you can reset the low water level ADS seal-in logic when at 145.5". This was a past practice at the plant. They would reset the seal-in logic before ADS initiated. Accepted distractor d. as valid. |
| 37 | F | 2.0 | | | | | | | | | | x | | S | | new. |
| 38 | F | 2.0 | | | | | | | | | | | | S | | new. |
| 39 | F | 2.0 | | | | | | | | | | | | S | | modified. |
| 40 | F | 2.0 | | | | | | | | | | | | S | | new. |
| 41 | F | 2.0 | | | | | | | | | | | | S | | new. |
| 42 | F | 2.0 | | | | | | | | | | | | E | | new. Remove the ? at the end of the first line of the stem. Corrected punctuation. |
| 43 | F | 2.5 | | | | | | | | | | x | | S | | new. |

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| 66 | H | 2.5 | | | | | | | | | | | | S | new. | |
| 67 | H | 2.5 | | | | | | | | | | | | S | new. | |
| 68 | H | 2.5 | | | | | | | | | | | | S | new. | |
| 69 | H | 3.0 | | | | | | | | | | | | S | new. | |
| 70 | H | 2.5 | | | | | | | | | | | | E | new. To more correctly address the K/A, define the controls to be manipulated, rather than "start" a piece of equipment. Added actual switches to be manipulated to more correctly answer the question. | |
| 71 | H | 2.0 | | | | | | | | | | | | S | new. | |
| 72 | H | 4.0 | | | | | | | | | | | | S | new. | |
| 73 | H | 3.0 | | | | | | | | | | | | S | new. | |
| 74 | H | 2.5 | | | | | | | | | | | | S | new. | |
| 75 | H | 3.0 | | | | | | | | | | | | S | new. | |
| 76 | H | 2.0 | | | | | | | | | | | X | S | bank. | |
| 77 | H | 2.0 | | | | | | | | | | | | X | S | new. |
| 78 | F | 2.0 | | | | | | | | | | | | X | S | new. |
| 79 | F | 2.0 | | | | | | | | | | | | X | S | bank. |
| 80 | H | 2.5 | | | | | | | | | | X | X | S | new. | |
| 81 | H | 2.0 | | | | | | | | | | | | X | S | modified. |
| 82 | F | 2.0 | | | | | | | | | | | | X | E | new. Since NSED is in every distractor, remove it and put it in the stem. Modified stem to include NSED. |
| 83 | H | 2.5 | | | | | | | | | | X | X | S | new. | |
| 84 | H | 2.0 | | | | | | | | | | | | X | S | new. |
| 85 | H | 2.0 | | | | | | | | | | | | X | S | new. |
| 86 | H | 2.0 | | | | | | | | | | X | X | U | modified. Question does not match K/A. K/A calls for being able to determine/interpret air pressure. Question provides pressure. Added figure containing instrument readings requiring the applicant to determine air pressure. | |

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| 87 | F | 2.0 | | | | | | | | | | | x | S | bank. | |
| 88 | H | 2.0 | | | | | | | | | | | x | x | S | new |
| 89 | H | 2.0 | | | | | | | | | | | | x | S | new. |
| 90 | H | 2.0 | | | | | | | | | | | | x | S | new. |
| 91 | H | 2.5 | | | | | | | | | | | | x | S | new. |
| 92 | H | 2.5 | | | | | | | | | | | | x | S | modified. |
| 93 | H | 2.0 | | | | | | | | | | | | x | S | new. |
| 94 | H | 3.0 | | | | | | | | | | | | x | S | new. |
| 95 | H | 2.5 | | | | | | | | | | | | x | S | new. |
| 96 | H | 2.5 | | | | | | x | | | | | | x | S | new. |
| 97 | H | 2.5 | | | | | | x | | | | | | x | U | new. Not an SRO question. ROs know this information based on systems training. Reed switch failure/bypass to allow rod motion. Question reworked - tech spec call added to put in SRO level. |
| 98 | H | 2.5 | | | | | | | | | | | | x | S | new. |
| 99 | H | 3.0 | | | | | | | | | | | | x | S | new. |
| 100 | F | 2.0 | | | | | | | | | | | | x | S | new. |