

CRYSTAL RIVER EXAM

50-302/2002-301

JAN. 28 - FEB. 6, 2002

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 ^{LIST} ~~Sheet~~ ES-301-3 ✓
- ✓7. Simulator Scenario Quality Check ^{LIST} ~~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>Crystal River</u>		Date of Examination: <u>1/28 - 2/1</u>
Examinations Developed by: <u>Facility</u>		
Target Date*	Task Description / Reference	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a & b)	lsm
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	Lsm
-120	3. Facility contact briefed on security & other requirements (C.2.c)	lsm
-120	4. Corporate notification letter sent (C.2.d)	lsm
[-90]	[5. Reference material due (C.1.e; C.3.c)]	lsm
-75	6. Integrated examination outline(s) due (C.1.e & f; C.3.d)	lsm
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	lsm
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	lsm
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	lsm
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	lsm
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	lsm
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	lsm
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	lsm
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	lsm
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	lsm
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	lsm
<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>CRYSTAL RIVER 3</u>		Date of Examination: <u>JAN/FEB 2002</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.	KEH	pro	fm
	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.	KEH	pro	fm
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	KEH	pro	fm
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	KEH	pro	fm
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.	KEH	pro	fm
	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.	KEH	pro	fm
	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.	KEH	pro	fm
3. W / 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.	KEH	pro	fm
	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.	KEH	pro	fm
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	KEH	pro	fm
	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.	KEH	pro	fm
	e. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	KEH	pro	fm
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.	KEH	pro	fm
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	KEH	pro	fm
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	KEH	pro	fm
	d. Check for duplication and overlap among exam sections.	KEH	pro	fm
	e. Check the entire exam for balance of coverage.	KEH	pro	fm
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	KEH	pro	fm
a. Author		Printed Name / Signature		Date
b. Facility Reviewer (*)		KEITH E. HAMPTON / <i>Keith E. Hampton</i>		12/13/01
c. NRC Chief Examiner (#)		JAMES P. OWEN / <i>James P. Owen</i>		12/14/01
d. NRC Supervisor		MICHAEL E. ERNSTER / <i>Michael E. Ernster</i>		12/15/01
Note:		* Not applicable for NRC-developed examinations. # Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.		



Mr. Larry Mellen
TRX-02-0016

USNRC
Samm Nunn Atlanta Federal Center
61 Forsyth St. SW Suite 23T85
Atlanta, Ga. 30303-8931

Subject: Initial License Written Examination

Mr. Mellen:

During administration of the January 2002 NRC exam, CR3 underwent staff reductions. Based on this reduction, it has not been possible to obtain positive examination security signatures from Mr. Keith Hampton, Mrs. Pam Taylor, or Mrs. Mary Gulling. Based upon discussions with the examinees, I am confident that no compromise occurred on the NRC initial license exam administered January/February 2002.

Sincerely:

David deMontfort
Superintendent, Nuclear Operations Training

Crystal River Energy Complex: 15760 W. Power Line Street • Crystal River • Florida 34428 • (352) 795-6486
A Florida Progress Company

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 1-26-01-1-27-01 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 1-26-01-1-27-01 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. CHARLES M. CRISTER	NUCLEAR OPERATIONS INSTRUCTOR	<i>CM Crister</i>	1-29-01	<i>CM Crister</i>	2-6-02	
2. KEITH E. HAMPTON	NUCLEAR OPERATIONS INSTRUCTOR	<i>Keith E. Hampton</i>	3/16/01	SEE ATTACHED TRY-02-0016		
3. DENNIS G. TREADWAY	NUCLEAR OPERATIONS INSTRUCTOR	<i>Dennis G. Treadway</i>	3-6-01	<i>Dennis G. Treadway</i>	2-6-02	
4. JAMES P. OWEN	SUPERVISOR OPERATOR REQUALIFICATION	<i>James P. Owen</i>	3-29-01	<i>James P. Owen</i>	2-6-02	
5. SHARON D. BROWN	PERFORMANCE TECHNOLOGIST	<i>Sharon D. Brown</i>	5-01-01	<i>Sharon D. Brown</i>	2-6-02	
6. MARK GARRISON	CHIEF NUCLEAR OPERATOR	<i>Mark Garrison</i>	5/22/01	<i>Mark Garrison</i>	02/20/02	
7. SHAWN SIMON	CONTROL ROOM SUPERVISOR	<i>Shawn Simon</i>	6/7/01	<i>Shawn Simon</i>	2-22-02	
8. TRUC DUONG	SIMULATOR ENG.	<i>Truc Duong</i>	6/27/01	<i>Truc Duong</i>	2/18/02	
9. KAREN KIRKLAND	Senior Business Analyst / NIT	<i>Karen E. Kirkland</i>	7/3/01	<i>Karen E. Kirkland</i>	2/18/02	
10. LEON A. GAYNE	Shift Sup Ops	<i>Leon A. Gayne</i>	9/5/01	<i>Leon A. Gayne</i>	2/18/02	
11. JOHN L. ANDERSON	CHIEF Nuclear Operator	<i>John L. Anderson</i>	9-5-01	<i>John L. Anderson</i>	2-22-02	
12. MIKE SHERIDAN	CHIEF Nuclear Operator	<i>Mike Sheridan</i>	9/5/01	<i>Mike Sheridan</i>	2/22/02	
13. JONI SHARKEY	Admin Assist / Support	<i>Joni Sharkey</i>	10/14/01	<i>Joni Sharkey</i>	2/22/02	
14. KEVIN GARY	CNO	<i>Kevin Gary</i>	11-19-01	<i>Kevin Gary</i>	2-20-02	
15. TIM SMITH	CNO	<i>Tim Smith</i>	11/27/01	<i>Tim Smith</i>	2/22/02	

NOTE: This document is to be maintained in the NRC's possession and control.

NUREG-17021, Revision 8

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 1-20-1-27-02 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 1-20-1-27-02. 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)	DATE NOTE
1. <u>MAT E. Hume Jr</u>	<u>Control Room Supervisor</u>	<u>[Signature]</u>	<u>11/27/01</u>	<u>[Signature]</u>	<u>2/18/02</u>
2. <u>GREGORY L. SUTTER</u>	<u>Supvr. Operations Inside Tang</u>	<u>[Signature]</u>	<u>01/09/02</u>	<u>[Signature]</u>	<u>02/06/02</u>
3. <u>David Demontfort</u>	<u>Supt Operations Training</u>	<u>[Signature]</u>	<u>1/10/02</u>	<u>[Signature]</u>	<u>2/14/02</u>
4. <u>MARY GULLING</u>	<u>SR. ADMIN. ASSISTANT</u>	<u>[Signature]</u>	<u>1/17/02</u>	<u>SEE ATTACHED TRF-02-0016</u>	
5. <u>PAM TAYLOR</u>	<u>DATA Maint. Asst II-FLORIDA</u>	<u>[Signature]</u>	<u>1/17/02</u>	<u>"</u>	<u>"</u>
6. <u>Michael Y. Adams</u>	<u>Project Technical Specialist</u>	<u>[Signature]</u>	<u>1/23/02</u>	<u>[Signature]</u>	<u>2/26/02</u>
7. <u>A. Lee Linton Jr.</u>	<u>Principal Engineer</u>	<u>[Signature]</u>	<u>1/30/02</u>	<u>[Signature]</u>	<u>2/14/02</u>
8. <u>Danald Smith</u>	<u>Proj Tech Spec</u>	<u>[Signature]</u>	<u>1-30-2002</u>	<u>[Signature]</u>	<u>2/18/02</u>
9. _____	_____	_____	_____	_____	_____
10. _____	_____	_____	_____	_____	_____
11. _____	_____	_____	_____	_____	_____
12. _____	_____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____	_____

NOTES:

Form410.13	EXAMINATION SECURITY AGREEMENT			Page 1 of 1
<p>1. <u>Pre-examination</u></p> <p>I acknowledge that I have acquired specialized knowledge about the <u>NRC</u> examinations scheduled for the week(s) indicated in this agreement as of the date of my signature and agree that I will not knowingly divulge any information about these examinations to any unauthorized persons. I understand that I am not to participate in any instruction involving those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration. I further understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or disciplinary action against me.</p>				
<p>2. <u>Post-examination</u></p> <p>I did not, to the best of my knowledge, divulge any information concerning this examination administered during the week(s) indicated to any unauthorized persons. I did not participate in instructing those applicants who were administered these licensing examinations from the date that I entered into this security agreement until the completion of examination administration.</p>				
<p>Examination period from <u>1-31-2002</u> to <u>2-1-2002</u></p>				
<p>Indicate Section for which you will acquire knowledge (i.e. ALL, Written, Simulator, JPM, etc...)</p>				
Section	Pre-exam Print Name/Signature	Date	Post-exam Print Name/Signature	Date
JPM only	MELISSA GALLIAN <i>Melissa Gallian</i>	1-31-02	MELISSA GALLIAN <i>Melissa Gallian</i>	2-5-02
JPM only	John W. Smith <i>John W. Smith</i>	1/31/02	John W. Smith <i>John W. Smith</i>	2/5/02

EXAMINATION SECURITY AGREEMENT

I acknowledge the fact that from the period of 1/31/02 to the completion of the NRC examination that I will have no contact with Keith Hampton and will report to training management any contact by Keith Hampton concerning the on-going examination. I further understand that violation of the conditions of this agreement may result in cancellation of the examination.

Post-examination

I have not had any undisclosed contact with Keith Hampton during the period specified above.

EO
1/31/02

Section	Print Name/Signature	Date	Post-exam Print Name/Signature	Date
ALL	MARK VAN SICKLEN / <i>Mark Van Sicklen</i>	1-31-02	MARK VAN SICKLEN / <i>Mark Van Sicklen</i>	2-5-02
	Thomas L. Jones / <i>Thomas L. Jones</i>	1-31-02	Thomas L. Jones / <i>Thomas L. Jones</i>	2-5-02
	Daniel D. DeBoer / <i>Daniel D. DeBoer</i>	1-31-02	Daniel D. DeBoer / <i>Daniel D. DeBoer</i>	2/5/02
	Terry Scott Sharp / <i>TSS</i>	1-31-02	Terry Scott Sharp / <i>TSS</i>	2-5-02
	Russell L. Gorman / <i>Russell L. Gorman</i>	1-31-02	Russell L. Gorman / Russell L. Gorman	2-5-02
	Gary McCaskey / <i>Gary McCaskey</i>	1-31-02	Gary McCaskey / Gary McCaskey	2/5/02
	EDWARD MUIR / <i>Ed Muir</i>	1-31-02	ED MUIR / <i>Ed Muir</i>	2/5/02
	William F. Kisner / <i>William F. Kisner</i>	1/31/02	William F. Kisner Jr / <i>William F. Kisner Jr</i>	2/5/02
	BERRY J. FOSTER / <i>B. J. Foster</i>	1/31/02	BERRY J. FOSTER / <i>B. J. Foster</i>	2/5/02
	Christine M. McKim / <i>Christine M. McKim</i>	1-31-02	Christine McKim / <i>Christine McKim</i>	2-5-02
	JACK STEWART / <i>Jack Stewart</i>	1-31-02	JACK STEWART / <i>Jack Stewart</i>	2/5/02
	JOHN A. ADDISON / <i>John A. Addison</i>	1-31-02	JOHN A. ADDISON / <i>John A. Addison</i>	2-5-02

Facility: Crystal River Unit 3
Exam Level: RO/SRO

Date of Examination: 01-28-2002
Operating Test No.: 1

Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Plant Parameter Verification	JPM – Perform an Estimated Critical Boron Calculation (ECB) /001A4.10/ 3.5/3.9 (OP-210 Enclosures 4/5) [D, bank]
	Plant Parameter Verification	JPM – Perform a Time to Boil Calculation / 025AA1.02/ 3.8/3.9 (OP-103H) [N, new]
A.2	Surveillance Testing	JPM – Perform RCP Seal Data Sheet / 003A4.04/ 3.1/3.0 (SP-300 Enclosure 2 page 5) [D, bank]
A.3	Radiation Hazards	JPM – Determine worker stay times and dose requirements with survey maps/ 2.3.4/ 2.5/3.1 (RSP-101, and HPP-300) [N, new]
A.4	SRO Emergency action levels and classifications	JPM – Determine Emergency Action Level and Complete the State of Florida Notification Message Form for Nuclear Power Plants/2.4.41/4.1 (EM-202) [N, new]
A.4	RO Emergency Dose Assessment	JPM – Complete an OFF-Site Dose Assessment during Radiological Emergencies (Control Room Method) 2.3.10/ 2.9 (EM-204A) [D, bank]

ES-301 Control Room Systems and Facility Walk-Through Test Outline Form ES-301-2

Facility: Crystal River Unit 3
Exam Level: RO/SRO(I)

Date of Examination: 01-28-2002
Operating Test No.: 1

B.1 Control Room Systems

System/JPM Title/KA	Type Code*	Safety Function
a. CRD - Transfer Control Rod Group 1 to the Auxiliary Power Supply / 001K4.03/ 3.5/3.8/ (OP-502)	D, S	1
b. MUP – Perform an Emergency Boration / 024AA2.01/ 3.8/4.1 / (AP-490)	N, A, S	2
c. ECCS – Transfer ECCS suction to the RB sump / 009EK3.21/ 4.2/4.5 (EOP-14 Enclosure 19)	D, S	3
d. AFW – Emergency Feedwater Management / E14.EA1.3/ 3.6/3.8 / (EOP-14 Enclosure 7)	D, A, S	4
e. BS – Ensure BS actuation / 026A3.01/ 4.3/4.5 / (EM-225C)	D, A, S	5
f. RPS – Energize RPS Channel/ 012A2.02/ 3.6/3.9 / (OP-507)	D, S	7
g. RM – Adjust RM-L2 setpoints for release/ 059AA1.01/ 3.5/3.5 / (OP-505)	N, S	9

B.2 Facility Walk-Through

a. VITAL ELEC – Energize VBIT-1A and supply the vital bus / 062A4.07/ 3.1/3.1 / (OP-703)	N	6
b. FS/OTSG – Transfer contaminated secondary inventory to FST/ 037AK3.07/ 4.2/4.4 / (EOP-14 Enclosure 9)	D	8
c. WG – Perform a Waste Gas release / G2.3.11/ 2.7/3.2 / (OP-412B)	D, A, R	9

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

ES-301 Control Room Systems and Facility Walk-Through Test Outline Form ES-301-2

Facility: Crystal River Unit 3
Exam Level: SRO(U)

Date of Examination: 01-28-2002
Operating Test No.: 1

B.1 Control Room Systems

System/JPM Title/KA	Type Code*	Safety Function
a. MUP – Perform an Emergency Boration / 024AA2.01/ 3.8/4.1 / (AP-490)	N, A, S	2
b. ECCS – Transfer ECCS suction to the RB sump / 009EK3.21/ 4.2/4.5 (EOP-14 Enclosure 19)	D, S	3
c. CRD - Transfer Control Rod Group 1 to the Auxiliary Power Supply / 001K4.03/ 3.5/3.8/ (OP-502)	D, S	1

B.2 Facility Walk-Through

a. FS/OTSG – Transfer contaminated secondary inventory to FST/ 037AK3.07/ 4.2/4.4 / (EOP-14 Enclosure 9)	D	8
b. WG – Perform a Waste Gas release / G2.3.11/ 2.7/3.2 / (OP-412B)	D, A, R	9

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

Facility: <u>CRYSTAL RIVER 3</u>		Date of Examination: <u>JAN/FEB 2002</u>		Operating Test Number: <u>1</u>	
1. GENERAL CRITERIA			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).	KEH	no	fm	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	KEH	no	fm	
c.	The operating test shall not duplicate items from the applicants' audit test(s) (see Section D.1.a).	KEH	no	fm	
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	KEH	no	fm	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	KEH	no	fm	
2. WALK-THROUGH (CATEGORY A & B) CRITERIA			-	-	-
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> 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 specific performance criteria that include: <ul style="list-style-type: none"> 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 	KEH	no	fm	
b.	The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	KEH	no	fm	NA
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.	KEH	no	fm	
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	KEH	no	fm	
3. SIMULATOR (CATEGORY C) CRITERIA			-	-	-
a.	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	KEH	no	fm	
a. Author		Printed Name / Signature		Date	
		<u>KEITH E HAMPTON / Keith E. Hampton</u>		<u>12/3/01</u>	
b. Facility Reviewer(*)		<u>JAMES P. OWEN / James P. Owen</u>		<u>12/8/01</u>	
c. NRC Chief Examiner (#)		<u>Larry Melher / Larry S. Melher</u>		<u>1/12/02</u>	
d. NRC Supervisor		<u>MICHAEL E. ERNSTES / Michael E. Ernstes</u>		<u>1/22/02</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: <u>CRYSTAL RIVER 3</u> Date of Exam: <u>JAN/FEB 2002</u> Scenario Numbers: <u>11213</u> Operating Test No.: <u>1</u>				
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.	KCH	PO	fm
2.	The scenarios consist mostly of related events.	KCH	PO	fm
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)	KCH	PO	fm
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.	KCH	PO	fm
5.	The events are valid with regard to physics and thermodynamics.	KCH	PO	fm
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	KCH	PO	fm
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.	KCH	PO	fm
8.	The simulator modeling is not altered.	KCH	PO	fm
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.	KCH	PO	fm
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.	KCH	PO	fm
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	KCH	PO	fm
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).	KCH	PO	fm
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	KCH	PO	fm
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)		Actual Attributes	-	-
1.	Total malfunctions (5-8)	7 1 6 1 6	KCH	PO
2.	Malfunctions after EOP entry (1-2)	2 1 3 1 1	KCH	PO
3.	Abnormal events (2-4)	2 1 2 1 2	KCH	PO
4.	Major transients (1-2)	1 1 1 1 1	KCH	PO
5.	EOPs entered/requiring substantive actions (1-2)	2 1 3 1 2	KCH	PO
6.	EOP contingencies requiring substantive actions (0-2)	1 1 1 1 1	KCH	PO
7.	Critical tasks (2-3)	2 1 2 1 2	KCH	PO

OPERATING TEST NO.: R/I/I

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1	BOP	6	BOP	3
	Normal	1	1	OAC	1	OAC
	Instrument / Component	4	3/5/9/10	4/8/9	2/3/8	2/4/6
	Major	1	8	7	7	5

As RO	Reactivity	1	4			BOP
	Normal	0	OAC			1
	Instrument / Component	2	6/7			7
	Major	1	8			5
SRO-I						
As SRO	Reactivity	0		6	5	
	Normal	1		1	1	
	Instrument / Component	2		2/3/4 8/9/10	2/3/6/9	
	Major	1		7	7	

SRO-I	Reactivity	0	4	BOP	5	3
	Normal	1	1	1	OAC	1
	Instrument / Component	2	3/5/6 7/9/10	2/3/10	4/6/9	2/4/6/7
	Major	1	8	7	7	5

Instructions:

- (1) Enter the operating test number and Form ES-D-1 event numbers for each
- (2) Reactivity manipulations may be conducted under normal or controlled abnormal conditions (refer to Section D.4.d) but must be significant per Section
- (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: Keith E. HamptonNRC Reviewer: *Larry Smell*

OPERATING TEST NO.: R/I/U

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1	BOP	6	BOP	3
	Normal	1	1	OAC	1	OAC
	Instrument / Component	4	3/5/9/10	4/8/9	2/3/8	2/4/6
	Major	1	8	7	7	5

As RO	Reactivity	1	4		5	
	Normal	0	OAC		OAC	
	Instrument / Component	2	6/7		4/6/9	
	Major	1	8		7	
SRO-I						
As SRO	Reactivity	0		6		3
	Normal	1		1		1
	Instrument / Component	2		2/3/4 8/9/10		2/4/6/7
	Major	1		7		5

SRO-U	Reactivity	0	4	BOP	5	BOP
	Normal	1	1	1	1	1
	Instrument / Component	2	3/5/6 7/9/10	2/3/10	2/3/6/9	7
	Major	1	8	7	7	5

Instructions:

- (1) Enter the operating test number and Form ES-D-1 event numbers for each
- (2) Reactivity manipulations may be conducted under normal or controlled abnormal conditions (refer to Section D.4.d) but must be significant per Section
- (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: Keith E. HamptonNRC Reviewer: 

Competencies R / I / U	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 o	2 s	3 o	4 s	1 s	2 B	3 s	4 B
Understand and Interpret Annunciators and Alarms	1/3/5	4/5/8/9	1/2/3/8	1/5/7	6/7	2/3 4/5/7	3/5/6 7/9	1/3/5 6/7	1/2 3/5/7	1/2 3/5/10	ALL	1/3/5/7
Diagnose Events and Conditions	3/5/10	4/5/6 7/8/9	2/3/8/9	5/7	6/7/11	2/3/4 5/6/7 8/9/10	3/4/5 6/7/9	2/3/4 5/6/7	2/3/4 5/6/7 8/9/10 11	2/3/5 10	ALL	3/5/7
Understand Plant and System Response	1/3/5/8	4/5/6 7/8/9	2/3/5 6/8	5/7	4/6/8/11	2/3/4 5/6/7 8/9/10	3/4/5 6/7/9	2/3/4 5/6/7	ALL	1/2/3 5/10	ALL	1/3/5/7
Comply With and Use Procedures (1)	1/3/5	5/7/9	1/3/8/9	1/7	6/7/8/11	2/3/5 7/8/9	5/6/7/9	1/2/3 5/6/7	1/3/5 6/7/8 9/10/11	1/2/3 5/10	ALL	1/3/5/7
Operate Control Boards (2)	1/3/5 9/10	4/6/8/9	1/3/8/9	1/7	4/7/8 11	N/A	4/5/6 7/9	N/A	N/A	1/2/3 5/10	N/A	1/3/5/7
Communicate and Interact With the Crew	1/3/5 8/9/10	4/5/6 7/8/9	1/2/3 8/9	1/5/7	4/6/7 8/11	2/3/4 5/6/7 8/9/10	3/4/5 6/7/9	1/2/3 4/5/6/7	ALL	1/2/3 5/10	ALL	1/3/5/7
Demonstrate Supervisory Ability (3)	N/A	N/A	N/A	N/A	N/A	2/3/4 5/7/8 9/10	N/A	ALL	ALL	N/A	ALL	N/A
Comply With and Use Tech. Specs. (3)	N/A	N/A	N/A	N/A	N/A	3/5	N/A	1/6	2/6	N/A	2/7	N/A

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: Keith E. Hampton

NRC Reviewer: *James S. Melh*

Competencies R / I / U	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 B	2 O	3 B	4 O	1 O	2 S	3 S	4 B	1 S	2 B	3 O	4 S
Understand and Interpret Annunciators and Alarms	1/3/5	4/5/8/9	1/2/3/8	1/5/7	6/7	2/3/4 5/7	ALL	1/3/5/7	1/2/3 5/7	1/2/3 5/10	3/5/6 7/9	1/3/5 6/7
Diagnose Events and Conditions	3/5/10	4/5/6 7/8/9	2/3/8/9	5/7	6/7/11	2/3/4 5/6/7 8/9/10	ALL	3/5/7	2/3/4 5/6/7 8/9/10 11	2/3/5 10	3/4/5 6/7/9	2/3/4 5/6/7
Understand Plant and System Response	1/3/5/8	4/5/6 7/8/9	2/3/5 6/8	5/7	4/6/8/11	2/3/4 5/6/7 8/9/10	ALL	1/3/5/7	ALL	1/2/3 5/10	3/4/5 6/7/9	2/3/4 5/6/7
Comply With and Use Procedures (1)	1/3/5	5/7/9	1/3/8/9	1/7	6/7/8/11	2/3/5 7/8/9	ALL	1/3/5/7	1/3/5 6/7/8 9/10/11	1/2/3 5/10	5/6/7/9	1/2/3 5/6/7
Operate Control Boards (2)	1/3/5 9/10	4/6/8/9	1/3/8/9	1/7	4/7/8/11	N/A	N/A	1/3/5/7	N/A	1/2/3 5/10	4/5/6 7/9	N/A
Communicate and Interact With the Crew	1/3/5 8/9/10	4/5/6 7/8/9	1/2/3 8/9	1/5/7	4/6/7/8	2/3/4 5/6/7 8/9/10	ALL	1/3/5/7	ALL	1/2/3 5/10	3/4/5 6/7/9	1/2/3 4/5/6/7
Demonstrate Supervisory Ability (3)	N/A	N/A	N/A	N/A	N/A	2/3/4 5/7/8 9/10	ALL	N/A	ALL	N/A	N/A	1/2/3 4/5/6/7
Comply With and Use Tech. Specs. (3)	N/A	N/A	N/A	N/A	N/A	3/5	2/7	N/A	2/6	N/A	N/A	1/6

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: Keith E. Hampton

NRC Reviewer: 

Facility: <u>CRYSTAL RIVER 3</u>		Date of Exam: <u>JAN/FEB 2002</u>		Exam Level: <u>RO/SRO</u>																																
Item Description				Initial																																
				a	b*	c*																														
1.	Questions and answers technically accurate and applicable to facility			KEH	pro	fsr																														
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available			KEH	pro	fsr																														
3.	RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401			KEH	pro	fsr																														
4.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process																																			
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 checked="" type="checkbox"/> the examinations were developed independently; or <input checked="" type="checkbox"/> the licensee certifies that there is no duplication; or other (explain)			KEH	pro	fsr																														
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	KEH	pro	fsr																													
		49	11	40																																
		47	9	44																																
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	C/A		KEH	pro	fsr																													
		48	52																																	
		42	58																																	
8.	References/handouts provided do not give away answers			KEH	pro	fsr																														
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			KEH	pro	fsr																														
10.	Question psychometric quality and format meet ES, Appendix B, guidelines			KEH	pro	fsr																														
11.	The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet			KEH	pro	fsr																														
<table border="0"> <tr> <td></td> <td colspan="4">Printed Name / Signature</td> <td>Date</td> </tr> <tr> <td>a. Author</td> <td colspan="4"><u>KEITH E. HAMPTON / Keith E. Hampton</u></td> <td><u>1/15/02</u></td> </tr> <tr> <td>b. Facility Reviewer (*)</td> <td colspan="4"><u>JAMES P. OWEN / James P. Owen</u></td> <td><u>1/15/02</u></td> </tr> <tr> <td>c. NRC Chief Examiner (#)</td> <td colspan="4"><u>LARRY S. MELLER / Larry S. Meller</u></td> <td><u>1/18/02</u></td> </tr> <tr> <td>d. NRC Regional Supervisor</td> <td colspan="4"><u>MICHAEL E. EARNSTER / Michael E. Earnster</u></td> <td><u>1/22/02</u></td> </tr> </table>								Printed Name / Signature				Date	a. Author	<u>KEITH E. HAMPTON / Keith E. Hampton</u>				<u>1/15/02</u>	b. Facility Reviewer (*)	<u>JAMES P. OWEN / James P. Owen</u>				<u>1/15/02</u>	c. NRC Chief Examiner (#)	<u>LARRY S. MELLER / Larry S. Meller</u>				<u>1/18/02</u>	d. NRC Regional Supervisor	<u>MICHAEL E. EARNSTER / Michael E. Earnster</u>				<u>1/22/02</u>
	Printed Name / Signature				Date																															
a. Author	<u>KEITH E. HAMPTON / Keith E. Hampton</u>				<u>1/15/02</u>																															
b. Facility Reviewer (*)	<u>JAMES P. OWEN / James P. Owen</u>				<u>1/15/02</u>																															
c. NRC Chief Examiner (#)	<u>LARRY S. MELLER / Larry S. Meller</u>				<u>1/18/02</u>																															
d. NRC Regional Supervisor	<u>MICHAEL E. EARNSTER / Michael E. Earnster</u>				<u>1/22/02</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. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
2-34-001	F	2										S	NEW
4-09-001	H	3		X								S	BANK DISTRACTORS C AND D REMOVE EVERYTHING FROM THE WORD BECAUSE TO THE END. RESOLVED
4-12-001	F	2										S	NEW
4-13-001	F	2										S	BANK
4-14-002	H	3		X								S	NEW REMOVE EVERY THING FROM BASED ON IN DISTRACTORS A AND B AND FOLLOWING DEMAND IN DISTRACTORS C AND D - RESOLVED
4-25-001	H	3										S	BANK
4-25-002	H	3										S	BANK
4-25-003	F	2										S	MODIFIED
4-69-001	F	2										S	BANK
4-90-002	H	3										S	BANK

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
4-91-001	F	2										S	BANK
4-93-001	F	3										S	BANK
4-93-002	F	3										S	BANK
4-93-003	F	2										S	NEW
5-95-001	H	3										S	PREVIOUS NRC EXAM 2000
4-13-001	H	3										S	BANK RO ONLY
4-14-002	F	3										S	BANK RO ONLY. MAKE ALL ANSWERS EITHER ONE SENTENCE OR TWO SENTENCES.
4-28-001	F	3										S	BANK RO ONLY

[illegible]

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward		
5-01-001	H	3										S	NEW - Is this required RO knowledge? ANSWER - YES ROs are required to make LCO calls
5-14-01	F	2		X									BANK - question contains too many cues. Change stem to read temperatures are not rising. Flow restriction appears to be about 25%. Make the SW leak about 25 gallons per minute. ANSWER- Removed the cues, modified question.
5-16-001	H	3										S	BANK -
5-102-01	H	3					x						NEW - for the given conditions D is the correct answer. At 5 minutes you will not be at the step the requires the RCPs to be tripped. Suggest rewriting the question to ensure they are at the step in EOP-4 ANSWER - Added criteria to establish conditions to trip RCP and removed time from stem.
4-11-001	F	2										S	REPEAT RO ONLY
4-31-001	H	3										S	REPEAT RO ONLY
5-97-001	F	3					X					U	NEW RO ONLY. Distractor A is partially correct - a result of performing this evolution is an increase in HPI flow through the core. Suggest adding words to ensure A is not correct. ANSWER - reworded A
5-103-001	H	2										s	REPEAT RO ONLY
4-90-002	H	3										U	REPEAT SRO ONLY - Why is this SRO ONLY Knowledge? It seems to be also required RO knowledge. ANSWER - WILL BE REPLACE QUESTION
5-01-005							4					U	NEW S RO ONLY. Distractors B and D are not plausible. Crew is not established in stem. May not require replacement the way it is written - Suggest - Establish crew compliment in stem, then answers - 1 hour, 2 hours, 4 hours, No time crew meets minimum staffing requirements ANSWER - WILL BE MODIFIED QUESTION
5-01-006	H	3										S	NEW S RO ONLY

[illegible]

[illegible]

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
5-100-001	F	2										S	NEW Is this required RO Knowledge? ANSWER - Yes, Entry condition
5-101-101	H	2										S	BANK
5-106-001	H	4										S	NEW Provide trend for parameters in stem. ANSWER - stem modified to say all parameters are stable.
5-34-001	F	3										S	NEW Is this required RO Knowledge? ANSWER - Yes it is an 15 minute requirement
5-69-001	F	3										S	NEW
5-84-001	H	3										S	NEW
5-95-001	H	4										S	MIB? Is this required RO Knowledge? ANSWER -YES, if Procedure is provided
5-96-001	F	3										S	NEW
5T-001-001	F	3										S	NEW
5T-001-002	F	3										S	NEW Is a reference needed for this question - ANSWER - No expected knowledge
4-10-001	H	4										S	NEW -RO ONLY
4-11-002	F	2										S	NEW -RO ONLY Does Distractor B answer a previous question? ANSWER - It does not, it was an SRO ONLY
4-14-003	F	3										S	NEW -RO ONLY
4-25-001	H	3										S	NEW -RO ONLY
4-25-002	H	3										S	NOB - RO ONLY
4-37-001	F	4										S	NEW -RO ONLY Is this required RO Knowledge? ANSWER - Yes this is Final Review - typo Valves
4-60-002	H	3										S	NEW -RO ONLY
4-92-001	F	2										S	OPSA1.BNK RO ONLY

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward		
5-01-001	H	3										S	NEW -RO ONLY
5-01-002	F	3										S	NEW -RO ONLY Is this required RO Knowledge? ANSWER - expected knowledge
5-100-001	F	2										S	NEW -RO ONLY
5-101-001	H	3										S	INPO BANK -RO ONLY
5-14-001	F	2										S	NEW -RO ONLY Is this required RO Knowledge? ANSWER - expected knowledge
5-31-001	F	3										S	NEW -RO ONLY
5-50-001	H	2										S	NOB? -RO ONLY
5-50-002	F	2										S	OPSA1.BNK RO ONLY
5-61-001	H	2										S	OPSA1.BNK RO ONLY
5-96-001	F	2										S	BANK - RO ONLY
BOOK 4													
3-03-001	H	3										S	SRO ONLY NEW There is no 10 CFR 55.43 reference for this question. ANSWER - This was selected by NRC to be covered. Unique to the SRO exam, not at SRO level
3-24-001	F	3										S	SRO ONLY NEW Final Review - Typo in distractor analysis - criteria
4-12-001	H	2										S	SRO ONLY NEW Why is this SRO ONLY Knowledge? ANSWER - expected SRO knowledge of diverse scram
4-13-001	H	2										S	SRO ONLY NEW Why is this SRO ONLY Knowledge? ANSWER - Unique to the SRO exam, not at SRO level
4-29-001	F	2										S	SRO ONLY NEW
4-54-001	H	3										S	SRO ONLY BANK
4-59-001	F	2										S	SRO ONLY BANK

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
4-60-001	F	2										S	SRO ONLY NEW There is no 10 CFR 55.43 reference for this question. Why is this SRO ONLY Knowledge? ANSWER - This was selected by NRC to be covered. Unique to the SRO exam, not at SRO level
4-64-001	H	3										S	OPSA1.BNK SRO ONLY Why is this SRO ONLY Knowledge? expected SRO knowledge of reason for breaker performance
5-01-008	F	3										S	SRO ONLY BANK Final Review - 007 listed on LXR Test File Typo in Stem - position
5-01-009	H	2										S	SRO ONLY BANK
5-01-010	H	3										S	SRO ONLY BANK
5-113-001	H	3										S	SRO ONLY BANK
5-116-001	H	3										S	OPSA1.BNK SRO ONLY
5-14-001	F	3										S	OPSA1.BNK SRO ONLY
5-31-001	H	3										S	OPSA1.BNK SRO ONLY Final Review - Typo beginning, procedure
5-31-002	H	3										S	NEW SRO ONLY
5-50-001	F	2											OPSA1.BNK SRO ONLY Why is this SRO ONLY Knowledge? Unique to the SRO exam, not at SRO level
5-69-001	F	3										S	NEW SRO ONLY
5-85-001	H	3										S	OPSA1.BNK (Modified) SRO ONLY
5-97-002	H	3										S	SRO ONLY BANK Final Review - Typo - condensible, beginning

NOTES:4-12-003

One Channel of RPS is placed in Manual Bypass. If an operators attempts to place the second channel in Manual Bypass, Which one of the following will occur?

- A. The RPS Channel in Manual Bypass will come out of Bypass, then the second channel will go into Manual Bypass
- B. Both Channels will go into Manual Bypass; and the RPS will get a half scram signal.
- C. The second RPS channel is blocked from entering Manual Bypass.
- D. When both Channels will go into Manual Bypass; and the RPS will get full scram signal.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
2-34-001	F	2										S	NEW
4-09-001	H	3										S	BANK DISTRACTORS C AND D REMOVE EVERYTHING FROM THE WORD BECAUSE TO THE END. RESOLVED
4-12-001	F	2										S	NEW
4-13-001	F	2										S	BANK
4-14-002	H	3										S	NEW REMOVE EVERY THING FROM BASED ON IN DISTRACTORS A AND B AND FOLLOWING DEMAND IN DISTRACTORS C AND D - RESOLVED
4-25-001	H	3										S	BANK
4-25-002	H	3										S	BANK
4-25-003	F	2										S	MODIFIED
4-69-001	F	2										S	BANK
4-90-002	H	3										S	BANK LATE ADDITION: add "the basis for" between identifies and why in the stem - solution made change
Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
4-91-001	F	2										S	BANK
4-93-001	F	3										S	BANK
4-93-002	F	3										S	BANK
4-93-003	F	2										S	NEW
5-95-001	H	3										S	PREVIOUS NRC EXAM 2000
4-13-001	H	3										S	BANK RO ONLY
4-14-002	F	3										S	BANK RO ONLY. MAKE ALL ANSWERS EITHER ONE SENTENCE OR TWO SENTENCES.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward		
4-28-001	F	3										S	BANK RO ONLY
4-28-002	F	2										S	NO SOURCE WAS PROVIDED FOR THIS QUESTION RO ONLY BANK
4-29-001	F	3										S	NO SOURCE WAS PROVIDED FOR THIS QUESTION RO ONLY, NO DISTRACTOR ANALYSIS, C APPEARS TO BE A PARTIALLY CORRECT ANSWER. LEVEL DECREASE WILL CAUSE COOLING TO BECOME INEFFECTIVE AND WILL THEN PRODUCE THE SAME ALARM? RESOLVED. BANK
4-60-001	H	3										S	MODIFIED RO ONLY
4-61-001	H	3										S	BANK RO ONLY
4-61-001	F	3										S	PREVIOUS NRC EXAM 2000 , APPROPRIATE CFR REFERENCE FOR SRO ONLY
5-10-004	F	3										S	PREVIOUS NRC EXAM 2000 , APPROPRIATE CFR REFERENCE FOR SRO ONLY
5-42-001	F	3										S	PREVIOUS NRC EXAM 2000 , APPROPRIATE CFR REFERENCE FOR SRO ONLY LATE ADDITION: "MAXIMUM" IN STEM ALL CAPS solution will not change
BOOK # 2													
2-32-001	F	2										S	REPEAT FROM 2000 RO
3-20-001	F	2										S	NEW
4-09-001	F	2										S	NEW
4-10-003	H	3										S	REPEAT
4-12-001	F	3										S	NEW - does ARTS not also indirectly prevent all of these? All answers seem to be partially correct. ANSWER - Not the design basis of this system.
4-14-002	H	3										S	REPEAT Final Review Typo - Supplying
4-28-004	H	3										S	REPEAT
4-28-005	F	2										S	REPEAT
4-62-001	F	1										S	REPEAT
4-63-002	F	2										S	REPEAT

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
4-63-003	H	3										S	REPEAT
5-01-001	H	3										S	NEW - Is this required RO knowledge? ANSWER - YES ROs are required to make LCO calls
5-14-01	F	2										S	BANK - question contains too many cues. Change stem to read temperatures are not rising. Flow restriction appears to be about 25%. Make the SW leak about 25 gallons per minute. ANSWER- Removed the cues, modified question.
5-16-001	H	3										S	BANK -
5-102-01	H	3										S	NEW - for the given conditions D is the correct answer. At 5 minutes you will not be at the step the requires the RCPs to be tripped. Suggest rewriting the question to ensure they are at the step in EOP-4 ANSWER - Added criteria to establish conditions to trip RCP and removed time from stem.
4-11-001	F	2										S	REPEAT RO ONLY
4-31-001	H	3										S	REPEAT RO ONLY
5-97-001	F	3										S	NEW RO ONLY. Distractor A is partially correct - a result of performing this evolution is an increase in HPI flow through the core. Suggest adding words to ensure A is not correct. ANSWER - reworded A
5-103-001	H	2										s	REPEAT RO ONLY
4-90-002	H	3										S	REPEAT SRO ONLY - Why is this SRO ONLY Knowledge? It seems to be also required RO knowledge. ANSWER - WILL BE REPLACE QUESTION. Replacement acceptable
5-01-005	F	3										S	NEW S RO ONLY. Distractors B and D are not plausible. Crew is not established in stem. May not require replacement the way it is written - Suggest - Establish crew compliment in stem, then answers - 1 hour, 2 hours, 4 hours, No time crew meets minimum staffing requirements ANSWER - WILL BE MODIFIED QUESTION

[illegible]

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
4-12-005	H	3										s	NEW - Modified per OPS Crew comments - acceptable
4-13-001	H	3										s	NEW LATE ADDITION: add only in front of distractor "B" and after "C" and "D" Solution - did not make change
4-13-002	H	2										s	NOB?
4-14-001	H	2										s	NEW Modified per OPS Crew comments - acceptable
4-16-001	F	1										s	NEW Replace the "#" with PSI. Question modified - acceptable
4-21-001	H	3										s	NEW
4-25-001	F	3										s	INPO BANK
4-25-002	F	2										s	NEW Modified per OPS Crew comments - acceptable
4-28-001	F	2										s	NEW LATE ADDITION: MINIMUM in stem all caps. Add "of" between all and the in the last sentence of the stem Solution - did not make change
4-28-002	H	3										S	NEW
4-28-003	H	3										S	NOB?
4-52-001	H	3										S	OPSA1 BANK
4-52-002	H	3										S	OPSA1 BANK Add "Only" to distractor A. Question modified acceptable
4-55-001	H	2										S	OPSA1 BANK
4-56-001	H	3										S	NOB
4-57-001	H	3										S	OPSA1 BANK
4-59-001	H	3										S	INPO BANK - are operators expected to know these actions from memory? ANSWER - Expected Knowledge, must stop the release

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
4-60-001	F	2										S	NEW LATE ADDITION: reword two distractors - B. The PORV will automatically reset once the ultrasonic monitor needle drops below the alarm setpoint. C. The PORV will automatically reset once Solution - did not make change change makes the answer incorrect. There is no alarm setpoint
4-63-001	H	3										S	NEW
4-68-001	F	3										S	NEW
4-90-001	F	3										S	NEW
4-90-002	F	2										S	OPSA1 BANK
4-91-001	F	3										S	NEW
5-100-001	F	2										S	NEW Is this required RO Knowledge? ANSWER - Yes, Entry condition
5-101-101	H	2										S	BANK
5-106-001	H	4										S	NEW Provide trend for parameters in stem. ANSWER - stem modified to say all parameters are stable.
5-34-001	F	3										S	NEW Is this required RO Knowledge? ANSWER - Yes it is an 15 minute requirement
5-69-001	F	3										S	NEW
5-84-001	H	3										S	NEW
5-95-001	H	4										S	MIB? Is this required RO Knowledge? ANSWER -YES, if Procedure is provided
5-96-001	F	3										S	NEW
GT-001-001	F	3										S	NEW
GT-001-002	F	3										S	NEW Is a reference needed for this question - ANSWER - No expected knowledge

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward		
4-10-001	H	4										S	NEW -RO ONLY
4-11-002	F	2										S	NEW -RO ONLY Does Distractor B answer a previous question? ANSWER - It does not, it was an SRO ONLY
4-14-003	F	3										S	NEW -RO ONLY
4-25-001	H	3										S	NEW -RO ONLY
4-25-002	H	3										S	NOB - RO ONLY
4-37-001	F	4										S	NEW -RO ONLY Is this required RO Knowledge? ANSWER - Yes this is Final Review - typo Valves
4-60-002	H	3										S	NEW -RO ONLY
4-92-001	F	2										S	OPSA1.BNK RO ONLY
5-01-001	H	3										S	NEW -RO ONLY
5-01-002	F	3										S	NEW -RO ONLY Is this required RO Knowledge? ANSWER - expected knowledge
5-100-001	F	2										S	NEW -RO ONLY
5-101-001	H	3										S	INPO BANK -RO ONLY
5-14-001	F	2										S	NEW -RO ONLY Is this required RO Knowledge? ANSWER - expected knowledge
5-31-001	F	3										S	NEW -RO ONLY
5-50-001	H	2										S	NOB? -RO ONLY
5-50-002	F	2										S	OPSA1.BNK RO ONLY LATE ADDITION: replace radiation with contamination in first distractor Solution - distractor modified
5-61-001	H	2										S	OPSA1.BNK RO ONLY
5-96-001	F	2										S	BANK - RO ONLY

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward			
BOOK 4														
3-03-001	H	3										S	SRO ONLY NEW There is no 10 CFR 55.43 reference for this question. ANSWER - This was selected by NRC to be covered. Unique to the SRO exam, not at SRO level	
3-24-001	F	3										S	SRO ONLY NEW Final Review - Typo in distractor analysis - criteria LATE ADDITION: add "When:" to stem Solution - did not change	
4-12-001	H	2										S	SRO ONLY NEW Why is this SRO ONLY Knowledge? ANSWER - expected SRO knowledge of diverse scam LATE ADDITION: "Add Normal Full Power Lineup" to stem Solution - did not change	
4-13-001	H	2										S	SRO ONLY NEW Why is this SRO ONLY Knowledge? ANSWER - Unique to the SRO exam, not at SRO level	
4-29-001	F	2										S	SRO ONLY NEW	
4-54-001	H	3										S	SRO ONLY BANK LATE ADDITION: change last sentence in the stem to read - Which one of the following identifies a limit and/or precaution that is being exceeded given the situation above? Solution - did not change	
4-59-001	F	2										S	SRO ONLY BANK	
4-60-001	F	2										S	SRO ONLY NEW There is no 10 CFR 55.43 reference for this question. Why is this SRO ONLY Knowledge? ANSWER - This was selected by NRC to be covered. Unique to the SRO exam, not at SRO level. LATE ADDITION: and "is" between PORV and open in stem Solution made change	
4-64-001	H	3										S	OPSA1.BNK SRO ONLY Why is this SRO ONLY Knowledge? expected SRO knowledge of reason for breaker performance	
5-01-008	F	3										S	SRO ONLY BANK Final Review - 007 listed on LXR Test File Typo in Stem - position	

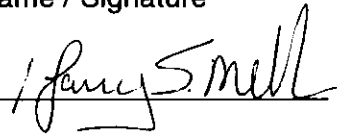

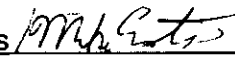
Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
5-01-009	H	2										S	SRO ONLY BANK LATE ADDITION: change last sentence in the stem to read "Which one of the following is the earliest date when the "B" RPS Channel must be declared inoperable and the surveillance is not complete?" Solution Modified stem
5-01-010	H	3										S	SRO ONLY BANK
5-113-001	H	3										S	SRO ONLY BANK LATE ADDITION: add title of the procedure to stem. Solution - Did not make the change
5-116-001	H	3										S	OPSA1.BNK SRO ONLY
5-14-001	F	3										S	OPSA1.BNK SRO ONLY LATE ADDITION:- there is a concern with the number of "nots" in this question. Can it be reworded? Solution - will not make change words are as written in procedure
5-31-001	H	3										S	OPSA1.BNK SRO ONLY Final Review - Typo beginning, procedure LATE ADDITION: caps for the word "ONLY" in the answer and distractors Solution - change not made
5-31-002	H	3										S	NEW SRO ONLY LATE ADDITION: add "in accordance with AP-990" to end of stem Solution Change not made
5-50-001	F	2										S	OPSA1.BNK SRO ONLY Why is this SRO ONLY Knowledge? Unique to the SRO exam, not at SRO level
5-69-001	F	3										S	NEW SRO ONLY
5-85-001	H	3										S	OPSA1.BNK (Modified) SRO ONLY
5-97-002	H	3										S	SRO ONLY BANK Final Review - Typo - condensible, beginning LATE ADDITION: add "not" in the distractor analysis Solution Comment not valid

NOTES:4-12-003

One Channel of RPS is placed in Manual Bypass. If an operators attempts to place the second channel in Manual Bypass, Which one of the following will occur?

- A. The RPS Channel in Manual Bypass will come out of Bypass, then the second channel will go into Manual Bypass
- B. Both Channels will go into Manual Bypass; and the RPS will get a half scram signal.
- C. The second RPS channel is blocked from entering Manual Bypass.
- D. When both Channels will go into Manual Bypass; and the RPS will get full scram signal.

Facility: Crystal River 3		Date of Exam: 1/25/2001		Exam Level: RO/SRO	
Item Description		Initials			
		a	b	c	
1.	Clean answer sheets copied before grading	rfa	n/a	lsm	
2.	Answer key changes and question deletions justified and documented	n/a	n/a	n/a	
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	rfa	n/a	lsm	
4.	Grading for all borderline cases (80% +/- 2%) reviewed in detail	n/a	n/a	n/a	
5.	All other failing examinations checked to ensure that grades are justified	n/a	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	rfa	n/a	lsm	

Printed Name / Signature		Date
a. Grader	Larry S. Mellen 	2/12/02
b. Facility Reviewer(*)	N/A	
c. NRC Chief Examiner (*)	Ronald F. Aiello 	2/12/02
d. NRC Supervisor (*)	Michael E. Ernstes 	2/12/02

(*) 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	1/25/02
2. Facility written exam comments reviewed and incorporated and NRC grading completed, if necessary	1/28/02
3. Operating tests graded by NRC examiners	2/15/02
4. NRC Chief examiner review of written exam and operating test grading completed	2/15/02
5. Responsible supervisor review completed	2/15/02
6. Management (licensing official) review completed	2/20/02
7. License and denial letters mailed	2/20/02
8. Facility notified of results	2/20/02
9. Examination report issued (refer to NRC MC 0610)	2/20/02
10. Reference material returned after final resolution of any appeals	N/A