

ADMINISTRATIVE DOCUMENTS

(Yellow Paper)

1. Exam Preparation Checklist ES-201-1 ✓
2. Exam Outline Quality Checklist ES-201-2 ✓
3. Exam Security Agreement(s) ES-201-3 ✓
4. Administrative Topics Outline (Final) ES-301-1 ✓
5. Control Room Systems & Facility Walk-through Test Outline
(Final) ES-301-2 ✓
6. Operating Test Quality Check Sheet ES-301-3 ✓
7. Simulator Scenario Quality Check Sheet ES-301-4 ✓
8. Transient and Event Checklist ES-301-5 ✓
9. Competencies Checklist ES-301-6 ✓
10. Written Exam Quality Check Sheet ES-401-6 ✓
11. Written Exam Review Worksheet ES-401-9 ✓
12. Written Exam Grading Quality Checklist ES-403-1 ✓
13. Post-Exam Check Sheet ES-501-1 ✓
14. Facility Submittal Letters *DTD 10-11-2007 (2)* [1]

CRYSTAL RIVER OCTOBER 2007

EXAM NO. 50-302/2007-301

Facility: <u>CRYSTAL RIVER</u>		Date of Examination: <u>OCT 2007</u>
Developed by: Written - Facility <input checked="" type="checkbox"/> NRC <input type="checkbox"/> // Operating - Facility <input checked="" type="checkbox"/> NRC <input type="checkbox"/>		
Target Date*	Task Description (Reference)	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a and b)	MBS
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	MBS
-120	3. Facility contact briefed on security and other requirements (C.2.c)	MBS
-120	4. Corporate notification letter sent (C.2.d)	MBS
[-90]	[5. Reference material due (C.1.e; C.3.c; Attachment 2)]	MBS
{-75}	6. Integrated examination outline(s) due, including Forms ES-201-2, ES-201-3, ES-301-1, ES-301-2, ES-301-5, ES-D-1s, ES-401-1/2, ES-401-3, and ES-401-4, as applicable (C.1.e and f; C.3.d)	MBS
{-70}	{7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)}	MBS
{-45}	8. Proposed examinations (including written, walk-through JPMs, and scenarios, as applicable), supporting documentation (including Forms ES-301-3, ES-301-4, ES-301-5, ES-301-6, and ES-401-6, and any Form ES-201-3 updates), and reference materials due (C.1.e, f, g and h; C.3.d)	MBS
-30	9. Preliminary license applications (NRC Form 398's) due (C.1.i; C.2.g; ES-202)	MBS
-14	10. Final license applications due and Form ES-201-4 prepared (C.1.i; C.2.i; ES-202)	MBS
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	MBS
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f and h; C.3.g)	MBS
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	OP: MBS WR: MBS
-7	14. Final applications reviewed; † or 2 (if >10) applications audited to confirm qualifications / eligibility; and examination approval and waiver letters sent (C.2.i; Attachment 4; ES-202, C.2.e; ES-204)	MBS
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee (C.3.k)	MBS
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	MBS
* Target dates are generally based on facility-prepared examinations and are keyed to the examination date identified in the corporate notification letter. They are for planning purposes and may be adjusted on a case-by-case basis in coordination with the facility licensee. [Applies only] {Does not apply} to examinations prepared by the NRC.		

Facility: Crystal River Unit #3		Date of Exam: October 22 thru 29, 2007		
Item	Task Description	Initials		
		a	b*	c#
L W R I T T E N	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	fb	NB	NB
	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.	fb	NB	NB
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics	fb	NB	NB
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	fb	NB	NB
S I M U L A T O R	2. a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	fb	NB	NB
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity, and ensure that each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s), and that scenarios will not be repeated on subsequent days.	fb	NB	NB
	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.	fb	NB	NB
W / T	3. a. Verify that the systems walk-through outline meets the criteria of Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.	fb	NB	NB
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations	fb	NB	NB
	c. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.	fb	NB	NB
G E N E R A L	4. a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	fb	NB	NB
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate	fb	NB	NB
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5	fb	NB	NB
	d. Check for duplication and overlap among exam sections.	fb	NB	NB
	e. Check the entire exam for balance of coverage.	fb	NB	NB
	f. Assess whether the exam fits the appropriate job level (RO or SRO)	fb	NB	NB
Printed Name / Signature		Date		
a. Author	Floyd Lawrence / <i>Floyd Lawrence</i>	10/19/07		
b. Facility Reviewer (*)	Mark Broussard / <i>Mark Broussard</i>	10/19/07		
c. NRC Chief Examiner (#)	MARK A. BATES / <i>Mark A. Bates</i>	10/19/2007		
d. NRC Supervisor	MALCOLM T. WIDMANN / <i>Malcolm T. Widmann</i>	10/19/07		
Note:	#Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.			



November 8, 2007
TRX07-0060

Mr. Mark Bates
USNRC / Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street SW, Suite 23T85
Atlanta, GA 30303-8931

Subject: Crystal River 2007 SRO & RO Post-Exam Documentation

Mr. Bates:

Attached please find the following:

Examination Security Agreement (Form ES-201-3)

Any questions concerning this document may be addressed to Mark Van Sicklen, 352-795-0504, ext. 6471 or Alan Kennedy, ext. 6129.

Sincerely,

A handwritten signature in cursive script that reads 'Alan Kennedy'.

Alan Kennedy
Senior Nuclear Operations Instructor

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 10/22/07 - 10/29/07 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 10/22/07 - 10/29/07. 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. Floyd Lawrence	Ops Instructor / Exam Author	<i>Floyd Lawrence</i>	3/1/07	<i>Floyd Lawrence</i>	10/31/07	
2. ALAN KENNEDY	OPS Instructor	<i>Alan Kennedy</i>	3-6-07	<i>Alan Kennedy</i>	10-31-07	
3. R. Lee Linton, Jr.	Sim Engineer	<i>R. Lee Linton, Jr.</i>	4/30/07	<i>R. Lee Linton, Jr.</i>	10/31/07	
4. TRUC DUONG	SIM ENGR.	<i>Truc Duong</i>	5/1/07	<i>Truc Duong</i>	10/31/07	
5. Perry L. Rose	Sim Eng	<i>Perry L. Rose</i>	05-01-07	<i>Perry L. Rose</i>	10-31-07	
6. Brandon Webster	Reactor Operator / Validator	<i>Brandon Webster</i>	6.1.7	<i>Brandon Webster</i>	10.31.7	
7. CAROL ROBERTS SMITH	ADMIN ASST.	<i>Carol Roberts Smith</i>	6-18-07	<i>Carol Roberts Smith</i>	10-31-07	
8. MAFFATT, Larry W.	STA/OWC Reviewer	<i>Larry Maffatt</i>	7/2/07	<i>Larry Maffatt</i>	10/31/07	
9. FRANK DOLA	SUPV. OPERATOR INITIAL TRAINING	<i>Frank Dola</i>	7/10/07	<i>Frank Dola</i>	10/31/07	
10. GALLITZ DAVID	Reactor operator / validator	<i>David Gallitz</i>	7/24/07	<i>David Gallitz</i>	10/31/07	
11. LEON A. GAGNIE	SRO / Validator	<i>Leon A. Gagnie</i>	7/24/07	<i>Leon A. Gagnie</i>	11/1/07	
12. MARK VAN SICKLEN	SOTSRO / REVIEWER	<i>Mark Van Sicklen</i>	8/2/07	<i>Mark Van Sicklen</i>	10/31/07	
13. William G. Carr	OPS SR. NRC OPS. SPEC. / CRSL/ACC	<i>William G. Carr</i>	8-9-07	<i>William G. Carr</i>	10-31-07	
14. John C. Wilcox	RO / Control Board OP	<i>John C. Wilcox</i>	8-9-07	<i>John C. Wilcox</i>	10-31-07	
15. A.M. Barnes	SRO / WRITING VALIDATOR	<i>A.M. Barnes</i>	8/22/07	*		

NOTES: * Confirmed via email & verbal conversation (email attached)

A 11/8/07

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 10/22/07 - 10/29/07 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 10/22/07 - 10/29/07. 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.	DAVID P JONES	Major Projects Lead SRO	<i>[Signature]</i>	8/22/07	<i>[Signature]</i>	10/31/07	
2.	Mark Broussard	LOI Program Lead	<i>[Signature]</i>	8-27-07	<i>[Signature]</i>	10-31-07	
3.	Blair Wunderly	MSO	<i>[Signature]</i>	8/21/07	<i>[Signature]</i>	10/31/07	
4.	Pick Hous	Training Manager	<i>[Signature]</i>	10/2/07	<i>[Signature]</i>	10/31/07	
5.	Mary Bracewell	SRO Instructor / Validator	<i>[Signature]</i>	10/9/07	<i>[Signature]</i>	10/31/07	
6.	Chris Yarashevich	Nuclear Ops Specialist	<i>[Signature]</i>	10-16-07	<i>[Signature]</i>	10/31/07	
7.	Gregory Sutter	Ops TRNG	<i>[Signature]</i>	10-22-07	<i>[Signature]</i>	10/31/07	
8.	Mark Hines	CE3 NAS	<i>[Signature]</i>	10/22/07	<i>[Signature]</i>	10/31/07	
9.	WILLIAM OAKLEY	OPS	<i>[Signature]</i>	10/22/07	*		
10.	Jeffery Seiber	OPS TRNG	<i>[Signature]</i>	10/22/07	**		
11.	DALE YOUNG	VP	<i>[Signature]</i>	10/22/07	<i>[Signature]</i>	11/1/07	
12.							
13.							
14.							
15.							

NOTES: * Confirmed via email & verbal conversation (email attached)

* 11/08/07

** Let the company - confirmed prior to departure that no information was divulged to the candidates

* 11/08/07

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 10/22/07 - 10/29/07 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 10/22/07 - 10/29/07. 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.	Christopher A. Red	Nuclear Operator	<i>[Signature]</i>	8/28/07	*		
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							

NOTES: * Confirmed via email & verbal conversation (email attached)
A 11/8/07

Kennedy, Alan T.

From: Kennedy, Alan T.
Sent: Tuesday, November 06, 2007 8:35 AM
To: Barnes, Andrew M.; Oakley, William R; Rop, Christopher A
Cc: Kennedy, Alan T.
Subject: NRC Examination Security Agreement

Gentlemen,

Please use the voting buttons (above left) to indicate your concurrence with the statement below.

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 October 22nd and October 29th, 2007 _____. 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.

Once you have replied to this email you will also need to call me at 240-6129 with verbal confirmation. A voice mail message is sufficient if I am away from the phone.

When these actions are complete please send your badge to me at NU-47.

Thanks for your help in producing a high quality examination.

Alan Kennedy

Senior Nuclear Operations Instructor
Progress Energy Florida, Inc.
Crystal River Nuclear Training Department
8200 W. Venable St.
NU47
Crystal River, Florida 34429
T> 352.795.0504 x6129
Alan.Kennedy@pgnmail.com

Tracking:	Recipient	Delivery	Read	Response
	Barnes, Andrew M.	Delivered: 11/6/2007 8:35 AM	Read: 11/7/2007 10:07 PM	Yes: 11/8/2007 12:19 AM
	Oakley, William R	Delivered: 11/6/2007 8:35 AM	Read: 11/6/2007 9:02 PM	Yes: 11/6/2007 9:03 PM
	Rop, Christopher A	Delivered: 11/6/2007 8:35 AM	Read: 11/6/2007 8:34 PM	Yes: 11/6/2007 8:35 PM
	Kennedy, Alan T.	Delivered: 11/6/2007 8:35 AM		Yes: 11/6/2007 9:04 AM

Facility:	Crystal River Unit #3	Date of Exam:	October 22 thru 29, 2007
Examination Level:	SRO	Operating Test Number:	1
Administrative Topic (See Note)	Type Code*	Describe activity to be performed	
Conduct of Operations	P	<u>SRO</u> – (CO1) – Perform Daily Heat Balance Comparison. <i>K/A – G2.1.23 RO 3.9 SRO 4.0</i> After completing the Heat Balance determine required TS actions, if any. <i>K/A – G2.1.12 SRO 4.0</i> SP-312A	
Conduct of Operations	D	<u>SRO</u> – (CO2) – Perform an Estimated Critical Position Calculation. <i>K/A – 001A4.10 RO 3.5 SRO 3.9</i> OP-210	
Equipment Control	N	<u>SRO</u> – (EC1) – Develop an Operations Clearance to allow pump end bearing replacement on FWP-7. <i>K/A – G2.2.13 RO 3.6 SRO 3.8</i> OPS-NGGC-1301	
Radiation Control	N	<u>SRO</u> – (RC1) – Given a survey map, determine the ITS requirements for an area. <i>K/A – G2.3.1 RO 2.6 SRO 3.0</i> ITS	
Emergency Plan	D	<u>SRO</u> – (EP1) - Determine Protective Action Recommendations <i>K/A – G2.4.44 SRO 4.0</i> EM-202	
Note:	All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when all 5 are required.		
* Type Codes & Criteria:	(C)ontrol room (D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes) (N)ew or (M)odified from bank (≥ 1) (P)revious 2 exams (≤ 1 ; randomly selected) (S)imulator		

Facility: Crystal River Unit #3	Date of Exam: October 22 thru 29, 2007
Examination Level: SRO-I SRO-U	Operating Test Number: 1

Control Room systems[@] (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)

System / JPM Title	Type Code*	Safety Function
a. CRDS – Latch Rod Group 1. K/A – 001A4.03 RO 4.0 SRO 3.7 (OP-502) [SRO-I]	D, L, S	1
b. CVCS – Perform Equilibrium Feed to Raise MUT Level. K/A – 004A4.13 RO 3.3 SRO 2.9 (OP-402) [SRO-I]	N, S	2
c. PPCS – PORV Exercise Test. K/A – 010A3.01 RO 3.0 SRO 3.2 (SP-379) [SRO-I]	A, D, L, P, S	3
d. DHR – Start DHP-1A for Surveillance Testing. K/A – 005A4.01 RO 3.6 SRO 3.4 (SP-340B) [SRO-U] [SRO-I]	N, S	4 Primary
e. CSS – Initiate Building Spray K/A – 026A3.01 RO 4.3 SRO 4.5 (EM-225C) [SRO-I]	D, L, P, S	5
f. AC – Transfer Unit Buses to the Aux Transformer. K/A – 062A4.01 RO 3.3 SRO 3.1 (OP-703) [SRO-U] [SRO-I]	A, N, S	6
g. RPS – Restore RPS Channel Power. K/A – 012A2.02 RO 3.6 SRO 3.9 (OP-507) [SRO-I]	D, P, S	7
h. WGS – Prepare RM-A2 and RM-A11 for WGD T Release K/A – 071A4.09 RO 3.3 SRO 3.5 (OP-412B) [SRO-U] [SRO-I]	N, S	9
Spare b. CWS – Start CWP-1C While at Power K/A – G2.1.31 RO 4.2 SRO 3.9 (OP-604)	A, D, S	8

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

i. HRPS – Perform PPO Post Event Actions K/A – 028A4.03 RO 3.1 SRO 3.3 (EOP-14, Enc. 2) [SRO-U] [SRO-I]	A, D, E, L, R	5
j. AC – Align BEST Aux Bus 3 to ES 4160V Bus from AAC D/G. K/A – G2.1.30 RO 3.9 SRO 3.4 (AP-770) [SRO-I]	D, E	6
k. IAS – Perform IA System Alignment. K/A – 065AK3.08 RO 3.7 SRO 3.9 (AP-470) [SRO-U] [SRO-I]	A, D, E	8
Spare FS – Recirculation of FSP-1 K/A – 086A4.01 RO 3.3 SRO 3.3 (AP-330)	D, E	8

@

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

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

Facility: Crystal River Unit #3	Date of Exam: 10-22-07 to 10-29-07	Op. Test No. 1		
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).	AI	NB	MB
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	AI	NB	MB
c.	The operating test shall not duplicate items from the applicants' audit test(s). (see Section D.1.a.)	AI	NB	MB
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	AI	NB	MB
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	AI	NB	MB
2. Walk-Through 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 • operationally important 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 	AI	NB	MB
b.	Ensure that any changes from the previously approved systems and administrative walk-through outlines (Forms ES-301-1 and 2) have not caused the test to deviate from any of the acceptance criteria (e.g., item distribution, bank use, repetition from the last 2 NRC examinations) specified on those forms and Form ES-201-2.	AI	NB	MB
3. Simulator Criteria		---	---	---
	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	AI	NB	MB
	Printed Name / Signature	Date		
a. Author	Floyd Lawrence / <i>Floyd Lawrence</i>	10/15/07		
b. Facility Reviewer (*)	Mark Broussard / <i>Mark Broussard</i>	10.15.07		
c. NRC Chief Examiner (#)	MARK A. BATES / <i>Mark A. Bates</i>	10.19.2007		
d. NRC Supervisor	Malcolm T. Vidman / <i>Malcolm T. Vidman</i>	10/17/07		
Note: #Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.				

Facility: Crystal River Unit #3	Date of Exam: October 22 thru 29, 2007
Scenario Numbers: 1 / 2 / 3 / 4	Operating Test Number: 1

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.	H	NB	MB
2.	The scenarios consist mostly of related events.	H	NB	MB
3.	Each event description consists of: <ul style="list-style-type: none"> • 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) 	H	NB	MB
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.	H	NB	MB
5.	The events are valid with regard to physics and thermodynamics.	H	NB	MB
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	H	NB	MB
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.	H	NB	MB
8.	The simulator modeling is not altered.	H	NB	MB
9.	The scenarios have been validated. Pursuant to 10 CFR 55.46(d), any open simulator performance deficiencies or deviations from the referenced plant have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.	H	NB	MB
10.	Every operator will be evaluated using at least one new or significantly modified scenario. All other scenarios have been altered in accordance with Section D.5 of ES-301.	H	NB	MB
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	H	NB	MB
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).	H	NB	MB
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	H	NB	MB

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

Facility: Crystal River Unit #3		Date of Exam: October 22 thru 29, 2007										Operating Test No.: 1					
A P P L I C A N T	E V E N T T Y P E	Scenarios												T O T A L	M I N I M U M (*)		
		1			2			3			4						
		C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N						
		S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P				
												R	I	U			
SRO-I <input checked="" type="checkbox"/>	RX										---					2	1
	NOR										---		---	0	1	1	1
	I/C	5/7/9									1/3/5		3/5	8	4	4	2
	MAJ	6/8									7/8		6	5	2	2	1
	TS	1/3									---		---	2	0	2	2
SRO-I <input checked="" type="checkbox"/>	RX		4										---	1	1	1	0
	NOR		---						---				1	1	1	1	1
	I/C		5/7						2/5				2/4	6	4	4	2
	MAJ		6/8						7/8				6	5	2	2	1
	TS		---						1/3				---	2	0	2	2
SRO-I <input checked="" type="checkbox"/>	RX			---					4			---		1	1	1	0
	NOR			2					---			1		2	1	1	1
	I/C			1/3					2/6			2/5/7/8		8	4	4	2
	MAJ			6/8					7/8			6		5	2	2	1
	TS			---					---			3/4		2	0	2	2

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.
2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.
3. Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirements specified for the applicant's license level in the right-hand columns.

Facility: Crystal River Unit #3		Date of Exam: October 22 thru 29, 2007											Operating Test No.: 1					
A P P L I C A N T	E V E N T T Y P E	Scenarios													T O T A L	M I N I M U M (*)		
		1			2			3			4							
		C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N							
		S R O	A T C	B O P														
													R	I	U			
SRO-I <input checked="" type="checkbox"/>	RX								4				1	1	1	0		
	NOR	---							---				0	1	1	1		
	I/C	5/7/ 9							2/6				5	4	4	2		
	MAJ	6/8							7/8				4	2	2	1		
	TS	1/3							---				2	0	2	2		
SRO-U <input checked="" type="checkbox"/>	RX		4										1	1	1	0		
	NOR		2					---					1	1	1	1		
	I/C		5/7					2/5					4	4	4	2		
	MAJ		6/8					7/8					4	2	2	1		
	TS		---					1/3					2	0	2	2		

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.
2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis. ✓
3. Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirements specified for the applicant's license level in the right-hand columns.

Facility: Crystal River Unit #3				Date of Exam: October 22 thru 29, 2007				Operating Test No.: 1								
Competencies	APPLICANTS															
	SRO-U				SRO-I				RO/SRO-I/SRO-U				RO/SRO-I/SRO-U			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret / Diagnose Events and Conditions	1/2/ 3/4/ 5/6/ 7/8/ 9	1/2/ 3/4/ 5/6/ 7/8	1/2/ 3/5/ 6/7	2/3/ 4/5/ 6/7/ 8	1/2/ 3/4/ 5/6/ 7/8/ 9	1/2/ 3/4/ 5/6/ 7/8	1/2/ 3/5/ 6/7	2/3/ 4/5/ 6/7/ 8								
Comply With and Use Procedures (1)	2/3/ 4/5/ 6/8	1/2/ 3/4/ 6/7/ 8	2/3/ 4/5/ 6/7/ 8	1/2/ 3/4/ 5/6	2/3/ 4/5/ 6/8	1/2/ 3/4/ 6/7/ 8	2/3/ 4/5/ 6/7/ 8	1/2/ 3/4/ 5/6								
Operate Control Boards (2)								1/2/ 3/4/ 5/6/ 7/8/ 9	1/2/ 3/4/ 5/6/ 7/8	1/2/ 3/4/ 5/6/ 7/8	1/2/ 3/4/ 5/6/ 7/8					
Communicate and Interact	1/2/ 3/4/ 5/6/ 7/8/ 9	1/2/ 3/4/ 5/6/ 7/8	1/2/ 3/4/ 5/6/ 7/8	1/2/ 3/4/ 5/6/ 7/8	1/2/ 3/4/ 5/6/ 7/8/ 9	1/2/ 3/4/ 5/6/ 7/8	1/2/ 3/4/ 5/6/ 7/8	1/2/ 3/4/ 5/6/ 7/8								
Demonstrate Supervisory Ability (3)	1/2/ 3/4/ 7/8	1/2/ 3/4/ 5/6/ 7/8	1/2/ 3/4/ 5/7/ 8	1/2/ 3/4/ 5/6/ 7/8	1/2/ 3/4/ 7/8	1/2/ 3/4/ 5/6/ 7/8	1/2/ 3/4/ 5/7/ 8	1/2/ 3/4/ 5/6/ 7/8								
Comply With and Use Tech. Specs. (3)	1/3	1/4	1/3	3/4	1/3	1/4	1/3	3/4								
Notes:																
(1) Includes Technical Specification compliance for an RO.																
(2) Optional for an SRO-U.																
(3) Only applicable to SROs.																

Instructions:

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

Facility: Crystal River Unit #3		Date of Exam: October 29, 2007					
Item Description			Initials				
			a	b*	c#		
1.	Questions and answers are technically accurate and applicable to the facility.		H	MB	MB		
2.	a.	NRC K/As are referenced for all questions.	H	MB	MB		
	b.	Facility learning objectives are referenced as available.					
3.	SRO questions are appropriate in accordance with Section D.2.d of ES-401		H	MB	MB		
4.	The facility licensee's sampling process was random and systematic (i.e., no more than 4 RO and/or 2 SRO questions were repeated from the last 2 NRC licensing exams).		H	MB	MB		
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: <input type="checkbox"/> the audit exam was systematically and randomly developed <input type="checkbox"/> the audit exam was completed before the license exam was started <input type="checkbox"/> the examinations were developed independently <input checked="" type="checkbox"/> the licensee certifies that there is no duplication <input type="checkbox"/> other (explain)		H	MB	MB		
6.	Bank use meets limits (no more than 75 percent from the bank, at least 10 percent new, and the rest new or modified); enter the actual RO / SRO-only question distribution(s) at right.	Bank	Modified	New	H	MB	MB
		26 / 5	8 / 6	41 / 14			
7.	Between 50 and 60 percent of the questions on the RO exam are written at the comprehension/ analysis level; the SRO exam may exceed 60 percent if the randomly selected K/As support the higher cognitive levels; enter the actual RO / SRO question distribution(s) at right.	Memory	C/A	H	MB	MB	
		34 / 8	41 / 17				
8.	References/handouts provided do not give away answers or aid in the elimination of distractors.		H	MB	MB		
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.		H	MB	MB		
10.	Question psychometric quality and format meet the guidelines in ES Appendix B.		H	MB	MB		
11.	The exam contains the required number of one-point, multiple choice items; the total is correct and agrees with the value on the cover sheet.		H	MB	MB		
		Printed Name / Signature		Date			
a. Author	Floyd Lawrence / <i>Floyd E. Lawrence</i>				10/19/07		
b. Facility Reviewer (*)	Mark Broussard / <i>Mark Broussard</i>				10/19/07		
c. NRC Chief Examiner (#)	MARK A. BATES / <i>Mark A. Bates</i>				10/19/2007		
d. NRC Supervisor	MALCOLM T. WIDMANN / <i>Malcolm T. Widmann</i>				10/19/07		
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#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
GENERAL COMMENTS														
B= Bank / M=Modified / N=New / F=Fundamental Level (I.E. Memory) / H=Higher Cognitive Level (I.E. C/A)														
For All BANK questions: swap the order of the answer choices so that applicants cannot rely on recall of the correct answer location. Discussed with licensee. MAB 18OCT2007														
NOT questions are discouraged in NUREG-1021, but not disallowed. There are a several NOT questions on the exam. I will allow them to remain on the exam if the licensee does not have an issue with them. (NOT questions meaning: Which one of the following are NOT). Future exam submittals should reduce the number of NOT questions. Discussed with licensee. MAB 18OCT2007														
This is a closed reference exam. Efforts will need to be made to reduce the number of questions requiring references. Discussed with licensee. MAB 18OCT2007														
RO EXAM														
1	002A3.01	N	H	2									S	Question is SAT.
2	003A4.03	M	F	2									E S	Question is written at the Fundamental LOK, vice the C/A level. Do all of the various permissives feed logic for a single white light, or do each of the various permissives feed logic for its own individual white light that is dedicated for that specific permissive? My reason for asking the question is because if there is only one light for each RCP, then simply having lift pressure above the setpoint would not be enough to cause the bulb to be lit. Seven individual permissive lights exist for each RCP. MAB 17OCT2007 Q is SAT with change of Cog Level to (F). MAB 17OCT2007.
3	004A3.15	N	H	2							x		U S	K/A Match: The K/A requires testing knowledge of automatic operation of the MUPs. To answer the question the applicant does not need to have knowledge of how the MUPs automatically function. The applicant only needs to know that High Pressure Aux Spray is controlled manually. Replacement Q is SAT. MAB 18OCT2007
4	004K5.26	N	F	1-					x				U	"A" and "C" plausibility is questionable because at 1 psig, tank pressure is

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
				3										<p>above atmospheric pressure. Since gases will flow from high pressure to low pressure, oxygen should not enter the tank. Incorporated. OK MAB 17OCT2007</p> <p>The first part of each answer choice is enough to cover the K/A being tested. The second part of each answer choice only tests which gas is used as a cover for the MUT, which does not discriminate at the appropriate level. Suggest modifying the second part of each answer choice. Maybe consider changing the second part of each answer choice to test the alarm setpoint, etc. Incorporated. OK MAB 17OCT2007</p> <p>Incorporation of the above comment may also address any concerns about LOD of the question. LOD now OK. MAB 17OCT2007</p>
5	005K5.09	N	H	3										<p>Question is essentially SAT with the following consideration:</p> <p>It is often better to tie the answer choices directly to the document which provides the basis for the answer, which in this case is tech specs. This will protect the exam from having an administrative or procedure requirement contradicting any of the answers.</p> <p>Therefore, I suggest modifying the question portion of the stem to read as follows: Given the requirements (1-3) below, which one of the following describes the combination of Technical Specification requirements that are required to be met to allow this activity?</p> <p>Comments incorporated. Q is SAT. 17OCT2007</p>
6	006A4.08	B	H	2				x						<p>Is it possible to delete the second bullet in the stem? RC pressure is below 500 psig, therefore the plant conditions that require LPI to be reset have not yet been reached. I would assume that LPI would have been bypassed on the plant shutdown/cool-down. Incorporated. MAB 17OCT2007</p> <p>Simplify "A" and "B" by eliminating the words describing what the setpoint is. I.E., "A. LPI will actuate when RC pressure reaches 800 psig." Make similar change to "B". Incorporated. MAB 17OCT2007</p> <p>"C" is not plausible because of its relationship with "D". If "D" is considered to be a correct answer (which it is not), then "C" could not be plausible. If LPI is not going to actuate at 900 psig, then it is obviously not going to actuate at 500 psig. Suggest changing "C" and "D". "C" and "D" modified to address comment. OK MAB 17OCT2007</p>
7	006K4.21	B	H	2				x	?					<p>"D" is not plausible because sequencers are only utilized when safety buses have been de-energized, as in the case of a LOOP. This distractor may be</p>

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation	
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A			SRO Only
														S	<p>acceptable if a LOOP condition is added to the stem.</p> <p>Distractor "C": I need the licensee to help me understand how it is plausible for DHP-1B to start, yet DHP-1A not to start. From what I have read, the HPI permissive would affect the 1A and 1B DHPs in the same manner. What is the plausible misconception that would lead an applicant to believe that the trains would be affected differently?</p> <p>Wrote new question. New question is SAT. MAB 17OCT2007</p>
8	007A2.02	N	H	1-2	x				x					U S	<p>PORV setpoint being affected by RCDT backpressure is not plausible. Is it possible to change PORV in answer choices "C" and "D" to Code Safety Valves. Most safety valves at other plants would not be affected by a higher back pressure in the RCDT, but the licensee would need to verify this for CR-3. This would greatly enhance the plausibility because an electronic pressure signal would not be used, rather a mechanical setpoint for Safeties lifting would be used.</p> <p>Incorporated. OK MAB 17OCT2007</p> <p>The question is testing the consequences of high pressure, but the supporting documentation that was provided only supports potential consequences. This needs to be addressed to avoid a potentially successful argument that there are no correct answers.</p> <p>"potential" and procedure name added to stem. OK MAB 17OCT2007</p>
9	008AK3.03	N	F	2								x		U S	<p>To ensure a correct answer, it may be necessary to state in the stem that HPI cooling is not in progress.</p> <p>K/A Match: The K/A requires testing knowledge of the reasons for EOP actions pertaining to a vapor space LOCA. An applicant can answer this question by only knowing the power supply to the PORV block valve and knowing that the power supply does not have an auto transfer feature. Therefore, the question can be answered using only systems knowledge without having any knowledge of the EOP step.</p> <p>Wrote new question. Q is SAT. MAB 17OCT2007</p>
10	008K3.02	N	F	1					X?					U ? S	<p>I am having difficulty in understanding how a plausible misconception could exist for the TCV being in the recirc line. I have at times seen a TCV on a bypass line around a heat exchanger, but I am not accustomed to seeing a TCV in a recirc line. In order for me to accept the justification pertaining to the TCV being in the recirc line, I will need to see documentation of a similar configuration in a safety related system at CR-3 that could lead the applicant to incorrectly think that the TCV may be in the recirc line.</p>

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
														<p>Distractor "B": Not plausible because TCV fails open, which would cause over-cooling, not over-heating.</p> <p>Distractor "C": Not plausible because if the TCV failed closed, then an over-heating condition would exist, not an over-cooling condition.</p> <p>Plausibility discussed with licensee. Plausibility of having TCV in recirc line was determined to be OK for this question. OK MAB 17OCT2007</p>
11	009EK2.03	N	H	2	x									<p>U S</p> <p>Cooldown rate limitations are normally stated as an amount that the RCS can be cooled in any given time period. For instance, 50 F in any given 30 minutes (Step changes followed by soak are allowed). I would assume that CR-3 has similar interpretations on cooldown rates. Not an issue with new data in stem. OK MAB 17OCT2007</p> <p>There is not enough information in the stem to determine if the limit was violated. The 75 F temperature drop could have occurred all in the same 30 minutes, which would be in violation of the procedure limit. Info added to stem to ensure one and only one correct answer. OK MAB 17OCT2007</p> <p>Question should be specific to ask for cooldown rate limitations in accordance with EOP-8A. This is especially important if the EOP limits are different than the Tech Spec limits. Using either TS or EOP rates, rates are acceptable. OK MAB 17OCT2007</p>
12	010K3.03	M	H	2										S Question is SAT.
13	011EA1.12	N	H	2				x	?					<p>E S</p> <p>Distractor "A": This choice does not seem plausible because EOP enclosures are usually specific to a task. EOP-19 I would assume would be specific to ECCS Suction Transfer. Discuss plausibility with the licensee. If I cannot be convinced than the distractor may need to be changed. "A" replaced. OK MAB 17OCT2007</p> <p>Distractor "B": Discuss plausibility with licensee. Are there other ventilation systems that would be affected by LPI actuation (Control Room HVAC?)? If so, then this distractor may be OK. Changed to HPI. OK MAB 17OCT2007</p>
14	012A1.01	B	F	2				x						<p>E S</p> <p>Distractor "D": Is the second half of the distractor needed to make the answer choice unique? If not consider deleting it. Discuss with licensee. Deleted. OK MAB 17OCT2007</p> <p>Distractor "B": The wording of this distractor is not specific, it is vaguely stated. What is meant by "other setpoints"? This is typically a clue that this is not the correct answer. For this reason, the distractor is not plausible</p>

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
														and should be revised. Discuss with the licensee. Incorporated. OK MAB 17OCT2007
15	013K4.12	N	F	2					?					E S The word "highest" in the stem leads the applicant to choosing the higher value in the answer choices. Change "C" and "D" to 1775 psig, which will also change the correct answer to "A". Discuss with licensee. "A" and "B" changed to 1820 psig (B/P for RPS shutdown). OK MAB 17OCT2007
16	014A4.02	B	F	2				x						E S "D" is not plausible because it is a subset of "B". In other words, if "D" were correct, then "B" would also be correct. Applicants know that there can only be one correct answer, therefore "D" should never be selected due to a credible misconception on behalf of the applicant. The solution to this may be to qualify "A" and "B" to ensure they are unique answer choices. Corrected. OK MAB 17OCT2007 "D" is also not plausible because the runback will stop at less than 52% on a feed pump trip. The rod speed is irrelevant if a runback no longer exists. Discuss with licensee. There may be a way to improve this distractor. Modified "D" to read similar to "A", except used 30% per minute. OK MAB 17OCT2007
17	015/017 AA2.10	B	H	2										E S Consider changing "D" to: RCP-1C is required to be tripped within two minutes, All other RCPs can continue to operate. With the above change, you may want to re-order the answer choices. Incorporated. OK MAB 17OCT2007 Some plant conditions in the stem may be needed to ensure plausibility of distractors and correctness of answers. For example, if reactor power is 100%, then simply tripping RCPs might not make sense – a reactor trip may be desirable prior to pump trip. Consider placing a reactor power in the stem that would allow distractors to be plausible and the correct answer to still be correct. 85% added to stem. OK MAB 17OCT2007 This question is very close to being written at the memory level, requiring an applicant to really only have the P&Ls memorized. Following the exam review, tally the number of F and H questions and scrutinize the designation of this question more if necessary. OK as C/A. MAB 17OCT2007
18	016A2.02	B	F	2					x			x		U S K/A Match: Question can be answered by only having knowledge of how the systems are designed. The K/A requires testing knowledge of how to use procedures to correct, control, and mitigate. I understand that

Written Exam Review Worksheet
Crystal River 2007-301

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
														<p>procedures give the operator the latitude to operate the valve manually, but this is not knowledge that is necessary to answer the question.</p> <p>Plausibility of "C" and "D": How would it be reasonable to think that PORVs and Spray valves would behave in the opposite manner to the failure? Discuss with licensee.</p> <p>Question revised. Now meets K/A with acceptable distractors. OK MAB 17OCT2007</p>
19	022 AG2.1.30	N	H	2									S	Question is SAT.
20	022K1.04	B	F	2	x								E S	<p>I would prefer that the question is worded such as not to rely on the word "unique." I.E., Which one of the following describes a feature that is utilized in the "Mechanical" cooling mode in the Industrial Cooling System, but not in the "Free" cooling mode?</p> <p>Incorporated. OK MAB 17OCT2007</p>
21 REF	024 AG2.4.47	B	H	2							x		U S	<p>No reference should be provided to applicants. Discuss with licensee. Licensee agreed with no references provided. MAB 17OCT2007</p> <p>A side note: Whenever a reference is provided, the exact pages of the reference needs to be documented with the question. As little reference material as possible should be supplied and only when it is absolutely necessary. It is rare that an entire procedure would be supplied, as is suggested in this question. Discussed w/ licensee. MAB 17OCT2007</p> <p>K/A Match: K/A requires diagnosing and recognizing trends. This question only requires the applicant to have some procedural requirements memorized and be able to convert MUT level change to gpm.</p> <p>The conditions need to be in the stem. Then the applicant must then diagnose the conditions. The question is written with information in the answer choices that normally should appear in the stem.</p> <p>K/A match discussed with licensee and determined to be OK. MAB 17OCT2007</p> <p>The only item that makes this question a higher cognitive level question is that a conversion of MUT level must be made. Is there a boration flow meter in the control room? No flow meter in CR. C/A is OK. MAB 17OCT2007</p>
22	025AK2.05	B	H	1				x			x		U S	<p>"A" and "C" plausibility: These two distractors are not plausible because a 480v bus has a fault (EDG does not feed 480v bus), but there are no conditions in the stem that would create a credible misconception that AP-770 would help address the plant conditions. (Also, see comment on Q#43</p>

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
														<p>concerning overlap.) Corrected. OK MAB 17OCT2007</p> <p>Question statement should be strengthened slightly to read: Which one of the following contains two procedures, both of which contain required actions to address the above plant conditions? Answer choices revised. Comment no longer applies. OK MAB 17OCT2007</p> <p>K/A Match: Can this question be answered without having knowledge of the inter-relationship between a loss of RHR and containment sump? The applicant can eliminate "A" and "C" by knowing that the EDG does not feed the 480 bus directly. The applicant can eliminate "D" by knowing that RM-A6 does not cause AP-250 to be entered. Pressurizer level lowering and RB vent counts rising is enough to enter AP-520. Considering these items, allows the question to be answered without using knowledge required by the K/A. Answer choices revised. OK 17OCT2007</p>
23	026 AG2.4.46	B	H	2				x					U S	<p>"A" and "D" are not plausible. A tube leak means that the leakage is going into the shell side of a heat exchanger. I do not see how a credible misconception on the applicant's part could lead them to believe that leakage would be collected in the RB sump. "A" and "D" revised. OK MAB 17OCT2007</p> <p>"C" plausibility: For "C" to be credible, I need to see some documentation on similar plant systems where differential flow alarms are used. In other words, why would an applicant have a reasonable misconception that the first part of this distractor would be correct? SW Diff Flow OK. MAB 17OCT2007</p>
24	026 K2.02	N	F	2				?					?	<p>Distractors "A" and "B": Are these busses safety related? Are any safeguards components powered from these buses? Status of this question will be based on the plausibility of these two distractors. Discuss with licensee. DPDP-8A and 8B are safety related buses and supply power to multiple safety related components. MAB 17OCT2007</p>
25	027AK3.04	N	H	2									S	Question is SAT.
26	029EK1.03	N	H	2									S	Question is SAT.
27	033K3.03	N	H	2				x					E S	<p>"C" is not plausible because no auto temp control exists for the SFP. The applicants would not be familiar with anything that could be related to automatic SFP temp control. This distractor will need to be revised. Distractor "A" and "C" revised. OK MAB 17OCT2007</p>

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
28	034G2.4.31	N	F	2								x		U S K/A Match: The K/A requires testing knowledge of the alarm response procedures. This question can be answered only with knowledge of overload and underload setpoints. The question is written at the fundamental level of knowledge. The question only requires the applicant to know what the setpoints are when LITE without a rod. Little higher cognitive analysis is needed to answer this question. Applicants have these setpoints committed to memory. Replacement Q is SAT. K/A is met for generic K/A because System 34 of K/A catalog contains K/As that cover the subject matter being tested in the Q. MAB 18OCT2007
29	035K6.03	N	H	2						x				E S Could "C" be correct? The stem states that the level transmitter fails slowly, but slowly is not defined. Is slow, as stated in the stem, slow enough to prevent SASS from transferring? Licensee may need to add a rate of the failure in the stem, or provide what the instrument is reading at various points in time. This will allow the applicants to understand that the instrument is failing slow enough that SASS would not transfer. Discuss with licensee. Changed the pen to "remains constant". This removed uncertainty of the definition of the word "slowly". OK MAB 17OCT2007
30	038EK3.06	N	F	2				x						E S Can EFP-2 use steam from either OTSG? If so, then applicants would be in the habit of always isolating steam from the bad OTSG, thus detracting from the credibility of this distractor. If the pump can only get steam from one OTSG and the stem states that it is that OTSG that has the rupture, then plausibility may be enhanced to an acceptable level. Distractor will need to be modified or I will need to be convinced of its plausibility. "B" modified. OK MAB 17OCT2007
31	039A4.04	N	F	2										S Question is SAT.
32	039K5.05	N	H	2										E S Would it be more plausible to change surge line to cold leg inlets to the rx vessel? Discuss with licensee. Surge line changed. Q is SAT. MAB 17OCT2007
33	041G2.4.35	N	F	2										E S Have licensee explain the credibility of 8 hours. In a different context is eight hours meaningful? Would two hours be more plausible? Changed 8 hours to two hours. OK MAB 17OCT2007
34	045K1.18	N	H	2										S Question is SAT.
35	054AA1.03	N	H	2										S Question is SAT.

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation	
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A			SRO Only
36	055EA2.01	N	F	2										S	Question is SAT.
37	056AK3.02	B	F	2										E S	<p>“A” appears to be a correct statement. Consider strengthening the stem by asking for the reasons, as stated in the EOP-14-TDB.</p> <p>Even after the above enhancement is made a discussion should take place to ensure that “A” is not a correct answer.</p> <p>Comment incorporated. OK MAB 17OCT2007</p>
38	057AA1.04	N	H	2				x						E S	<p>[WHITE INDICATING LIGHT IS ON]: Is this meant to describe which lights are ON and which are not? If so, a similar comment should probably be added to all the other questions that rely on indicating lights, just so it is clear to the applicants what they are looking at.</p> <p>Discussed with licensee. OK MAB 17OCT2007</p> <p>Have the licensee walk me through the references that support the correct answer.</p> <p>Discussed with licensee. OK MAB 17OCT2007</p> <p>Have the licensee walk me through the plausibility of “A”.</p> <p>Discussed with licensee. OK MAB 17OCT2007</p>
39	059A1.03	N	H	2	x					x				E S	<p>Reword the question part of the stem to: “Which one of the following represents required actions and/or verifications for the above plant conditions?” It is subtle, but the way the question is worded cued the applicant that the correct answer was an <u>action</u> and not a <u>verification</u>.</p> <p>Incorporated. MAB 17OCT2007</p> <p>Distractor “A”: Delete “Initiate a Work request.” This is never a wrong answer when something breaks, so it does not add any value to the distractor. “Maintain plant power at 80%” is enough to make this a unique answer choice.</p> <p>Incorporated. MAB 17OCT2007</p> <p>Distractor “B”: Would this also be a correct answer? The plant will be less than 75% power and it is never wrong to monitor for cavitation in such a situation. Consider reducing power to between 60% and 75%.</p> <p>Incorporated. MAB 17OCT2007</p> <p>Distractor “D”: If the operator does not manually trip the MFWP, would the pump eventually automatically trip on low suction pressure due to the booster pump trip? If so, is there a potential that this could be argued as a correct answer? Discuss with licensee.</p> <p>MFW pump will not trip on low suction P. No change needed. OK MAB 17OCT2007.</p>
40	059K4.19	B	F	2										S	Consider deleting FWV-28. It appears in all answer choices, therefore it is

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					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
														not needed to make any answer choice unique. The question wording does not require the correct answer to be a "complete" list of valves that receive a signal. Discuss with licensee. Deleted. OK MAB 17OCT2007 Question is SAT.
41	061AA1.01	B	F	2								?	?	Is RM-A4 an Area Radiation Monitor (ARM), vice a Process Radiation Monitor (PRM)? The terminology used in your lesson plans indicates that it is an Atmospheric Radiation Monitor that monitors a radiation duct. Is it monitoring flow through the duct, or is the monitor measuring radioactivity in the room and surrounding area in which the duct passes? K/A Match accepted by CE. OK MAB 17OCT2007 Question is SAT as long as the monitor is an AREA radiation monitor. K/A Match accepted by CE. OK MAB 17OCT2007
42	061K1.10	N	F	1-2					x					U S "A" and "B": "Fuel Oil Day Tank" is not a credible distractor unless such a tank exists for the EFW pumps. I understand the EDGs may have a Day Tank, but this is not quite enough to add credibility to these distractors. Discuss with licensee. This piece of the distractors may need to be replaced. One suggestion may be to test more of the specifics of the conditions which will cause the DC fuel pump to auto start. This may require some rework to the entire question. All answer choices revised. OK MAB 17OCT2007
43 REF	062A2.12	N	H	2								x		U S Overlap concerns with Q#22. This question keys the applicants that the EDGs feed 4160V busses, whereas Q#22 uses the misconception of the EDGs feeding a 480V bus for two of the distractors. If my comments on Q#22 are incorporated, then this concern should resolve itself for this question. K/A Match: The K/A requires testing knowledge of restoration of power to a system with a fault. This question only requires knowledge of the status of the EDG before and after Enclosure 1 is performed. No knowledge of power restoration is being tested. No references to be provided to applicants for this question. Discuss with licensee. Replacement Q is SAT. MAB 18OCT2007
44	062AA2.04	B	H	2				x						E S Question statement is worded as to what <u>should</u> be done. Within the context of this exam, we will need to test on what is <u>required</u> to be done. Reword the question to use the word <u>required</u> , vice <u>should</u> . Incorporated. MAB 17OCT2007

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation	
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A			SRO Only
															Distractor "B" Plausibility: (1) This distractor does not appear to be plausible because it only directs Rod 4-3 to be de-energized, when Rod 6-5 is also above the 180F limit. Discuss with the licensee the effect of directing both CRDMs to be de-energized in this distractor. (2) If only one rod has a high temp, would it be permissible to lower power and de-energize the drive? Plausibility many times comes from the answer being correct if plant conditions were slightly different, I.E. this answer would be correct if only one rod had temps above the limit. "B" changed to de-energize both 4-3 and 6-5. OK MAB 17OCT2007
45	063K3.01	B	H	2									S	Question is SAT.	
46	064A2.02	N	H	2							x		U S	K/A Match: The K/A requires knowledge of procedures to correct, control, or mitigate one of the malfunctions or operations; however, I an applicant can answer the question only using GFE knowledge, and not having any knowledge of CR-3 site-specific procedures. The question will need to be modified or replaced to incorporate some site specific procedure knowledge that would be needed to correct, control, or mitigate. I am hesitant to allow questions that are purely GFE because this is the site-specific written exam. Applicants have already passed the GFE. In rare occasions the K/A may not allow for site-specific knowledge to be tested, in which case I would allow a pure GFE question, but this K/A should support testing some site-specific knowledge. Replacement Q is SAT. MAB 18OCT2007	
47	064K6.07	B	H	2						x			E S	Will 96 psig start the EDG? If so, could "D" be correct. Is there any documentation that 75 psig will not start the EDG? I understand that the lesson plan states that 150 psig will ensure a start, but maybe a lower pressure will actually get the job done? If there is a P&L in the procedure for 150 psig, maybe the question can be enhanced to test specifically that requirement in the P&L. For plausibility of distractors consider changing the pressure in the stem to 175 psig. This will better test their knowledge of the minimum required pressure to start the EDG. It is well below the normal receiver pressure, but also above the minimum pressure to start the EDG. This would also make my above comment a moot point because the EDG would actually start. Consider wording the answer choices as follows: A. EDG will not start. Isolate the affected air receiver and open the cross tie valve to station air. B. EDG will not start. Isolate the affected air receiver and open	

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					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
														<p>the cross tie valve to the "B" side air receiver.</p> <p>C. EDG will not start. Isolate the relief valve and allow air pressure to recover sufficiently to start the EDG.</p> <p>D. EDG will start.</p> <p>This suggestion should make for a more discriminating question. There is still a loss of air and the question would still test the loss of air's effect on the EDG.</p> <p>Above comments incorporated. OK MAB 18OCT2007</p>
48	072K1.04	B	F	2				x						<p>E S</p> <p>Correct Answer "C": "(Control Complex)" should be removed from the answer choice unless noun names are also used in your procedures along with the alpha-numeric designation. I checked AP-250 and it appears that CR-3 requires their operators to memorize component numbers because the procedure does not contain a descriptive noun name, as is provided in the answer choice. Discuss with licensee. Incorporated. MAB 17OCT2007</p> <p>Distractor "A": Did toxic gas actuation ever cause AHF-17A/B to trip? If so, when was the modification made? I need to better understand how this distractor could be plausible to an applicant; otherwise, the distractor may need to be revised/replaced. Determined to be acceptable. MAB 17OCT2007</p>
49	073A1.01	B	H	1					x					<p>U S</p> <p>Distractors "A" is not plausible. Indications are obvious for an RC leak of some kind. It is not a reasonable misconception for an applicant to believe that no radiation monitors would be in alarm.</p> <p>Distractor "B" is not plausible. There are no indications in the stem that would indicate that there is a problem in containment.</p> <p>"A" and "B" will need to be replaced.</p> <p>All distractors replaced. OK MAB 17OCT2007</p>
50	073A4.03	N	F	2										<p>E S</p> <p>Modify the first part of "A" and "C" to say the same thing without the word source. Having the word "source" in the stem and again in the correct answer raises a flag, although somewhat subtle, that the correct answer is either "A" or "C". I.E., "exposes the detector to a known radioactive substance."</p> <p>Just to be thorough, I need to ask the question regarding the second part of "C": are there any procedures or work packages that would use the source for some kind of a calibration of the monitor, or an activity that could be interpreted as a calibration?</p>

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														<p>If the above items are addressed, then this question will be SAT.</p> <p>First part of "A" and "C" changed per suggestions. "Check Sources" are only used to ensure the monitor responds to a radioactive substance. There is no value associated with the rise in counts, just that the monitor responds. An external source is used for all monitor calibrations. Q SAT. MAB 17OCT2007</p>
51	074EK3.06	N	F	2								x		<p>U S</p> <p>Tie the question directly to EOP-TBD document. I.E., Which one of the following is NOT a reason, as described in EOP-TDB Cross Step Doc, for this step?</p> <p>K/A Match: The K/A requires testing knowledge of the reasons why the PORV will lift at the specified setpoint. This question tests knowledge of the reasons why the PORV is manually operated.</p> <p>Question replaced. SAT MAB 17OCT2007</p>
52	075K1.01	B	F	2				x						<p>E S</p> <p>"D" is not plausible. The correct answer is a subset of "D", therefore it would never make psychometric sense to ever pick "D" over "C". This can be resolved by explicitly stating in the correct answer in parentheses that CWP-1B & 1D are not affected. There may be other solutions, but this is one option. Corrected. SAT MAB 17OCT2007</p>
53 REF	076 AG2.2.22	M	H	2										<p>E S</p> <p>Supplying a reference will be allowed for this question. For the final exam submittal be very specific on which Tech Spec Pages will be supplied to the applicants. I.E. Tech Spec 3.4.15; Pages 3.4-30 through 3.4-33. Discussed with licensee. MAB 17OCT2007</p> <p>Can an applicant argue that there is not a correct answer because as power is reduced, the given iodine level moves into the Acceptable Region, thereby exiting the LCO prior to ever shutting down? If this is a risk, then maybe "B" needs to be changed to 65%, thereby allowing the LCO to be exited. This may also required a statement about how I-131 behaves during the down power. Discuss with licensee. "C" modified to address comment. OK MAB 17OCT2007</p>
54	076K4.02	B	H	2										<p>S</p> <p>Question is SAT.</p> <p>Verify with the licensee that a low pressure condition would actually exist. I.E., verify that there could not be another pump running, a pump not mentioned in the question, in the RWS that could maintain pressure. Failure of the SU xfmr also takes out the BEST xfmr. This equals not power to RWP-1 or RWP-2A. Only other SW-RW pump in plant is RWP-</p>

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
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														2B. SAT MAB 17OCT2007
55	078K1.04	N	F	2				x						E S Distractor "A" Plausibility: Would it be logical for an applicant to think that the setpoint value for FWP-1A high oil cooler temp should be different than FWP-2A? Discuss this with the licensee. This distractor may need to be modified depending on the licensee's response. Discussed with licensee. OK as-is. MAB 17OCT2007
56	078K2.01	B	H	2						x				E S The last part of "A" and "D" needs to state, ".....only one tower in service." This will ensure that "D" is not a subset of "C". Have the licensee walk me through the plausibility of the distractors to see if they are satisfactory or if any improvements can be made to them. Changes made to address comments. SAT MAB 17OCT2007.
57	103A4.06	N	F	2										E S Is it possible to remove the part of the stem that states, "If the entry team fails to notify the control room prior to entry"? I.E., "The plant is operating at 100% power with an RB entry planned for this shift. What remote indications are available that would indicate that the entry has started?" This wording would not cue the applicants to the control room indications and add more credibility to the CAS alarm. Changed stem as suggested. OK MAB 17OCT2007 Plausibility of the CAS alarm: Have the applicants received any training on what alarms are received in CAS? Would that information be safeguards? If the applicants have not had any training related to CAS, then these distractors would not contain enough credibility. Discuss with licensee. The candidates know that all vital area doors are alarmed in CAS, therefore distractors are plausible. OK MAB 17OCT2007
58	BW/A01 AA2.2	B	F	2										E S Second part of "C" & "D" does not appear read correctly. Would they read better if they stated: "The operator then must take manual action to lower and maintain reactor power less than 45%." Incorporated. OK MAB 17OCT2007 Likewise, the second part of "A" and "B" may read better as: "Further action to manually lower reactor power is not required." This will clearly distinguish the second parts of the answer choices and raise plausibility. "No additional actions." Is always hard to believe, because there is likely some other action that is required – the action may not be related to lowering power, but there is likely another action in some procedure that is required. Incorporated. OK MAB 17OCT2007

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation	
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A			SRO Only
59	BW/A05 AK1.3	B	H	2							B/W			?	<p>Is the same designation for lights ON used in this as in other questions? For instance, dark filled in circles indicate on? It may be worth double checking for consistency so the applicants do not get confused on the drawings. Discussed with licensee – designation for lights ON is different for this Q, but it is clearly stated for this Q. OK MAB 17OCT2007</p> <p>The question is reverse logic. In other words, the question provides information in the answer choices that would normally be provided in the stem. This is discouraged by NUREG-1021, but it is not entirely prohibited. Discussed with licensee. OK MAB 17OCT2007</p> <p>Have the licensee walk me through the technical accuracy of the question. Discussed with licensee. OK MAB 17OCT2007</p> <p>Have the licensee walk me through the plausibility of the distractors. Discussed with licensee. OK MAB 17OCT2007</p>
60	BW/A08A K2.1	N	F	2										S	Question is SAT.
61	BW/E02 EK2.1	B	H	2										S	<p>Should RCS pressure have units of psig in the stem? Corrected. OK MAB 17OCT2007</p> <p>Is it possible to change 1920 psig to 1925 psig and 90 psig to 60 psig. It does not change the required knowledge, but it may detract from an applicant's ability to simply recall the bank question. Incorporated. MAB 17OCT2007</p> <p>Otherwise, question is SAT.</p>
62	BW/E03 EA2.1	B	H	2										E S	<p>Distractor "D": is it possible to add, "... should is required to be completed prior to transition to another procedure.?"</p> <p>"C": is it possible to add, "should is required to be entered before completion of EOP-2.?"</p> <p>Similar changes as stated above for "C" and "D" should be incorporated for "A" and "B" also.</p> <p>Is the description in the stem clear enough for the applicants to know that the value is subcooling? Is the "-11" labeled on the computer screen, or does it just read "-11"? Discuss with licensee, or look at during prep week. "-11" is clear. OK MAB 17OCT2007</p> <p>Distractors changed as suggested. OK MAB 17OCT2007</p>

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					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A			SRO Only
63	BW/E04 EK3.3	B	F	2										S	Tie the question statement directly to the background document. I.E. What is the basis for this requirement in accordance with EOP-TDB for EOP? Incorporated. OK MAB 17OCT2007
64	BW/E05 EK1.2	B	H	1- 2					x					U S	Is it possible to remove the 5 minutes from the last bullet and simply state above all the bullets that 5 minutes after reactor trip, the following indications exist:? Not needed. OK MAB 17OCT2007 Is it possible to not provide subcooling since Tincore and RCS pressure are both provided? Deleted. OK MAB 17OCT2007 "A" is not credible with the conditions provided in the stem. Modified conditions in the stem OK MAB 17OCT2007 "D" is not plausible with a high subcooling value and low Tincore. Modified conditions in the stem OK MAB 17OCT2007 I would suggest using the first part of "B" and "C" and adding a second part to each of them. Discussed with licensee. Not incorporated. OK MAB 17OCT2007
65	BW/E09 EK3.1	B	M	2										E S	Tie question statement directly to the document where the information resides. - I.E., EOP-TDB for EOP-9. Incorporated. MAB 17OCT2007 Is it necessary to state the value of the cooldown rate limit in the stem? Would the actual value be irrelevant to the reasons why the NC cooldown limit exists? Discuss with the licensee. Deleted. OK MAB 17OCT2007
66	G2.1.16	B	F	1- 2										E / U S	Would it be possible to simply just test what number to dial and use the four options listed in OPS-4-92 at the top of page 18? I.E., (question stem can remain mostly the same, except it does not reference the reason). A. Plant Line 1 can be accessed from the four digit phone system by dialing 11. B. Plant Line 1 can be accessed from the four digit phone system by dialing 12. C. Plant Line 1 can be accessed from the four digit phone system by dialing 14. D. Plant Line 1 can be accessed from the four digit phone system by dialing 71. This is a fairly simple re-write and it will actually test more than just knowing that it is a two digit or four digit that needs to be dialed. It may

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														also be a little more discriminating than relying on a bank question. Incorporation of the above comment will better ensure the level of difficulty is at a "2". Q modified as suggested. SAT MAB 17OCT2007
67	G2.1.32	B	F	2									?	Have licensee walk me through the plausibility. Discussed with licensee. SAT MAB 17OCT2007
68	G2.2.13	N	F	2				x					E / U S	Distractor analysis for "C" appears to rely on the fact that a concurrent verification is required, therefore making it an incorrect answer choice. However, the distractor does not state that no independent verification is performed. This comment needs to be addressed to ensure only one correct answer. Incorporated. OK MAB 17OCT2007 "B" does not appear credible because I cannot think of a situation where opening a tagged closed valve would be acceptable. Discuss alternatives with the licensee. Modified to address concern. OK MAB 17OCT2007 "A" needs to be specific that the valve is being checked in accordance with the administrative requirements that require a slight valve movement in the closed direction in order to check it as open. "Initial valve lineup" is stated. OK MAB 17OCT2007 "A": Is it possible that the PPO could be the Independent Verifier? Does the distractor need to be more specific? OK - "A" states that the PPO is "performing initial valve lineup." MAB 17OCT2007
69	G2.2.28	N	H	1				x					U S	Too close to a direct lookup: Remove the second paragraph from the stem. ROs should know the definition of uncoupled/coupled. Corrected. MAB 17OCT2007 As written this question does not discriminate at the appropriate level. Without having any training, I can arrive at the correct answer with all the information that is provided in the stem. Q improved to SAT level. MAB 17OCT2007 "B" and "C" are essentially the same answer choice. Corrected. MAB 17OCT2007 It may be possible to pull some of the fuel patterns to the stem and then ask which ones are unacceptable. That way you can group them together and have answer choices that state that pattern 1 and 2 are both unacceptable only / pattern 1 is unacceptable only / pattern 1, 2, and 3 are all

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														unacceptable, etc. Incorporated. OK MAB 17OCT2007 Q must be replaced or significantly modified. Changes make Q SAT. MAB 17OCT2007
70	G2.2.33	B	F	1					x					US Question does not discriminate at the appropriate level. With the answer choices given, I can simply use basic reasoning skills, without having plant knowledge, to arrive at the correct answer. For instance, I will limit my choices of first and last 25 % of movement to a rod that is bordered by another sequential rod group. Therefore, eliminating 5 and 7 appears logical. "D" can be eliminated because the first and last group to move will not have either the first or last 25% overlapped. This K/A should be conducive to writing a discriminating, more operationally valid, question. Q must be replaced. Q replaced. SAT MAB 18OCT2007
71	G2.3.2	B	H	1					x					US "A" is not plausible because Vital Area has nothing to do with dose. I cannot see a reasonable calculation error that would lead an applicant to 1R, especially considering that the dose at 15 cm is only 200 mr. Q must be replaced or significantly modified. K/A should allow for a discriminating question. Q replaced. SAT MAB 17OCT2007
72	G2.3.4	B	H	1- 2					?					? S The question states that the work requires two people. To be more clear with the question, consider asking for the most limiting time (maximum) that each of the workers can stay in the radiation area. How are "A" and "B" plausible? Have the licensee explain the calculation error that can lead the applicant to either 4 or 6 hours. Question status depends on plausibility of "A" and "B". Q revised to increase plausibility. SAT MAB 17OCT2007
73	G2.4.10	N	F	2										S Question is SAT.
74	G2.4.18	B	F	2										US Question overlaps with Q#65 (double jeopardy concerns). They both test reasons for cooldown limits on NC. Both reasons are to prevent non-condensable gasses from forming in the head. Discuss with licensee.

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
														Q is SAT. O/L not an issue. MAB 17OCT2007
75	G2.4.25	B	F	2					x					<p>“B” is not plausible. It would not make sense to enter AP-990 and not also be required to enter AP-880.</p> <p>“D” does also does not make any sense with a fire in the Cable Spreading Room.</p> <p>Question must be replaced or significantly modified.</p> <p>Q modified as discussed on IP. SAT MAB 17OCT2007</p>
SRO EXAM														
1	003A2.02	N	H	2					X				x	<p>Not SRO only: ROs are required to know reactor trip criteria and RCP trip criteria. The question must be written to test knowledge that is specific to the SRO position. In other words, the question must be written to test knowledge that the SRO is required to know, but that the RO is not required to know.</p> <p>Q revised to adequately address SRO level. OK MAB 18OCT2007</p> <p>“D” is a subset of “C”. If “D” is correct, then “C” is also correct. Consider adding the word ONLY to “C” to ensure that it is unique as compared to “D”.</p> <p>Corrected with Q revision. OK MAB 18OCT2007</p>
2	004G2.2.25	N	F	3										<p>Question is SAT.</p> <p>Note: the question tests more than just TS Entry conditions. The question tests basis information that is needed to make an operability determination.</p>
3	005AA2.03	B	H	2									X	<p>Two rods drop to 70%. Is it necessary to state in the stem where the rest of the group is located? Is group 5 a rod group that would be full out at 75% power? – if so, then question is likely OK from a technical aspect.</p> <p>Not SRO only: ROs are required to know Tech Spec entry conditions. An applicant can arrive at the correct answer by only knowing Tech Spec entry conditions.</p> <p>“A” Plausibility: When was the last time the old requirement was in effect? Have any of these applicants been trained in this particular license program with this being the correct answer? “A” plausibility will be based on responses to these questions.</p> <p>Answer choices revised to incorporate TS Basis knowledge. Distractors are acceptable. SAT MAB 18OCT2007</p>

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation	
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A			SRO Only
4	009 AG2.4.4	N	H	2										E S	<p>Revise question part of stem. Questions should be asked to the effect of what is <u>required</u> to be used, not what <u>will</u> be used. I.E., "Which one of the following lists procedures that are required to be used for the above plant conditions?" Incorporated. OK MAB 18OCT2007</p> <p>Other than above comment, question is SAT.</p> <p>K/A should be an "AG", vice "G". Corrected. MAB 18OCT2007</p>
5 REF	025 AG2.1.25	B	H	2								x	U S	<p>Not SRO only: ROs are required to know how to use procedures and understand how to apply thermal hydraulic concepts to a time to boil calculation. This will be considered RO knowledge unless the licensee can show documented Learning Objectives that supports this being SRO-only knowledge at CR-3. SRO knowledge required to determine between "A" and "B" due to procedure requirements for containment closure. OK MAB 18OCT2007</p> <p>If the licensee is able to produce a learning objective that justifies Q being SRO-only, then have the licensee walk me through the various calculation errors that could lead an applicant to each of the distractors. Discussed with licensee. Q is at acceptable SRO level. MAB 18OCT2007</p> <p>Rarely is an entire procedure given to the applicants for a written exam question. The licensee must state specifically what parts of the procedure that they are proposing to provide the applicant. Q is now very specific on which references are to be provided. OK MAB 18OCT2007</p>	
6	026A2.08	N	H	2								x	E S	<p>In "A" and "B" change "should" to "is allowed to ". This will more closely tie it to what procedures permit, vice what should be done. Changed to "may." OK MAB 18OCT2007</p> <p>Change time in the stem to 5 hours to provide a better match to the K/A. This is a minor point, but someone may be able to argue that the K/A was not quite matched due to the K/A requiring testing of knowledge of securing spray <u>when it can be done</u>. - The correct answer will change. Changed to "6." OK MAB 18OCT2007</p> <p>This question should be SAT with incorporation of above comments. SAT MAB 18OCT2007</p>	
7	027AA2.11	N	H	2									E	<p>Is it possible to not state in the stem why RCP-1C was secured? SRO Q #1</p>	

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
														<p>tests info related to securing an RCP due to vibrations. Corrected. OK MAB 18OCT2007</p> <p>SRO only: Question tests more than simply TS entry conditions because the note within the SR section is needed to make the determination of the entry, thus making it SRO-only.</p>
8 REF	029G2.1.23	B	H	2				?	?			?	?	<p>U ? S</p> <p>Rarely is an entire procedure given to the applicants for a written exam question. The licensee must state specifically what parts of the procedure that they are proposing to provide the applicant. References to be provided are now specifically stated. OK MAB 18OCT2007</p> <p>Is there a typo on the referenced graph? "uncertainty"? If so after exam security is lifted a PCR may want to be considered. Discussed with licensee. MAB 18OCT2007</p> <p>With the supporting documentation provided, I cannot determine that 1350 is the correct time, after a loca, to start a continuous purge. I can verify that if 1350 is the correct time, then 14.5 appears to be the correct flowrate. I also cannot find any supporting documentation to justify if continuous purge or intermittent purge are required. There is no information provided in the stem, so an applicant must make a determination of whether a previous purge has taken place. Addressed with Q revision. OK MAB 18OCT2007</p> <p>Discuss technical aspects of supporting documentation, plausibility of distractors, accuracy of correct answer, and level of detail in the stem. Addressed with Q revision and discussion with licensee. OK MAB 18OCT2007</p> <p>This K/A does not have a 10CFR55.43 tie, so the licensee should be able to supply an SRO-only learning objective to justify this question as SRO-only knowledge. Discussed with licensee. Q is testing SRO knowledge. OK MAB 18OCT2007</p> <p>This question will have to be reviewed when more information is supplied.</p>
9	034A4.02	B	F	1					X					<p>U S</p> <p>"A" and "C" are the same answer choice. They both describe a portion of the current plant configuration. Just because "C" states that audible indication is available in containment, does not mean that there is a problem with visual indication. In other words, "A" and "C" are not mutually exclusive answer choices, which cause them to be non-plausible distractors. Q revised. SAT MAB 18OCT2007</p>

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
														“D” is not plausible because if the situation is important enough to stop fuel movement (a core alteration), then the situation would also be important enough to suspend rod shuffle (a core alteration). Q revised. SAT MAB 18OCT2007
10	036AA2.02	M	F	1					x					U S “A” is not plausible because the issue is not related to fuel movement. Deleted last part of “A.” OK MAB 18OCT2007 “C” is not plausible because this is just a schedule item. If fuel movement is suspended, then the outage schedule will take a hit, but there are no safety consequences. Replaced. OK MAB 18OCT2007
11	054AA2.04	N	H	2								x	U S Not SRO-only: The question can be answered using only systems knowledge. Discuss with licensee. Replacement Q is SAT. MAB 18OCT2007	
12	055EA2.02	N	H	2									E S Stem asks for which rules are in effect, but should ask for which rule is in effect (singular) because each answer choice only lists one rule. Corrected. OK MAB 18OCT2007 Discuss with licensee the aspects that cause this question to be SRO-only. Accepted as SRO-only Q. MAB 18OCT2007	
13	062A2.16	N	H	2								X?	? S All answer choices should state which procedure(s) is/are <u>required</u> to be entered, not which <u>should</u> be entered. Answer choices modified to test EDG status and operability. MAB 18OCT2007 In the stem, change the words from “assuming” to what the actual conditions are in the plant. There is no need for the applicant to assume when we can tell them exactly what the plat conditions are that they need to consider for answering the question. I.E., “Two of the three A ES Bus degraded voltage (SLUR) relays have actuated. Which one of the following states that status of the ‘A’ EDG and procedure(s) required to be entered?” Incorporated. OK MAB 18OCT2007 ROs are generally required to know AOP entry conditions. How does this question test SRO-only knowledge? Does the licensee have an SRO-only learning objective? Discuss the merits of this Q being SRO-only. Q status will be linked to justification of SRO-only knowledge. Q now tests operability knowledge. OK MAB 18OCT2007	
14	064G2.1.22	B	H	2								x	U Not SRO-only: The applicant can use tech spec entry conditions to arrive at the correct answer. It is true that the condition in TS 3.8.3 for fuel oil	

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
REF														S capacity is below the applicability statement, but this is related to a 1 hour action statement. But, the applicant does not need to know the fuel oil level anyway because using just entry condition knowledge allows the applicant to determine that no actions are required because the conditions of the LCO being met. Answer choices replaced. No references are now being provided to applicants. OK MAB 18OCT2007
15 REF	067 AG2.4.41	N	H	2										E S It may be dangerous to supply 16 pages of enclosure 1 to the applicants, as the question documentation suggests. Every word of supplied references needs to be scrubbed to ensure that they do not impact any of the other 99 questions on the exam. For this reason, fewer provided references are usually better than more provided references. Discuss with the licensee which pages of Enc 1 need to be supplied. 2 pages now being supplied. OK MAB 18OCT2007 A statement in the stem to the effect that all other system alignments are in their normal configuration for 100% power operation may be needed. This will ensure that applicants do not need to make any assumptions about the other electrical train. Not needed. OK MAB 18OCT2007 Question must be specific on what point in time the applicant is required to answer the question. Maybe add to the question, "...must be entered at the time the security officer makes his report to the control room?" The original wording may have been explicit enough, I just don't want to take any chances of the applicants making an incorrect assumption. "5 min after alarm" was added. OK MAB 18OCT2007
16	069 AG2.1.12	N	H	2										E S "A" is not plausible. How can moving fuel in Mode 4 be a credible distractor? I am not sure how these answer choices are supposed to be interpreted, but they do not make sense to me, unless I am reading them incorrectly. Are you attempting to ask if fuel can be moved while still in Mode 6? And then asking if a mode change to either Mode 4 or Mode 3 is allowed based on the leakage? – Some clarification and rewording may make this question acceptable. Wording enhancements corrected concerns of "A" plausibility. OK MAB 18OCT2007 Last minute revisions made. SAT MAB 19OCT2007
17	071A2.02	B	H	2				x						E S I will need to see some documentation for the plausibility of "D". Where in procedures are independent valve alignments needed for independent samples? Also "D" is the only answer choice that does not state a time interval.

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
														<p>Wording enhancements corrected concerns of "D" plausibility. OK MAB 18OCT2007</p> <p>Be consistent within the question for spelling the number four, or using the actual number. Corrected. MAB 18OCT2007</p>
18	BW/E05 EG2.1.7	B	H	2						?			?	<p>S ?</p> <p>Have the licensee explain how knowledge of entry conditions and EOP-13 Rules are SRO-only knowledge. Does the licensee have SRO-only learning objectives? SRO justification added to Q analysis. OK MAB 18OCT2007</p> <p>Would EOP-2 be entered at any time for the given conditions? If so, then would it be possible for "B" to be considered a correct answer? Would it be possible that EOP-2 would be an appropriate operating procedure, as well as EOP-5? Stem strengthened to address concern. Immediate actions and symptom scan completed. OK MAB 18OCT2007</p>
19 REF	G2.1.34	N	H	1- 2										<p>U S</p> <p>Question should be worded to ask for required actions, not what should be done.</p> <p>Licensee must be specific on what pages of the provided reference will be proposed.</p> <p>With page 6 of 62 of the provided reference being proposed, this question is not much more than a direct lookup. All the applicant has to do is compare a few numbers, determine the referenced action level, then read the definition of the action level. My concerns are with the LOD when the reference is provided. I also agree that this is not closed book knowledge, but the question does not discriminate at the appropriate level when the reference is provided.</p> <p>Q replaced. OK MAB 18OCT2007</p>
20	G2.1.4	B	F	2										<p>E S</p> <p>It is not clear to me if there are any other HP Techs on site. Two available techs go to the hospital, but that does not mean that they were the only two on site. (similar wording concerns about available PPOs) – This needs to be clear to ensure that "A" is not an alternate correct answer. Clarified. MAB 18OCT2007</p> <p>Generally it is better to place conditions in the stem for the applicant to analyze. I.E., placing conditions, as in "B" is generally not considered proper exam writing technique (backward logic per NUREG-1021). It would be better to state in the stem that shift turnover will occur in two hours and then allow the applicant to analyze that situation. This would</p>

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
														change "B" to read something like "No action is required. Minimum staffing is not met, but the oncoming shift will report within two hours." Corrected. MAB 18OCT2007
21	G2.2.17	N	F	2								x		<p>U S</p> <p>Tie the question directly to the procedure that contains the requirement. I.E., Which of the following is NOT a duty of the Operations' Work Control Coordinator in accordance with AI-500, Appendix 20?</p> <p>K/A Match: K/A requires testing knowledge of managing maintenance activities during power operations. All the applicant must know to answer this question is that the SSO is responsible for approving manpower. This does not test knowledge of managing a maintenance activity.</p> <p>Question replaced. SAT MAB 18OCT2007</p>
22 REF	G2.2.26	B	H	1- 2					x					<p>U S</p> <p>Is there any overlap concern with SRO Q#10? Discuss with licensee. It would appear to me that an applicant could figure out, using Enclosure 3 that a critical number for canal level is 156 ft. Addressed. MAB 18OCT2007</p> <p>This is a closed book exam. This question will be SAT if no references are provided; otherwise, the question will likely need to be replaced. It should be possible to test closed book knowledge to this K/A. This question appears to be testing closed book knowledge. Discuss with licensee. No Reference provided. MAB 18OCT2007</p> <p>Testing this as closed book would also alleviate concern with LOD. Also, distractor plausibility is an issue with the reference being provided. Q was replaced. MAB 18OCT2007</p>
23	G2.3.4	N	F	2										S Question is SAT.
24	G2.4.25	B	F	2										<p>E S</p> <p>Is it possible to replace "Vital Bus Inverter Room" with "Battery Charger Room." This is an easy change and it would change the question from a Bank to a Modified designation, which would increase the discrimination slightly. Discussed with licensee. Left as-is. OK MAB 18OCT2007</p>
25	G2.4.40	B	F	1					x					<p>U S</p> <p>"C" is not plausible. Notifications are rarely, if ever, made by the EC. Determined to be acceptable. MAB 18OCT2007</p> <p>"D" is not plausible. Any SRO can direct a plant shutdown. Determined to be acceptable. MAB 18OCT2007</p> <p>The above two distractors prevent this question from discriminating at the appropriate level. Replacement of "C" and "D" will be necessary for this</p>

Written Exam Review Worksheet
Crystal River 2007-301

Q#	K/A#	B M N	L O K	L O D	Psychometric Flaws					Content Flaws			U E S	Comment Explanation
					Stem Focus	Cues	T/F	1 Non Cred Dist	>1 Non Cred Dist	Partial	Min B/W	Q= K/A		
														question to be used. Determined to be acceptable due to the overall exam discriminating at the appropriate level. MAB 18OCT2007

Facility: <u>CRYSTAL RIVER</u> Date of Exam: <u>10/30/2007</u> Exam Level: RO <input checked="" type="checkbox"/> SRO <input checked="" type="checkbox"/>			
Item Description	Initials		
	a	b	c
1. Clean answer sheets copied before grading	<i>MB</i>	N/A	<i>MB</i>
2. Answer key changes and question deletions justified and documented - <i>None</i> -	N/A	N/A	<i>MB</i>
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<i>MB</i>	N/A	<i>MB</i>
4. Grading for all borderline cases (80 ±2% overall and 70 or 80, as applicable, ±4% on the SRO-only) reviewed in detail	<i>MB</i>	N/A	<i>MB</i>
5. All other failing examinations checked to ensure that grades are justified	<i>MB</i>	N/A	<i>MB</i>
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	<i>MB</i>	N/A	<i>MB</i>
	Printed Name/Signature		Date
a. Grader	<u>Georges W. Lancia / <i>Georges W. Lancia</i></u>		<u>11/27/2007</u>
b. Facility Reviewer(*)	<u>N/A</u>		<u>N/A</u>
c. NRC Chief Examiner (*)	<u>MARK A. BATES / <i>Mark A. Bates</i></u>		<u>11-27-2007</u>
d. NRC Supervisor (*)	<u>WALCOURT WIDMANN / <i>Walcourt Widmann</i></u>		<u>11/28/07</u>
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.			

Post-Examination Check Sheet	
Facility: CRYSTAL RIVER	Date of Examination: OCT 2007
Task Description	Date Complete
1. Facility written exam comments or graded exams received and verified complete	11/05/2007
2. Facility written exam comments reviewed and incorporated and NRC grading completed, if necessary	11/28/2007
3. Operating tests graded by NRC examiners	11/28/2007
4. NRC chief examiner review of operating test and written exam grading completed	11/28/2007
5. Responsible supervisor review completed	11/29/2007
6. Management (licensing official) review completed	11/29/2007
7. License and denial letters mailed	11/29/2007
8. Facility notified of results	11/29/2007
9. Examination report issued (refer to NRC MC 0612)	12/03/2007
10. Reference material returned after final resolution of any appeals	N/A



Crystal River Nuclear Plant
Docket No. 50-302
Operating License No. DPR-72

October 11, 2007
3F1007-08

U.S. Nuclear Regulatory Commission
Attn: Mr. Mark Bates
Sam Nunn Atlanta Federal Center
61 Forsyth Street, S.W., Suite 23T85
Atlanta, GA 30303-8931

Subject: Crystal River Unit 3 – 2007 Reactor Operator and Senior Reactor Operator Initial Examinations – Submittal of Scenarios and Job Performance Measures

Reference: NRC to CR-3 letter, dated April 27, 2007, “Reactor and Senior Reactor Operator Initial Examinations – Crystal River Nuclear Plant 05000302/2007301”

Dear Sir:

During the recent NRC Initial Examination Preparation visit conducted at Crystal River Unit 3 (CR-3) during the week of October 4, 2007, it was requested that CR-3 submit specific examination materials by October 16, 2007. These materials are in support of the initial license examinations that will be conducted at CR-3 during October 2007.

Attached to this submittal, Florida Power Corporation (FPC), doing business as Progress Energy Florida, Inc., hereby provides the following requested documents: the examination scenarios and the job performance measures (JPMs).

FPC requests that the information contained in the attachments to this letter be exempt from public disclosure under the provision of 10 CFR 2.390(a)(6) since disclosure would constitute an unwarranted invasion of personal privacy.

If you have any questions regarding this submittal, please contact Mr. Mark Broussard, Acting Supervisor, Operator Initial Training at (352) 795-0504, ext. 6260 or Mr. Floyd Lawrence, Senior Nuclear Operations Training Instructor at (352) 795-0504, ext. 6126.

Sincerely,

M. J. Annacone
Plant General Manager

MJA/ff

Attachments

xc: Senior Resident Inspector (w/o Attachments)
Malcolm T. Widmann, Region II (w/o Attachments)

Progress Energy Florida, Inc.
Crystal River Nuclear Plant
15760 W. Powerline Street
Crystal River, FL 34428



Crystal River Nuclear Plant
Docket No. 50-302
Operating License No. DPR-72

October 11, 2007
3F1007-09

U.S. Nuclear Regulatory Commission
Attn: Mr. Mark Bates
Sam Nunn Atlanta Federal Center
61 Forsyth Street, S.W., Suite 23T85
Atlanta, GA 30303-8931

Subject: Crystal River Unit 3 – 2007 Reactor Operator and Senior Reactor Operator Initial Examinations – Submittal of Final Written (Final Draft) Examination

Reference: NRC to CR-3 letter, dated April 27, 2007, “Reactor and Senior Reactor Operator Initial Examinations – Crystal River Nuclear Plant 05000302/2007301”

Dear Sir:

During the recent NRC Initial Examination Preparation visit conducted at Crystal River Unit 3 (CR-3) during the week of October 4, 2007, it was requested that CR-3 submit specific examination material by October 18, 2007. These materials are in support of the initial license examinations that will be conducted at CR-3 during October 2007.

Attached to this submittal, Florida Power Corporation (FPC), doing business as Progress Energy Florida, Inc., hereby provides the requested final written (final draft) examination.

FPC requests that the information contained in the attachments to this letter be exempt from public disclosure under the provision of 10 CFR 2.390(a)(6) since disclosure would constitute an unwarranted invasion of personal privacy.

If you have any questions regarding this submittal, please contact Mr. Mark Broussard, Acting Supervisor, Operator Initial Training at (352) 795-0504, ext. 6260 or Mr. Floyd Lawrence, Senior Nuclear Operations Training Instructor at (352) 795-0504, ext. 6126.

Sincerely,

M. J. Annacone
Plant General Manager

MJA/ff

Attachments

xc: Senior Resident Inspector (w/o Attachments)
Malcolm T. Widmann, Region II (w/o Attachments)