

To: Todd Fish, Chief Examiner
From: Phil Nielsen, Peach Bottom Regulatory Exam Author
Subject: Adjustments to Peach Bottom Operating Exam Materials
for the February 2005 Initial NRC Examination.

The following materials received modifications resulting from comments from the NRC Examination Team during the on-site preparation held December 14 - 16, 2004.

Administrative JPMs

RO Conduct of Operations - Initiate a Temporary Change

- Enhanced the Initiation Cue for clarity.
- Enhanced the task standard for critical steps to indicate which sub-steps are critical.

RO Equipment Control - Identify Clearance Points

- Enhanced the task standard for critical steps to indicate which sub-steps are critical.

RO Emergency Plan - Make State and Local Notifications

- Enhanced the Initiation Cue for clarity.
- Removed the critical indication for some steps.

SRO Conduct of Operations - Manual Heat Balance

- Truncated JPM for evaluation efficiency while maintaining adequate length for a comprehensive evaluation.

SRO Equipment Control - Clearance Approval

- Added another error to the provided clearance.

SRO Radiation Control - Authorize an Emergency Exposure

- Enhanced the Task Conditions for clarity.

System JPMs

ADS Reset

- Enhanced Task Conditions by changing indicated Reactor Pressure for realism.

HPCI Suction Transfer

- Modified JPM to require the candidate to diagnose the condition before taking appropriate actions.

Subject: Adjustments to Peach Bottom Operating Exam Materials
for the February 2005 Initial NRC Examination (Continued)

System JPMs (Continued)

Diesel Generator Load Test

- Truncated JPM for exam administration efficiency.
- Removed Alternate Path

Off Gas - Place the Standby Air Ejector in service

- Enhanced Task Conditions by changing GP-2 Attachment reference

Main Steam - Close Stuck Open MSIV

- Changed from Unit 2 to Unit 3 JPM
- Clarified that this JPM is Alternate Path

RPS - Scram Solenoid Deenergization

- Enhanced Task conditions from specific rods to "several rods".

Control Room Ventilation Restoration

- Truncated JPM for exam administration efficiency

Simulator Dynamic Scenarios

Scenario 1

- Changed one event to require more RO actions on failure.

Scenario 2

- Changed classification of one failure from Instrument to Component.

Scenario 3

- Removed Instrument classification from one event present only for its Tech Spec evaluation.

Scenario 4

- Swapped sequence of first two events for exam administration efficiency.
- Removed Instrument classification from two events present only for their Tech Spec evaluation.
- Enhanced Shift Turnover for clarity.

Notes: 1. Bolded question numbers have had a technical review

2. At a meeting on 02/01/05 the licensee agreed to make all "E" and "U" changes to ensure all 100 questions are "S"

| 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 | L | 2 | | | | | | | | | | | Y | N | S | |
| 2 | H | 4 | | | | | | | | | | | Y | N | S | |
| 3 | L | 3 | | | | | | | | | | | Y | N | S | |
| 4 | H | 2 | | | | | | | | | | | Y | N | E | cite T-101 in Q stem |
| 5 | L | 2 | | | | | | | | | | | Y | N | E | Reword question to "what is minimum torus, etc" |
| 6 | H | 3 | | | | | | | | | | | Y | N | E | Delete "expected" |
| 7 | L | 2 | | | | | | | | | | | Y | N | S | |
| 8 | H | 2 | | | | | | | | | | | Y | N | S | |

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|--|---|--------------|-----------------------|------|-----|-------------|---------|----------------------|---------|---------|-----------|----------|----------|----------|----------------|--|
| | | | Stem Focus | Cues | T/F | Cred. Dist. | Partial | Job-Link | Minutia | #/units | Back-ward | Q=K/A | SRO Only | | | |
| Instructions | | | | | | | | | | | | | | | | |
| [Refer to Section D of ES-401 and Appendix B 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"> • 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). | | | | | | | | | | | | | | | |
| 4. | Check the appropriate box if a job content error is identified: | | | | | | | | | | | | | | | |
| | <ul style="list-style-type: none"> • 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. | | | | | | | | | | | | | | | |
| 5. | <u>Check questions that are sampled</u> for conformance with the approved K/A and those that are <i>designated SRO-only</i> (K/A and license level mismatches are unacceptable). | | | | | | | | | | | | | | | |
| 6. | 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? | | | | | | | | | | | | | | | |
| 7. | At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met). | | | | | | | | | | | | | | | |

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| | | | Stem Focus | Cues | T/F | Cred. Dist. | Partial | Job-Link | Minutia | #/units | Backward | Q=K/A | SRO Only | | | |
| 9 | L | 2 | | | | | | | | | | | Y | N | E | Cite procedure reference |
| 10 | L | 2 | | | | | | | | | | | Y | N | S | |
| 11 | H | 3 | | | | | | | | | | | Y | N | S | |
| 12 | H | 3 | | | | | | | | | | | Y | N | S | |
| 13 | H | 2 | | | | | | | | | | | Y | N | S | |
| 14 | H | 3 | | | | | | | | | | | Y | N | S | |
| 15 | H | 3 | | | | | | | | | | | Y | N | E | "A" is implausible; possible choices "A" NOT, "B" NOT, "C" SPRAY, "D" SPRAY |
| 16 | H | 3 | | | | | | | | | | | Y | N | S | |
| 17 | H | 2 | | | | | | | | | | | Y | N | E | Delete first sentence; name "this valve"; delete "expected" |
| 18 | H | 3 | | | | | | | | | | | Y | N | S | |
| 19 | L | 3 | | | | | | | | | | | Y | N | S | |
| 20 | L | 2 | | | | | | | | | | | Y | N | S | |
| 21 | L | 3 | | | | | | | | | | | Y | N | S | |
| 22 | L | 2 | | | | | | | | | | | Y | N | S | |
| 23 | H | 3 | | | | | | | | | | | Y | N | S | |
| 24 | L | 2 | | | | | | | | | | | Y | N | E | Eliminate 1 st paragraph |

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| | | | Stem Focus | Cues | T/F | Cred. Dist. | Partial | Job-Link | Minutia | #/units | Backward | Q=K/A | SRO Only | | |
| 25 | L | 2 | | | | | | | | | | Y | N | E | Delete the first sentence begin question with "Per T-102..." |
| 26 | L | 3 | | | | | | | | | | Y | N | E | Delete middle sentence "What are implications" |
| 27 | H | 3 | | | | | | | | | | Y | N | E | Delete "expected" |
| 28 | H | 3 | | | | | | | | | | Y | N | S | |

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| 29 | L | 2 | | | | | | | | | | | Y | N | E | Format: Complete the following: Existing 480V...etc. |
| 30 | L | 2 | | | | | | | | | | | Y | N | E | Eliminate 1 st sentence |
| 31 | H | 3 | | | | | | | | | | | Y | N | S | |
| 32 | H | 3 | | | | | | | | | | | Y | N | S | |
| 33 | H | 3 | | | | | | | | | | | Y | N | S | |
| 34 | H | 2 | | | | | | | | | | | Y | N | S | |
| 35 | L | 3 | | | | | | | | | | | Y | N | E | Delete "expected". |
| 36 | H | 3 | | | | | | | | | | | Y | N | E | modify Q stem, e.g., "Following the Fast Transfer the SOONEST/EARLIEST power will be restored ... " |
| 37 | H | 3 | | | | | | | | | | | Y | N | E | Delete "expected" 2 places |
| 38 | L | 2 | | | | | | | | | | | Y | N | E | Delete "expected" |
| 39 | H | 2 | | | | | | | | | | | Y | N | E | Delete "expected" |
| 40 | H | 3 | | | | | | | | | | | Y | N | E | Delete "the RCIC system"; make choices work grammatically |
| 41 | H | 3 | | | | | | | | | | | Y | N | E | Grammar; match stem to choices |
| 42 | L | 2 | | | | | | | | | | | Y | N | S | |

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| | | | Stem Focus | Cues | T/F | Cred. Dist. | Partial | Job-Link | Minutia | #/units | Backward | Q=K/A | SRO Only | | |
| 43 | L | 3 | | | | | | | | | | Y | N | E | Delete "expected", reword stem "...using procedures..." |
| 44 | L | 2 | | | | | | | | | | Y | N | S | |
| 45 | L | 2 | | | | | | | | | | Y | N | S | |
| 46 | H | 3 | | | | | | | | | | Y | N | S | |
| 47 | H | 2 | | | | | | | | | | Y | N | S | |
| 48 | H | 3 | | | | | | | | | | Y | N | S | |

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| | | | Stem Focus | Cues | T/F | Cred. Dist. | Partial | Job-Link | Minutia | #/units | Backward | Q=K/A | SRO Only | | | |
| 49 | L | 3 | | | | | | | | | | | Y | N | S | |
| 50 | H | 2 | | | | | | | | | | | Y | N | S | |
| 51 | H | 3 | | | | | | | | | | | Y | N | S | |
| 52 | L | 1 | | | | | | | | | | | Y | N | U | LOD 1; Non discriminatory as currently written (provided proposed replacement) |
| 53 | L | 2 | | | | | | | | | | | Y | N | E | Replace "expected" with "designed"; align choices with answer key |
| 54 | H | 3 | | | | | | | | | | | Y | N | E | Delete "expected" |
| 55 | L | 2 | | | | | | | | | | | Y | N | E | Delete "expected" |
| 56 | L | 2 | | | | | | | | | | | Y | N | S | |
| 57 | H | 3 | | | | | | | | | | | Y | N | E | Delete "expected" |
| 58 | H | 3 | | | | | | | | | | | Y | N | E | Delete "should" |
| 59 | L | 2 | | | | | | | | | | | Y | N | S | |
| 60 | H | 2 | | | | | | | | | | | Y | N | S | |
| 61 | H | 3 | | | | | | | | | | | Y | N | S | |
| 62 | L | 2 | | | | | | | | | | | Y | N | S | |
| 63 | L | 2 | | | | | | | | | | | Y | N | S | |
| 64 | H | 2 | | | | | | | | | | | Y | N | S | |
| 65 | L | 1 | | | | | | X | X | | | | Y | N | U | no operational validity |

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| | | | Stem Focus | Cues | T/F | Cred. Dist. | Partial | Job-Link | Minutia | #/units | Back-ward | Q=K/A | SRO Only | | |
| 66 | L | 2 | | | | | | | | | | Y | N | S | |
| 67 | H | 2 | | | | | | | | | | Y | N | S | |
| 68 | L | 2 | | | | | | | | | | Y | N | S | |

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|-----|--------------|--------------|-----------------------|------|-----|-------------|---------|----------------------|---------|---------|----------|----------|----------|----------|--|
| | | | Stem Focus | Cues | T/F | Cred. Dist. | Partial | Job-Link | Minutia | #/units | Backward | Q=K/A | SRO Only | | |
| 69 | H | 2 | | | | | | | | | | Y | N | E | Correct grammar |
| 70 | H | 3 | | | | | | | | | | Y | N | S | |
| 71 | L | 2 | | | | | | | | | | Y | N | S | |
| 72 | L | 2 | | | | | | | | | | Y | N | E | Move "No ADCL extensions..." to conditions |
| 73 | H | 3 | | | | | | | | | | Y | N | E | Add "not declared pregnant" to stem; stop last condition after diagnostic test |
| 74 | L | 2 | | | | | | | | | | Y | N | S | |
| 75 | H | 3 | | | | | | | | | | Y | N | S | |
| S-1 | H | 2 | | | | | | | | | | Y | Y | S | |
| S-2 | H | 3 | | | | | | | | | | Y | Y | E | Delete second bullet in stem. SRO expected to derive this from first bullet |
| S-3 | L | 2 | | | | | | | | | | Y | Y | E | Distractor "A" implausible; delete first sentence |
| S-4 | H | 3 | | | | | | | | | | Y | Y | S | |
| S-5 | H | 2 | | | | | | | | | | Y | Y | E | Punctuation; delete comma in Q; delete "using these plant conditions" |
| S-6 | H | 3 | | | | | | | | | | Y | Y | S | |
| S-7 | L | 2 | | | | | | | | | | Y | Y | E | Cite procedure; delete "should" |
| S-8 | H | 2 | | | | X | | | | | | Y | Y | U | Distractors "C" and "D" implausible with steam flow > feed flow. |

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|------|--------------|--------------|-----------------------|------|-----|-------------|---------|----------------------|---------|---------|----------|----------|----------|----------|----------------------------------|
| | | | Stem Focus | Cues | T/F | Cred. Dist. | Partial | Job-Link | Minutia | #/units | Backward | Q=K/A | SRO Only | | |
| S-9 | H | 2 | | | | | | | | | | Y | Y | E | Reformat to fill-in-blank. |
| S-10 | L | 2 | | | | | | | | | | Y | Y | S | |
| S-11 | L | 2 | | | | | | | | | | Y | Y | E | Reformat; delete second sentence |
| S-12 | H | 2 | | | | | | | | | | Y | Y | S | |
| S-13 | H | 3 | | | | | | | | | | Y | Y | E | Delete "expected" |

