

# Administrative Documents

(Yellow Paper)

1. ✓ Exam Preparation Checklist . . . . . ES-201-1
2. ✓ Exam Outline Quality Checklist . . . . . ES-201-2
3. ✓ Exam Security Agreement . . . . . ES-201-3
4. ✓ Administrative Topics Outline (Final) . . . . . ES-301-1
5. ✓ Control Room Systems and 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-401-7
11. ✓ Written Exam Review Worksheet . . . . . ES-401-9
12. / Written Exam Grading Quality Checklist . . . . . ES-403-1
13. ↓ Post-Exam Check Sheet . . . . . ES-501-1

Facility: <u>SP QUONAM</u>		Date of Examination: <u>12/2-6/02</u>
Examinations Developed by: Facility / NRC (circle one)		<u>written: 12/9/02</u>
Target Date*	Task Description / Reference	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a & b)	8/1/02
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	8/1/02
-120	3. Facility contact briefed on security & other requirements (C.2.c)	2/1/02
-120	4. Corporate notification letter sent (C.2.d)	8/5/02
[-90]	[5. Reference material due (C.1.e; C.3.c)]	10/16/02
-75	6. Integrated examination outline(s) due (C.1.e & f; C.3.d)	9/23/02
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	9/27/02
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	10/16/02
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	11/1/02
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	11/24/02
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	11/25/02
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	11/15/02
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	11/25/02
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	11/25/02
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	11/25/02
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	11/25/02
<p>* 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.</p> <p>[ ] Applies only to examinations prepared by the NRC.</p>		

Facility: <u>Sequoyah Nuclear Plant</u>		Date of Examination: <u>12-2-02</u>		
Item	Task Description	Initials		
		a	b*	c#
1. W R I T T E N	a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	NAK	SL	NAK
	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.	NAK	SL	NAK
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	NAK	SL	NAK
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	NAK	SL	NAK
2. S I M	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, and major transients.	NAK	SL	NAK
	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; ensure 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 scenarios will not be repeated over successive days.	NAK	SL	NAK
	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.	NAK	SL	NAK
3. W I T	a. Verify that: (1) the outline(s) contain(s) the required number of control room and in-plant tasks, (2) no more than 30% of the test material is repeated from the last NRC examination, (3)* no tasks are duplicated from the applicants' audit test(s), and (4) no more than 80% of any operating test is taken directly from the licensee's exam banks.	NAK NAK NAK NAK	SL SL SL SL	NAK
	b. Verify that: (1) the tasks are distributed among the safety function groupings as specified in ES-301, (2) one task is conducted in a low-power or shutdown condition, (3) 40% of the tasks require the applicant to implement an alternate path procedure, (4) one in-plant task tests the applicant's response to an emergency or abnormal condition, and (5) the in-plant walk-through requires the applicant to enter the RCA.	NAK NAK NAK NAK NAK	SL SL SL SL SL	NAK
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	NAK	SL	NAK
	d. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on successive days.	NAK	SL	NAK
4. G E N E R A L	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	NAK	SL	NAK
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	NAK	SL	NAK
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	NAK	SL	NAK
	d. Check for duplication and overlap among exam sections.	NAK	SL	NAK
	e. Check the entire exam for balance of coverage.	NAK	SL	NAK
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	NAK	SL	NAK
a. Author	Printed Name / Signature: <u>James P. Kearney</u>		Date: <u>9/18/02</u>	
b. Facility Reviewer (*)	<u>Gregory S. Poter</u>		<u>9/18/02</u>	
c. NRC Chief Examiner (#)	<u>George T. Hopper</u>		<u>11/5/02</u>	
d. NRC Supervisor	<u>MIKE EARLE</u>		<u>11/4/02</u>	
Note: * Not applicable for NRC-developed examinations. # Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.				

2/2 Dec 02

10/10/02 - 11/11/02 with 10/15/02  
2/9 Dec 02 with 10/15/02

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 2/9 Dec 02 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. 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 2/9 Dec 02. 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)	DATENOTE
1. Gregory S. Porek	Lead Developer	<i>Gregory S. Porek</i>	8/12/02	<i>Gregory S. Porek</i>	12/12/02
2. Frank V. Loun	Developer	<i>Frank V. Loun</i>	8/12/02	<i>Frank V. Loun</i>	12/9/02
3. William D. Davidson	Validator	<i>William D. Davidson</i>	8/13/02	<i>William D. Davidson</i>	12/9/02
4. James P. Keasney	Developer	<i>James P. Keasney</i>	8/26/02	<i>James P. Keasney</i>	12/9/02
5. Mike Bencher	STMF	<i>Mike Bencher</i>	9/18/02	<i>Mike Bencher</i>	12/9/02
6. Dale Kaulitz	Sim. Config. Engineer	<i>Dale Kaulitz</i>	9/18/02	<i>Dale Kaulitz</i>	12/9/02
7. James D. Knight	Sim. Software Engineer	<i>James D. Knight</i>	9/18/02	<i>James D. Knight</i>	12/9/02
8. NORMAN GOOD	SIM. HARDWARE ENGINEER	<i>Norm Good</i>	9/19/02	<i>Norm Good</i>	12-9-02
9. John E. Stinson	John E. Stinson US/SRO	<i>John E. Stinson</i>	9-30-02	<i>John E. Stinson</i>	12-10-02
10. Phillip Mincey	Unit Operator	<i>Phillip Mincey</i>	9-30-02	<i>Phillip Mincey</i>	12/10/02
11. Michael D. McDaniel	Unit Operator	<i>Michael D. McDaniel</i>	9-30-02	<i>Michael D. McDaniel</i>	
12. Samuel R. Johnson	Unit Supervisor	<i>Samuel R. Johnson</i>	9/30/02	<i>Samuel R. Johnson</i>	
13. David Porter	Procedures	<i>David Porter</i>	10/7/2002	<i>David Porter</i>	12/6/02
14. Jim Dvorak	Procedures	<i>Jim Dvorak</i>	10/7/2002	<i>Jim Dvorak</i>	6 Dec 02
15. Rick Agnew	Procedures	<i>Rick Agnew</i>	10/7/2002	<i>Rick Agnew</i>	12/10/02

NOTES:

See pages 3+4 for original signatures for McDaniel + Johnson

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 2+9 Dec '02 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. 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.

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	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE NOTE
1.	<u>George Sanders</u>	<u>Ops Trng Manager</u>	<u>George Sanders</u>	<u>11/12/02</u>	<u>George Sanders</u>	<u>12/9/02</u>
2.	<u>Michael W Reese</u>	<u>Ops Instr</u>	<u>Michael Wilson Reese</u>	<u>12/2/02</u>	<u>Michael Wilson Reese</u>	<u>12/9/2002</u>
3.						
4.						
5.						
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15.						

NOTES:

2/2 Dec 02

~~10/10/02 - 11/11/02~~ ~~with 10/15/02~~  
~~2/9 Dec 02~~ ~~with 10/15/02~~

1. Pre-Examination

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PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATENOTE
1. <u>Gregory S. Poreet</u>	Lead Developer	<u>Gregory S. Poreet</u>	8/12/02		
2. <u>Frank V. Wozniak</u>	Developer	<u>Frank V. Wozniak</u>	8/12/02	<u>Frank V. Wozniak</u>	12/9/02
3. <u>William D. Davidson</u>	Validator	<u>W. D. Davidson</u>	8/13/02	<u>W. D. Davidson</u>	12/9/02
4. <u>James P. Keasney</u>	Developer	<u>James P. Keasney</u>	8/26/02	<u>James P. Keasney</u>	12/9/02
5. <u>Mike Bencher</u>	STMF	<u>Mike Bencher</u>	9/18/02	<u>Mike Bencher</u>	12/9/02
6. <u>Dale Kaulitz</u>	Sim. Config. Engineer	<u>Dale Kaulitz</u>	9/18/02	<u>Dale Kaulitz</u>	12/9/02
7. <u>James D. Knight</u>	Sim. Software Engineer	<u>James D. Knight</u>	9/18/02	<u>James D. Knight</u>	12/9/02
8. <u>NOTMAN GOOD</u>	SIM. HARDWARE ENGINEER	<u>Notman Good</u>	9/18/02	<u>Notman Good</u>	12-9-02
9. <u>John E. Stinson</u>	Sim. Domain US/SRO	<u>John E. Stinson</u>	9-30-02	<u>John E. Stinson</u>	12-10-02
10. <u>Phillip Mincey</u>	Unit Operator	<u>Phillip Mincey</u>	9-30-02	<u>Phillip Mincey</u>	12/10/02
11. <u>Michael D. McDaniel</u>	Unit Operator	<u>Michael D. McDaniel</u>	9-30-02	<u>Michael D. McDaniel</u>	12/10/02
12. <u>Samuel R. Johnson</u>	Unit Supervisor	<u>Samuel R. Johnson</u>	9/30/02	<u>Samuel R. Johnson</u>	12/10/02
13. <u>David Porter</u>	Procedures	<u>David Porter</u>	10/7/2002	<u>David Porter</u>	12/6/02
14. <u>Jim Dvorak</u>	Procedures	<u>James D. Dvorak</u>	10/7/2002	<u>James D. Dvorak</u>	6 Dec 02
15. <u>Rick Agnew</u>	Procedures	<u>Rick Agnew</u>	10/7/2002	<u>Rick Agnew</u>	12/10/02

NOTES:

2/2 Dec 02

~~10/10/02 - 11/11/02~~ ~~will 10/15/02~~  
~~2/9 Dec 02~~ will 10/15/02

1. Pre-Examination

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PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATENOTE
1. Gregory S. Porcasi	Lead Developer	<i>Gregory S. Porcasi</i>	8/12/02		
2. Frank V. Lomon	Operator	<i>Frank V. Lomon</i>	8/12/02	<i>Frank V. Lomon</i>	12/4/02
3. William D. Davidson	Validator	<i>William D. Davidson</i>	8/13/02	<i>William D. Davidson</i>	12/9/02
4. James P. Keasney	Developer	<i>James P. Keasney</i>	8/26/02	<i>James P. Keasney</i>	12/9/02
5. Mike Bencher	STMF	<i>Mike Bencher</i>	9/18/02	<i>Mike Bencher</i>	12/9/02
6. Dale Kaulitz	Sim. Config. Engineer	<i>Dale Kaulitz</i>	9/18/02	<i>Dale Kaulitz</i>	12/9/02
7. James D. Knight	Sim. Software Engineer	<i>James D. Knight</i>	9/18/02	<i>James D. Knight</i>	12/9/02
8. NORMAN GOOD	SIM. HARDWARE ENGINEER	<i>Norm Good</i>	9/19/02	<i>Norm Good</i>	12-9-02
9. John E. Stinson	Shift Operator US/SRO	<i>John E. Stinson</i>	9-30-02	<i>John E. Stinson</i>	12-10-02
10. Phillip Mincey	Unit Operator	<i>Phillip Mincey</i>	9-30-02	<i>Phillip Mincey</i>	12/10/02
11. Michael D. McDaniel	Unit Operator	<i>Michael D. McDaniel</i>	9-30-02	<i>Michael D. McDaniel</i>	12-12-02
12. Samuel R. Johnson	Unit Supervisor	<i>Samuel R. Johnson</i>	9/30/02	<i>Samuel R. Johnson</i>	
13. David Porter	Procedures	<i>David Porter</i>	10/1/2002	<i>David Porter</i>	12/6/02
14. Jim Duorak	Procedures	<i>Jim Duorak</i>	10/7/2002	<i>Jim Duorak</i>	6 Dec 02
15. Rick Agnew	Procedures	<i>Rick Agnew</i>	10/7/2002	<i>Rick Agnew</i>	12/10/02

NOTES:

Facility: SequoyahDate of Examination: 12-02-02Examination Level (circle one): **SRO**Operating Test Number: 1

Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Plant Parameter Verification	JPM # 161, Calculate Subcooling Margin
	Refueling Operations	Maximum # of fuel assemblies in refueling canal. 2.2.30/3.5
		Unexpected increase in count rate during fuel load. 2.2.30/3.5
A.2	Equipment Control	Work Request Priority. 2.2.19/3.1
		Releasing equipment for maintenance. 2.2.17/3.5
A.3	Radiation Control	JPM (NEW) Calculate Stay Time
A.4	Emergency Plan	JPM #164, (NEW) Classify the REP

Facility: <u>Sequoyah</u>		Date of Examination: <u>12-02-02</u>
Examination Level (circle one): <b>RO</b>		Operating Test Number: <u>1</u>
Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Plant Parameter Verification	JPM # 161, Calculate Subcooling Margin
	Refueling Operations	Maximum # of fuel assemblies in refueling canal. 2.2.30/3.5
		Unexpected increase in count rate during fuel load. 2.2.30/3.5
A.2	Equipment Control	Abnormal Seal leakoff. 2.2.2/4.0
		Rod Thermal Lockup. 2.2.1/3.7
A.3	Radiation Control	JPM (NEW) Calculate Stay Time
A.4	Emergency Plan	JPM #156, Monitor Status Trees

\* - Industry OE importance item

Facility: Sequoyah Date of Examination: 12-02-02  
 Exam Level (circle one): RO Operating Test No.: 1

## B.1 Control Room Systems

System / JPM Title	Type Code*	Safety Function
150, Flush Unit 1 Blender Piping	D, S	1
136, Recovery from SI and Solid Water Conditions	D, S, L	3
077-4 AP2, Perform D/G Load Test on 1A-A D/G	D, S, A	6
34AP, Loss of Secondary Heat Sink	D, S, L, A, PSA	4S
021, Respond to a Failure of PR N-41	D, S	7
065-1, Re-establishment of Containment Pressure Control	D, S, M	5
014, Control Room Inaccessibility	N, S, L	8
099 AP, Locally Align 1B-B CCS Pump to Supply B Train	D, P, R, A	8
42, Placing Vital Inverter 1-II Back in Service	D	6
201R AP1, Local Isolation of Charging with Local Control of Seal Injection Flow	N, P, R, L, A	2

\* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA

Facility: Sequoyah  
 Exam Level (circle one): **SRO (U)**

Date of Examination: 12-02-02  
 Operating Test No.: 1

B.1 Control Room Systems

System / JPM Title	Type Code*	Safety Function
150, Flush Unit 1 Blender Piping	D, S	1
34AP, Loss of Secondary Heat Sink	D, S, L, A, PSA	4S
014, Control Room Inaccessibility	N, S, L	8
42, Placing Vital Inverter 1-II Back in Service	D	6
201R AP1, Local Isolation of Charging with Local Control of Seal Injection Flow	N, P, R, L, A	2

\* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA

Facility: <u>Sequoyah</u>		Date of Examination: <u>12/2/02</u>		Operating Test Number:		
<b>1. GENERAL CRITERIA</b>				Initials		
				a	b*	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).	MK	S	AK		
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	MK	S	AK		
c.	The operating test shall not duplicate items from the applicants' audit test(s) (see Section D.1.a).	MK	S			
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	MK	S	AK		
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	MK	S	AK		
<b>2. WALK-THROUGH (CATEGORY A &amp; B) CRITERIA</b>				--	--	--
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> <li>• initial conditions</li> <li>• initiating cues</li> <li>• references and tools, including associated procedures</li> <li>• reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time critical by the facility licensee</li> <li>• specific performance criteria that include:                         <ul style="list-style-type: none"> <li>- detailed expected actions with exact criteria and nomenclature</li> <li>- system response and other examiner cues</li> <li>- statements describing important observations to be made by the applicant</li> <li>- criteria for successful completion of the task</li> <li>- identification of critical steps and their associated performance standards</li> <li>- restrictions on the sequence of steps, if applicable</li> </ul> </li> </ul>	MK	S	AK		
b.	The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	MK	S	AK		
c.	Repetition from operating tests used during the previous licensing examination is within acceptable limits (30% for the walk-through) and do not compromise test integrity.	MK	S	AK		
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	MK	S	AK		
<b>3. SIMULATOR (CATEGORY C) CRITERIA</b>				--	--	--
a.	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	MK	S	AK		
		Printed Name / Signature		Date		
a. Author	<u>James P. Kearney / James P. Kearney</u>			<u>10/15/02</u>		
b. Facility Reviewer(*)	<u>Gregory S. Poreet / Gregory S. Poreet</u>			<u>10/15/02</u>		
c. NRC Chief Examiner (#)	<u>Mr. George T. Hopper / George T. Hopper</u>			<u>11/20/02</u>		
d. NRC Supervisor	<u>Mr. Mike Erastes / Mike Erastes</u>			<u>11/25/02</u>		
NOTE: * The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.						

Facility: <i>Sequoyah</i>		Date of Exam: <i>12/2/02</i>		Scenario Numbers: <i>11213</i>		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.	<i>AK</i>	<i>SB</i>	<i>AK</i>				
2.	The scenarios consist mostly of related events.	<i>AK</i>	<i>SB</i>	<i>AK</i>				
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)	<i>AK</i>	<i>SB</i>	<i>AK</i>				
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.	<i>AK</i>	<i>SB</i>	<i>AK</i>				
5.	The events are valid with regard to physics and thermodynamics.	<i>AK</i>	<i>SB</i>	<i>AK</i>				
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	<i>AK</i>	<i>SB</i>	<i>AK</i>				
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.	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>				
8.	The simulator modeling is not altered.	<i>AK</i>	<i>SB</i>	<i>AK</i>				
9.	The scenarios have been validated. Any open simulator performance deficiencies have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.	<i>AK</i>	<i>SB</i>	<i>AK</i>				
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.4 of ES-301.	<i>AK</i>	<i>SB</i>	<i>AK</i>				
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	<i>AK</i>	<i>SB</i>	<i>AK</i>				
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).	<i>AK</i>	<i>SB</i>	<i>AK</i>				
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	<i>AK</i>	<i>SB</i>	<i>AK</i>				
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)		Actual Attributes		--	--	--	--	
1.	Total malfunctions (5-8)	<i>7</i>	<i>17</i>	<i>7</i>	<i>AK</i>	<i>SB</i>	<i>AK</i>	
2.	Malfunctions after EOP entry (1-2)	<i>2</i>	<i>12</i>	<i>2</i>	<i>AK</i>	<i>SB</i>	<i>AK</i>	
3.	Abnormal events (2-4)	<i>3</i>	<i>14</i>	<i>4</i>	<i>AK</i>	<i>SB</i>	<i>AK</i>	
4.	Major transients (1-2)	<i>1</i>	<i>11</i>	<i>1</i>	<i>AK</i>	<i>SB</i>	<i>AK</i>	
5.	EOPs entered/requiring substantive actions (1-2)	<i>3</i>	<i>12</i>	<i>3</i>	<i>AK</i>	<i>SB</i>	<i>AK</i>	
6.	EOP contingencies requiring substantive actions (0-2)	<i>0</i>	<i>10</i>	<i>0</i>	<i>AK</i>	<i>SB</i>	<i>AK</i>	
7.	Critical tasks (2-3)	<i>2</i>	<i>13</i>	<i>2</i>	<i>AK</i>	<i>SB</i>	<i>AK</i>	

*414/14/3*  
*AK*

OPERATING TEST NO.:

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
R1 RO <del>RO</del>	Reactivity	1	1			
	Normal	1		1		
	Instrument / Component	4	3, 4 1, 2	2, 6		
	Major	1	6	7		

As RO	Reactivity	1				
	Normal	0				
	Instrument / Component	2				
	Major	1				
SRO-I  As SRO	Reactivity	0				
	Normal	1				
	Instrument / Component	2				
	Major	1				

U1  SRO-U	Reactivity	0	0	0		
	Normal	1	1	1		
	Instrument / Component	2	3, 4 5, 6	2, 3 4, 6		
	Major	1	7	7		

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.  
 (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.  
 (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 requirement.

Author:

Gregory S. Plett

NRC Reviewer:

Mark D. Meyer

OPERATING TEST NO.:

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RZ RO	Reactivity	1		5		
	Normal	1	1	1		
	Instrument / Component	4	4 5	3 4		
	Major	1	6	7		

As RO	Reactivity	1				
	Normal	0				
	Instrument / Component	2				
	Major	1				
SRO-I As SRO	Reactivity	0				
	Normal	1				
	Instrument / Component	2				
	Major	1				

U2 SRO-U	Reactivity	0	0		0	
	Normal	1	1		1	
	Instrument / Component	2	3 4 5 6		3 4 5 6	
	Major	1	7		7	

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.  
 (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.  
 (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 requirement.

Author:

Gregory S. Pridemore

NRC Reviewer:

Mark S. Pridemore

OPERATING TEST NO.:

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
R3 RO	Reactivity	1	1			
	Normal	1		1		
	Instrument / Component	4	3 4	2 6		
	Major	1	6	7		

As RO	Reactivity	1				
	Normal	0				
	Instrument / Component	2				
	Major	1				
SRO-I As SRO	Reactivity	0				
	Normal	1				
	Instrument / Component	2				
	Major	1				

U3 SRO-U	Reactivity	0		0		
	Normal	1		1		
	Instrument / Component	2		2 3 4 6		
	Major	1		7		

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.  
 (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.  
 (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 requirement.

Author: Luzon S. P. [Signature]  
 NRC Reviewer: [Signature]

OPERATING TEST NO.:

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RA RO	Reactivity	1			2	
	Normal	1	1			
	Instrument / Component	4	4 5 7		3 6	
	Major	1	6		7	

As RO	Reactivity	1				
	Normal	0				
	Instrument / Component	2				
	Major	1				
SRO-I As SRO	Reactivity	0				
	Normal	1				
	Instrument / Component	2				
	Major	1				

SRO-U	Reactivity	0				
	Normal	1				
	Instrument / Component	2				
	Major	1				

- Instructions:
- (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
  - (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
  - (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 requirement.

Author: Gregory S. Pind

NRC Reviewer: AVK [Signature]

OPERATING TEST NO.:

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RS  RO	Reactivity	1		5		
	Normal	1		1	1	
	Instrument / Component	4		3,4	4,5	
	Major	1		7	7	

As RO	Reactivity	1				
	Normal	0				
	Instrument / Component	2				
	Major	1				
SRO-I  As SRO	Reactivity	0				
	Normal	1				
	Instrument / Component	2				
	Major	1				

SRO-U	Reactivity	0				
	Normal	1				
	Instrument / Component	2				
	Major	1				

- Instructions:
- (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
  - (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
  - (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 requirement.

Author:

*Luis S. [Signature]*

NRC Reviewer:

*[Signature]*

Competencies	R1				R2				R3			
	Applicant #1 RO/SRO-I/SRO-U				Applicant #2 RO/SRO-I/SRO-U				Applicant #3 RO/SRO-I/SRO-U			
	SCENARIO				SCENARIO				SCENARIO			
	*1 <sup>O</sup>	*2 <sup>C</sup>	3	4	*1 <sup>C</sup>	*2 <sup>O</sup>	3	4	*1 <sup>O</sup>	*2 <sup>C</sup>	3	4
Understand and Interpret Annunciators and Alarms	1,5 6	2 6 <sup>5</sup>			3,4 7	3,4 5			1,5 6	2 6 <sup>5</sup>		
Diagnose Events and Conditions	5 6	2 6 <sup>5</sup>			3,4 7	3,4 5			5 6	2 6 <sup>5</sup>		
Understand Plant and System Response	1,2 5,6	2,5 6			3,4 7	1,3 4,5			1,2 5,6	2,5 6		
Comply With and Use Procedures (1)	1,2 5,6	2,5 6			3,4 7	1,3 4,5			1,2 5,6	2,5 6		
Operate Control Boards (2)	1,2 5,6	2,5 6			1,3,4 7	1,3 4,5			1,2 5,6	2,5 6		
Communicate and Interact With the Crew	1,2 5,6	2,5 6			1,3 4,7	1,3 4,5			1,2 5,6	2,5 6		
Demonstrate Supervisory Ability (3)												
Comply With and Use Tech. Specs. (3)												

Notes:

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

Instructions:

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

Author: Luzon SP

NRC Reviewer: George J. Hopper

Competencies	R4				R5				U1			
	Applicant #1 RO/SRO-I/SRO-U				Applicant #2 RO/SRO-I/SRO-U				Applicant #3 RO/SRO-I/SRO-U			
	SCENARIO				SCENARIO				SCENARIO			
	*1 <sup>c</sup>	2	*3 <sup>o</sup>	4	1	*2 <sup>o</sup>	*3 <sup>c</sup>	4	*1	*2	3	4
Understand and Interpret Annunciators and Alarms	3,4 7		3 6			3 4 5	1 4 5			3 5	2 3 4	
Diagnose Events and Conditions	3,4 7		3 6			3 4 5	1 4 5			3 5	2 3 4	
Understand Plant and System Response	3,4 7		2 3 6			1 3 4 5	1 4 5			1 2 3 5	1 2 3 4	
Comply With and Use Procedures (1)	3,4 7		2 3 6			1 3 4 5	1 4 5			1 2 3 5	1 2 3 4	
Operate Control Boards (2)	1,3 4,7		2 3 6			1 3 4 5	1 4 5					
Communicate and Interact With the Crew	1,3 4,7		2 3 6			1 3 4 5	1 4 5			1 2 3 5	1 2 3 4	
Demonstrate Supervisory Ability (3)										1 2 3 5	1 2 3 4	
Comply With and Use Tech. Specs. (3)										3,5	2 3	
<p>Notes:</p> <p>(1) Includes Technical Specification compliance for an RO.</p> <p>(2) Optional for an SRO-U.</p> <p>(3) Only applicable to SROs.</p>												

Instructions:

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

Author: Gregory S. [Signature]

NRC Reviewer: [Signature]

Competencies	U2				U3							
	Applicant #1 RO/SRO-I/SRO-U				Applicant #2 RO/SRO-I/SRO-U				Applicant #3 RO/SRO-I/SRO-U			
	SCENARIO				SCENARIO				SCENARIO			
	* 1	2	* 3	4	1	* 2	3	4	1	2	3	4
Understand and Interpret Annunciators and Alarms	3 <sup>5</sup>		3 <sup>4</sup> 5			2 <sup>3</sup> 4						
Diagnose Events and Conditions	3 <sup>5</sup>		3 <sup>4</sup> 5			2 <sup>3</sup> 4						
Understand Plant and System Response	1 <sup>2</sup> 3 <sup>5</sup>		1 <sup>2</sup> 3 <sup>4</sup> 5			1 <sup>2</sup> 3 <sup>4</sup>						
Comply With and Use Procedures (1)	1 <sup>2</sup> 3 <sup>5</sup>		1 <sup>2</sup> 3 <sup>4</sup> 5			1 <sup>2</sup> 3 <sup>4</sup>						
Operate Control Boards (2)												
Communicate and Interact With the Crew	1 <sup>2</sup> 3 <sup>5</sup>		1 <sup>2</sup> 3 <sup>4</sup> 5			1 <sup>2</sup> 3 <sup>4</sup>						
Demonstrate Supervisory Ability (3)	1 <sup>2</sup> 3 <sup>5</sup>		1 <sup>2</sup> 3 <sup>4</sup> 5			1 <sup>2</sup> 3 <sup>4</sup>						
Comply With and Use Tech. Specs. (3)	3 <sup>5</sup>		3 <sup>4</sup> 5			2 <sup>3</sup>						
Notes:												
(1) Includes Technical Specification compliance for an RO.												
(2) Optional for an SRO-U.												
(3) Only applicable to SROs.												

Instructions:

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

Author:

*[Signature]*

NRC Reviewer:

*[Signature]*

Facility: <u>Sequoia</u>		Date of Exam: <u>12/2/02</u>		Exam Level: <u>RO/SRO</u>		
Item Description	Initial					
	a	b*	c†			
1. Questions and answers technically accurate and applicable to facility	<u>OK</u>	<u>SP</u>	<u>AK</u>			
2. a. NRC KIAs referenced for all questions b. Facility learning objectives referenced as available	<u>OK</u>	<u>SP</u>	<u>AK</u>			
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	<u>OK</u>	<u>SP</u>	<u>AK</u>			
4. Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process			<u>AK</u>			
5. Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: <input checked="" type="checkbox"/> the audit exam was systematically and randomly developed; or <input type="checkbox"/> the audit exam was completed before the license exam was started; or <input type="checkbox"/> the examinations were developed independently; or <input checked="" type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)	<u>OK</u>	<u>SP</u>	<u>AK</u>			
6. Bank use meets limits (no more than 75 percent from the bank at least 10 percent new, and the rest modified); enter the actual question distribution at right	Bank	Modified	New	<u>OK</u>	<u>SP</u>	<u>AK</u>
	<u>73</u> <u>74</u>	<u>3</u>	<u>24</u> <u>23</u>			
7. Between 50 and 60 percent of the questions on the exam (including 10 new questions) are written at the comprehension/analysis level; enter the actual question distribution at right	Memory	CIA		<u>OK</u>	<u>SP</u>	<u>AK</u>
	<u>43</u>	<u>57</u>				
8. References/handouts provided do not give away answers	<u>OK</u>	<u>SP</u>	<u>AK</u>			
9. Question content conforms with specific KIA statements in the previously approved examination outline and is appropriate for the Tier to which they are assigned; deviations are justified	<u>OK</u>	<u>SP</u>	<u>AK</u>			
10. Question psychometric quality and format meet ES, Appendix B, guidelines	<u>OK</u>	<u>SP</u>	<u>AK</u>			
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	<u>OK</u>	<u>SP</u>	<u>AK</u>			
a. Author	Printed Name / Signature: <u>James P. Keasney</u>			Date: <u>10/15/02</u>		
b. Facility Reviewer (*)	<u>Gregory S. Hoot</u>			<u>10-15-02</u>		
c. NRC Chief Examiner (#)	<u>George T. Hopper</u>			<u>11/20/02</u>		
d. NRC Regional Supervisor	<u>MIKE ERNSTES</u>			<u>11/22/02</u>		
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.						

Facility: <u>Sequoyah</u>		Date of Exam: <u>12/2/02</u>		Exam Level: <u>RO/SRO</u>			
Item Description				Initial			
				a	b*	c*	
1.	Questions and answers technically accurate and applicable to facility			<u>JK</u>	<u>S</u>		
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available			<u>JK</u>	<u>S</u>	<u>AK</u>	
3.	RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401			<u>JK</u>	<u>S</u>	<u>AK</u>	
4.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process					<u>AK</u>	
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: <input checked="" type="checkbox"/> the audit exam was systematically and randomly developed; or <input type="checkbox"/> the audit exam was completed before the license exam was started; or <input type="checkbox"/> the examinations were developed independently; or <input checked="" type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)			<u>JK</u>	<u>S</u>	<u>AK</u>	
6.	Bank use meets limits (no more than 75 percent from the bank at least 10 percent new, and the rest modified); enter the actual question distribution at right	Bank	Modified	New	<u>JK</u>	<u>S</u>	<u>AK</u>
		<u>60</u>	<u>5</u>	<u>35</u>			
7.	Between 50 and 60 percent of the questions on the exam (including 10 new questions) are written at the comprehension/analysis level; enter the actual question distribution at right	Memory	CIA		<u>JK</u>	<u>S</u>	<u>AK</u>
		<u>45</u>	<u>55</u>	<u>50</u>			
8.	References/handouts provided do not give away answers			<u>JK</u>	<u>S</u>	<u>AK</u>	
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			<u>JK</u>	<u>S</u>	<u>AK</u>	
10.	Question psychometric quality and format meet ES, Appendix B, guidelines			<u>JK</u>	<u>S</u>	<u>AK</u>	
11.	The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet			<u>JK</u>	<u>S</u>	<u>AK</u>	
		Printed Name / Signature				Date	
a.	Author	<u>James P. Kearney / James P. Kearney</u>				<u>10/15/02</u>	
b.	Facility Reviewer (*)	<u>Gregory S. Poreet / Gregory S. Poreet</u>				<u>10/15/02</u>	
c.	NRC Chief Examiner (#)	<u>George J. Hopper / George J. Hopper</u>				<u>11/20/02</u>	
d.	NRC Regional Supervisor	<u>MIKE ERNSTES / Mike Ernestes</u>				<u>11/22/02</u>	
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.							



Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
5	H	2r		b									x		E	2 <sup>nd</sup> -art of K/A not met since same action repeated 4 times. Demin supply would never be a source of HI RAD so not credible.
6	M	3				d									E	change aux pzs spray valves to PORVs on d
7	H	3													S	
8	M	2		x											E	delete "the reset of" in stem
9	H	1r											?		U	C would always be correct regardless of other choices.
10	H	3				d									E	change d to "Unit runback will occur due to ..."
11	M	3r													S	
12	H	3											x		E	need to address the effect on fuel handling system
13	M/H	2													E	rethink to comprehension as originally proposed.
14	H	1r				d									E	d not credible because MFP do have trips. Also non discriminatory. See changes. Prefer to test time delay feature.
15	M	2r													E	very similar situation to Q-14. Overlap problem
16	H	3													S	
17	M	3r											?		?	How does this relate to a release?
18	H	2													E	Make editorial changes as indicated on question
19	H	3													S	
20	M	3													S	
21	M	3													E	Make editorial changes as indicated on question.
22	H(m)	3				b,d									E	add "a ground exists" to b,d
23	H	3													S	
24	H	4													S	good question
25	H	3													S	
26	H	3r					a,b,c								U	4 correct answers as written. Add ONLY where indicated.
27	M	1r				b,c	a								U	b,c not credible unless you modify stem to include data taht would be relevant. A possibly correct answer.
28	H	3r	x												E	Add " assume checklists are completed."

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
29	M	3				bcd										Make editorial changes as indicated on question
30	M	2r				d	c									c correct since subset of b. D not credible since it is missing "announce over..."
31	H	3												S		
32	H	2												S		
33	H	1r												U		A room isolation with inlet valves open leads to answer without much specific knowledge. Better to test pressurizing fans.
34	H	3											x	E		change K/A to 078A3.01
35	H	3												E		Make editorial changes as indicated on question
36	H	3												S		
37	M	1												U		no discriminatory value. 2 dropped rods = trip everywhere.
38	M	3r				b								E		B not credible since switches in stem have nothing to do with fire suppression systems.
39	M	3												S		
40	H	3s												E		check for overlap, another question had channel fail high. Make editorial changes as indicated on question
41	M	2r				C							x	E		K/A EOP related not AOP. C not credible with pumps in question.
42																
43	H	3												S		
44	H	3												S		
45	H(m)	2												S		
46	H	2												E		add tick marks to bullets
47	H	1												U		non discriminatory/ see rewrite attached
48	H	2												S		
49	m	2	x										x	U		change "control board indications" to "automatic actions". Answers are not control board indications CCWS K/A Not RCP malfunction. RCPs still have seal injection.
50	H	2											x	E		K/A stretched. Not really a design feature to have surge tank expand on loss of cooling.



Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
72	H	3											x		E	question has nothing to do with boric acid storage tanks. Use AA1.17 Emergency borate control valves and indicators.
73	H	2s													S	
74	H	2													S	
75	M	3		x											E	remove last bullet since it tells applicant that answer is a caution in procedure. Not necessary to answer question.
76	M(h)	3											x		E	EK 3.1 much better question does not operate/monitor the operating characteristics of the facility.
77	M	3													S	
78	M	2r											x		E	2 part K/A need use procedures part. Adding 2 <sup>nd</sup> part will make it an H
79	H	3											x		E	Need to add loop Th for subcooled loops since K./A involves methods used to calculate subcooling.
80	H	3											x		E	question does not deal with PORV. Use EK2.06 SD and ADVs
81	M(h)	1													U	non discriminating. Feed/bleed vice bleed/feed. Incorporate head vents
82	M(h)	3													?	check knowledge level
83	M(h)	3				b							x		U	AK3.01 more accurate K/A. AK2.05 is not a bases for EOP action K/A. Distractor B not credible since electrical power not an issue.
84	M	3													S	
85																
86	M	3													E	Make editorial changes as indicated on question.
87	M	3s				d									E	540 deg too high , change to 350
88	M	2													S	
89	M	3				b									E	change b from sat margin to outside of electrical limits. See notes.
90	M(h)	3													E	memory question. Make editorial changes as indicated on question
91	H	3													E	change "should" to Must in all choices. Make editorial changes as indicated on question
92	H	3													?	Possible overlap issue with another question.



Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
116	H	3r											X		E	Chaned question to make it truly higher level by testing cross logic of RT breakers. Question tests K/Ak4.04 or 4.01.
117	M	3r													S	
118	M	3													S	
119	M	2s													S	
120	H(m)	2				a							x		E	Does not include loss of RHR
121	M	2													E	change open to closed. Discuss LOK.
122	M	3													S	
123	H	2				c,d									S	
124	M	4r													E	trip coils being unaffected is not credible
125	M(h)	2											X		E	MISSING OPERATIONAL IMPLICATIONS PART OF k/A
													x		E	C-9 dark means "a" not obtainable to be answer. Make editorial changes as indicated on question
126	M	3													E	add 50.59 part to answer
127	H	3s													S	
128	M(h)	3r											x		E	K/A deals with RCP design features or interlocks which prevent PTS

Facility: <u>SEQUOYAH</u>		Date of Exam: <u>12/9/02</u>		Exam Level: <u>RO/SRO</u>	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading	<u>ER</u>	<u>N/A</u>	<u>AW</u>		
2. Answer key changes and question deletions justified and documented	<u>ER</u>	<u>N/A</u>	<u>AW</u>		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<u>ER</u>	<u>N/A</u>	<u>AW</u>		
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	<u>ER</u>	<u>N/A</u>	<u>AW</u>		
5. All other failing examinations checked to ensure that grades are justified	<u>ER</u>	<u>N/A</u>	<u>AW</u>		
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	<u>ER</u>	<u>N/A</u>	<u>AW</u>		
	Printed Name / Signature		Date		
a. Grader	<u>STEVEN D. ROSE / <i>[Signature]</i></u>		<u>12/17/02</u>		
b. Facility Reviewer(*)	<u>N/A</u>				
c. NRC Chief Examiner (*)	<u>George T. Hopper / <i>[Signature]</i></u>		<u>12/18/02</u>		
d. NRC Supervisor (*)	<u>MICHAEL E. ERNSTES / <i>[Signature]</i></u>		<u>12/18/02</u>		
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					

Facility:		Date of Exam:		Exam Level: RO/SRO		
Item Description				Initials		
				a	b	c
1.	Clean answer sheets copied before grading			JK	SB	AK
2.	Answer key changes and question deletions justified and documented			JK	SB	AK
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)			JK	SB	AK
4.	Grading for all borderline cases (80% +/- 2%) reviewed in detail			JK	SB	AK
5.	All other failing examinations checked to ensure that grades are justified			JK	SB	AK
6.	Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants			JK	SB	AK
				Printed Name / Signature		Date
a.	Grader			James P Kearney / JKearney		12/19/02
b.	Facility Reviewer(*)			Gregory S. Poret / GSPoret		12-9-02
c.	NRC Chief Examiner (*)			George T. Hopper / GHopper		12/20/02
d.	NRC Supervisor (*)			* see NRC candidate sheet for signature		
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.						

Task Description	Date Complete
1. Facility written exam comments or graded exams received and verified complete	12/16/02
2. Facility written exam comments reviewed and incorporated and NRC grading completed, if necessary	12/17/02
3. Operating tests graded by NRC examiners	12/17/02
4. NRC Chief examiner review of written exam and operating test grading completed	12/17/02
5. Responsible supervisor review completed	12/18/02
6. Management (licensing official) review completed	12/18/02
7. License and denial letters mailed	12/18/02
8. Facility notified of results	12/18/02
9. Examination report issued (refer to NRC MC 0610)	12/20/02
10. Reference material returned after final resolution of any appeals	N/A