ADMINISTRATIVE DOCUMENTS

(Yellow Paper)

HATCH OCTOBER/NOVEMBER 2005 EXAM

05000321/2005301 & 05000366/2005301

OCTOBER 28, 2005, (WRITTEN) AND OCTOBER 31 - NOVEMBER 4, 2005

1. Exam Preparation Checklist . . . . . ES-201-1 ✓
2. Exam Outline Quality Checklist . . . . . ES-201-2 ✓
3. Exam Security Agreement(s) . . . . . ES-201-3 ✓
4. Administrative Topics Outline (Final) . . . . . ES-301-1 ✓
5. Control Room Systems & Facility Walk-through Test Outline (Final) . . . . . ES-301-2 ✓
6. Operating Test Quality Check Sheet . . . . . ES-301-3 ✓
7. Simulator Scenario Quality Check Sheet . . . . . ES-301-4 ✓
8. Transient and Event Checklist . . . . . ES-301-5 ✓
9. Competencies Checklist . . . . . ES-301-6 ✓
10. Written Exam Quality Check Sheet . . . . . ES-401-6 ✓
11. Written Exam Review Worksheet . . . . . ES-401-9 ✓
12. Written Exam Grading Quality Checklist .RO.SRO. . . ES-403-1 ✓
13. Post-Exam Check Sheet . . . . . ES-501-1 ✓
14. Facility Submittal Letters - 3 [✓]
15. No Post-Exam Comments Letter Dated 11-9-2005 ✓

Hatch

Q#/	RANK	1. LOK (C/A)	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		

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.
   - One or more distractors 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).

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)nacceptable (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).

RO/SRO Combined Question

Q#/	RANK	1. LOK (C/A)	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	**3**	C	2				X						Y	N	~~E~~ S	201002A1.01 Ranked Yellow: The reference does NOT support choice "A". Since Choice "B" and "C" both result in decreased drive water flow, it seems like these are also valid answers. Please reevaluate this question and explain why "B" and "C" are invalid. RFA 08/24/05 The question is stating that drive pressure does not change. Answer B and C would indicate a change in drive flow. There is a change in the flow path with all answers except A. No change to question. **TCK 9/23/05** Accepted RFA 09/26/05
2	**3**	C	2				X						Y	N	~~U~~ S	201003A2.06 Ranked Yellow: CRD temperature is stable at 355 degrees. IAW the reference (5.7), distractor D is also a correct answer. Rebuild distractors RFA 08/24/05 Distractor D says that no further actions are necessary. This part is wrong since further actions are required. **TCK 9/23/05** Accepted RFA 09/26/05
3		C	3	X									Y	N	~~E~~ S	202002K5.02 Ranked blue since no apparent conflict with question design. Move "2A MG set speed will" to stem RFA 08/24/05 Enhancement made. **TCK 9/23/05** Accepted RFA 09/26/05
4		C	4					X					Y	N	~~E~~ S	203000K6.01 Ranked blue since no apparent conflict with question design. Stem: Remove "at plant Hatch" Change distractor C second part to read "All other pumps are off" to be consistent with other distractors. RFA 08/24/05 Enhancement made. **TCK 9/23/05** Accepted RFA 09/26/05
5		**M**	2										Y	N		205000K2.01 Ranked blue since no apparent conflict with question design. This is a bus load memory question. Change C/A to M. RFA 08/24/05 Changed C/A to MEM. **TCK 9/23/05** Accepted RFA 09/26/05

Q#/	RANK	1. LOK (C/A)	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		
6		C	3										Y	N	S	206000K6.03 Ranked blue since no apparent conflict with question design. RFA 08/24/05
7		C	3										Y	N		209001A3.02 Ranked blue since no apparent conflict with question design. Change 7 to 12 in distractor analysis. RFA 08/24/05 Done. **TCK 9/23/05** Accepted RFA 09/26/05
8		M	2										Y	N	S	211000K2.01 Ranked blue since no apparent conflict with question design. RFA 08/24/05
9		M	~~1~~ 2	X				X					Y	N		212000K4.08 Re-write Stem to increase knowledge level and avoid teaching: Which one of the following is the correct scram reset time delay and its purpose? Re-write distractors to include both knowledges. Insure psychometric balancing. Ranked red since weak memory level RFA 08/24/05 Matched Browns Ferry. **TCK 9/23/05** Accepted RFA 09/26/05
10		C	3										Y	N	S	214000A3.02 Ranked blue since no apparent conflict with question design. RFA 08/24/05
11		C	4										Y	N	S	215003K4.01 Ranked blue since no apparent conflict with question design. RFA 08/24/05
12		C	3										Y	N		215004K4.06 This question meets the criteria for C/A due to evaluation and analysis required. Please re-evaluate. Ranked blue since no apparent conflict with question design. RFA 08/24/05 Revised to C/A. **TCK 9/23/05** Accepted RFA 09/26/05

Q#/	RANK	1. LOK (C/A)	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		
13		M	2										Y	N	~~E~~ S	215005A4.05 Ranked red: Distractor C is not plausible due to the configuration of the joy stick. Re-write distractor C. RFA Revised distractor C to be worded like Browns Ferry. **TCK 9/23/05** Accepted RFA 09/26/05
14		M	2										Y	N	S	215005K5.06 Ranked blue since no apparent conflict with question design. RFA 08/24/05
15		M	2										Y	N	S	216000G2.1.28 Ranked blue since no apparent conflict with question design. RFA 08/24/05
16		C	3	X									Y	N	~~E~~ S	217000A4.08 How does applicant know there is a CPU failure so he can determine that there is a system flow problem? Maybe add to stem that "It is suspected that the CPU has failed" Ranked red: Stem may not be clear enough. RFA 08/24/05 The "Fail" light indicates that the CPU failed. That is the only thing that gives the fail light. Did not add that CPU failure is suspected because this would lead the applicant to the right answer.. **TCK 9/23/05** Accepted RFA 09/26/05
17		M	2										Y	N	S	218000G2.1.28 Ranked blue since no apparent conflict with question design. RFA 08/24/05
18		C	3										Y	N	S	219000K3.01 Ranked blue since no apparent conflict with question design. RFA 08/24/05
19		C	3	X									Y	N	~~E~~ S	223002K3.03 The first part of the stem is NOT required to answer the question. Re-evaluate and consider deleting this part. Ranked red: Stem includes TMI. RFA 08/24/05 Information in stem is needed to ensure student knows that a rad release is plausible. No changes made. **TCK 9/23/05** Accepted RFA 09/26/05

Q#/	RANK	1. LOK (C/A)	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		
20	3	C	3				X						Y	N		233000A1.07 The difference between A and B is not a matter of days but hours. Distractors C and D do NOT line up with distractor analysis. Change dates to either the 25th or the 28th, which ever is most plausible. Ranked yellow due to psychometric flaw and multiple distractors not plausible. RFA Re-look at reference. Distractors are plausible and the difference between A and B as far as hours goes in understood and desired. **TCK 9/23/05** Accepted RFA 09/26/05
21		C	3										Y	N		234000K3.01 The distractor analysis for "B" does not line up with the stem. Please re-evaluate the setpoints in the distractor analysis - I think they are wrong. Ranked blue since no apparent conflict with question design - other than the issue with the distractor analysis.. RFA 08/24/05 Revised distractor analysis. **TCK 9/23/05** Accepted RFA 09/26/05
22		C	3					X					Y	N	**E S**	239002A2.06 No referenced is attached to support the second part of B. Change D to read Up to 8 for psychometric balancing. Ranked red: due to psychometric flaws. RFA 08/24/05 Revised as suggested. **TCK 9/23/05** Accepted RFA 09/26/05
23		C	4										Y	N	**S**	241000K1.03 Ranked blue since no apparent conflict with question design. RFA 08/24/05
24	3	C	~~1~~ 2				X						Y	N		256000A4.02 **If level is** high (55"), why is distractor A plausible? Since we are maintaining level with 1N21-F036, distractor C seems to be the only selection that makes any sense. Please justify plausibility of A, B, and D. Ranked Yellow due to nonplausible distractors. RFA 09/19/05 The applicant must understand system operation to determine which valve to open or close and affect on system. Tests the K/A. **TCK 9/23/05** Accepted RFA 09/26/05

Q#/	RANK	1. LOK (C/A)	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		
25	3	M	~~1~~ 2				X						Y	N		259002G2.1.33 If A was correct, so would B, C, and D. If B was correct, so would C and D. If C was correct, so would D. RE-write/modify all distractors Ranked yellow: More than 2 nonplausible distractors due to psychometric flaws. RFA 08/24/05 D is the only correct answer since it is the only "Direct" entry into Tech specs. Left as is. **TCK 9/23/05** Accepted RFA 09/26/05
26	3	M	2				X						Y	N		261000G2.4.31 Step 5.2 states to operate the SYSTEM RESET pushbutton after it has been determined that the SGBT A FAN and HEATER have been tripped manually. Currently, choice "A" is also correct because it accomplishes the same thing. Please re-evaluate. Ranked yellow due to two possible correct answers RFA 09/20/05 Distractor "A" has you restart the "B" SBGT train instead of restarting the "A" SBGT train. This is incorrect. **TCK 9/23/05** Accepted RFA 09/26/05
27		C	3							X			Y	N		262001A3.04 The reference only discuses the sequence of events given a concurrent loss of off-site power. The reference contains a learning objective that addresses the question but no reference to support the distractor analysis. Please re-verify correct answer. Ranked blue if distractor analysis is verified correct. RFA 09/20/05 Accepted RFA 09/26/05
28		M	2										Y	N	S	262001K2.01 Ranked blue due to no apparent flaws. RFA 09/20/05
29		C	2										Y	N	S	262002K1.06 Ranked blue due to no apparent flaws. RFA 09/20/05

Q#/	RANK	1. LOK (C/A)	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		
30	3	M	2							X			Y	N		262002K4.01 SI-LP-02705 was not part of the reference package. Please re-verify reference. Consider clarifying "immediately" in distractor "C" to ensure wrong. Ranked yellow until reference is verified. Ranked unsat until reference is verified. RFA 09/20/05 Immediately must remain in distractor since over time (1 hr) the battery will drain down and the swap could occur. **TCK 9/23/05** Accepted RFA 09/26/05
31	3	M	2				X			X			Y	N		263000K5.01 SI-LP-02704 was not part of the reference package. Please re-verify reference. Distractor "D" is potentially a correct answer too. Combustible gases are also toxic. Replace distractor "D" Ranked yellow due to multiple correct answers Ranked unsat until reference is verified. RFA 09/20/05 Revised correct answer and distractor D as suggested. **TCK 9/23/05** Accepted RFA 09/26/05
32	3	M	2							X			Y	N		263000K6.01 SI-LP-02704, table 2, was not part of the reference package. Please re-verify reference. Ranked yellow until reference is verified. Ranked unsat until reference is verified. All other aspects of Q are OK. RFA 09/20/05 Accepted RFA 09/26/05
33		M	2					X					Y	N	E S	264000A1.01 Distractor A is not plausible since all trips are NEVER blocked. Replace distractor "A." Suggestion: Change "A" to still operating and will trip due to high lube oil pressure. Ranked red due to one nonplausible distractor RFA 09/20/05 ALL of these trips are bypassed on an initiation signal. That makes distractor "A" plausible. **TCK 9/23/05** Accepted RFA 09/26/05

Q#/	RANK	1. LOK (C/A)	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	**3**	M	2							X			Y	N		264000K3.03 SI-LP-02702, table 01 and figure 02, were not part of the reference package. Please re-verify reference. Ranked yellow until reference is verified. Ranked unsat until reference is verified. All other aspects of Q are OK. RFA 09/20/05 Accepted RFA 09/26/05
35	**3**	C	2							X			Y	N		286000A4.03 Stem: Which unit? SI-LP-03301, was not part of the reference package. Please re-verify reference. Ranked yellow until reference is verified. Ranked unsat until reference is verified. RFA 09/20/05 Added "Unit 1" Accepted RFA 09/26/05
36	**3**	C	3							X			Y	N		290001K1.08 Move "The SGT systems are" to the stem SI-LP-03001, was not part of the reference package. Please re-verify reference. Ranked yellow until reference is verified. Ranked unsat until reference is verified. RFA 09/20/05 Made requested change. **TCK 9/23/05** Accepted RFA 09/26/05
37	**3**	C	2							X			Y	N		295001AA1.08 Reference was not part of reference package. Ranked yellow until reference is verified. Ranked unsat until reference is verified. All other aspects of Q are OK. RFA 09/20/05 **CAF for reference.** **RFA 09/26/05**
38		M	2										Y	N	**S**	295003AK1.05 Ranked blue due to no apparent flaws. RFA 09/20/05

Q#/	RANK	1. LOK (C/A)	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		
39	3	M	2							X			Y	N		295004AK3.02 SI-LP-02704, was not part of the reference package. Please re-verify reference. Ranked yellow until reference is verified. Ranked unsat until reference is verified. All other aspects of Q are OK. RFA 09/20/05 **CAF for reference.** **RFA 09/26/05**
40	3	C	2				X						Y	N		295005AK2.07 The reference states (page 46) that Upon a Turbine trip, the EHC System will Actuate fast acting solenoids for closure of Main Turbine Stop valves AND Main Turbine Control valves Ranked yellow red due to potentially two correct answers. RFA 09/20/05 Revised to cooincide with Browns Ferry. **TCK 9/23/05** Accepted RFA 09/26/05
41		M	2										Y	N	S	295006AK1.03 Ranked blue due to no apparent flaws. RFA 09/20/05
42		M	2										Y	N	S	295008G2.1.2 Ranked blue due to no apparent flaws. RFA 09/20/05
43		M	2										Y	N	S	295009AA1.04 Ranked blue due to no apparent flaws. RFA 09/21/05
44	3	M	2							X			Y	N	~~E~~ S	295010AA2.02 34SO-Z41-001-1, P 4, states that a CREV will be initiated from a LOCA signal from Unit 1 OR Unit 2. Does the CREV actuation signal come from high drywell pressure or the LOCA signal? Please re-evaluate. Ranked yellow due to potential no correct answers. RFA 09/21/05 High Drywell Pressure is a LOCA signal. Left as-is. **TCK 9/23/05** Accepted RFA 09/26/05
45		M	2										Y	N	S	295016AK3.03 Ranked blue due to no apparent flaws. RFA 09/21/05

Q#/	RANK	1. LOK (C/A)	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		
46		C	3					X					Y	N	~~E~~ S	295018AA1.02 Add the word "primary" before the word "reason" in the stem since a secondary effect may be an auto isolation, as stated in distractor "A." Ranked red due to potentially two correct answers. RFA 09/21/05 Enhancement made. **TCK 9/23/05** Accepted RFA 09/26/05
47		C	3					X					~~N~~ Y	N		295019AA1.01 Distractor "D" is not plausible since non-interruptible air pressure is 95 psig. Typo: *interruptible* is mispelled in stem and distractor "C" K/A: Not met, KA is loss of IA not non-essential air. Ranked red due to one non-plausible distractor. RFA 09/21/05 Non-essential is part of Instrument air. K/A is met. Corrected spelling. **TCK 9/23/05** Accepted RFA 09/26/05
48	3	C	~~1~~ 2				X						Y	N		295019AK2.09 Distractors B, C, and D are not plausible since pressure varies directly with temperature. Suggest replacing the Q. Ranked yellow since no plausible distractors. RFA 09/21/05 That is what we are testing. The applicant must determine that a loss of cooling occurs and what happens to containment. Left as-is. Same as Browns Ferry. **TCK 9/23/05** Accepted RFA 09/26/05
49	3	C	1				X						Y	N		295020AK3.02 The logic and mechanics of this Q are similar to 295019AK2.09 Distractors B, C, and D are not plausible since pressure varies directly with temperature. Suggest replacing the Q. Ranked yellow since no plausible distractors. Unable to verify reference. RFA 09/21/05 No comment. See previous question. **TCK 9/23/05** Accepted RFA 09/26/05
50		C	4										Y	N	S	295021AK2.04 Ranked blue due to no apparent flaws. RFA 09/21/05

Q#/	RANK	1. LOK (C/A)	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		
51		C	3	X				X					Y	N	~~E~~ S	295022AK1.01 34AB-C11-001-2 states "IF Reactor Pressure is <900 PSIG, trip the reactor. Remove reactor pressure from the distractors and put it in the stem and require reason (second part) only. Ranked red due to psychometric flaws. RFA 09/21/05 Need the pressure for K/A match. Revised answers such that 4 pressures are given in answers. See Browns Ferry. **TCK 9/23/05** Accepted RFA 09/26/05
52		C	3					X					Y	N	~~E~~ S	295023G2.4.4 Why is distractor D plausible? The stem gives no indication of a potential for fuel damage. Please explain or replace distractor D. Coulod not find support for the correct answer in the reference. Ranked red due to non-plausible distractor. RFA 09/21/05 Used as a distractor since moving fuel and pool temps high. **TCK 9/23/05** Accepted RFA 09/26/05
53		M	2										Y	N	S	295024EA2.06 Ranked blue due to no apparent flaws. RFA 09/21/05
54	3	C	2							X			Y	N		295025EK2.06 SI-LP-00501 was not included as part of the reference package Ranked yellow until reference is verified otherwise blue. Ranked unsat until reference is verified. All other aspects of Q are OK. RFA 09/21/05 Accepted RFA 09/27/05
55	3	C	2							X			Y	N		295026EA2.03 SI-LP-01401 was not included as part of the reference package Ranked yellow until reference is verified otherwise blue. Ranked unsat until reference is verified. Was unable to find 125 degree requirement for max high pressure in TS. RFA 09/21/05 Accepted RFA 09/27/05
56	3	C	2							X			Y	N		295028EA2.06 SI-LP-01301 was not included as part of the reference package Ranked yellow until reference is verified otherwise blue. Ranked unsat until reference is verified. All other aspects of Q are OK. RFA 09/21/05 Accepted RFA 09/27/05

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57	**3**	C	2							X			Y	N		295030EA2.02 PC-1 and Heat Capacity Temp limit, Graph 2 were not included as part of the reference package Ranked yellow until reference is verified. Ranked unsat until reference is verified. All other aspects of Q are OK. RFA 09/21/05 **CAF for reference.** **RFA 09/26/05**
58	**3**	M	2							~~X~~			Y	N		295031EK1.02 Distractor "A": Change "value" to "magnitude" since void coef increases. "Decrease in value" could be interpreted as more negative. LR-LP-20327 was not included as part of the reference package Ranked yellow until reference is verified. Ranked unsat until reference is verified. RFA 09/21/05 This is exactly like the question for Browns Ferry which has been approved. No change made. **TCK 9/23/05** Accepted RFA 09/26/05
59	**3**	C	3							X			Y	N		295032EK2.04 Move "The HPCI turbine" to the stem. Neither SC nor SI-LP-00501-05 were included as part of the reference package Ranked yellow until reference is verified otherwise blue. Ranked unsat until reference is verified. RFA 09/21/05 Change made as requested. **TCK 9/23/05** Accepted RFA 09/27/05
60	**3**	C	3							X			Y	N		295034EA1.05 SI-LP-01303-01 was not included as part of the reference package Ranked yellow until reference is verified otherwise blue. Ranked unsat until reference is verified. All other aspects of Q are OK. RFA 09/21/05 Accepted RFA 09/27/05
61	**3**	C	3							X			Y	N		295037G2.1.28 SI-LP-00101 was not included as part of the reference package Ranked yellow until reference is verified otherwise blue. Ranked unsat until reference is verified. All other aspects of Q are OK. RFA 09/21/05 Accepted RFA 09/27/05

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				Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		
62		C	3										Y	N	**S**	295038G2.4.31 Ranked blue due to no apparent flaws. RFA 09/21/05
63		C	3										Y	N	**S**	300000A2.01 Ranked blue due to no apparent flaws. RFA 09/21/05
64		C	3										Y	N	**S**	400000K1.02 Ranked blue due to no apparent flaws. RFA 09/21/05
65		C	3										Y	N	**S**	600000AK3.04 Ranked blue due to no apparent flaws. RFA 09/21/05
66	**3**	M	2				X						Y	N		G2.1.19 All rods are not in. Distractors B and NOT plausible. Please modify/replace these. Ranked yellow due to two non-plausible distractors RFA 09/21/05 Changed distractor B to the color Yellow. This is still wrong. **TCK 9/23/05** Accepted RFA 09/27/05
67		M	2							X			Y	N	~~**E**~~ **S**	G2.1.29 Please re-verify that D is absolutely incorrect. RFA 09/21/05 Re-verified and Hatch does not allow this option. **TCK 9/23/05** Accepted RFA 09/27/05
68	**3**	M	2							X			Y	N		G2.1.30 SI-LP-03601 was not included as part of the reference package Ranked yellow until reference is verified. Ranked unsat until reference is verified. All other aspects of Q are OK. RFA 09/21/05 Accepted RFA 09/27/05
69		M	2										Y	N	**S**	G2.2.11 Ranked blue due to no apparent flaws. RFA 09/21/05
70		M	2										Y	N	**S**	G2.2.27 Ranked blue due to no apparent flaws. RFA 09/21/05

Q#/	RANK	1. LOK (C/A)	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		
71		M	2										Y	N	S	G2.2.3 Ranked blue due to no apparent flaws. RFA 09/21/05
72		M	2										Y	N	S	G2.3.4 Ranked blue due to no apparent flaws. RFA 09/21/05
73		C	3							X			Y	N		G2.3.9 The reference page number is off. It is located on page 17 NOT 15. Ranked blue due to no apparent flaws. RFA 09/21/05 Changed. **TCK 9/23/05** Accepted RFA 09/27/05
74	3	M	2							X			Y	N		G2.4.1 LR-LP-20310-07 was not included as part of the reference package Ranked yellow until reference is verified otherwise blue. Ranked unsat until reference is verified. All other aspects of Q are OK. RFA 09/21/05 Accepted RFA 09/27/05
75		C	3										Y	N	S	G2.4.11 Ranked blue due to no apparent flaws. RFA 09/21/05
SRO ONLY																
1		M	2					*					Y	Y	~~E~~ S	205000G2.1.22 Ranked Red: Distractor C is not plausible RFA 08/24/05 Revised to cooincide with changes to Browns Ferry. **TCK 9/23/05** Accepted RFA 09/27/05
2		C	3										Y	Y	S	212000A2.16 Ranked blue since no apparent conflict with question design. RFA 08/24/05

Q#/	RANK	1. LOK (C/A)	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		
3		M	2					X					Y	Y	~~E~~ S	215002G2.1.11 Ranked red: Reactor power must be reduced to less than 27%. 28% is approximately 27%. Change D to 25%. RFA 08/24/05 Answer should be <29%. Left question as is and revised distractor analysis. **TCK 9/23/05** Accepted RFA 09/27/05
4		M	2					X					Y	Y	~~E~~ S	215003G2.2.25 Ranked red due to psychometric flaw: Change distractgor A to read: ...prevent exceeding fuel failure threshold criterion. RFA 08/24/05 Changed as requested. **TCK 9/23/05** Accepted RFA 09/27/05
5		C	3										Y	Y		215004G2.1.33 What defines operability? Ranked blue - good Q RFA 08/24/05 Accepted RFA 09/27/05
6	3	C	2					X					Y	~~?~~ Y		223002A2.04 The stem doesn't solicit the correct order. Choices B and D are currently the same. Suggest state correct order in stem. Balance out A and C also. Why SRO only? Ranked Yellow due to possible 2 correct answers RFA 09/19/05 B and D are not the same since the correct order must be performed or the instrument will not reset. SRO only since must know action to direct for the unit. **TCK 9/23/05** Accepted RFA 09/27/05
7		C	3							X			Y	Y		290002G2.2.22 OK provided that the reference is NOT provided. Otherwise it's a direct lookup. Ranked blue if no reference allowed. RFA 09/19/05 **CAF: No reference allowed** Accepted RFA 09/27/05
8		C	3	X									Y	Y	~~E~~ S	290003A2.03 Move "The Control Room Ventilation System" to the stem. Ranked blue - good Q RFA 09/19/05 Revised as requested. **TCK 9/23/05** Accepted RFA 09/27/05

Q#/	RANK	1. LOK (C/A)	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		
9	**3**	C	2				X						Y	Y		295001G2.1.32 Distractors A and B: How does total core flow remain accurate if flow is added OR subtracted? Please check plausibility of distractors A and B. Question: Would A or B be plausible if the recirc pump was lowered to no less than 35%? The reference was not clear for this case. If so, then disregard my comment and change to "**S.**" Ranked yellow due to possible two non-plausible distractors. RFA 09/19/05 A and B are plausible since the speed of the running pump determines if the flows must be added or subtracted. (Backfo\low) **TCK 9/23/05** Accepted RFA 09/27/05
10		C	2					X					Y	Y	**E** S	295003G2.2.25 The answer seems to stick out like a sore thumb. The question is psychometrically not balanced. Ranked red due to low level of difficulty. RFA 09/19/05 Revised stem to clarify that Unit 1 is the unit in question and the answer is talking about Unit 2 D/G's. **TCK 9/23/05** Accepted RFA 09/27/05
11	**3**	C	2				X						Y	Y		295006AA2.02 With Rods full in, why are distractors A and C (inserting CR) plausible? Please re-evaluate. Ranked yellow due to two nonplausible distractors RFA 09/19/05 This is plausible since operators are trained to look for the double dashes. If they don't get it then other actions could be required. Feel free to replace the distractors. **TCK 9/23/05** Accepted RFA 09/27/05
12		C	3										Y	Y	**S**	295012AA2.02 Ranked blue - good Q RFA 09/19/05
13		C	2					X					Y	Y	**E** **S**	295014G2.1.33 I do not see in the TS where it states to remove the fuel assemblies associated with the stuck CR. Please explain. Typo in distractor "D" - change "removalof" to "removal of" Ranked red due to unclear correct response. RFA 09/19/05 Removing the fuel assemblies around the stuck control rod will get the unit out of the mode of applicability. This is always an option but may not be a comfortable position to be in. **TCK 9/23/05** Accepted RFA 09/27/05

Q#/	RANK	1. LOK (C/A)	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		
14		C	2							X			Y	Y		295017G2.4.30 Ranked blue if no facility concern RFA 09/19/05 **CAF for no Emergency Declaration** RFA 09/27/05
15	3	C	2							X			Y	Y		295028EA2.04 Could not find drywell spray initiation limit (Graph 8). It was NOT part of 012-2S. Please re-verify reference. Ranked yellow until reference is verified. Ranked unsat until reference is verified. RFA 09/19/05 **CAF drywell spray initiation limit (Graph 8)** RFA 09/27/05
16		C	3										Y	Y	S	295030EA2.04 Ranked blue - good Q RFA 09/19/05
17			3							X			Y	Y		295031G2.4.30 Do we or the facility require 50.72 to be memorized? Ranked blue if no reference is allowed. If reference is allowed, then this Q is a DLU. I believe this is an "M" level 3 question. RFA 09/19/05 SRO needs to understand if a notification is required. Should be able to recognize correct condition. **CAF.** Not memory since must analyze plant condition. **TCK 9/23/05** **CAF: SRO needs to understand if a notification is required. Should be able to recognize correct condition** RFA 09/27/05
18		M	2							X			Y	Y	E S	295038EA2.03 Change distractor "C" "...during any emergency classification to "...during unusual event or higher." The word "any" is routinely an "automatic dump" from a psychometric point of view. Ranked red due to lack of current plausibility of distractor "C." RFA 09/19/05 Requested change made. **TCK 9/23/05** Accepted RFA 09/27/05
19		C	2										Y	Y	S	G2.1.34 Ranked blue - good Q RFA 09/19/05

Q#/	RANK	1. LOK (C/A)	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		
20	3	M	2				X						Y	Y		G2.1.4 According to 003-0, paragraph 8.3.2.5, Page 10, an STA is not required.. Distractor "C" appears to also be correct. Please re-evaluate. Ranked yellow due to two potential correct distractors RFA 09/19/05 Step 8.3.3.5 clearly states that an STA must be within 10 minutes of the Control Room with any unit in Mode 1,2 or 3. **TCK 9/23/05** Accepted RFA 09/27/05
21		C	2					X					Y	Y	E S	G2.2.19 Distractor "B" is not plausible for this important and HIGH LEVEL decision. The site VP is NOT list in the procedure. This is a possible alternative. Ranked red due to one non-plausible distractor RFA 09/19/05 Revised to state SVP for distractor B. **TCK 9/23/05** Accepted RFA 09/27/05
22		M	2										Y	Y	S	G2.2.25 Ranked blue due to meeting requirements. RFA 09/19/05
23	3	C	2	X			X						Y	Y		G2.3.6 Stem: Change "correct" to "minimum." Since the PM is higher in authority, he may be authorized. Ranked yellow since two possible correct answers. RFA 09/19/05 Plant Manager is incorrect per procedure. He cannot direct shift activities since he doesn't have a license. Left correct. **TCK 9/23/05** Accepted RFA 09/27/05
24	3	M	2							X			Y	Y	E	G2.4.5 Was unable to find reference support in either of the selected references. Please re-verify or be more specific on reference. Ranked yellow until reference verified otherwise blue. RFA 09/19/05 **CAF confirm reference** 09/27/05 RFA 09/27/05
25		M	2							X			Y	Y	E S	G2.4.6 LR-LP-20307-04 lesson plan could NOT be found in the list of references. Please double check reference and re-verify. Ranked yellow until reference verified otherwise blue. RFA 09/19/05 Accepted RFA 09/27/05

Philosophical Ranking*	
	Bullet Proof
	Not So Bullet Proof
3	Meets minimum Standards

*

Independent of whether or not it met the KA, mis-classified WRT RO/SRO, or required grammar or ***minor*** enhancement.

+

Check reference in office

CAF = Check at Facility

Question Status	
S	Question is Sat with NO Comments
E	Editorial Changes Needed
E*	Questionable Editorial
	Question is All Hosed Up
	Questionable
	Question and stem sat - editorial elsewhere

Facility: Hatch Date of Examination: 10/31-11/04/05

Examinations Developed by: Facility (Operating) / NRC (Written)

Target Date*	Task Description (Reference)	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a and b)	rfa
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	rfa
-120	3. Facility contact briefed on security and other requirements (C.2.c)	rfa
-120	4. Corporate notification letter sent (C.2.d)	rfa
[-90]	[5. Reference material due (C.1.e; C.3.c; Attachment 2)]	rfa
-75	6. Integrated examination outline(s) due, including Forms ES-201-2, ES-201-3, ES-301-1, ES-301-2, ES-301-5, ES-D-1's, ES-401-1/2, ES-401-3, and ES-401-4, as applicable (C.1.e and f; C.3.d)	rfa
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	rfa
-45	8. Proposed examinations (including written, walk-through JPMs, and scenarios, as applicable), supporting documentation (including Forms ES-301-3, ES-301-4, ES-301-5, ES-301-6, and ES-401-6), and reference materials due (C.1.e, f, g and h; C.3.d)	rfa
-30	9. Preliminary license applications (NRC Form 398's) due (C.1.l; C.2.g; ES-202)	rfa
-14	10. Final license applications due and Form ES-201-4 prepared (C.1.l; C.2.i; ES-202)	rfa
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	rfa
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f and h; C.3.g)	rfa
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	rfa
-7	14. Final applications reviewed; examination approval and waiver letters sent (C.2.i; Attachment 4; ES-204)	rfa
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee (C.3.k)	rfa
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	rfa

* Target dates are keyed to the examination date identified in the corporate notification letter. They are for planning purposes and may be adjusted on a case-by-case basis in coordination with the facility licensee.

[ ] Applies only to examinations prepared by the NRC.

FINAL

Facility: Date of Examination:

Item	Task Description	Initials a	Initials b*	Initials c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	**	**	✓
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	**	**	✓
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	**	**	✓
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	**	**	✓
2. SIMULATOR	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	EJ	RK	✓
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity, and ensure that each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s), and that scenarios will not be repeated on subsequent days.	EJ	RK	✓
	c. To the extent possible, assess whether the outline(s) conform(s) with the qualitative and quantitative criteria specified on Form ES-301-4 and described in Appendix D.	EJ	RK	✓
3. W/T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.	EJ	RK	✓
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations	EJ	RK	✓
	c. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.	EJ	RK	✓
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	EJ	RK	✓
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	EJ	RK	✓
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	EJ	RK	✓
	d. Check for duplication and overlap among exam sections.	EJ	RK	✓
	e. Check the entire exam for balance of coverage.	EJ	RK	✓
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	EJ	RK	✓

	Printed Name/Signature	Date
a. Author	E. L. Jones / [signature]	10/24/05
b. Facility Reviewer (*)	R. S. Grantham / [signature]	10/24/05
c. NRC Chief Examiner (#)	RF A/2/10 / [signature]	10/27/05
d. NRC Supervisor	James H. Moorman, III / [signature]	10/27/05

Note: # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.

** NRC DEVELOPED WRITTEN EXAM

FINAL

Facility: HATCH | Date of Examination: 10/28/05 (WR)

Item	Task Description	Initials a	Initials b*	Initials c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	tck		
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	tck	N/A	
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	tck		
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	tck		
2. SIMULATOR	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.			
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity, and ensure that each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s), and that scenarios will not be repeated on subsequent days.			
	c. To the extent possible, assess whether the outline(s) conform(s) with the qualitative and quantitative criteria specified on Form ES-301-4 and described in Appendix D.			
3. W/T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.		N/A	
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations			
	c. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.			
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	tk		
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	tk		
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	tk	N/A	
	d. Check for duplication and overlap among exam sections.	tk		
	e. Check the entire exam for balance of coverage.	tk		
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	tk		

	Printed Name/Signature	Date
a. Author	T.C.Kolb/	10/27/05
b. Facility Reviewer (*)	N/A	
c. NRC Chief Examiner (#)	R. F. Aiello/	10/27/05
d. NRC Supervisor	J. H. Moorman III	10/27/05

Note: # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.

12/02/2005 FRI 09:24 FAX 9123679379 HATCH EP OFFICE 003

1. **Pre-Examination**

10/24/05

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 10/31/05 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. **Post-Examination**

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of _____. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1. T.F. PHILLIPS	PLANT INSTRUCTOR		10/18/05		11/7/05	
2. D. Gibbs	SR Inst.		10-18-05		11-7-05	
3. David F Thigpen	Rx operator		10-18-05		11-28-05	
4. Eric Hopkins	Shift Support Supervisor		10-18-05		11/22/05	
5. B.K. Wainwright	Plant Instructor		10/31/05		11-7-05	
6. Anthony Ball	Plant Instructor		10/31/05		11-7-05	
7. Arthur Yoder	Plant Instructor		10/31/05		11-8-05	
8. R.A. BEECHER	SR. INSTRUCTOR		11/02/2005		11/7/05	
9.						
10.						
11.						
12.						
13.						
14.						
15.						

NOTES:

Examination Security Agreement **Form ES-201-3**

10/24/05 #

specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 10/31/05 as of the date
ot knowingly divulge any information about these examinations to any persons who have not been authorized by the
hat I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered
is date until completion of examination administration, except as specifically noted below and authorized by the NRC
erator or communicator is acceptable if the individual does not select the training content or provide direct or indirect
e of the physical security measures and requirements (as documented in the facility licensee's procedures) and
litions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or
ly report to facility management or the NRC chief examiner any indications or suggestions that examination security

ot divulge to any unauthorized persons any information concerning the NRC licensing examinations administered
om the date that I entered into this security agreement until the completion of examination administration, I did not
ance feedback to those applicants who were administered these licensing examinations, except as specifically noted

3 TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE NOTE
TRUCTOR / DEVELOP EXAM	[signature]	8/4/05	[signature]	11/07/05
AUCTOR / DEVELOP EXAM	[signature]	08/04/05	[signature]	11/07/05
Tech. / Support	[signature]	8-9-05	[signature]	11-07-05
...or / Plant Facility	[signature]	8-10-05		
Op Tg / Hatch	[signature]	8/11/05		
tructor /	[signature]	8/26/05		
ulator Engineer	[signature]	8/26/05	[signature]	11/7/05
MULATOR COORDINATOR	[signature]	8/26/05	[signature]	11/07/05
G. SUPPORT / SPDS	[signature]	9/2/05		
hift Supervisor	[signature]	9/10/05		
structor	[signature]	9/10/05	[signature]	11/07/05
Ops Training Coordinator	[signature]	9/16/05		
nt Ops	[signature]	9/28/05	[signature]	11/7/05
hift Support Supervisor	[signature]	9-28-05		
hift Manager	[signature]	10-12-05		

TRANSMISSION OK

TX/RX NO 1499
CONNECTION TEL 13348144945
CONNECTION ID
ST. TIME 11/07 14:22
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RESULT OK

********** TX REPORT **********

FINAL

Facility: Plant E. I. Hatch Date of Examination: 10/31/2005 – 11/11/2005
Examination Level: RO/SRO

Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	N, C/R	Determine if plant conditions allow a "Quick Restart" of a Recirculation Pump(15 min). G2.1.20 (4.3/4.2), G2.1.32 (3.4/3.8)
Conduct of Operations **SRO only**	D, M, C/R, P	(JPM 25025) Determine if the reactor mode switch can be transferred from Startup/Hot Standby to Run (15 min). G2.1.12 (2.9/4.0)
Equipment Control	N, C/R	Review Of Core Spray Pump Operability Surveillance (25 min) G2.2.12 (2.9/4.0)
Radiation Control	N, C/R	Radiation Exposure Calculation and Required Authorization (15 min). G2.3.4 (2.5/3.1)
Emergency Plan **RO only**	N, C/R	Make an emergency announcement after filling out EP form TRN-0144 (15 minutes – Time Critical) G2.4.39 (3.3)
Emergency Plan **SRO only**	M, C/R	Classify an event per the Hatch Emergency Plan and determine PARs (30 Min – Time Critical x 2). G2.4.29 (4.0)

NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when all 5 are required.

* Type Codes & Criteria: (C)ontrol room, (S)imulator, or Class(R)oom
(D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes)
(N)ew or (M)odified from bank (≥ 1)
(P)revious 2 exams (≤ 1; randomly selected)

FINAL

Facility: **Plant E.I Hatch** Date of Examination: **10/31/2005 – 11/11/2005**

Exam Level: RO SRO-I **SRO-U** Operating Test No.: _____

Control Room Systems@ (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)

System / JPM Title	Type Code*	Safety Function
Inject SBLC (With a Pump Trip and Failure of 2G31-F004)	A, S, D, E	3.1 Reactivity, JPM 25011 (Time Critical - Before HCTL, 8 min) KA 211000A201 (RO 3.5/SRO 3.8)
Prevent Injection From RHR And Core Spray (Alternate Path)	S, M, A, E	3.2 Reactor Water Level Control, JPM 20103 Based on JPM 20103 (20 min) (ESF) KA 295037EA202 (RO 4.1/SRO 4.2)
Emergency Depress The Reactor With The Main Steam Line Drains	S, N, A, E	3.3 Reactor Pressure Control (25 min) KA 239001A402 (RO 3.2/SRO 3.2)
Perform A Manual Initiation Of LPCI (If In Shutdown Cooling)	S, D	3.4 Heat Removal from core JPM 06.08 (15 min) KA 203000A405 (RO 4.3/SRO 4.1)
Verify An Automatic Isolation Of PCIS Group II	S, A, M, E	3.5 Containment Integrity Based on JPM 13.46 (20 min) (ESF) KA 223002A302 (RO 3.5/SRO 3.5)
EDG "1B" Fail to Auto Start & Fail to Auto Tie.	A, S, D	3.6 Electrical - JPM 25060 (8 min) KA 264000A404 (RO 3.7/SRO 3.7)
Perform A Rod Worth Minimizer (RWM) Functional Test (Failure)	S, D, L	3.7 Instrumentation - JPM 25032 (10 min) KA 201006A302 (RO 3.4/SRO 3.5)
Place Control Room HVAC Systems in the Purge Mode (RO only)	C, D, E	3.9 Radiation Release - JPM 25026 (15 min) KA 290003A401 (RO 3.9/SRO 4.0)

In-Plant Systems@ (3 for RO); (3 for SRO-I); (3 or 2 for **SRO-U**)

Crosstie Reactor Building Plant Service Water	M, R, E, A	3.8 Plant Service - JPM 25029 (10 min) KA 295018AA101 (RO 3.3/SRO 3.4)
Vent the Scram Air Header	D, R, E	3.1 Reactivity Control - JPM 10.15 (10 min) KA 212000A417 (RO 4.1/SRO 4.1)
Crosstie Instrument Bus "B" to Instrument Bus "A"	D	3.6 Electrical - JPM 20019 (15 min) KA 262001A207 (RO 3.0/RO 3.2)

@ All control room (and in-plant) systems must be different and serve different safety functions; in-plant systems and functions may overlap those tested in the control room.

* Type Codes	Criteria for RO / SRO-I / SRO-U
(A)lternate path	4-6 / 4-6 / 2-3
(C)ontrol room	
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1
(L)ow-Power / Shutdown	≥ 1 / ≥ 1 / ≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)
(R)CA	≥ 1 / ≥ 1 / ≥ 1
(S)imulator	

FINAL

Facility:	Date of Examination:	Operating Test Number:

	1. General Criteria	Initials a	Initials b*	Initials c#
a.	The operating test conforms with the previously approved outline; changes are consistent with sampling requirements (e.g., 10 CFR 55.45, operational importance, safety function distribution).	EJ	RK	✓
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	EJ	RK	✓
c.	The operating test shall not duplicate items from the applicants' audit test(s). (see Section D.1.a.)	EJ	RK	✓
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	EJ	RK	✓
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	EJ	RK	✓
	2. Walk-Through Criteria	--	--	--
a.	Each JPM includes the following, as applicable: • initial conditions • initiating cues • references and tools, including associated procedures • reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time-critical by the facility licensee • operationally important specific performance criteria that include: – detailed expected actions with exact criteria and nomenclature – system response and other examiner cues – statements describing important observations to be made by the applicant – criteria for successful completion of the task – identification of critical steps and their associated performance standards – restrictions on the sequence of steps, if applicable	EJ	RK	✓
b.	Ensure that any changes from the previously approved systems and administrative walk-through outlines (Forms ES-301-1 and 2) have not caused the test to deviate from any of the acceptance criteria (e.g., item distribution, bank use, repetition from the last 2 NRC examinations) specified on those forms and Form ES-201-2.	EJ	RK	✓
	3. Simulator Criteria	--	--	--
	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	EJ	RK	✓

		Printed Name / Signature	Date
a.	Author	C.M. Edmund / Charles Edmund E.L. Jones / Ed L Jones	10/24/05
b.	Facility Reviewer(*)	R.S. Grantham / R S Grantham	10/24/05
c.	NRC Chief Examiner (#)	R.K. Aselle /	10/27/05
d.	NRC Supervisor	James H Moorman, III / J H Moorman	10-27-05

NOTE: * The facility signature is not applicable for NRC-developed tests.
Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.

FINAL

Facility: Plant E. I. Hatch Date of Exam: 10/31/05 Scenario Numbers: 1 / 2 / 4 Operating Test No.:

QUALITATIVE ATTRIBUTES		Initials a	b*	c#
1.	The initial conditions are realistic, in that some equipment and/or instrumentation may be out of service, but it does not cue the operators into expected events.	CC	RKG	D
2.	The scenarios consist mostly of related events.	CC	RKG	D
3.	Each event description consists of • the point in the scenario when it is to be initiated • the malfunction(s) that are entered to initiate the event • the symptoms/cues that will be visible to the crew • the expected operator actions (by shift position) • the event termination point (if applicable)	CC	RKG	D
4.	No more than one non-mechanistic failure (e.g., pipe break) is incorporated into the scenario without a credible preceding incident such as a seismic event.	CC	DKG	D
5.	The events are valid with regard to physics and thermodynamics.	CC	DKG	D
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	CC	RKG	D
7.	If time compression techniques are used, the scenario summary clearly so indicates. Operators have sufficient time to carry out expected activities without undue time constraints. Cues are given.	CC	RKG	D
8.	The simulator modeling is not altered.	CC	RKG	D
9.	The scenarios have been validated. Pursuant to 10 CFR 55.46(d), any open simulator performance deficiencies or deviations from the referenced plant have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.	CC	DKG	D
10.	Every operator will be evaluated using at least one new or significantly modified scenario. All other scenarios have been altered in accordance with Section D.5 of ES-301.	CC	DKG	D
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	CC	RKG	D
12.	Each applicant will be significantly involved in the minimum number of transients and events specified on Form ES-301-5 (submit the form with the simulator scenarios).	CC	RKG	D
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	CC	RKG	D

Target Quantitative Attributes (Per Scenario; See Section D.5.d)		Actual Attributes	--	--	--
1.	Total malfunctions (5–8)	6 / 7 / 7	CC	RKG	D
2.	Malfunctions after EOP entry (1–2)	2 / 2 / 2	CC	RKG	D
3.	Abnormal events (2–4)	4 / 4 / 4	CC	RKG	D
4.	Major transients (1–2)	2 / 2 / 2	CC	RKG	D
5.	EOPs entered/requiring substantive actions (1–2)	3 / 2 / 2	CC	RKG	D
6.	EOP contingencies requiring substantive actions (0–2)	1 / 0 / 1	CC	RKG	D
7.	Critical tasks (2–3)	3 / 2 / 3	CC	RKG	D

FINAL

Facility: E. I. Hatch Date of Exam: 10/31/2005 Operating Test No.: _____

APPLICANT	EVENT TYPE	Scenarios 1 CREW POSITION SRO	1 ATC	1 BOP	2 CREW POSITION SRO	2 ATC	2 BOP	3 CREW POSITION SRO	3 ATC	3 BOP	4 CREW POSITION SRO	4 ATC	4 BOP	TOTAL	MINIMUM(*) R	I	U
RO ☒ SRO-I ☐ SRO-U ☐	RX		3			3						2		3	1	1	0
	NOR			2			1						1	3	1	1	1
	I/C		5, 8B	6, 7B		2,4,7	5,6					4,6	3,5	13	4	4	2
	MAJ		7A, 8A	7A, 8A		9A, 10B	9A, 10B					8A,9	8A,9	6	2	2	1
	TS		NA	NA		NA	NA					NA	NA	NA	0	2	2
RO ☐ SRO-I ☒ SRO-U ☐	RX		3			3						2		3	1	1	0
	NOR													NA	1	1	1
	I/C		5, 8B			2,4,7						4,6		7	4	4	2
	MAJ		7A, 8A			9A, 10B						8A,9		6	2	2	1
	TS		NA			NA						NA		NA	0	2	2
RO ☐ SRO-I ☒ SRO-U ☐	RX	3			3						2			3	1	1	0
	NOR	2			1						1			3	1	1	1
	I/C	5,6,7 B,8B			2,4,5, 6,7						3,4,5, 6			13	4	4	2
	MAJ	7A, 8A			9A, 10B						8A,9			6	2	2	1
	TS	1,4			4,6						3,6			6	0	2	2
RO ☐ SRO-I ☐ SRO-U ☒	RX	3			3						2			3	1	1	0
	NOR	2			1						1			3	1	1	1
	I/C	5,6,7 B,8B			2,4,5, 6,7						3,4,5, 6			13	4	4	2
	MAJ	7A, 8A			9A, 10B						8A,9			6	2	2	1
	TS	1,4			4,6						3,6			6	0	2	2

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.

2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.

3. Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirements specified for the applicant's license level in the right-hand columns.

FINAL

Facility: Plant E. I. Hatch Date of Examination: 10/31/05 Operating Test No.:

Competencies	APPLICANTS															
	RO ☑ SRO-I ☐ SRO-U ☐				RO ☐ SRO-I ☑ SRO-U ☐				RO ☐ SRO-I ☑ SRO-U ☐				RO ☐ SRO-I ☐ SRO-U ☑			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	All	All	N/A	All	5,7A, 8a/b	2,4,7, 9A, 10B	N/A	4,6, 8a,9	All	All	N/A	All	All	All	N/A	All
Comply With and Use Procedures (1)	All	All	N/A	All	3,5,7 A,8a /b	2,3,4, 7,9A, 10B	N/A	2,4,6 8a,9	All	All	N/A	All	All	All	N/A	All
Operate Control Boards (2)	All	All	N/A	All	3,5,7 A,8a /b	2,3,4, 7,9A, 10B	N/A	2,4,6 8a,9	N/A	N/A	N/A	N/ A	N/A	N/A	N/A	N/ A
Communicate and Interact	All	All	N/A	All	3,5,7 A,8a /b	2,3,4, 7,9A, 10B	N/A	2,4,6 8a,9	All	All	N/A	All	All	All	N/A	All
Demonstrate Supervisory Ability (3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	All	All	N/A	All	All	All	N/A	All
Comply With and Use Tech. Specs. (3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,4	4,6	N/A	3,6	1,4	4,6	N/A	3,6

Notes:
(1) Includes Technical Specification compliance for an RO.
(2) Optional for an SRO-U.
(3) Only applicable to SROs.

Instructions:

Check the applicants' license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant.

Tier / Group	Randomly Selected K/A	Reason for Rejection
T3	G2.4.24	Replaced with G2.4.11 due to no immediate actions associated with cooling water procedures.
T2/G1	262002A1.02	Hatch does not have MG sets and the other K/A under A1 is <2.5. Replaced with 262002K1.06 since K1 column had only 1 sample.
T2/G2	286000A4.03	This K/A deals with Fire Protection and the ability to manually operate and/or monitor in the Control Room, Component Cooling Water. Plant Hatch Fire Protection pumps/system are self-contained and do not have separate component cooling water, such as Plant Service Water. Substituted K/A 400000A4.01, CCWS.

Written Examination Quality Checklist

FINAL

Facility: HATCH | Date of Exam: 10/28/05 | Exam Level: RO/SRO

	Item Description	Initial a	Initial b*	Initial c#
1.	Questions and answers are technically accurate and applicable to the facility.	tck		gwl
2.	a. NRC K/As are referenced for all questions. b. Facility learning objectives are referenced as available.	tck		gwl
3.	SRO questions are appropriate in accordance with Section D.2.d of ES-401	tck		gwl
4.	The facility licensee's sampling process was random and systematic (i.e., no more than 4 RO and/or 2 SRO questions were repeated from the last 2 NRC licensing exams).			gwl
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: _ _ the audit exam was systematically and randomly developed _ _ the audit exam was completed before the license exam was started _x_ the examinations were developed independently _ _ the licensee certifies that there is no duplication __ other (explain)	tck	N/A	gwl
6.	Bank use meets limits (no more than 75 percent from the bank, at least 10 percent new, and the rest new or modified); enter the actual RO / SRO-only question distribution(s) at right.	Bank: 18 / 2 Modified: 4 / 0 New: 53 / 23		gwl
7.	Between 50 and 60 percent of the questions on the RO exam are written at the comprehension/ analysis level; the SRO exam may exceed 60 percent if the randomly selected K/As support the higher cognitive levels; enter the actual RO / SRO question distribution(s) at right.	Memory: 32 / 8 C/A: 43 / 17		gwl
8.	References/handouts provided do not give away answers or aid in the elimination of distractors.	tck		gwl
9.	Question content conforms with specific K/A statements in the previously approved examination outline and is appropriate for the tier to which they are assigned; deviations are justified.	tck		gwl
10.	Question psychometric quality and format meet the guidelines in ES Appendix B.	tck		gwl
11.	The exam contains the required number of one-point, multiple choice items; the total is correct and agrees with the value on the cover sheet.	tck		gwl

	Printed Name / Signature	Date
a. Author	Timothy Kolb FOR PER TELCON	10/27/05
b. Facility Reviewer (*)	N/A	
c. NRC Chief Examiner (#)	Ronald F. Aiello	10/27/05
d. NRC Regional Supervisor	James Moorman III	10/27/05

Note: * The facility reviewer's initials/signature are not applicable for NRC-developed examinations.
Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.

Hatch 401-9 facility

Note: **Unit 1** and **Unit 2** designations have been changed to bold text in all questions

Q#/	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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	1	C/A	3												S	201002A1.01
2	2	C/A	5							✓					U	201003A2.06 Recall too specific for close ref. Rod number not a Hatch Designation. Recorder not correct designation. This question, as written, requires the operator to have memorized steps contained in an ARP which sends you to an abnormal procedure, then the AB procedure sends you to the 34SO procedure for CRD (the answer is contained 92 pages into this 147 page procedure.) References should be given or the question modified such that a competent operator could reasonably be expected to know from memory. Recommend modify stem and ans. so as to not require references or memory at such a detailed level. NRC: RFA concurred 10/13/05
3	2	C/A	4	✓											U	202002K5.02 No correct answer. If the master controller is in manual, the output of that controller will not change, the Individual controller that is in automatic is the controller that will change based on feedback signal from the Recirc MG set. Recommend changing the selected correct answer that the Individual controller changes as a result of the condition. Recommend modifying stem -adding the "Recirc" to MG set to remove question as to which MG set is being referred to. NRC: RFA concurred 10/13/05

Q#/	Rank	1. LOK (C/A)	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		
4	2	C/A	5	✓				✓							U	203000K6.01 Stem focus/2 correct answers – unstated information can result in assumption that would yield 2 correct ans i.e. Not specific enough to preclude an assumption that RSD for "B" RHR has not yet been transferred to emerg. Recommend modifying stem to add that U1 RSDP switches are transferred to "EMER" As time allows, enhance format (with bullets, etc) NRC: RFA concurred 10/13/05 Post re-validation: Stem is confusing because the last paragraph about RSD has conditions that occurred before earlier paragraphs. Reformat to make time sequence more easily understood: NRC: RFA concurred on 10/19/05 with additional editing in stem for readability.
5	1	C/A	2												S	205000K2.01
6	2	C/A	5							✓			No		U	206000K6.03 Does not match KA - KA addresses effect of a loss of AC on HPCI operation. Question involves a loss of DC to an inverter and operability determination. DC cabinet failure results in component in "D" being affected, which in effect tests memorization of this DC load and ability to determine operability. (Too specific for recall) Recommend replacing question to address HPCI operation based on a loss of AC power. NRC: RFA concurred 10/13/05 with changes to C&D (removed reference to conserving DC).

Q# /	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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		
7	2	C/A	4	✓				✓							U	209001A3.02 Stem focus/ 2 correct ans. depending on unstated assumption because stem is not clear on timing of the LOCA and LOSP. Recommend modifying stem to state which occurs first, the LOSP or LOCA. NRC: RFA concurred 10/13/05
8	1	M	3												S	211000K2.01
9	1	M	2												S	212000K4.08

Q# /	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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		
10	2	C/A	4	✓				✓							U	214000A3.02 Stem focus/different correct answer – unstated assumptions could support a different correct ans. than intended. Intended correct ans. could be incorrect because RWM de-selecting rod is not part of RWM response. Based on the conditions given, the problem could be assumed to be a failed reed switch, in which case the rod would not be de-selected (i.e. enough information is not given in the stem to determine that the problem is a failure of RPIS). The indicated RPIS INOP alarm does not exist as an annunciator, it prints out on the Process Computer Alarm Typer. Stating that the indication is blank for the selected rod implies that the RPIS indication for the other 3 rods is not blank. The question asks for the response of the RWM based on the given conditions, "D" answer is not correct because the RWM does not de-select the rod. The rod is de-selected by the RMCS. Recommend modify stem - adding "RPIS Inoperative is printed on process computer alarm typer". Recommend deleting "for the selected rod". Recommend changing "regarding the RWM" to "regarding the RWM/RMCS" NRC: RFA concurred 10/13/05
11	2	C/A	3	✓											U	215003K4.01 Stem focus – Intended ans. not correct. Ranges are not correct for Hatch. As stated, a full reactor scram would occur. IRMs are shown to be above above the scram setpoint in both RPS "A" and "B" channels. Recommend modifying stem to make one correct answer. NRC: RFA concurred 10/13/05
12	1	M	3												S	215004K4.06

Q#/	Rank	1. LOK (C/A)	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		
13	1	M	2												S	215005A4.05
14	1	M	2												S	215005K5.06
15	1	M	3												S	216000G2.1.28
16	2	C/A	5										No		U	217000A4.08 Does not match KA because it requires application of TS, 3.0.4 applicability, operability determination and procedure knowledge. Recommend replace with new question. NRC: RFA concurred 10/13/05 with change to A (continue to inject at max flow rate) Post re-validation: Specify when the conditions exist. NRC: RFA concurred 10/19/05.
17	1	M	2												S	218000G2.1.28
18	2	C/A	3	✓				✓							U	219000K3.01 Stem focus/different answers – unstated assumptions can result in different correct ans. Cannot tell from stem if F068A has been overridden. F068A will not open unless there is either >30 psig in the RHRSW system OR the interlock is overridden using the keylock switch. Need to correct MPL designations. Recommend modifying to add "no other operator actions have been performed" to indicate the key lock switch had not been taken to override. This will make "F068A will not open and Torus temperature will remain constant. NRC: RFA concurred 10/13/05.

Q#/	Rank	1. LOK (C/A)	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		
19	2	C/A	4	✓				✓							U	223002K3.03 Stem focus - Correct ans. different than intended With the MSIVs open there are still flow paths to the main condenser even if the turbine control valves and stop valves are closed (For example RSSV 4" lines) which would make "A" a possible correct answer. Recommend changing "A" distracter to make it clearly incorrect. NRC: RFA concurred 10/13/05
20	1	C/A	4												S	233000A1.07
21	2	C/A	5	✓					✓	✓					U	234000K3.01 Stem focus – unstated assumptions can result in different ans. Recall too specific – recall weight of bundle to less than %5 error required to ans. question. Have not confirmed weight but GE14 is heavier bundle. In addition, operator would see hoist loaded light lit or unlit. Recommend modifying stem and ans. to more clearly indicate the position of the bridge and increase operational validity. NRC: RFA concurred 10/13/05 with removing last phrase (even though mast not full up) on correct ans. Also modified C&D. Post re-validation. "D" distracter is also correct. Modify to make incorrect. Add MS in RF to stem to clarify. NRC: RFA concurred 10/19/05 and asked for additional change to reformat in bullet form for readability.

Q# /	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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		
22	2	C/A	5	✓											E	239002A2.06 Stem focus - Editorial, need to clarify intent and match EOP flowchart step wording. Recommend clarifying that SRVs are cycling on relief setpoints and alarms for LLS and change 'stabilize' in stem to 'reduce' to match flowchart step. NRC: RFA concurred 10/14/05
23	2	C/A	5										No		U	241000K1.03 Does not match the KA in that it tests the design of the turbine trip system. Level of knowledge too specific. Recommend replacing question. NRC: RFA concurred 10/13/05 with modifying stem and choices (uses blanks in stem)
24	2	C/A	4	✓				✓							U	256000A4.02 2 different answers possible based on assumptions derived from question information. "C" and "D" could both be correct. F406 valve could be cracked open (which is allowed by the ARP), which would make "D" correct. Controlling reactor water level in a band will require closing and opening of valves. Recommend modifying stem replacing the word "control" with "return" RWL to the... Recommend modifying answers/distracters to make only "C" the correct answer. (Reference ARP) NRC: RFA concurred 10/13/05
25	1	M	3												S	259002G2.1.33

Q# /	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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		
26	2	C/A	4	✓				✓							U	261000G2.4.31 Stem focus – 2 correct answers - assumption that "B" merely failed to auto start would support another choice being correct. At Hatch, if automatic actions fail to occur, procedure requires the operator to cause the action to take place (i.e. since SBGT B did not start on a valid signal, the operator should attempt to manually start the SBGT train). The stem of the question does not state that SBGT cannot be started other than that it did not start automatically. Recommend modifying stem such that the operators determine that SBGT "2B" is not available due to loss of power, then determine the correct action to take with "2A" SBGT. NRC: RFA concurred 10/13/05
27	1	C/A	3												S	262001A3.04
28	2	M	3					✓							E	262001K2.01 Hatch uses a Ring Bus arrangement which complicates this question as written, it could be argued that there are 2 possible correct answers. Recommend deleting "Bus 1" and "Bus 2" from the "A" and "B" options due to Hatch's Ring Bus arrangement in the 230kv switchyard. Change option "C" to more closely mirror option "D" due to Hatch's Ring Bus arrangement (a case could be made that "C" is a correct answer the way the original question is stated) NRC: RFA concurred 10/14/05 with removing bus 1 and bus 2 from C&D.
29	1	C/A	3												S	262002K1.06

Q#/	Rank	1. LOK (C/A)	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		
30	1	M	3												E	262002K4.01 Corrected the spelling of the word "supply" in the stem. RFA concurred 10/14/05 Post re-validation: 'C' also correct. Revise to make incorrect. NRC: RFA concurred 10/19/05.
31	2	M	4	✓											U	263000K5.01 Stem focus – FSAR does not agree with temp range in stem. Providing the range in the stem caused validators to focus on distracters related to temperature. This wording pattern typically asks a question related to information provided. As writte, it will not discriminate. Recommend changing the B and D distracters from temperature concerns to HVAC concerns and change stem wording to remove reference to temperature range. NRC: RFA concurred 10/13/05. Removed "only"" from "D."
32	2	M	3	✓				✓							U	263000K6.01 Stem focus – another ans. could be correct. over a long period of time, C could be right because loss of battery chargers would eventually result in loss of DC. Recommend modify distracter to add "immediate." NRC: RFA concurred 10/13/05. Bolded 1A and 1 B in A/B.
33	1	C/A	3												S	264000A1.01
34	1	M	2												E	264000K3.03 Added missing quote (") for 2C D/G. NRC : RFA concurred 10/14/05

Q#/	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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		
35	1	C/A	4												S	290001K1.08 (original 36) Questions 35-63 renumbered as result of substitute KA for original question 35.
36	2	C/A	3												E	295001AA1.08 (original 37) Recommend adding a reference (RCA Flowchart) since this is a flowchart question on a RO exam. RO's are not expected to be as familiar with flowchart steps from memory as SRO's. **CAF for reference.** NRC: RFA did not concur 10/14/05. No reference will be allowed.
37	1	M	3												S	295003AK1.05 (original 38)
38	2	M	3					✓							U	295004AK3.02 (original 39) More than one correct answer,. Refer to IN 94-80. Recommend modifying distracters. **CAF for reference.** NRC: RFA concurred 10/13/05 with modification to B and A distracters. Re-visit A distracter. 10/17-Modified A distracter, re-ordered distracters. RFA concurred with changes.
39	1	C/A	3												E	295005AK2.07 (original 40) Changed MSRVs to SRVs to match Hatch nomenclature. Added Unit 1. Changed the distractor feedback to explain that the setpoint at which Turbine Trips are bypassed is 28% (used to be 30% prior to power uprate). NRC: RFA concurred 10/14/05

Q# /	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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		
40	2	C/A	4	✓				✓							U	295006AK1.03 (Original 41) Stem focus/multiple ans. – unstated assumptions can lead to different correct answers. Inability to reset the scram implies the scram lights and hence solenoids are deenergized, so A would not be correct. But if one assumes that the white lights/solenoids are energized so that A would be correct, then C&D can be done without closing the F034 valve. Actions for "A" are only done if the white scram group lights are illuminated. If the white group scram lights are illuminated, the scram inlet and outlet valves are closed (effectively the scram is reset even if the scram signal is still in), which would allow one CRD pump to supply adequate pressure to drive control rods without sending an operator locally to close 2C11-F034. The same argument applies to increasing cooling water flow (the only action outside the control room is closing 2C11-F034). Recommend modifying the question to ask which method is the most advantageous method for inserting control rods. NRC: RFA concurred 10/13/05
41	1	C/A	3	✓				✓							U	295008G2.1.2 (Original 42) Stem focus – 2 correct answers. A&D Cannot tell from stem where you are in process. Procedure also requires RWL > 32" prior to placing SDC in service, which would support A as a correct ans. Recommend modify stem to clarify NRC: RFA concurred 10/13/05 with modification to proposed stem –same intent but shorter stem (SDC in service).
42	1	M	2												S	295009AA1.04 (Original 43)

Q#/	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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		
43	2	M	2	✓				✓							U	295010AA2.02 (Original 44) Stem focus – RWL not specified. 2 Correct answers ("B" and "C") Hi DW pressure will cause a reactor scram, HPCI will initiate, Low Pressure ECCS will start. Hatch Control room ventilation abbreviation is MCREC (not CREV). Recommend changing CREV to MCREC. Recommend changing MCREC actuation in "C" to Isolation mode (not a correct response). Recommend adding RPV level status to stem (could be assumed to be below –35 inches by a student). NRC: RFA concurred 10/13/05
44	2	M	3					✓							U	295016AK3.03 (Original 45) 2 correct answers. Per FSAR, RCS includes systems that contain or transport fluids to or from the core. This includes part of the main steam system that can be isolated. If this assumption is made, "C" becomes a correct answer also. Recommend modifying "C" to a RWCU leak. NRC: RFA concurred 10/13/05 with modifying "C" to "B" SRV is stuck open."
45	2	M	3												S	295018AA1.02 (Original 46)
46	1	C/A	4												E	295019AA1.01 (Original 47) Changed "Non-Essential Essential Air header" to "Non-Essential Instrument Air header" in the "B" choice. NRC: RFA concurred 10/14/05

Q# /	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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	2	M	5	✓											U	295019AK2.09 (Original 48) No correct answer. All DW cooler isolation valves at Hatch fail open, no observable effect on DW Temp and Pressure. Recommend replacing question. NRC: RFA concurred 10/13/05
48	2	C/A	3	✓											E	295020AK3.02 (Original 49) Stem focus – not enough information to determine if DW coolers are tripped. Loss of containment cooling is dependent on which relays were affected. Individual instruments that cause a Gr 2 signal does not also result in a DW cooling system trip. Recommend modifying the question to state that all actions performed as designed. Recommend deleting reference to the Gr 2 signal. NRC: RFA concurred 10/14/05

Q#/	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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		
49	2	C/A	4	✓				✓							U	295021AK2.04 (Original 50) Stem focus – multiple correct ans.- all 4 conditions could result in entry into AOP. A ans. requires entry because the Abnormal Procedure addresses lowering RHRSW flow as an entry condition and directs placing the standby loop of SDC in service "C" is also a correct answer. Unit 1 RHR, the SDC tap is the suction piping of the B Recirc Loop, with the discharge of SDC into the B Recirc loop discharge piping. Procedure does not allow this configuration for SDC. Answer D also requires entry because procedure requirements for SDC require RPV level me maintained >33 inches with forced circulation and >53 inches without forced circulation. Recommend replacing/ rewriting the question. NRC: RFA concurred 10/13/05 with additional modification to stem to make more concise.
50	1	C/A	3	✓											E+	295022AK1.01 (Original 51) Corrected spelling (coincides). "B" Answer is incorrect as stated, changed to <900# to make it accurate. NRC: RFA concurred 10/13/05 Post re-validation: reason in correct ans. not accurate. Change to be more accurate. NRC: RFA concurred 10/19/05.

Q# /	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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		
51	2	C/A	4	✓											U	295023G2.4.4 (Original 52) Stem focus – 126F without a trend does not provide sufficient information to conclude a loss of FPC since system design is to Maintain pool water temperature below 139°F under normal operations and below 150°F during core off load (FSAR 9.1.3.1 and LP). Without this info, question will not discriminate. Recommend modify stem - add "increasing" to Fuel Pool temperature to match entry conditions of Abnormal Procedure. NRC: RFA concurred 10/13/05 with modifying stem to ¼ core unloaded, 135F and no trend, and "note the following conditions."
52	1	M	3												S	295024EA2.06 (Original 53)
53	1	C/A	5							✓					U	295025EK2.06 (Original 54) Recall too specific for closed reference. It is not important for operators to know the pressure at which HPCI will no longer inject to this level of detail. There different numbers given in Hatch FSAR, TS Bases and the HPCI lesson plan. Recommend replacing the question. NRC: RFA concurred 10/13/05
54	2	C/A	4	✓											U	295026EA2.03 (Original 55) Stem focus - answer indeterminate – cannot tell from stem whether the action being taken is based on requirements up to 36 hours or those required to be taken after the 36 hour clock has timed out. Recommend modifying stem – to modify the time to 37 hours to clarify intent. This change will cause "A" to be the correct answer. NRC: RFA concurred 10/13/05 if change to 24 hours and change ans. back to C. Bolded highest and change allowable to acceptable.

Q#/	Rank	1. LOK (C/A)	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		
55	1	C/A	4												S	295028EA2.06 (Original 56)
56	1	C/A	3	✓											E	295030EA2.02 (Original 57) Recommend changing "curve 3" to "graph 2" in the stem due to changes in curve designations at Hatch. Reference was verified. **CAF for reference.** NRC: RFA concurred 10/14/05
57	2	M	3					✓							E	295031EK1.02 (Original 58) D is correct when RWL is lowered from normal level. Water level may not always be below the moisture separators in an ATWS (level control problems) in which case the "D" option is a correct answer. Recommend modifying "D" such that it cannot be considered a correct answer. NRC: RFA concurred 10/14/05 with changing stem to lowered below -60".
58	2	C/A	4				✓								U	295032EK2.04 (Original 59) Incorrect ans. HPCI should have tripped and isolated as a result of the isolation signal for area temp. The turbine trip occurs directly from the isolation signal. There is no time delay associated with the room temperature isolation logic (isolation setpoint is 165 degrees). Recommend taking out the word "only" from the "B" distractor because other components will operate (min flow valve, aux oil pump etc) Recommend selecting a different answer as the correct answer. Recommend adding 14 minute delay to the "A" choice. NRC: RFA concurred 10/13/05

Q#/	Rank	1. LOK (C/A)	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		
59	1	C/A	4												S	295034EA1.05 (Original 60)
60	1	M	3												S	295037G2.1.28 (Original 61)
61	2	C/A	4					✓							U	295038G2.4.31 (Original 62) 2 correct answers. The question requires an operator to place priority on entering abnormal procedures. Answers for "A" and "C" both are valid options since there is no hierarchy at Hatch which would indicate that one is necessarily the preferred procedure to enter first. The expectation is that both procedures would be entered, and then actions would be prioritized. Recommend modify stem to state MSL rad monitors readings. Recommend we change the question from prioritizing which procedure to enter first to which action to take first (given steps from each of the references used to write the original questions). NRC: RFA concurred 10/13/05
62	2	C/A	5	✓											U	300000A2.01 (Original 63) Stem focus – operator needs additional information to determine problem and action. Recommend modifying stem. Add locally observed indications to increase operational validity. In option "B" change "verify open" to "open" for F007A (it is a locked closed valve and should not be able to verify it open unless it had been unlocked and manipulated) NRC: Work on distracters C&D. 10/17: replaced C&D distracters. RFA concurred with changes.

Q# /	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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 ~~35~~	2	C/A	5							✓			No		U	Original question 35 now 63 due to substitute KA. 400000A4.01 substituted for original 286000A4.03 Does not match KA (operate/monitor cooling water for fire protection) Recall too specific and not operational in presenting detailed time sequence related to PSW pressures during LOCA/LOSP. Memorization of the detailed time sequence in the table is not realistic or expected. Does not discriminate. . Recommend replacement. NRC: RFA concurred 10/13/05. Substituted KA 400000A4.1 per RFA direction because original NA.
64	1	M	3												S	400000K1.02
65	1	M	5							✓					U	600000AK3.04 Recall too specific for closed reference. There are multiple places in the procedure that require links for SRV's to be opened for a fire in the procedure, other than these specific links. Recommend modifying question such that the specific links are not required to be memorized to answer the question. NRC: RFA concurred 10/13/05
66	1	M	2												S	G2.1.19
67	1	M	3												S	G2.1.29
68	1	M	3												S	G2.1.30

Q# /	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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	2	M	4						✓						S*	G2.2.11 May be too detailed knowledge for RO. NRC: work on replacement 10/17: Replaced question with one to identify when TM required. RFA concurred with replacement.
70	1	M	3	✓											U	G2.2.27 No correct ans. because procedure has no immediate operator actions. Evacuating RF floor is now a subsequent action. Modify stem to replace "immediate" with required and replace distracter "A." NRC: RFA concurred 10/13/05
71	1	M	2												S	G2.2.3
72	1	C/A	2												S	G2.3.4
73	2	C/A	5	✓											U	G2.3.9 No correct ans by Hatch procedure. Question does not clearly reflect how Hatch normally performs this evolution. Add info about RO Modify question to reflect Hatch operation and clarify intent of questions. Move 19.5% oxygen to stem to shorten distracters and answer. NRC: RFA concurred 10/13/05 with changing to <15% in stem.

Q#/	Rank	1. LOK (C/A)	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		
74	2	M	5	✓											U	G2.4.1 Stem misleading Validators all read question as asking basis for controlling temp below 340F. Since one of the distracters is the basis for 340F, this question as worded will not discriminate. Recommend modifying stem to make it clear that what is being asked is the reason for the scram as part of PC/T control. NRC: RFA concurred 10/13/05 with additional modification to stem.
75	2	C/A	3	✓											E	G2.4.11 Stem focus – stem wording was confusing to validators because it has reactor operating at 100% with a scram signal and because it tests actions for an inadvertent initiation when the signal is not inadvertent. Under these circumstances this procedure would not normally be expected. While "D" is technically not the correct action for the abnormal procedure, it is an appropriate action once the operator confirms HPCI operation. Recommend modifying the stem to replace operating at 100% with "an event has occurred." Modify "D" to make it an incorrect action. NRC: RFA concurred 10/14/05.
SRO ONLY																
1	1		2												S	205000G2.1.22

Q#/	Rank	1. LOK (C/A)	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		
2	1	A	3												S	212000A2.16
3	1		4												S	215002G2.1.11
4	2		4	✓				✓							U	215003G2.2.25 Stem focus/More than one correct ans. Because number of required IRM channel can be 2 or 3 according to TS, "B" is discussed in bases and can be considered a basis for minimum # of 2. See TS. Recommend modifying stem to state ..."minimum number of channels per per trip system..." and replace distracter B. NRC: RFA concurred 10/13/05
5	1	A	4							✓					U	215004G2.1.33 Recall too specific - Operators are not required to memorize which quadrant the SRMs are located in, procedures contain this information. Recommend that a core map reference be provided. NRC: RFA concurred 10/13/05 except provide core map as a separate reference.

Q# /	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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		
6	2	A	5	✓						✓					U	223002A2.04 Intended answer is not correct. Recall too specific for close reference (does not discriminate). Neither LP nor procedure provides this level of detail. Drawing needed to determine result of one instrument failed. Selected answer is not correct (no correct answer since only the inboard valve shuts with this failure. Recommend providing a reference LSFT-1-PCIS-09. Recommend modifying question to add noun name of the detector and change the answer to make it correct. Delete F326 from the answer. NRC: RFA concurred 10/13/05 with modification to distracter C to list only one valve and to provide reference.
7	1	A	4	✓											E	290002G2.2.22 Stem focus - Baseline information would have been gathered prior to this point in the startup. The STA performs this action/task, not an Engineer. Recommend modify stem to be more concise. Modify answers/distracters "A" and "D" due to stem modification. **CAF: No reference allowed** NRC: RFA concurred 10/14/05
8	2	A	3	✓				✓							U	290003A2.03 Stem focus/2 possible answers. Only certain RF ARMs cause MCREC to swap to pressurization mode. Need more information in the stem to ensure only one correct ans. Recommend modifying question stem to indicate that all RF ARMs are above their trip setpoint. NRC: RFA concurred 10/13/05

Q# /	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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		
9	2	A	3	✓											U	295001G2.1.32 Stem focus – ans. Is correct only if flow <30% Reactor Engineering does not enter substitute values, it is manually calculated. Recommend deleting "ICS" Not used at Hatch. Recommend changing Recirc Flow from 30% to 28% because the procedure states below approx 30%. Modify ans. To reflect procedure requirement. NRC: RFA concurred 10/13/05
10	2	C	4												S	295003G2.2.25
11	1	A	3												S	295006AA2.02
12	1	A	3												S	295012AA2.02
13	2	C	5	✓						✓					U	295014G2.1.33 Stem focus – Cannot accomplish ans. i.e procedurally cannot move the bridge over the core with a control rod withdrawn and fuel in the cell. Recall too specific for closed reference Recommend replacing the question. NRC: Need different question. Conflict with JPM. 10/17: Modified original question to maintain original intent. RFA concurred with changes.

Q# /	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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		
14	2	A	5							✓			No		U	295017G2.4.30 Does not match KA since situation is not a high off-site release rate Recall too specific for closed reference – does not discriminate Hatch does not require students to memorize this level of detail for this notification. Recommend replacing question to make it a 1 hour report based on high off-site release rate. CAF for no Emergency Declaration Plant conditions will exist for an emergency declaration in modified question. NRC: RFA concurred 10/13/05 with changes to distracters (15min, 1 hr, 4, 8) and minor wording change to stem.
15	1	A	3												S	295028EA2.04 **CAF drywell spray initiation limit (Graph 8)** Safe region of DW spray initiation limit graph.
16	2	A	5	✓						✓					U	295030EA2.04 Stem focus - No Torus or DW initial conditions given, requiring student to arrive at ans. by elimination based on knowing what is not in TS. Depending on initial pressures, ans. can be increase or decrease. Too specific for recall in closed reference because distracters assume memory of all TS requirements Recommend modifying question to provide initial pressures and limit question to KA. NRC: Need to work in TS requirements or basis 10/17: Modified original question, added TS back in. Changed stem to solicit second part of answer per RFA. . RFA concurred with final version.

Q#/	Rank	1. LOK (C/A)	2. LOD (1-5)	3. Psycho metric 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		
17	1	C	5					✓							E	295031G2.4.30 Add that the reactor is still subcritical since cold shutdown rod configuration cannot be assured with more than one control rod fully withdrawn. **CAF: SRO needs to understand if a notification is required. Should be able to recognize correct condition** NRC: RFA concurred with change to 1st control rod fully withdrawn in "A" vice proposed change.
18	1		3												S	295038EA2.03
19	2	A	5							✓					U	G2.1.34 Recall too specific for closed ref. Requires in-depth memorization of Chemistry procedures for a 4 day time limit. Does not discriminate. Recommend replacing the question NRC: RFA concurred 10/14/05. Changed nomenclature.
20	2		3	✓				?							E	G2.1.4 Stem focus – "D" can be interpreted as correct. 2 RO's on Unit 2 and 1 on U1 would meet staffing requirements. Modify D.. NRC: RFA concurred 10/14/05
21	1		3												S	G2.2.19
22	1		3												S	G2.2.25

Q# /	Rank	1. LOK (C/A)	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		
23	1	C	5										No		U	G2.3.6 Does not match KA which addresses reviewing and approving a release permit. Decanting to the Hotwell does not require a discharge permit. Too specific for recall. Does not discriminate since this evolution is rarely if ever performed at facility and is not something we would expect a competent SRO to know from memory. Recommend modifying the question to ask who must approve a discharge to the river (to better match the KA). NRC: RFA concurred 10/14/05 with further editing to stem of replacement question to focus stem.s
24	2		3	✓				✓							U	G2.4.5 2 correct answers. Recommend changing stem to make the station blackout procedure the correct response. No reference to support EOP's not taking precedence over RS procedures. Abnormal procedure states that Station Blackout procedure takes precedence over all other procedures unless entry conditions into EOPs exist which are not related to the loss of power associated with the station blackout **CAF confirm reference. Checked** NRC: RFA concurred 10/14/05
25	2		3					✓							U	G2.4.6 2 possible correct answers. A change in a decision step that will improve plant conditions can be construed to be a major equipment/parameter change which will allow the EOP flowcharts to be re-entered. Recommend changing question wording in such a way that only one answer to be correct. NRC: RFA concurred 10/14/05

	Bullet Proof
	Not So Bullet Proof
3	Meets minimum Standards

* Independent of whether or not it met the KA, mis-classified WRT RO/SRO, or required grammar or ***minor*** enhancement.

\+ Check reference in office

CAF = Check at Facility

S	Question is Sat with NO Comments
E	Editorial Changes Needed
E*	Questionable Editorial
	Question is All Hosed Up
	Questionable
	Question and stem sat - editorial elsewhere

Facility: Hatch | Date of Exam: 10/28/05 | Exam Level: RO

Item Description	Initials a	Initials b	Initials c
1. Clean answer sheets copied before grading	#		#
2. Answer key changes and question deletions justified and documented	C		C
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	C		C
4. Grading for all borderline cases (80 ±2% overall and 70 or 80, as applicable, ±4% on the SRO-only) reviewed in detail	C		C
5. All other failing examinations checked to ensure that grades are justified	~~N/A~~	N/A	—
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	C		C

	Printed Name/Signature	Date
	for MARK A. CUTTER	11/23/05
# Facility Made copy		
a. Grader	Gerard Laska	
b. Facility Reviewer(*)	N/A	
c. NRC Chief Examiner (*)	Ronald Aiello	11/23/05
d. NRC Supervisor (*)	James Moorman III	12.2.05

(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.

Facility: Hatch Date of Exam: 10/28/05 Exam Level: SRO

	Item Description	Initials a	Initials b	Initials c
1.	Clean answer sheets copied before grading	#		#
2.	Answer key changes and question deletions justified and documented	C		✓
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	C		✓
4.	Grading for all borderline cases (80 ±2% overall and 70 or 80, as applicable, ±4% on the SRO-only) reviewed in detail	C		✓
5.	All other failing examinations checked to ensure that grades are justified	~~N/A~~	N/A	—
6.	Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	C		✓

	Printed Name/Signature	Date
# Facility Made copy	for MARK R. CRITTY	11/23/05
a. Grader	Gerard Laska	
b. Facility Reviewer(*)	N/A	
c. NRC Chief Examiner (*)	Ronald Aiello	11/23/05
d. NRC Supervisor (*)	James Moorman III	12.2.05

(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.

Hatch

Post-Examination Check Sheet		
Task Description		**Date Complete**
1.	Facility written exam comments or graded exams received and verified complete	11/14/05
2.	Facility written exam comments reviewed and incorporated and NRC grading completed, if necessary	NA
3.	Operating tests graded by NRC examiners	11/28/05
4.	NRC chief examiner review of operating test and written exam grading completed	11/30/05
5.	Responsible supervisor review completed	12/01/05
6.	Management (licensing official) review completed	12/02/05
7.	License and denial letters mailed	12/02/05
8.	Facility notified of results	12/02/05
9.	Examination report issued (refer to NRC MC 0612)	12/02/05
10.	Reference material returned after final resolution of any appeals	NA

August 22, 2005
LR-TR-013-0805

Mr. Ron Aiello
NRC Chief Examiner
U. S. Nuclear Regulatory Commission
Region II
Atlanta Federal Center
61 Forsyth Street SW
Atlanta, GA 30303

Subject: Transmittal of Draft Operating Examination Outlines

Dear Mr. Aiello:

As required by our 120 day letter issued for our upcoming Initial Operator Licensing Exam, enclosed are the following forms:

1 - ES-201-2, Exam Outline Quality Checklist
1 – ES-201-3, Examination Security Agreement
1 – ES-301-1, Administrative Topics Outline Form
1 – ES-301-2, Control Room/In-Plant Systems Outline
1 – ES-301-5, Transient and Event Checklist
4 – ES-D-1, Scenario Outlines
1 – Compact Disc containing above documents in MS Word format

As you know these documents are confidential and should not be released to the public until after our License Exam has been administered.

If you have any questions regarding this material, please contact me at 912-537-5916.

Sincerely,

Robert S. Grantham
Nuclear Operations Training Supervisor
Plant E. I. Hatch
P.O. Box 2010
Baxley, Ga 31515

September 16, 2005
LR-TR-009-0905

Mr. Ron Aiello
NRC Chief Examiner
U. S. Nuclear Regulatory Commission
Region II
Atlanta Federal Center
61 Forsyth Street SW
Atlanta, GA 30303

Subject: Transmittal of Draft Operating Examination

Dear Mr. Aiello:

As required by our 120 day letter issued for our upcoming Initial Operator Licensing Exam, we are transmitting the following forms:

4 – Proposed Operating Examination ES-D-1 Scenario Outline
4 – Proposed Operating Examination ES-D-2 Required Operator Actions
17– Proposed Operating Examination JPM's
1 – ES-201-3, Examination Security Agreement
1 – ES-301-3, Operating Test Quality Checklist
1 – ES-301-4, Simulator Scenario Quality Checklist
1 – ES-301-5, Transient and Event Checklist
1 – ES-301-6, Competencies Checklist
1 – Compact Disc containing reference documents in Word format

As you know these documents are confidential and should not be released to the public until after our License Exam has been administered.

If you have any questions regarding this material, please contact me at 912-537-5916.

Sincerely,

Robert S. Grantham
Nuclear Operations Training Supervisor
Plant E. I. Hatch
P.O. Box 2010
Baxley, Ga 31515

Southern Nuclear Operating Company, Inc.
Plant Edwin I. Hatch
Post Office Box 2010
Baxley, Georgia 31515

Tel 912.366.2000
912.537.5900

SOUTHERN COMPANY
Energy to Serve Your World SM

October 21, 2005
LR-GM-004-1005

Mr. Jim Moorman
Chief, Operator Licensing Branch
U. S. Nuclear Regulatory Commission
Region II
Atlanta Federal Center
61 Forsyth Street SW
Atlanta, GA 30303

Subject: Transmittal of Final Initial License Operator Examination

Dear Mr. Moorman:

As previously discussed, we are transmitting the following forms and examination material for our upcoming Initial Operator Licensing Exam:

Number	Enclosure
1	Final Written Examination
17	Final Operating Examination Job Performance Measures
3	Final Operating Examination ES-D-1 Scenario Outline
3	Final Operating Examination ES-D-2 Required Operator Actions
1	ES-201-2, Examination Outline Quality Checklist
1	ES-201-3, Examination Security Agreement
1	ES-301-1, Administrative Topics Outline Form
1	ES-301-2, Control Room/In-Plant Systems Outline
1	ES-301-3, Operating Test Quality Checklist
1	ES-301-4, Simulator Scenario Quality Checklist
1	ES-301-5, Transient and Event Checklist
1	ES-301-6, Competencies Checklist
1	ES-401-4, Record of Rejected KA's
1	ES-401-9, Written Examination Review Worksheet
1	Compact Disc containing Final Written Examination in LXR format, JPMs, and scenarios

As you know these documents are subject to examination security requirements and should not be released to the public until after our License Exam has been administered.

If you have any questions regarding this material, please contact Steve Grantham at 912-537-5916.

Sincerely,

George R. Frederick

George R. Frederick
Nuclear Plant General Manager
Plant E. I. Hatch

Southern Nuclear Operating Company, Inc.
Plant Edwin I. Hatch
Post Office Box 2010
Baxley, Georgia 31515

Tel 912.366.2000
912.537.5900

SOUTHERN COMPANY
Energy to Serve Your World℠

November 9, 2005
LR-GM-003-1105

Mr. Jim Moorman
Chief, Operator Licensing Branch
U. S. Nuclear Regulatory Commission
Region II
Atlanta Federal Center
61 Forsyth Street SW
Atlanta, GA 30303

Subject: Post Examination Comments

Dear Mr. Moorman:

This is to notify you that Plant E. I. Hatch has no formal post examination comments pertaining to the Initial License Examination administered from October 28 through November 3, 2005.

Sincerely,

George R. Frederick
Nuclear Plant General Manager
Plant E. I. Hatch