NRC COMMENTS TO THE INITIAL EXAM SUBMITTAL

INCLUDING WRITTEN EXAM COMMENTS ON ES-401-9

AND OPERATING TEST COMMENTS

FOR THE D. C. COOK INITIAL EXAMINATION - FEBRUARY 2006

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q≈ K/A	SRO Only	U/E/S	Explanation
59+	F	2				X						X		E	Bank. 1) To enhance distractor A, change it to say: "Ensure incoming voltage is slightly higher than running voltage prior to closing the output breaker." 2) Distractor B is not plausible that one matches running and incoming currents prior to closing the DG output breaker. Suggest changing this to say: "Ensure synchroscope is at the 12 o'clock position prior to closing the output breaker." This wording for the distractor would also provide for symmetry in the distractors. RESOLUTION: Comments incorporated.
60	F	2												S	Bank.
61	H	3												E	Bank. Editorial: In distractors C and D, add the word "is" before the word "still". RESOLUTION: Comment incorporated.
62	H	3												E	Bank. Editorial: In the question stem, fully capitalize the word "ONE" (i.e., Which ONE of the following ...). RESOLUTION: Comment incorporated.
63+	H	2										X		S	Bank.
64	F	3												S	Bank.
65	F	3												E	Bank. Editorial: Fully capitalize the word "ONLY" in distractors A, B, and C. RESOLUTION: Comment incorporated.
66+	H	2				X						X			Bank. 1) Distractor A is not plausible that one could operate in any Mode with all ECCS LCOs satisfied , with an SI pump inoperable. 2) Editorial: In the question stem, fully capitalize the word "ONE" (i.e., Which ONE of the ...). RESOLUTION: 1) Changed distractor A to state that it is OK to go to Mode 3, but may not proceed to Mode 2. 2) Comment incorporated.
67	H	4												U	Bank. 1) The provided reference does not show the requirement to isolate the #12 SG blowdown. It appears that distractor C is also incorrect, and there is no correct answer. 2) This question should be classified at the Higher Cognitive Level instead of at the Fundamental level. RESOLUTION: 1) Changed distractor C to state to isolate SG blowdown, which is consistent with the calorimetric procedure. 2) Comment incorporated.
68	F	2												S	Bank.

ES-401 **Written Examination Review Worksheet** **Form ES-401-9**

D. C. Cook February 2006 Exam

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	H	3												S	New.
2	H	3												S	Bank.
3+	F	2										X		S	Bank.
4	H	3												E	Modified. In the question stem, change the question from "Which ONE of the following actions **should** be taken?" to "Which ONE of the following actions **is required to** be taken?" RESOLUTION: Comment incorporated.

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:
   - 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:*
   - 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. 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).
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).

A "+" in the "Q#" column indicates that question was reviewed as part of the representative sample of 30 questions.

Quad Cities May 2005 Exam

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		
5	F	3												S	Bank.
6+	F	2										X		E	Bank. Editorial: In distractor D, change the first word from "Maintain" to ""Maintains." RESOLUTION: Comment incorporated.
7	H	3												S	Modified.
8	H	3												S	Bank.
9+	H	2										X		E	Bank. 1) In the question stem, add another condition that states that "RCS temperatures are at 150°F". 2) In distractor D, change "reliefs" to *"relief", since there is only one RHR suction relief valve.* RESOLUTION: Comments incorporated.
10	H	3												S	Bank.
11	H	2												S	Bank.
12	H	3												U	New. Need references to verify that the second sentence in distractor D is correct (i.e., concerning 120 gpm of borated RWST water). RESOLUTION: Comment incorporated. Changed the last sentence in distractors A and D to reference "70 gpm" instead of "120 gpm".
13+	F	3										X		S	Bank.
14	H	3												E	Modified. To make the math simpler, change the question stem to state that the leakage rate is 100 gpm instead of 150 gpm, and that RCS pressure is 1350 psig instead of 1700 psig. Then change the distractors to A) Approx. 25 gpm, B) Approx. 50 gpm (Correct Answer), C) Approx. 75 gpm, and D) Approx 100 gpm. RESOLUTION: Comment incorporated.
15	H	2												S	Modified.
16+	F	2										X		S	Bank.
17	F	2												S	Bank.

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		
18	F	2				X								E	Modified. Distractor C is not clear as to what part of the Electrical Distribution system to declare inoperable (i.e., the DC Electrical Distribution system). RESOLUTION: Changed distractor C to "or declare the Unit 1 ESW system inoperable".
19+	F	3										X		E	New. Editorial: In the question stem, add the word "following" (i.e., "Which of the **following** is the ..."). RESOLUTION: Comment incorporated.
20	F	3												E	Bank. 1) The question stem asks what action(s) are taken FIRST. However, the correct answer is from step 10 of the AOP. Aren't other actions taken FIRST in steps I thru 9? Also, should operators be responsible for knowing a subsequent action taken at step 10 of an AOP? 2) In the question stem, re-phrase the question to get rid of the word "should". RESOLUTION: 1) Deleted the word "FIRST" in the question stem. Also, there are Learning Objectives for the RO to know the corrective actions and the basis for the corrective actions for a rupture in the ESW system. 2) Comment incorporated.
21	H	3												E	New. Editorial: In the question stem, fully capitalize the word "ONE" (i.e., Which ONE of the following ...) RESOLUTION: Comment incorporated.
22	F	2												S	Modified.
23+	F	2				X						X		U	Bank. Distractors A and D are not plausible that one would maximize the letdown flowrate to control RCS pH or boron concentration, when the question stem clearly states that high RCS activity exists. RESOLUTION: Replaced question (Bank, F, 2).
24	H	2				X								U	Bank. Distractors A and B are not plausible that the control rods would wind up higher in the core after a load reduction. RESOLUTION: Replaced question (Bank, H, 3).
25	H	2												S	Bank.
26+	H	2										X		S	Bank.
27	H	2												S	Bank.
28	H	3												S	New.

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		
29+	H	3										X		E	New. Are the actions specified in distractor D proceduralized? If not, then distractor D (correct answer) can also be considered incorrect, since one could say that the correct response would be to stop the West RHR pump, perform some isolations on the West RHR train, and then startup the East RHR pump. RESOLUTION: The "Loss of Control Air Recovery" procedure provides guidance to throttle the applicable valves in distractor D. In the question stem, changed "... action required..." to "... action that could be taken...".
30	F	2												E	New. Editorial: In the question stem, fully capitalize the word "ONE" (i.e., Which ONE of the following ...). RESOLUTION: Comment incorporated.
31	H	1				X								U	Bank. 1) Distractors A, B, and D are not plausible for reasons why high or low PRT level would cause an adverse effect. 2) Question ≠ K/A, since the question is related to system design knowledge of the PRT, and not Conduct of Operations associated with the PRT. 3) One is led to conclude that distractor C is correct, since this is the only distractor that has the word "design" in it (and the question stem has the word "design" in it). 4) In the replacement question, change the question stem to state: "Which ONE of the following is a condition of the PRT within normal limits during power operations." RESOLUTION: 1), 2), and 3) Replaced question (New, F, 2). 4) Comment incorporated.
32	H	3												E	Bank. 1) Change the question from Fundamental to Higher Cognitive Level. 2) Editorial: In the question stem, fully capitalize the word "ONE" (i.e., ..., which ONE of the following ...). RESOLUTION: Comments incorporated.
33+	H	2										X		E	New. Re-word distractor C to: Isolate letdown (or excess letdown, if in service), place the West CCW pump switch in Lock-Out, and commence a rapid plant shutdown. RESOLUTION: Comment incorporated.

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		
34	F	3				X								U	Bank. 1) Question ≠ RO. This question is at the SRO level, since it is associated with 10CFR55.43(b)(5) (selection of appropriate procedure), unless there is a Learning Objective for the RO that describes the rules of usage for ES-0.0. 2) Distractor B (correct answer) could also be interpreted to be incorrect (and thus there being no correct answer), because it is not complete (e.g., if one is in FR-H.1 one can not enter ES-0.0). One needs to also be in an E-series EOP per OHI-4023, page 37. 3) In distractor A, delete the word "solely" to make it read similar to distractor B. 4) Distractors A and C are essentially equivalent. 5) Editorial: In the question stem, *fully capitalize the word "ONE" (i.e.*, Which ONE of the following ...). 6) Question could be interpreted to be just a collection of True/False statements, and not requiring the question stem to answer the question. RESOLUTION: 1) There is a Lesson Plan Learning Objective for the RO that describes the rules of usage for ES-0.0. 2) Added to distractor B that a Function Restoration procedure is NOT in effect. 3) Comment incorporated. 4) Added to distractor A that a Function Restoration procedure is NOT in effect. This will make distractor A different than *distractor C. 5) Comment incorporated.* 6) Re-worded distractors so that ES-0.0 is not mentioned. Thus, the question is no longer a collection of True/False statements.
35	H	3												U	Bank. Question ≠ RO. This question is at the SRO level, since it is associated with 10CFR55.43(b)(5) (selection of appropriate procedure). RESOLUTION: Replaced question (Bank, F, 2).
36+	F	3				X						X		U	Bank. 1) Distractors B and D are not plausible that normal AFW flow from the affected Unit would not be the first preference for SG FW flow. Suggest changing the question stem to include AFW flow from the affected Unit as the first preference in the question stem, and then put options 2, 3, and 4 in different orders for the distractors. 2) Is there a Lesson Plan Learning Objective for an RO to know the order of *preference for restoring SG FW flow following entry into FR-H.1 (since* the actions are not from any Immediate Action steps, and some are taken from RNO columns)? RESOLUTION: 1) Comment incorporated. 2) There is a Lesson Plan Learning Objective for an RO to know the order of preference for restoring SG FW flow following entry into FR-H.1.

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		
37	F	2				X								E	Bank. 1) Re-word distractor D to: "if the pressure boundary in any SG is restored at any time, the operator could be directed back to OHP-4023-E-2 for further optimal recovery actions". 2) For symmetry, re-word distractor C to: "if complete depressurization of all SGs occurs, the operator is required to make a prompt transition to maintain an adequate Heat Sink. 3) To make distractor B more plausible, change to: "If any SG level rises in an uncontrolled manner, the operator is directed to 0HP-4023-ECA-3.1 for further recovery actions. RESOLUTION: Comments incorporated.
38	H	2												E	Bank. To make the distractors symmetrical, change distractor C to make it similar to distractor D, except change the word "TRIP to "PULL-TO-RESET". RESOLUTION: Comment incorporated.
39+	F	1										X		U	Bank. LOD = 1 that with the PRT rupture disc blown, and a PZR PORV relieving to the PRT that containment radiation levels would rise. RESOLUTION: Changed distractor B (correct answer) to "PRZ PORV outlet temperature lowers". This changed the question from Fundamental to Higher Cognitive Level.
40	H	3												E	Bank. Change the question stem such that the initial charging flow is 130 gpm instead of 127 gpm and such that the initial seal injection flow is 32 gpm instead of 30 gpm, so that distractor B is changed from "remains about 30 gpm" to "remains about 32 gpm". RESOLUTION: Comment incorporated.
41	H	3												S	Bank.
42	H	3												S.	Modified.
43+	F	3										X		E	New. Editorial: In the question stem, fully capitalize the word "ONE" (i.e., Which ONE of the following ...). RESOLUTION: Comment incorporated.
44	F	3												S	New.
45	H	2												S	Bank.
46+	H	2										X		S	New. NOTE: Question requires a reference.

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		
47	H	2												E	Bank. In the question stem, change the word "should" to "would". RESOLUTION: Comment incorporated.
48	H	3												S	Bank.
49+	H	3										X		S	New.
50	H	2												E	New. In the question stem, add the words "assuming NO operator action" to the question. RESOLUTION: Comment incorporated.
51	F	2				X								U	Bank. 1) Distractors A and B are not plausible that the SG PORV radiation monitors are only energized when the SG PORV opens. 2) Distractor B and C are not plausible that the SG PORV rad monitors would be mounted upstream of the SG PORVs on a hot pipe. RESOLUTION: 1) Replaced this phrase with one asking whether the monitors are reliable only in non-accident conditions or also after an accident. 2) Comment incorporated. Changed "mounted" to "positioned".
52	H	3												E	New. Editorial: In the question stem, change "... level will initially ..." to "... levels will initially ...". RESOLUTION: Comment incorporated.
53+	H	3										X		E	Modified. Distractors B and D state that the turbine trips, but the status of the turbine is not stated in the question stem. Suggest saying in the question stem that the turbine is at 1800 rpm and ready to go online. RESOLUTION: Comment incorporated.
54	H	3												S	Bank.
55	F	3												S	Bank.
56+	H	3										X		S	Modified.
57	H	3												S	Bank.
58	H	2												U	Bank. There would be overlap between this question and the actions performed during JPM 2006-INPL 3, since the first step that the applicant would perform in the JPM would be to cycle the battery charger switch to OFF and then back to AUTO. RESOLUTION: Replaced question (Bank, H, 2).

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		
69+	F	2										X		S	Bank.
70	F	3												S	Bank.
71	F	3												E	Bank. In the question stem, change the question from "Which ... **should** be displayed ...?" to "Which ... **is required to** be displayed ...?" RESOLUTION: *Comment incorporated.*
72	F	2												S	New.
73+	F	2										X		S	Bank.
74	F	3												S	*Modified. This question associated with the Emergency Plan appears to* be at the SRO level, unless this is a task performed by an RO. RESOLUTION: This task is performed by an RO, and there is a Learning Objective associated with the task.
75	H	3												E	Bank. 1) In distractors A and C, change "... reactor coolant system pressure is 491.25 psig and rising" to "... reactor coolant system pressure is at 500 psig ". 2) In distractors B and D, change "... reactor coolant system pressure is 491.25 psig and lowering" to "... reactor *coolant system pressure is at 450 psig* ". RESOLUTION: Comments incorporated.
76+	F	3										X	X	E	Bank. This question should be changed from Modified to Bank, since there is no pertinent condition *changed in the question stem.* RESOLUTION: *Comment incorporated.*
77	H	3											X	U	Bank. This question is associated with K/A 000011 Generic 2.1.6, which is not on the Written Exam Outline. RESOLUTION: Replaced question with one associated with K/A 026 A2.08 (Modified, H, 3).
78	H	2											X	E	Bank. In the question stem, change the word "should" to "is expected to". RESOLUTION: Comment incorporated.
79+	H	3										X	X	S	New.
80	H	3											X	S	Modified.

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		
81	H	2					X						X	E	New. 1) Change the question stem so that there is a loss of CRID III instead of CRID 1, since otherwise one could guess that distractor B is *the correct answer (loss of N21) without even knowing the reason why it* is correct. 2) Editorial: In the question stem, fully capitalize the word "ONE" (i.e., Which ONE of the following ...). RESOLUTION: Comments incorporated. NOTE: Question requires a reference.
82	F	2											X	S	Bank.
83+	H	3										X	X	S	Bank.
84	H	2				X							X	S	Modified.
85	H	2											X	S	Modified. NOTE: Question requires a reference.
86+	H	2										X	X	E	Bank. 1) Editorial: In the question stem, add the word "now" so that the sentence reads "The crew has **now** reached step 12 ...". 2) In the question stem, change the phrase "should be running" to "are expected to be running". RESOLUTION: Comments incorporated. NOTE: Question requires a reference.
87	H	3											X	E	Modified. In the question stem, change SG #13 NR Level from 93% to 96%, so that the applicant is not required to know the exact setpoint of 92% as the cutoff for high SG level actions. RESOLUTION: Comment incorporated.
88	H	2											X	S	Bank.
89+	H	3										X	X	U	Bank. This question is associated with K/A WE16 EA 2.2, which is not on the Written Exam Outline. RESOLUTION: Replaced question (Bank, H, 3).
90	H	3											X	E	*New. 1) This question should be classified at the Higher Cognitive level* instead of at the Fundamental level. 2) Put the phrase "Direct the RO to turn on the Hydrogen Igniters" in the question stem, instead of repeating this phrase in each distractor. RESOLUTION: Comments incorporated.
91	H	3											X	S	New.

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		
92	H	3											X	E	New. The distractors discuss LCOs of 72 hours and 7 days. The applicants are not required to know LCOs from memory that are greater than 1 hour. RESOLUTION: Deleted mention of 72 hour and 7 day LCOs from the disteractors.
93+	H	2										X	X	E	New. In the question stem, "Drop 18" should be "Drop 44" and "Drop 19" should be "Drop 45". RESOLUTION: Comment incorporated. NOTE: Question requires a reference.
94	F	2											X	S	Bank.
95	F	3											X	E	Modified. Include all of PMP-2060-SEC-006 instead of just Attachment 4, so that applicant needs to find the appropriate reference. RESOLUTION: Comment incorporated. NOTE: Question requires a reference.
96+	F	2										X	X	S	Bank.
97	F	3											X	E	Bank. Editorial: In distractor A, change the second sentence to read "No equipment alignment changes are required." RESOLUTION: Comment incorporated.
98	H	3											X	S	Bank. NOTE: Question requires a reference.
99+	F	3										X	X	S	Bank.
100	H	2											X	E	Bank. Editorial: Re-word the first sentence in the question stem to: "Unit 1 was in MODE 4 with a containment inspection in progress." RESOLUTION: Comment incorporated. NOTE: Question requires a reference.

DC COOK FEBRUARY 2006 INITIAL LICENSE EXAM
OPERATING EXAM COMMENTS

#	Source	Comment	Resolution
1.	Admin JPM A	This JPM really has only one Critical Step (to identify that there are no misaligned rods). There is no Critical Step associated with the K/A for the JPM (K/A 2.1.25 associated with the ability to interpret graphs and tables). To make the JPM correspond to K/A 2.1.25 and to increase the level of difficulty, make the following changes: 1) Change the initial rod positions so that one control rod is actually misaligned (and have the RO who filled out the form show that no control rod is misaligned). 2) Change the initial conditions such that one control rod was found to be untrippable during the quarterly surveillance conducted per SR 3.1.4.2. Have the RO fill out the incorrect "Worth of a Single Stuck Rod" in step 4.5.2 (use 121 pcm instead of 825 pcm, which would correspond to using the wrong graph in Figure 1.3b). [NOTE: JPM A initially Unsatisfactory]	Comments incorporated.
2	Admin JPM B	1) On page 5, it states as a Critical Task that the applicant identifies that the AFD has been outside the Target Band for at least 30 minutes. Change from ""for at least 30 minutes" to "between 30 minutes and 1 hour", since only the 1230 hours AFD readings show two channels outside the Target Band (and the applicant could conservatively assume that there were two channels outside the Target Band for up to one hour). 2) Add to the second Critical Task on page 5 that the applicant identifies that a Tech Spec 3.2.3 entry is required. [Comment during onsite validation]	Comments incorporated.
3	Admin JPM C	Change the Critical Tasks so that they are: 1) There is a sequencing error in that the fuse and breaker are taken OOS before the MCB switch is placed in LOCKOUT. 2) There is no tag listed for the East ESW pump discharge valve.	Comments incorporated.

DC COOK FEBRUARY 2006 INITIAL LICENSE EXAM
OPERATING EXAM COMMENTS

#	Source	Comment	Resolution
4.	Admin JPM D	On page 5, change the wording of the second sentence of the Critical Step to say: " Slope of curve indicates rate of rise of leakrate exceeds 30 GPD/hr (since the lines on the graphs indicate a rate of leakrate increase of 30 GPD/hr, not a leakrate of 30 GPD). [Comment during onsite validation]	Comment incorporated.
5.	Admin JPM D	Delete the Table of SJAE radiation readings on the Task Briefing page handed to the applicant, and instead put the readings on Data Sheet 1.	Comment incorporated.
6.	Admin JPM E	On page 10, change the first Critical Task to delete the following as Critical Tasks: - Name - Call Back #	Comment incorporated.
7.	Admin JPM E	1) On page 10, only one of the 4-hour 10CFR50.72 notification boxes (i.e., either the "ECCS Discharge to RCS" or the "RPS Actuation" box is required to be checked as a Critical Step. Change the Task Briefing such that the event (stuck open SG #12 safety valve with manual safety injection) occurs in Mode 3 at full RCS temperature and pressure (instead of at 100% power), so that the applicant must identify that the 4-hour 10CFR50.72 notification box "ECCS Discharge to RCS" is required to be checked as a Critical Step. 2) On page 10, why is the 8-hour Non-Emergency box checked? There is no discussion as to why this box is checked. Delete the 8-hour notification requirement. 3) On page 10, the box "50.72 Non-Emergency" should be shown as required to be checked (not a Critical Step). [Comment during onsite validation]	Comments incorporated.
8.	JPM A Simulator	On page 4, after the sentence that states "Operator attempts to start BOTH BAPS," add the following: "Neither BAP will start"	Comment incorporated.
9.	JPM A Simulator	On page 5, change the last Critical Step from raising Charging flow to ≥ 100 gpm to raising Charging flow to ≥ 170 gpm, since initially Charging flow will be about 120 gpm. [Comment during onsite validation]	Comment incorporated.
10.	JPM B Simulator	On page 10, the step to direct the AEO to OPEN valve 1-IRV-60 should be a Critical Step.	Comment incorporated.

DC COOK FEBRUARY 2006 INITIAL LICENSE EXAM
OPERATING EXAM COMMENTS

#	Source	Comment	Resolution
11.	JPM B Simulator	In the Task Briefing, change the requirement for the applicant to raise SI Accumulator from 940 ft^3 to 945 ft^3 to make the level closer to normal accumulator level. [Comment during onsite validation]	Comment incorporated.
12.	JPM B Simulator	On page 9, make the step that starts the South SI pump a Critical Step, since this step is required for the successful performance of the task. [Comment during onsite validation]	Comment incorporated.
13.	JPM C Simulator	Place the CUE given on page 1 (concerning all procedural precautions and limitations being met) on the Task Briefing page also. *[Comment during onsite validation]*	Comment incorporated.
14.	JPM D Simulator	On page 8, in the Ctitical Step where the "Operator places 2A5 Control switch in CLOSE", delete "and Verifies SYNCH Permissives white light lit". Reason: This part of the Critical Step is just a verification, and also it is a duplicate of the operator action listed just below the Critical Step.	Comment incorporated.
15.	JPM E Simulator	On page 5, add a NOTE for the Evaluator that the applicant is expected to depress the "Emergency Fire System Siren Test " pushbutton to sound the fire siren. Also, add a CUE that if the applicant does not depress the pushbutton, say that one does not hear the fire siren. [Comment during onsite validation]	Comment incorporated.
16.	JPM E Simulator	On page 5, add a NOTE that the applicant is expected to notify the fire brigade by calling *extension 1411*. [Comment during onsite validation]	Comment incorporated.
17.	JPM F Simulator	On page 1, make the step that locally opens valve 2-FRV-256 a Critical Step. [Comment during onsite validation]	Comment incorporated.
18.	JPM F Simulator	On page 2, make the step that locally opens valve 2-FW-263 a Critical Step. [Comment during onsite validation]	
19.	JPM F Simulator	On page 2, step 4.10.2, in the surveillance procedure provided, the IST MIN and MAX times are already filled in. Make the applicant find the correct times to put in the spaces, and make this a Critical Step to put in the correct times?	Comment incorporated.

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#	Source	Comment	Resolution
20.	JPM G Simulator	Add to the Task Briefing that the external fault caused a reactor trip "20 minutes ago". [Comment during onsite validation]	Comment incorporated.
21.	JPM G Simulator	On pages 7 and 9, delete the Critical Steps associated with adjusting RCP seal injection flow to 6 - 12 gpm, and just say to verify that RCP seal injection flow is 6 - 12 gpm (since no adjustment of RCP seal injection flow is required). [Comment during onsite validation]	Comment incorporated.
22.	JPM G Simulator	On page 13, add a CUE that the UV alarms on Panel 221 Drop 67 &68 are NOT LIT. [Comment during onsite validation]	Comment incorporated.
23.	JPM J In-Plant	On page 4, need to add to the CUE at the bottom of the page that steps 3 through 7 are complete.	Comment incorporated.
24.	JPM J In-Plant	On page 6, correct typo in NOTE: " ... valve gallery."	Comment incorporated.
25.	JPM K In-Plant	On page 4, add the following words at the beginning of the first CUE: "(If Asked)".	Comment incorporated.
26.	JPM K In-Plant	On page 6, in the Evaluator Note at the top of the page, change "Train A" to "Train B".	Comment incorporated.
27.	JPM K In-Plant	On page 6, change the last CUE on the page to: (If asked) There was no loss of offsite power.	Comment incorporated.
28.	JPM K In-Plant	On page 7, the second CUE from the bottom should say "LIT" instead of "NOT LIT".	Comment incorporated.
29.	Scenario 06-01 Page 2	Editorial: 1) In the first sentence in the "Summary", delete the extra "will involve" phrase. 2) In the first sentence in the 3rd paragraph, change "will fail closed" to "failing closed". 3) In the first sentence in the 4th paragraph, change "failing" to "fails".	Comments incorporated.

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#	Source	Comment	Resolution
30.	Scenario 06-01 Event 1 Page 4	1) Change Tech Spec 3.3.4 from "Does NOT apply" to "Table B 3.3.4-1, Function 2, Condition A, 30 day clock". 2) Add to TS 3.5.2 "Condition A, 72 hour clock". 3) Add to TRM 8.1.1 "Condition A, 72 hour clock". [Comments during onsite validation]	Comments incorporated.
31.	Scenario 06-01 Event 3 Page 6	1) Delete the NOTE about the SM directing the crew to restore 75 gpm letdown, since the Unit Supervisor should direct this action (or add a CUE for the booth as the SM). 2) Editorial: In item "12)", add an open parentheses before "if desired)".	Comments incorporated.
32.	Scenario 06-01 Event 3 Page 6	1) In the steps for the RO to restore letdown, place the step to adjust charging flow to 75 gpm after the step that adjusts the letdown pressure controller to 75%. 2) After adjusting charging flow to 75 gpm, add steps that would allow the RO to place a second letdown orifice (45 gpm) in service. [Comments during onsite validation]	Comments incorporated.
33.	Scenario 06-01 Page 8	In the place where it states for the US to "Directs RNO actions for Step 5 of E-O", add at the end what Step 5 does.	Comment incorporated.
34.	Scenario 06-01 Page 9	The Critical Task #1 on this page says to isolate ALL MSIVs, whereas on page 11 it states that the Critical Task is to only close the #24 MSIV. Only closure of #24 MSIV should be a Critical Task.	Comment incorporated.
35.	Scenario 06-01 Page 9	1) Editorial: Change "Opens 2-IMO-221, 2E CTS Pump Discharge Valve" to "Opens 2-IMO-221, 2W CTS Pump Discharge Valve". 2) Change valve 2-IMO-202 to 2-IMO-204. [Comment during onsite validation]	Comments incorporated.
36.	Scenario 06-01 Page 10	On page 10, add a NOTE that verification of the six valves closed is not a Critical Step. [Comment during onsite validation]	Comment incorporated.

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#	Source	Comment	Resolution
37.	Scenario 06-01 Page 10	Add the first 9 steps of ES-1.1 to the end of the scenario. [Comment during onsite validation]	Comment incorporated.
38.	Scenario 06-01 Page 11	Delete mention of "MFW valves" and "SGBD sample valves" from the Performance Indicators for Critical Task #1.	Comment incorporated.
39.	Scenario 06-02 Event 4 Pages 1, 2, 13	Change the magnitude of the SGTR from 300 gpm to 400 gpm. [Comment during onsite validation]	Comment incorporated.
40.	Scenario 06-02 Event 2 Page 4	In the Event Description, change "fails HIGH" to "fails LOW".	Comment incorporated.
41.	Scenario 06-02 Event 3 Page 5	Editorial: Change "Bend" to "Blend" in middle of page.	Comment incorporated.
42.	Scenario 06-02 Page 6	1) It states that the crew may enter the "Excessive RCS Leakage" procedure. The crew may also enter the "SG Tube Leak" procedure. Add that the crew may also enter the "SG Tube Leak" procedure. 2) In the sentence where it states for the US to direct RO/BOP to perform the immediate actions of E-0, add before this that the US directs RO/BOP to manually trip the reactor and initiate safety injection (e.g., see wording in Scenario 06-03).	Comments incorporated.
43.	Scenario 06-02 Page 7	1) Editorial: Put "E-0" on the next line when the US announces a transition to E-0. 2) When the US directs operator actions to close the SG PORV, delete the Phrase "and monitor Reactor Power". 3) Editorial: For the actions for Critical Task #2, change "SG 23" to "SG 22". 4) Add to Critical Task #2 to close the Stop Valve Dump Valves. [Comment during onsite validation]	Comments incorporated.
44.	Scenario 06-02 Page 8	Instead of terminating the scenario when the RCS depressurization is started, continue the scenario further until the depressurization has been stopped and SI has been terminated.	Comment incorporated.

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#	Source	Comment	Resolution
45.	Scenario 06-02 Page 9	Editorial: For Critical Task #2, change "SG 23" to "SG 22" in three places.	Comment incorporated.
46.	Scenario 06-02 Page 10	For Critical Task #1, add "(Train B)" to the Performance Indicator associated with manually starting ECCS Equipment. [Comment during onsite validation]	Comment incorporated.
47.	Scenario 06-02 Page 10	For Critical Task #2, delete "Ensures feed flow isolated" from the Performance Indicator. [Comment during onsite validation]	Comment incorporated.
48.	Scenario 06-02 Page 10	For Critical Task #4, what is the acceptance criteria associated with not risking the consequences of SG overfill?	Added as an acceptance criteria that the ruptured SG inventory remains below 44 feet per Computer Point RCLSG2.
49.	Scenario 06-02 Page 13	Editorial: Under Simulator Instructions, Change "#24 SG" to "#22 SG" just below middle of page.	Comment incorporated.
50.	Scenario 06-03 Page 1	1) On the Scenario Outline sheet, add to the Turnover that the SM wants the crew to raise Reactor Power to 70%. 2) Move Event 3 (Raise Turbine and Reactor Power) to Event 1 before any malfunctions are inserted. [Comment during onsite validation] 3) Delete Event 8, since the failure of DG 2AB to start does not significantly affect the scenario.	1) Comment incorporated. 2) Comment incorporated. 3) Event 8 was combined with Event 7 as one malfunction.
51.	Scenario 06-03 Page 2	Editorial: In the last line of the 3rd paragraph, delete the words "to the".	Comment incorporated.
52.	Scenario 06-03 Event 1 Page 3	Add a statement to reopen the CCW Surge Tank vent valve per the ARM if the valve closes. [Comment during onsite validation]	Comment incorporated.
53.	Scenario 06-03 Page 9	1) For Critical Task #1, opening BIT inlet valve 256 should not be a Critical Task, since the redundant BIT inlet valve is already open. 2) The Critical Task should be to open BIT outlet valve 250 OR 251, since these valves are in parallel. 3) For Critical Task #2, add the requirement that the RCPs are tripped within 5 minutes of the trip criteria being satisfied (as per page 12).	Comments incorporated.

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#	Source	Comment	Resolution
54.	Scenario 06-03 Page 10	After SI is reset in ES-1.1, delete item 5 which says to open the control air valves to containment. [Comment during onsite validation]	Comment incorporated.
55.	Scenario 06-04 Page 2	Editorial: 1) In the last line of the 2nd paragraph, delete the period (.) After "Technical Specifications". 2) On the last line of the last paragraph, change "ECA0.1" to "ECA-0.1".	Comments incorporated.
56.	Scenario 06-04 Event 3 Page 5	1) Change the Event Description to "#4 Boric Acid Pump Trip" (and also change the Scenario Outline sheet). 2) Add to the first line associated with the RO action to "Verifies #4 Boric Acid Pump has tripped". 3) After TRO 8.1.1, add "(No entry to Condition A)". [Comment during onsite validation]	Comments incorporated.
57.	Scenario 06-04 Event 4a/4b Page 6	Make a separate page for Event 4a and Event 4b.	Comment incorporated.
58.	Scenario 06-04 Page 11	1) Critical Task #2 should be located right after Critical Task #1 on page 10 (after Bus T21A is energized). 2) Editorial: Add space between "actionsas directed". 3) For scenario termination, one would need to continue into ECA-0.2, if Bus T21A is not energized when entering ECA-0.2. Add the initial steps of ECA-0.2 at the end of the scenario, in case Bus T21A is not energized when entering ECA-0.2.	Comments incorporated.
59.	Scenario 06-04 Page 12	Add to the list of pumps to place in pull to lock the "ESW pumps (non-running)". [Comment during onsite validation]	Comment incorporated.
60.	Scenario 06-04 Page 18	Add to the Simulator Instructions that "If contacted as Unit 1 to verify HSDP #4 BA Pump position, report that the switch is in the Control Room position." [Comment during onsite validation]	Comment incorporated.

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#	Source	Comment	Resolution
61.	Scenario 06-05 Page 2	1) In the 2nd paragraph on the Summary page, in the first sentence, add the word "Range" after the word "Power". 2) In the 2nd paragraph on the Summary page, the second sentence needs to be changed, since one does not select an operable channel, and restore pressure control to automatic for a Power Range channel failure.	Comments incorporated.
62.	Scenario 06-05 Event 1 Page 4	Add Tech Spec Condition C to the list of condition entries for TS 3.3.1 for Power Range channel NI42 failure. [Comment during onsite validation]	Comment incorporated.
63.	Scenario 06-05 Event 3 Page 6	When placing excess letdown in service, delete mention of opening 2-QRV-161 letdown orifice isolation valve. [Comment during onsite validation]	Comment incorporated.
64.	Scenario 06-05 Event 3 Page 6	Move step to locally isolate CCW to Letdown HX valves 2-CCW-160, 164, and 165 to after placing excess letdown in service to agree with the order in the procedure. [Comment during onsite validation]	Comment incorporated.
65.	Scenario 06-05 Event 4 Page 7	For the failure low of the Main Steam Turbine Header pressure transmitter, add an option for the BOP to control MFW flow by placing both MFW Pumps in Manual. [Comment during onsite validation]	Comment incorporated.
66.	Scenario 06-05 Page 9	Add step for RO to try to start the 2W CCP, but it fails to start.	Comment incorporated.
67.	Scenario 06-05 Page 9	Make the step to trip all RCPs a part of Critical Task #2 (to agree with its designation as part of Critical Task #2 on page 11). [Comment during onsite validation]	Comment incorporated.
68.	Scenario 06-05 Page 11	For Critical Task #1, it states that there is a challenge to multiple reactor trip setpoints including Low PZR pressure reactor trip and Low PZR pressure safety injection. This should be changed to only list the SG lo lo level and SG FF/SF mismatch with lo level reactor trips for a loss of FW event.	Comment incorporated.
69.	Scenario 06-06 Event 4 Page 6	Editorial: In the Event Description, change "SG 21" to "SG 22" and "FFC-210" to "FFC-220".	Comment incorporated.

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#	Source	Comment	Resolution
70.	Scenario 06-06 Page 7	For Critical Task #2, add the requirement that the RCPs are tripped within 5 minutes of the trip criteria being satisfied (as per page 9).	Comment incorporated.