FACILITY NAME: ____St Lucie _____ Section 7

REPORT NUMBER: __2009 - 302_____

FINAL ADMINISTRATIVE DOCUMENTS

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Location of Electronic Files:

Submitted By: __R/Baldwin_____ Verified By:_____

Facility: 2009-302 St. Lucie Date of Examination: 01/11/2010

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

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

* 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.

FINAL

ES-201 **Examination Outline Quality Checklist** **Form ES-201-2**

Facility: St. Lucie Date of Examination: Oct. 19, 2009

Item	Task Description	Initials a	Initials b*	Initials c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	LAL	OK	pb
	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.	LAL	LK	pb
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	LAL	LK	pb
	d Assess whether the justifications for deselected or rejected K/A statements are appropriate.	LAL	LK	pb
2. SIMULATOR	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	LAL	LK	↑ **
	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.	LAL	LK	
	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.	LAL	LK	
3. W / T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.	LAL	LK	
	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	LAL	LK	
	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.	LAL	LK	
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	LAL	LK	
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	LAL	LK	
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	LAL	LK	
	d. Check for duplication and overlap among exam sections.	LAL	LK	
	e. Check the entire exam for balance of coverage.	LAL	LK	
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	LAL	LK	#

	Printed Name/Signature	Date
a. Author	LARRY RICH	10-13-09
b. Facility Reviewer (*)	David Leny	10/9/09
c. NRC Chief Examiner (#)	RICHARD S. BALDWIN	11/17/09
d. NRC Supervisor	MALCOLM T. WIDMANN	11/18/09

Note. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.
* Not applicable for NRC-prepared examination outlines

FINAL

** REVIEWED ON 10/13/09 - on sheet 1 of 2

FINAL

ES-201 **Examination Outline Quality Checklist** **Form ES-201-2**

Facility: St. Lucie Date of Examination: Oct. 19, 2009

Item	Task Description	Initials a	Initials b*	Initials c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	LAR	RJK	
	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.	LAR	RK	
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	LAR	RK	
	d Assess whether the justifications for deselected or rejected K/A statements are appropriate.	LAR	RK	
2. SIMULATOR	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	LAR	RK	PWS
	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.	LAR	RK	PWS
	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.	LAR	RK	PWS
3. W/T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.	LAR	RK	PWS
	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	LAR	RK	PWS
	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.	LAR	RK	PWS
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	LAR	RK	PWS
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	LAR	RK	PWS
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	LAR	RK	PWS
	d. Check for duplication and overlap among exam sections.	LAR	RK	PWS
	e. Check the entire exam for balance of coverage.	LAR	RK	PWS
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	LAR	RK	PWS

	Printed Name/Signature	Date
a. Author	LARRY RICH	10-13-09
b. Facility Reviewer (*)	David Leary	10/6/09
c. NRC Chief Examiner (#)	RICHARD S BALDWIN	10/13/09
d. NRC Supervisor	WILLIAM T WILLIAMS	10/13/09

Note: # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.
* Not applicable for NRC-prepared examination outlines

** WRITTEN EXAM - ADMINISTERED DATE 12/15/09 - at 10/13/09 - WRITTEN EXAM NOT FINALIZED RJK

FINA

ES-201 **Examination Outline Quality Checklist** **Form ES-201-2**

Facility: St. Lucie Nuclear Plant Date of Examination: 1/11/2010

Item	Task Description	Initials a	Initials b*	Initials c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	N/A	N/A	N/A
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	↓	↓	↓
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.			
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.			
2. SIMULATOR	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	B	DL	[illegible]
	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.	B	DL	[illegible]
	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.	B	NL	[illegible]
3. W/T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.	B	DL	[illegible]
	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	B	[illegible]	[illegible]
	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.	B	DL	[illegible]
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	B	NL	[illegible]
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	B	NL	[illegible]
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	B	NL	[illegible]
	d. Check for duplication and overlap among exam sections.	B	NL	[illegible]
	e. Check the entire exam for balance of coverage.	B	NL	[illegible]
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	B	NL	[illegible]

* ON Previous ES-201-2 Form.

	Printed Name/Signature	Date
a. Author	Terry Banta	12/21/09
b. Facility Reviewer (*)	Dave Carey	12/21/09
c. NRC Chief Examiner (#)	RICHARD S. BALDWIN	1/06/10
d. NRC Supervisor	MALCOLM T. WIDMANN	01/06/2010

Note: # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.
* Not applicable for NRC-prepared examination outlines

1. Pre-Examination

9-28-09 to 01/17/10

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 10-5-09 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 1/11/10. 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.	Fred Dennis	LOCT EXAM		10/20/9		1/18/10	
2.	J.D. Carpenter	LOCT Exam		10/20/09		1/19/10	
3.	A. TERE BALES	S.R.O / EXAM VALIDATOR / ISTA		10/20/09		1/25/10	
4.	Doug Watson	Operating Exam Developer		10/20/09		1/15/10	
5.	C. Marple	SRO / Validator SIM		10/30/09		1/22/10	
6.	A. Uber	RP Instructor		11/5/09		1/4/10	
7.	Dave Brown	Shift Mgr / LOPU		11/18/09		1/14/10	
8.	Jeff McKinney	RO		11-12-09		1-22-10	
9.	Mike Blackett	ROM-Trainee		11/12/09		1/27/10	
10.	Jack Blackwell	SRO Instr.		12/16/09		1/15/10	
11.							
12.							
13.							
14.							
15.							

NOTES:

1. Pre-Examination

9-28-09 to 01/17/10

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of ~~1-5-09~~ 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 1/11/10. 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.	Chuck Oliver	RCO/Written Exam Valid		8-6-9		1-19-10	
2.	RD Pitts	SRO/Exam validator	RDPitts	8-6-9	RDPitts	1-22-10	
3.	Jim Kudo	SRO/Exam Validator		8/7/09		1/26/10	
4.	Jeff Abernathy	SRO/Exam Validator		8/12/09			(1)
5.	Fred Pollak	SRO/Exam Validator		8/14/9		1/26/10	
6.	Mark Verbeck	Train Supervisor/Exam Prep		9/9/9		1/15/10	
7.	Alyssa Greenspan	Admin support/Admin		9-11-09		1-15-10	
8.	Mike Baughman	Task Support Supv		10/9/09		1-15-10	
9.							
10.							
11.							
12.							
13.							
14.							
15.							

NOTES:

(1) See attached scanned signature

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 1/11/10 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 1/11/10. 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.	MARK R. ROTHMAN	INSTRUCTOR/SAFETY/MAINT.		1/8/10		1/14/10	
2.	L. RICHARD RUCK	INST./MAINT.		1/8/10		1/19/10	
3.	Robert T. Eqvenson	Instructor / Technical		1/8/10		1/14/10	
4.	Philip J Rogers	INSTRUCTOR ASSIGNED		1/8/10		1/14/10	
5.	~~WILLIAM~~ J. CHALFANT	INST. - OPS		1/4/10		1-16-10	
6.	Ronnie Lingle	OPS MGR		1-9-10		1-22-10	
7.	WALT WEBSTER	SIM ENG		1/13/10		1/15/10	
8.	NICK RADAK	SIM ENG		1-13-10		1-14-10	
9.	SETH DUSTIN	TRAINING MGR		1/13/10		1/25/10	
10.	~~ROBERT~~ FORTE	HP TECH		1-14-10		1-14-10	
11.	Joe Lewallis	H.P. tech		1-14-10		1-14-10	
12.	Rich Oretz	INSTRUCTOR		1-14-10		1-22-10	
13.							
14.							
15.							

NOTES:

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9-28-09 to 01/17/10 ~~10-5-09~~ 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 1/11/10. 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.	LARRY RICH	NRC EXAM DEVELOPER		4-6-09	*	1/22/10	*
2.	Charles Rogers	NRC Exam Developer		4/13/09		1/14/10	
3.	Dennis BORDMANN	NRC Exam Developer		5/18/09		1/20/10	
4.	Charles R SIZEMORE	MANAGER FLEET OPS TRAINING		5/19/09			(1)
5.	Reid Watson	SEG Engineer		6/5/09		1/19/10	
6.	JOSEPH SORRENTINO	SEG EQ		6/5/09		1/26/10	
7.	Tom Brown	RCO		7-14-09			(1)
8.	CLYDE PRICE	RCO		7/14/09			(1)
9.	Jerry Benton	LOCT Supervisor		7/14/09		1/15/10	
10.	Paul RAVENSWAY	EXAM DEVELOPER		7/23/09		1/19/10	
11.	JASON WEST	SRO/VALIDATOR		7/29/09		1/22/10	
12.	KEVIN KIRCHBAUM	SRO / VALIDATOR		7/28/09		1/15/10	
13.	Bob Tremaine	SRO / Validator		7/29/09			(2)
14.	David Long	SRO / Validator		7/29/09		1/19/10	
15.	ROGER SHERWOOD	SRO / VALIDATION		7/30/09		1-22-10	

NOTES:

* Contractor no longer employed by FPL. Confirmed via telecon w/ Larry Rich.

(1) See scanned signature.

(2) No longer employed with FPL.

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9-28-09 to 04/17/10 ~~10-5-09~~ 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 1/11/10. 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.	LARRY RICH	NRC EXAM DEVELOPER		4-6-09			
2.	Charles Rogers	NRC Exam Developer		4/13/09		1/14/10	
3.	Dennis Bordmann	NRC Exam Developer		5/18/09		1/20/10	
4.	Charles R. Sizemore	MANAGER FLEET OPS TRAINING		5/19/09		1/25/10	(1)
5.	Reid Watson	SEC Engineer		6/5/09		1/19/10	
6.	JOSEPH SORRENTINO	SEC IPE		6/5/09			
7.	Tom Brown	RCO		7-14-09			
8.	CLYDE PRICE	RCO		7/14/09			
9.	Jerry Benton	LOCT Supervisor		7/12/09		1/15/10	
10.	PAUL FAVROW	EXAM DEVELOPER		7/23/09		11/9/10	
11.	JASON WEST	SRO/VALIDATOR		7/29/09		1/22/10	
12.	KEVIN KERCHBAUM	SRO / VALIDATOR		7/29/09		1/15/10	
13.	Bob Tremaine	SRO / Validator		7/29/09			
14.	David Long	SRO / Validator		7/29/09			
15.	ROGER SHERWOOD	SRO / VALIDATION		7/30/09			

NOTES:

1. **Pre-Examination**

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9-28-09 to 01/17/10 ~~1-5-09~~ 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 1/11/10. 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.	LARRY RICH	NRC EXAM DEVELOPER		4-6-09		1/29/10	*
2.	Charles Rogers	NRC Exam Developer		4/13/09		1/14/10	
3.	Dennis Bordwine	NRC Exam Developer		5/18/09		1/20/10	
4.	Charles P Sizemore	MANAGER FLEET OPS TRAINING		5/19/09			(1)
5.	Reid Watson	SEG Engineer		6/5/09		1/19/10	
6.	Joseph Sorrentino	SRO Instr		6/5/09		1/26/10	
7.	Tom Brown	RCO		7-14-09		1-27-10	
8.	CLYDE FREEZE	RCO		7/14/09		1/27/10	
9.	Jerry Benton	LOCT Supervisor		7/12/09		1/15/10	
10.	Paul Favinger	EXAM DEVELOPER		7/23/09		11/4/10	
11.	JASON WEST	SRO/VALIDATOR		7/25/09		1/22/10	
12.	KEVIN KIRCHBAUM	SRO / VALIDATOR		7/28/09		1/15/10	
13.	Bob Tremaine	SRO / Validator		7/29/09			(2)
14.	David Long	SRO/Validation		7/29/09		1/14/10	
15.	ROGER SHERWOOD	SRO / VALIDATION		7/30/09		1-11-10	

NOTES:

* Contractor no longer employed by FPL. Confirmed via telecon w/ Larry Rich.

(1) See scanned signature.

(2) No longer employed with FPL.

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

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9-28-09 to 04/17/10 ~~10-5-09~~ 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 1/11/10. 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.	LARRY RICH	NRC EXAM DEVELOPER		4-6-09 *		4/20/10 *	
2.	Charles Rogers	NRC Exam Developer		4/13/09		4/19/10	
3.	Dennis Bordenave	NRC Exam Developer		5/18/09		4/29/10	
4.	Charles R. Sizemore	MANAGER FLEET OPS TRAINING		5/19/09			①
5.	Reid Watson	SEG Engineer		6/5/09		4/9/10	
6.	Joseph Sorrentino	SEG I&C		6/5/09		11/26/10	
7.	Tom Brown	RCO		7-14-09			①
8.	CLYDE PREEC	RCO		7/14/09			①
9.	Jerry Benton	LOCT Supervisor		7/12/09		4/15/10	
10.	Paul Ravenscroft	Exam Developer		7/23/09		11/9/10	
11.	JASON WEST	SRO/VALIDATOR		7/29/09		5/22/10	
12.	KEVIN KERCHNER	SRO / VALIDATOR		7/30/09		11/8/10	
13.	Bob Trimble	SRO / Validator		7/29/09			② 2/1/2010
14.	David Lang	SRO/Validator		7/29/09		11/9/10	
15.	ROGER SHERWOOD	SRO / VALIDATION		7/30/09		11-10	

NOTES:

* Contractor no longer employed by FPL. Confirmed via telecon w/ Larry Rich.

① See scanned signature.

② No longer employed with FPL.

1. Pre-Examination

9-28-09 to 01/17/10

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of ~~1-5-09~~ 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 1/11/10. 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.	Chuck Oliver	RCO / Written Exam Valid		8-6-9		1-19-10
2.	RO Pitts	SRO / Exam Validator	RO Pitts	8-6-9	RO Pitts	1-22-10
3.	Tim Kudo	SRO / Exam Validator		8/7/09		1/26/10
4.	Jeff Abernathy	SRO / Exam Validator		8/12/09		1/22/10
5.	Fred Pallak	SRO / Exam Validator		8/4/9		1/26/10
6.	Mark Verbeck	Train Supervisor / Exam Prep		9/9/9		1/15/10
7.	Alyssa Greenspan	Admin Support / Admin		9-11-09		1-15-10
8.	Mike Baughman	Train Support Supv		10/9/09		1-15-10
9.						
10.						
11.						
12.						
13.						
14.						
15.						

NOTES:

Facility: St. Lucie Plant		Date of Examination: 01/ 05 /10
Examination Level: RO ☐ SRO ☐		Operating Test Number: HLC-19A NRC
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	M, R	Determine Shutdown Margin Unit 2
Conduct of Operations	N, R	Determine Time to Boil on Loss of Shutdown Cooling
Equipment Control	N, S	(RO Part 1 only) Part 1: Obtain a Flux Log from the DCS and delete Incore(s) Detector(s) from the DCS. (SRO Part 1 and part 2) Part 2: Determine from deleted Incores, applicable FSAR operability
Radiation Control	M, R	Evaluate Survey Map Data
Emergency Procedures/Plan (SRO)	N, R	Respond to Security Event
NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when all 5 are required.		
* Type Codes & Criteria:	(C)ontrol room, (S)imulator, or Class(R)oom (D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes) (N)ew or (M)odified from bank (≥ 1) (P)revious 2 exams (≤ 1; randomly selected)	

FINAL

ADMINISTRATIVE JPM SUMMARY DESCRIPTION

FINAL

CONDUCT OF OPERATION

A1 - (RO/SRO) Determine Shutdown Margin, Unit 2

Unit 2 was at 100% power for 120 days, 3143 EFPH. An automatic reactor / turbine trip just occurred. CEA 8 did not drop and is at 132" withdrawn. Current RCS temperature is 532°F, RCS C_b is 962 ppm, and current time is 0500. You are directed to verify shutdown margin for the current plant conditions.

CONDUCT OF OPERATION

A2 - (RO/SRO) Determine time to boil on loss of Shutdown cooling

Unit 1 is in a Refueling outage preparing to lift the Reactor Vessel head. RCS level is 35 feet. A loss of Shutdown Cooling occurs. Determine the time to boil and the flow to makeup for Boil-Off.

Given:

- RCS temperature is 95°F
- The Unit was tripped on Oct. 18, at 0000
- Loss of Shutdown Cooling occurred at: Oct 23, 0100

The Applicant will be using 1-0440030, "Shutdown Cooling Off-Normal" Tables 2, 3, 4, Figure 1 and Data Sheet 1 to determine the above.

EQUIPMENT CONTROL

A3 - (RO/SRO)

(RO) Part 1 only: Obtain a Flux Log from the DCS and delete an Incore Detector form the DCS.
(SRO) Part 1 and
Part 2: Determine from deleted Incores, applicable FSAR operability.

RADIATION CONTROL

A4 - (RO/SRO)

Using the Survey map, determine the radiological postings in each Unit 1 Charging pump room.

EMERGENCY PROCEDURES / PLAN

FINAL

A5 - (SRO) Response to Security Event

Both Units are at 100% power. Unit 1, 1A Diesel Generator is running loaded for the 180 day surveillance test. Unit 2, 2C AFW pump is running for a surveillance test to satisfy post maintenance testing requirements.

At 0815, the Shift Manager receives a report from the NRC of an Airborne Threat. The estimated time to site arrival is 0855. A track of interest is verified by the NRC due to anomalous flight activity. The Shift Manager is to:

- Determine appropriate plant actions to take IAW Appendix D, "RESPONSE TO INFORMATIONAL AIRBORNE THREAT" of ONP-72.01, "Response to Security Events"
- Determine if the E-plan is to be implemented and if so, classify the event. (time critical action of 15 minutes from 0815)
- If classified, fill out the State of Florida notification form.

NOTE: the applicant will be given the entire procedure, ONP-72.01, "Response to Security Events" and Classification of Emergency procedures. They will be required to determine what appendix to implement, what actions to take and what classification to declare. They will also be required to fill out the State of Florida Notification form. The time critical portion of this JPM is to classify within 15 minutes of the 0815 time.

FINAL

ES-301 **Control Room/In-Plant Systems Outline** **Form ES-301-2**

Facility: St. Lucie Plant	Date of Examination: 01/11/2010
Exam Level: RO ☐ SRO-I ☐ SRO-U ☐	Operating Test No.: HLC-19A NRC

Control Room Systems@ (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)		
System / JPM Title	Type Code*	Safety Function
SI Alternate Charging flowpath to RCS through "A" HPSI header, Unit 2 (0821115)	S, A, M, L	2
S2 Manually actuate AFAS, Unit 2 (modified from 0821077)	S, A, M, L	4s
S3 Emergency Borate Unit 2	S, A, N, L	1
S4 Cool the Quench Tank, Unit 2	S, N	5
S5 Place the Pressurizer on Recirc. Unit 2	S, A, N	3
S6 Respond to Control Room OAI radiation alarms, Unit 2	S, A, N	7
S7 Energize 2A3 4.16KV bus from Unit 1 SBO cross tie breaker (0821129T)	S, D, L	6
C8 (RO Only) Respond to CCW Excessive Activity - Unit 1 (0821030)	C, D	8
C9 (RO Only) Vent Reactor Vessel Head Using RCGVS - UNIT 1 (0821213)	C, D	4
In-Plant Systems@ (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
P1 Align 1C Intake Cooling Water Pump to the "A" header (0821093)	D	4s
P2 Align emergency cooling water to the 1A Instrument air compressor (0821068)	D, E	8
P3 Blend to the VCT using local control Unit 1	R, M	2

@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must 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
(EN)gineered safety feature	- / - / ≥1 (control room system)
(L)ow-Power / Shutdown	≥ 1 / ≥ 1 / ≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)
(R)CA	≥ 1 / ≥ 1 / ≥ 1
(S)imulator	

JPM SUMMARY DESCRIPTION

FINAL

S1: Alternate Charging flowpath to RCS through "A" HPSI header

Unit 2 is in 2-EOP-15, "Functional Recovery". Normal Charging flowpath is NOT available due to a Charging header break between V2429 and V2523. Appendix T, "Alternate Charging Flow Path to the RCS Through the 'A' HPSI Header" is required to be implemented in attempt to maintain Pressurizer Level 30 to 68% while the HPSI Pumps are throttled. The 2B Charging pump is out of service at turnover. When the applicant starts the 2A Charging pump, it trips 5 seconds later. The only available Charging pump is the 2C. The applicant should refer back to the procedure and use the 2C Charging pump to complete the lineup.

S2: Manually actuate AFAS, Unit 2

Unit 2 has experienced a SGTR on the 2B SG. The 2B SG has been isolated and AFW flow to the 2A SG has isolated on an AFAS lockout due to ΔP between the 2A and 2B SG. AFAS-1 will be manually initiated. Upon manual initiation, MV-09-11 and MV-09-9 fail to open. When the applicant opens either valve it will trip 1 second later. (NOTE: both valves have this failure in but when either valve is placed to open it will clear the fault on the other valve, allowing the 2A OR the 2C AFW pump to feed the 2A SG).

S3: Emergency Borate Unit 2

Post trip actions are being performed with excessive cool down occurring. When Emergency boration is initiated. V2514 will not open. When the gravity feed valves are attempted to be open they also will not open. V2504, Refueling Water to the Charging pumps, among other manipulations will be required to successfully Emergency Borate.

S4: Cool the Quench Tank, Unit 2

Due to a weeping PORV V1474, the Quench tank is to be cooled IAW 2-NOP-01.07 Section 4.4 Lowering QT temperature by Feed and Bleed.

S5: Place the Pressurizer on Recirc. Unit 2

With the Unit at 100% power, direction is given to place the Pressurizer on recirc. As the heaters are energized and pressure setpoint lowered, the sprays valves will start to open. A malfunction in the controller will result in the PCV1100E going full open. Taking the controller to manual and lowering the output will not close the open valve, eventually requiring a manual trip prior to the TMLP trip setpoint. The reactor will fail to automatically trip if no action is taken. The 2B2 Reactor coolant pump must be stopped or the Unit will depressurize to SIAS setpoint.

S6: Respond to Control Room OAI radiation alarms, Unit 2

Unit 1 is experiencing a LBLOCA with a breach in Containment integrity. As a result of this release, Unit 2 Control Room has gone on ventilation recirc due to high radiation in the outside air intakes. Compliance with the procedure requires verification of ventilation lineup IAW 2-ONP-25.02, "Ventilation Systems", Appendix B. As Appendix B is being followed, numerous damper failures should be noted and corrective actions should be taken.

JPM SUMMARY DESCRIPTION

FINAL

S7: Energize A3 4.16KV bus from Unit 1 SBO cross tie breaker

Unit 2 is in a station blackout and Unit 1 has both emergency buses being supplied by their Diesel Generators. Direction is given to cross tie the 1AB and 2AB 4.16KV Bus IAW 1-EOP-99, Appendix V, "Receiving AC Power from Unit 1 using the SBO Crosstie" This JPM is time critical.

C8: (RO Only) Respond to CCW Excessive Activity - Unit 1

CCW surge tank level is increasing causing Annunciator S-6 to alarm. Local indication reveals high level in the surge tank. The Unit supervisor had directed the actions of ONOP 1-0310030, "CCW Off Normal Operation" to determined the cause of the high surge tank level. The Pressurizer steam space sample heat exchanger (1C) will be leaking. Isolation of the heat exchanger will stop the leak.

C9: (RO Only) Vent Reactor Vessel Head Using RCGVS - UNIT 1

A LOCA has occurred on Unit 1, forming a non-condensable bubble in the reactor vessel head. Direction has been given to vent the reactor vessel head to the Quench Tank IAW ONP 1-0120037, beginning with step 7.3.14.

P1: Align 1C Intake Cooling Water Pump to the "A" header

The 1A Intake Cooling Water pump is to taken out of service for maintenance. The 1C Intake Cooling Water pump is to be aligned to take it place IAW 1-NOP-21.03C, section 4.1. The electrical lineup required to support taking the 1A out of service has already been performed.

P2: Align emergency cooling water to the 1A Instrument air compressor

A LOOP has occurred on Unit 1. Direction is given to align the Emergency Cooling System to the 1A Instrument Air Compressor and start the Compressor IAW 1-EOP-99, "Appendix H "Operation of the 1A and 1B Instrument Air Compressors.

P3: Blend to the VCT using local control Unit 1

A blend to the VCT is required on Unit 1. FCV-2161 is unable to be opened. As a result, Appendix A of 1-ONP-02.01, Boron Concentration Control" is to be implemented to locally control addition of Boric acid and Primary water to blend to the VCT.

NOTE: A similar JPM to the above was performed during the 2008 NRC exam, but it was performed on the other unit, some different valve numbers, and entirely different valve locations. As a result this JPM is considered "Modified".

FINAL

ES-301 **Operating Test Quality Checklist** **Form ES-301-3**

Facility: St. Lucie Nuclear Plant Date of Examination: 1/11/2010 Operating Test Number: 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).	TB	DL	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	TB	DL	
c.	The operating test shall not duplicate items from the applicants' audit test(s). (see Section D.1.a.)	TB	DL	
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	TB	DL	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	TB	DL	
	2. Walk-Through Criteria	--	--	--
a.	Each JPM includes the following, as applicable: • initial conditions • initiating cues • references and tools, including associated procedures • reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time-critical by the facility licensee • operationally important specific performance criteria that include: – detailed expected actions with exact criteria and nomenclature – system response and other examiner cues – statements describing important observations to be made by the applicant – criteria for successful completion of the task – identification of critical steps and their associated performance standards – restrictions on the sequence of steps, if applicable	TB	DL	
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.	TB	DL	
	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.		TB	DL	

	Printed Name / Signature	Date
a. Author	Terry Benton	12/21/09
b. Facility Reviewer(*)	Dave Lanyi	12/21/09
c. NRC Chief Examiner (#)	RICHARD S. BALDWIN	01/06/2010
d. NRC Supervisor	MALCOLM T. WIDMANN	01/06/2010

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

FINAL

ES-301 **Simulator Scenario Quality Checklist** **Form ES-301-4**

Facilty: St. Lucie Nuclear Plant Date of Exam:1/11/2010 Scenario Numbers: 2/5/8/1 Operating Test No.: 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.	B	JC	pass
2.	The scenarios consist mostly of related events.	B	JC	pass
3.	Each event description consists of • the point in the scenario when it is to be initiated • the malfunction(s) that are entered to initiate the event • the symptoms/cues that will be visible to the crew • the expected operator actions (by shift position) • the event termination point (if applicable)	B	JC	pass
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.	B	JC	pass
5.	The events are valid with regard to physics and thermodynamics.	B	JC	pass
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	B	JC	pass
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.	B	JC	pass
8.	The simulator modeling is not altered.	B	JC	pass
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.	B	JC	pass
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.	B	JC	pass
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	B	JC	pass
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).	B	JC	pass
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	B	JC	pass

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

Facility: St. Lucie Nuclear Plant Date of Exam: 1/11/2010 Operating Test No.: 1

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		2 (100%)			5 (30%)			8 (2-3%)									
		CREW POSITION			CREW POSITION			CREW POSITION									
		SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP					R	I	U
SRO1	RX	1				1		1						3	1	1	0
	NOR	1												1	1	1	1
	I/C	2,4				2,3		3,6						6	4	4	2
	MAJ	6				6		6,7						4	2	2	1
	TS	3,5						2,4						4	0	2	2
SRO2	RX		1		1									2	1	1	0
	NOR				1					1				2	1	1	1
	I/C		2,7		2,3,5					4,5,9,10				6	4	4	2
	MAJ		6		6					6,7				4	2	2	1
	TS				2,4,5									3	0	2	2
RO1	RX								1					1	1	1	0
	NOR			1,5			1							3	1	1	1
	I/C			4,8			5,7,8,9		3,4,6,8					10	4	4	2
	MAJ			6			6		6,7					4	2	2	1
	TS														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 serve in both the SRO and the ATC positions, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position. If an Instant SRO *additionally* serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for the ATC position.

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

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

FINAL

Facility: St. Lucie Nuclear Plant Date of Exam: 1/11/2010 Operating Test No.: 1

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		2 (100%) CREW POSITION			5 (30%) CREW POSITION			8 (2-3%) CREW POSITION							R	I	U
		SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP							
SRO3	RX	1				1		1						3	1	1	0
	NOR	1												1	1	1	1
	I/C	2,4				2,3		3,6						6	4	4	2
	MAJ	6				6		6,7						4	2	2	1
	TS	3,5						2,4						4	0	2	2
SRO4	RX		1		1									2	1	1	0
	NOR				1					1				2	1	1	1
	I/C		2,7		2,3,5					4,5,9,10				6	4	4	2
	MAJ		6		6					6,7				4	2	2	1
	TS				2,4,5									3	0	2	2
RO2	RX								1					1	1	1	0
	NOR			1,5			1							3	1	1	1
	I/C			4,8			5,7,8,9		3,4,6,8					10	4	4	2
	MAJ			6			6		6,7					4	2	2	1
	TS														0	2	2

Instructions:

3.1 NUREG 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 serve in both the SRO and the ATC positions, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position. If an Instant SRO *additionally* serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for the ATC position.

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

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

FINAL

Facility: St. Lucie Nuclear Plant Date of Examination: 1/11/2010 Operating Test No.: 1

Competencies	APPLICANTS															
	SRO1 X				SRO2 X				RO1 X							
	SCENARIO				SCENARIO				SCENARIO							
	2(US)	5(RO)	8(US)		2(RO)	5(US)	8(BOP)		2(BOP)	5(BOP)	8(RO)					
Interpret/Diagnose Events and Conditions	2,5, 6,7, 8	2,3, 4	3,4, 5,6, 8		2,3, 6,7	2,3, 4,5, 6	4,5,6, 7,9,10		4,6,8	5,6,7, 8	3,4, 6,7, 8					
Comply With and Use Procedures (1)	1,2, 3,5, 6,9	1,2, 3,6	1,3, 6,10		1,2, 6	1,2, 3,5, 6,9	1,4,6, 10		1,5,9	1,6,9	1,3, 6,7					
Operate Control Boards (2)		1,2, 3,6			1,2, 3,7		1,4,5, 6,7,9, 10		1,4,6, 8,9	1,5,7, 8,9	1,3, 4,6, 7,8					
Communicate and Interact	1-8	1,2, 3,6	1,3, 4,5, 6,7		1,2, 3,6, 7	1-6	1,3,4, 5,6,7, 9,10		1,4,6, 8	1,5,7, 8,9	1,3, 4,7, 8					
Demonstrate Supervisory Ability (3)	1,2, 6,7, 8,9		1,3, 4,5, 6,7			1,2, 3,6, 7,9										
Comply With and Use Tech. Specs. (3)	3,5		2,4			2,4, 5										

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

Instructions:

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

FINAL

Facility: St. Lucie Nuclear Plant Date of Examination: 1/11/2010 Operating Test No.: 1

Competencies	APPLICANTS															
	SRO3 X				SRO4 X				RO2 X							
	SCENARIO				SCENARIO				SCENARIO							
	2(US)	5(RO)	8(US)		2(RO)	5(US)	8(BOP)		2(BOP)	5(BOP)	8(RO)					
Interpret/Diagnose Events and Conditions	2,5, 6,7, 8	2,3, 4	3,4, 5,6, 8		2,3, 6,7	2,3, 4,5, 6	4,5,6, 7,9,10		4,6,8	5,6,7, 8	3,4, 6,7, 8					
Comply With and Use Procedures (1)	1,2, 3,5, 6,9	1,2, 3,6	1,3, 6,10		1,2, 6	1,2, 3,5, 6,9	1,4,6, 10		1,5,9	1,6,9	1,3, 6,7					
Operate Control Boards (2)		1,2, 3,6			1,2, 3,7		1,4,5, 6,7,9, 10		1,4,6, 8,9	1,5,7, 8,9	1,3, 4,6, 7,8					
Communicate and Interact	1-8	1,2, 3,6	1,3, 4,5, 6,7		1,2, 3,6, 7	1-6	1,3,4, 5,6,7, 9,10		1,4,6, 8	1,5,7, 8,9	1,3, 4,7, 8					
Demonstrate Supervisory Ability (3)	1,2, 6,7, 8,9		1,3, 4,5, 6,7			1,2, 3,6, 7,9										
Comply With and Use Tech. Specs. (3)	3,5		2,4			2,4, 5										

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

Instructions:

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

FINAL

Facility: St. Lucie Nuclear Plant Date of Exam: 1/11/2010 Operating Test No.: 1

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

Instructions:

5. 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 serve in both the SRO and the ATC positions, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position. If an Instant SRO *additionally* serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for the ATC position.

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

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

FINAL

Facility: St. Lucie Nuclear Plant Date of Examination: 1/11/2010 Operating Test No.: 1

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

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

Instructions:

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

FINAL

Facility: St. Lucie Nuclear Plant Date of Exam: 1/11/2010 Operating Test No.: 1 with Alternate Lineup

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		2 (100%)			5 (30%)			8 (2-3%)									
		CREW POSITION			CREW POSITION			CREW POSITION									
		SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP					R	I	U
SRO1 X	RX	1				1								2	1	1	0
	NOR	1								1				2	1	1	1
	I/C	2,4				2,3				4,5,9,10				5	4	4	2
	MAJ	6				6				6,7				4	2	2	1
	TS	3,5												2	0	2	2
SRO2 X	RX		1		1			1						3	1	1	0
	NOR				1									1	1	1	1
	I/C		2,7		2,3,5			3,6						7	4	4	2
	MAJ		6		6			6,7						4	2	2	1
	TS				2,4,5			2,4						5	0	2	2
RO1 X	RX								1					1	1	1	0
	NOR			1,5			1							3	1	1	1
	I/C			4,8			5,7,8,9		3,4,6,8					10	4	4	2
	MAJ			6			6		6,7					4	2	2	1
	TS														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 serve in both the SRO and the ATC positions, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position. If an Instant SRO *additionally* serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for the ATC position.

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

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

FINAL

Facility: St. Lucie Nuclear Plant Date of Exam: 1/11/2010 Operating Test No.: 1 with Alternate Lineup

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		2 (100%)			5 (30%)			8 (2-3%)									
		CREW POSITION			CREW POSITION			CREW POSITION									
		SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP					R	I	U
SRO3 X	RX	1				1								2	1	1	0
	NOR	1								1				2	1	1	1
	I/C	2,4				2,3				4,5,9,10				5	4	4	2
	MAJ	6				6				6,7				4	2	2	1
	TS	3,5												2	0	2	2
SRO4 X	RX		1		1			1						3	1	1	0
	NOR				1									1	1	1	1
	I/C		2,7		2,3,5			3,6						7	4	4	2
	MAJ		6		6			6,7						4	2	2	1
	TS				2,4,5			2,4						5	0	2	2
RO2 X	RX								1					1	1	1	0
	NOR			1,5			1							3	1	1	1
	I/C			4,8			5,7,8,9		3,4,6,8					10	4	4	2
	MAJ			6			6		6,7					4	2	2	1
	TS														0	2	2

Instructions:

1 per 9. 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 serve in both the SRO and the ATC positions, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position. If an Instant SRO *additionally* serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for the ATC position.

2 per 10. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.

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

FINAL

Facility: St. Lucie Nuclear Plant Date of Examination: 1/11/2010 Operating Test No.: 1 w/Alt. Lineup

Competencies	APPLICANTS															
	SRO1 X				SRO2 X				RO X							
	SCENARIO				SCENARIO				SCENARIO							
	2(US)	5(RO)	8(US)		2(RO)	5(US)	8(BOP)		2(BOP)	5(BOP)	8(RO)					
Interpret/Diagnose Events and Conditions	2,5, 6,7, 8	2,3, 4	4,5,6, 7,9,10		2,3, 6,7	2,3, 4,5, 6	3,4,5, 6,8		4,6,8	5,6,7, 8	3,4, 6,7, 8					
Comply With and Use Procedures (1)	1,2, 3,5, 6,9	1,2, 3,6	1,4,6, 10		1,2, 6	1,2, 3,5, 6,9	1,3,6, 10		1,5,9	1,6,9	1,3, 6,7					
Operate Control Boards (2)		1,2, 3,6	1,4,5, 6,7,9, 10		1,2, 3,7				1,4,6, 8,9	1,5,7, 8,9	1,3, 4,6, 7,8					
Communicate and Interact	1-8	1,2, 3,6	1,3,4, 5,6,7, 9,10		1,2, 3,6, 7	1-6	1,3,4, 5,6,7		1,4,6, 8	1,5,7, 8,9	1,3, 4,7, 8					
Demonstrate Supervisory Ability (3)	1,2, 6,7, 8,9					1,2, 3,6, 7,9	1,3,4, 5,6,7									
Comply With and Use Tech. Specs. (3)	3,5					2,4, 5	2,4									

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

Instructions:

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

FINAL

Facility: St. Lucie Nuclear Plant Date of Examination: 1/11/2010 Operating Test No.: 1 w/Alt. Lineup

Competencies	APPLICANTS															
	SRO3 X				SRO4 X				RO2 X							
	SCENARIO				SCENARIO				SCENARIO							
	2(US)	5(RO)	8(US)		2(RO)	5(US)	8(BOP)		2(BOP)	5(BOP)	8(RO)					
Interpret/Diagnose Events and Conditions	2,5, 6,7, 8	2,3, 4	4,5,6, 7,9,10		2,3, 6,7	2,3, 4,5, 6	3,4,5, 6,8		4,6,8	5,6,7, 8	3,4, 6,7, 8					
Comply With and Use Procedures (1)	1,2, 3,5, 6,9	1,2, 3,6	1,4,6, 10		1,2, 6	1,2, 3,5, 6,9	1,3,6, 10		1,5,9	1,6,9	1,3, 6,7					
Operate Control Boards (2)		1,2, 3,6	1,4,5, 6,7,9, 10		1,2, 3,7				1,4,6, 8,9	1,5,7, 8,9	1,3, 4,6, 7,8					
Communicate and Interact	1-8	1,2, 3,6	1,3,4, 5,6,7, 9,10		1,2, 3,6, 7	1-6	1,3,4, 5,6,7		1,4,6, 8	1,5,7, 8,9	1,3, 4,7, 8					
Demonstrate Supervisory Ability (3)	1,2, 6,7, 8,9					1,2, 3,6, 7,9	1,3,4, 5,6,7									
Comply With and Use Tech. Specs. (3)	3,5					2,4, 5	2,4									

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

Instructions:

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

FINAL

DRAFT

ES-401, Rev. 9 **PWR Examination Outline** **Form ES-401-2**

Facility: St Lucie Date of Exam: October 2009 (REV.0).

Tier	Group	RO K/A Category Points												SRO-Only Points					
		K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G *	Total	A2		G*		Total
1. Emergency & Abnormal Plant Evolutions	1	3	3	3	N/A			3	3	N/A		3	18	3		3		6
	2	2	1	2				1	1			2	9	2		2		4
	Tier Totals	5	4	5				4	4			5	27	5		5		10
2. Plant Systems	1	3	2	3	3	1	1	2	3	3	3	4	28	3		2		5
	2	1	1	1	1	1	1	0	1	1	1	1	10	1	1	1		3
	Tier Totals	4	3	4	4	2	2	2	4	4	4	5	38	4		3		8
3. Generic Knowledge and Abilities Categories		1			2			3			4		10	1	2	3	4	7
		3			2			2			3			2	2	1	2	

1. Ensure that at least two topics from every applicable K/A category are sampled within each tier of the RO and SRO-only outlines (i.e., except for one category in Tier 3 of the SRO-only outline, the "Tier Totals" in each K/A category shall not be less than two).
2. The point total for each group and tier in the proposed outline must match that specified in the table. The final point total for each group and tier may deviate by ±1 from that specified in the table based on NRC revisions. The final RO exam must total 75 points and the SRO-only exam must total 25 points.
3. Systems/evolutions within each group are identified on the associated outline; systems or evolutions that do not apply at the facility should be deleted and justified; operationally important, site-specific systems that are not included on the outline should be added. Refer to ES-401, Attachment 2, for guidance regarding the elimination of inappropriate K/A statements.
4. Select topics from as many systems and evolutions as possible; sample every system or evolution in the group before selecting a second topic for any system or evolution.
5. Absent a plant-specific priority, only those K/As having an importance rating (IR) of 2.5 or higher shall be selected. Use the RO and SRO ratings for the RO and SRO-only portions, respectively.
6. Select SRO topics for Tiers 1 and 2 from the shaded systems and K/A categories.
7. *The generic (G) K/As in Tiers 1 and 2 shall be selected from Section 2 of the K/A Catalog, but the topics must be relevant to the applicable evolution or system.
8. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings (IRs) for the applicable license level, and the point totals (#) for each system and category. Enter the group and tier totals for each category in the table above; if fuel handling equipment is sampled in other than Category A2 or G* on the SRO-only exam, enter it on the left side of Column A2 for Tier 2, Group 2 (Note # 1 does not apply). Use duplicate pages for RO and SRO-only exams.
9. For Tier 3, select topics from Section 2 of the K/A catalog, and enter the K/A numbers, descriptions, IRs, and point totals (#) on Form ES-401-3. Limit SRO selections to K/As that are linked to 10 CFR 55.43.

Facility: St Lucie Date of Exam: October 2009 (Rev.0).

Tier	Group	RO K/A Category Points											SRO-Only Points		
		K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G* / Total	A2	G*	Total
1. Emergency & Abnormal Plant Evolutions	1	3	3	3	N/A			3	3	N/A		3 / 18	3	3	6
	2	2	1	2				1	1			2 / 9	2	2	4
	Tier Totals	5	4	5				4	4			5 / 27	5	5	10
2. Plant Systems	1	3	2	3	3	1	1	2	3	3	3	4 / 28	3	2	5
	2	1	1	1	1	1	1	0	1	1	1	1 / 10	1 | 1	1	3
	Tier Totals	4	3	4	4	2	2	2	4	4	4	5 / 38	4	3	8
3. Generic Knowledge and Abilities Categories		1			2			3			4	10	1	2	3	4 / 7
		3			2			2			3		2	2	1	2

1. Ensure that at least two topics from every applicable K/A category are sampled within each tier of the RO and SRO-only outlines (i.e., except for one category in Tier 3 of the SRO-only outline, the "Tier Totals" in each K/A category shall not be less than two).
2. The point total for each group and tier in the proposed outline must match that specified in the table. The final point total for each group and tier may deviate by ±1 from that specified in the table based on NRC revisions. The final RO exam must total 75 points and the SRO-only exam must total 25 points.
3. Systems/evolutions within each group are identified on the associated outline; systems or evolutions that do not apply at the facility should be deleted and justified; operationally important, site-specific systems that are not included on the outline should be added. Refer to ES-401, Attachment 2, for guidance regarding the elimination of inappropriate K/A statements.
4. Select topics from as many systems and evolutions as possible; sample every system or evolution in the group before selecting a second topic for any system or evolution.
5. Absent a plant-specific priority, only those K/As having an importance rating (IR) of 2.5 or higher shall be selected. Use the RO and SRO ratings for the RO and SRO-only portions, respectively.
6. Select SRO topics for Tiers 1 and 2 from the shaded systems and K/A categories.
7. *The generic (G) K/As in Tiers 1 and 2 shall be selected from Section 2 of the K/A Catalog, but the topics must be relevant to the applicable evolution or system.
8. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings (IRs) for the applicable license level, and the point totals (#) for each system and category. Enter the group and tier totals for each category in the table above; if fuel handling equipment is sampled in other than Category A2 or G* on the SRO-only exam, enter it on the left side of Column A2 for Tier 2, Group 2 (Note # 1 does not apply). Use duplicate pages for RO and SRO-only exams.
9. For Tier 3, select topics from Section 2 of the K/A catalog, and enter the K/A numbers, descriptions, IRs, and point totals (#) on Form ES-401-3. Limit SRO selections to K/As that are linked to 10 CFR 55.43.

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
007EG2.1.19	Reactor Trip - Stabilization - Recovery / 1	3.9	3.8											☑	Ability to use plant computer to evaluate system or component status.
008AA1 08	Pressurizer Vapor Space Accident / 3	3.8	3.8							☑					PRT level pressure and temperature
011EK3.14	Large Break LOCA / 3	4.1	4.2			☑									RCP tripping requirement
015AK2.08	RCP Malfunctions / 4	2.6	2.6		☑										CCWS
022AA1.08	Loss of Rx Coolant Makeup / 2	3.4	3.3							☑					VCT level
025AK1.01	Loss of RHR System / 4	3.9	4.3	☑											Loss of RHRS during all modes of operation
026AK3.02	Loss of Component Cooling Water / 8	3.6	3.9			☑									The automatic actions (alignments) within the CCWS resulting from the actuation of the ESFAS
027AK1.01	Pressurizer Pressure Control System Malfunction / 3	3.1	3.4	☑											Definition of saturation temperature
038EG2.4.18	Steam Gen. Tube Rupture / 3	3.3	4.0											☑	Knowledge of the specific bases for EOPs.
055EA1.06	Station Blackout / 6	4.1	4.5							☑					Restoration of power with one ED/G
056AK1.01	Loss of Off-site Power / 6	3.7	4.2	☑											Principle of cooling by natural convection

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
057AA2.01	Loss of Vital AC Inst. Bus / 6	3.7	3.8								☑				Safety injection tank pressure and level indicators
058AK3.01	Loss of DC Power / 6	3.4	3.7			☑									Use of dc control power by D/Gs
062AG2.1.7	Loss of Nuclear Svc Water / 4	4.4	4.7											☑	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior and instrument interpretation.
065AA2.08	Loss of Instrument Air / 8	2.9	3.3								☑				Failure modes of air-operated equipment
077AA2.10	Generator Voltage and Electric Grid Disturbances / 6	3.6	3.8							☑					Generator overheating and required actions
CE05EK2.1	Steam Line Rupture - Excessive Heat Transfer / 4	3.3	3.6		☑										Components, and functions of control and safety systems, including instrumentation, signals, interlocks, failure modes, and automatic and manual features.
CE06EK2.1	Loss of Main Feedwater / 4	3.3	3.7		☑										Components, and functions of control and safety systems, including instrumentation, signals, interlocks, failure modes, and automatic and manual features.

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
003AG2.1.28	Dropped Control Rod / 1	4.1	4.1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of the purpose and function of major system components and controls.
028AK1.01	Pressurizer Level Malfunction / 2	2.8	3.1	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	PZR reference leak abnormalities
032AK1.01	Loss of Source Range NI / 7	2.5	3.1	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Effects of voltage changes on performance
036AA1.02	Fuel Handling Accident / 8	3.1	3.5	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	ARM system
037AK3.07	Steam Generator Tube Leak / 3	4.2	4.4	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	Actions contained in EOP for S/G tube leak
051AG2.4.3	Loss of Condenser Vacuum / 4	3.7	3.9	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to identify post-accident instrumentation.
060AA2.02	Accidental Gaseous Radwaste Rel. / 9	3.1	4	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	The possible location of a radioactive-gas leak with the assistance of PEO, health physics and chemistry personnel
061AK2.01	ARM System Alarms / 7	2.5	2.6	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	Detectors at each ARM system location
CE09EK3.3	Functional Recovery / None	3.7	3.9	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	Manipulation of controls required to obtain desired operating results during abnormal, and emergency situations.

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
003K1.02	Reactor Coolant Pump	2.6	2.8	☑											RCP motor cooling and ventilation
003K6.02	Reactor Coolant Pump	2.7	3.1						☑						RCP seals and seal water supply
004A4.05	Chemical and Volume Control	3.6	3.1										☑		Letdown pressure and temperature control valves.
004G2.4.30	Chemical and Volume Control	2.7	4.1											☑	Knowledge of events related to system operations/status that must be reported to internal orginizations or outside agencies.
005A1.07	Residual Heat Removal	2.5	3.1							☑					Determination of test acceptability by comparison of recorded valve response times with Tech-Spec requirements
006K2.04	Emergency Core Cooling	3.6	3.8		☑										ESFAS-operated valves
007A4.09	Pressurizer Relief/Quench Tank	2.5	2.7										☑		Relationships between PZR level and changing levels of the PRT and bleed holdup tank
008A4.10	Component Cooling Water	3.1	3.1										☑		Conditions that require the operation of two CCW coolers
008K4.01	Component Cooling Water	3.1	3.3				☑								Automatic start of standby pump
010K1.08	Pressurizer Pressure Control	3.2	3.5	☑											PZR LCS
010K3.02	Pressurizer Pressure Control	4.0	4.1			☑									RPS

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
012A3.03	Reactor Protection	3.4	3.5									☑			Power supply
013A2.03	Engineered Safety Features Actuation	4.4	4.7								☑				Rapid depressurization
013G2.2.42	Engineered Safety Features Actuation	3.9	4.6											☑	Ability to recognize system parameters that are entry-level conditions for Technical Specifications
022A2.05	Containment Cooling	3.1	3.5								☑				Major leak in CCS
026A1.01	Containment Spray	3.9	4.2							☑					Containment pressure
039G2.4.2	Main and Reheat Steam	4.5	4.6											☑	Knowledge of system set points, interlocks and automatic actions associated with EOP entry conditions.
059A2.04	Main Feedwater	2.9	3.4								☑				Feeding a dry S/G
059A3.03	Main Feedwater	2.5	2.6									☑			Feedwater pump suction flow pressure
061K5.01	Auxiliary/Emergency Feedwater	3.6	3.9					☑							Relationship between AFW flow and RCS heat transfer
062G2.4.4	AC Electrical Distribution	4.5	4.7											☑	Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures.
063K2.01	DC Electrical Distribution	2.9	3.1		☑										Major DC loads

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
064K1.02	Emergency Diesel Generator	3.1	3.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	D/G cooling water system
073K3.01	Process Radiation Monitoring	3.6	4.2	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	Radioactive effluent releases
076K4.06	Service Water	2.8	3.2	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	Service water train separation
078A3.01	Instrument Air	3.1	3.2	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	Air pressure
078K4.02	Instrument Air	3.2	3.5	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	Cross-over to other air systems
103K3.02	Containment	3.8	4.2	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	Loss of containment integrity under normal operations

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
001K3.02	Control Rod Drive	3.4	3.5			☑									RCS
002K4.09	Reactor Coolant	3.2	3.2				☑								Operation of loop isolation valves
016K1.06	Non-nuclear Instrumentation	3.6	3.5	☑											AFW system
017K6.01	In-core Temperature Monitor	2.7	3.0						☑						Sensors and detectors
027K5.01	Containment Iodine Removal	3.1	3.4					☑							Purpose of charcoal filters
028K2.01	Hydrogen Recombiner and Purge Control	2.5	2.8		☑										Hydrogen recombiners
029A3.01	Containment Purge	3.8	4.0									☑			CPS isolation
041A2.02	Steam Dump/Turbine Bypass Control	3.6	3.9								☑				Steam valve stuck open
075A4.01	Circulating Water	3.2	3.2										☑		Emergency/essential SWS pumps
086G2.4.18	Fire Protection	3.3	4.0											☑	Knowledge of the specific bases for EOPs.

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:
G2.1.19	Conduct of operations	3.9	3.8	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Ability to use plant computer to evaluate system or component status.
G2.1.34	Conduct of operations	2.7	3.5	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Knowledge of primary and secondary chemistry limits
G2.1.4	Conduct of operations	3.3	3.8	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Knowledge of individual licensed operator responsibilities related to shift staffing, such as medical requirements, "no-solo" operation, maintenance of active license statur, 10CFR55 etc.
G2.2.35	Equipment Control	3.6	4.5	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Ability to determine Technical Specification Mode of Operation
G2.2.43	Equipment Control	3.0	3.3	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Knowledge of the process used to track inoperable alarms
G2.3.13	Radiation Control	3.4	3.8	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Knowledge of radiological safety procedures pertaining to licensed operator duties
G2.3.6	Radiation Control	2.0	3.8	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Ability to aprove release permits
G2.4.18	Emergency Procedures/Plans	3.3	4.0	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Knowledge of the specific bases for EOPs.
G2.4.3	Emergency Procedures/Plans	3.7	3.9	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Ability to identify post-accident instrumentation.
G2.4.6	Emergency Procedures/Plans	3.7	4.7	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Knowledge symptom based EOP mitigation strategies.

ES-401, REV 9 **SRO T1G1 PWR EXAMINATION OUTLINE** **FORM ES-401-2**

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
007EG2.4.20	Reactor Trip - Stabilization - Recovery / 1	3.8	4.3											☑	Knowledge of operational implications of EOP warnings, cautions and notes.
009EA2.14	Small Break LOCA / 3	3.8	4.4								☑				Actions to be taken if PTS limits are violated
022AA2.04	Loss of Rx Coolant Makeup / 2	2.9	3.8								☑				How long PZR level can be maintained within limits
058AG2.2.4	Loss of DC Power / 6	3.6	3.6											☑	(multi-unit) Ability to explain the variations in control board layouts, systems, instrumentation and procedural actions between units at a facility.
062AA2.05	Loss of Nuclear Svc Water / 4	2.4	2.5								☑				The normal values for SWS-header flow rate and the flow rates to the components cooled by the SWS
065AG2.4.50	Loss of Instrument Air / 8	4.2	4.0											☑	Ability to verify system alarm setpoints and operate controls identified in the alarm response manual.

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
033AA2.09	Loss of Intermediate Range NI / 7	3.4	3.7	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Conditions which allow bypass of an intermediate-range level trip switch
067AG2.4.21	Plant Fire On-site / 9 8	4.0	4.6	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of the parameters and logic used to assess the status of safety functions
074EG2.2.40	Inad. Core Cooling / 4	3.4	4.7	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to apply technical specifications for a system.
076AA2.04	High Reactor Coolant Activity / 9	2.6	3	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Process effluent radiation chart recorder

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
003G2.1.32	Reactor Coolant Pump	3.8	4.0											☑	Ability to explain and apply all system limits and precautions.
010A2.01	Pressurizer Pressure Control	3.3	3.6								☑				Heater failures
012G2.4.31	Reactor Protection	4.2	4.1											☑	Knowledge of annunciators alarms, indications or response procedures
063A2.01	DC Electrical Distribution	2.5	3.2								☑				Grounds
076A2.01	Service Water	3.5	3.7								☑				Loss of SWS

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
027A2.01	Containment Iodine Removal	3.0	3.3	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	High temperature in the filter system
029G2.4.18	Containment Purge	3.3	4.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of the specific bases for EOPs.
034K4.03	Fuel Handling Equipment	2.6	3.3	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Overload protection

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:
G2.1.1	Conduct of operations	3.8	4.2	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Knowledge of conduct of operations requirements.
G2.1.9	Conduct of operations	2.9	4.5	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Ability to direct personnel activities inside the control room.
G2.2.17	Equipment Control	2.6	3.8	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Knowledge of the process for managing maintenance activities during power operations.
G2.2.43	Equipment Control	3.0	3.3	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Knowledge of the process used to track inoperable alarms
G2.3.11	Radiation Control	3.8	4.3	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Ability to control radiation releases
G2.4.19	Emergency Procedures/Plans	3.4	4.1	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Knowledge of EOP layout, symbols and icons.
G2.4.39	Emergency Procedures/Plans	3.9	3.8	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☑	Knowledge of the RO's responsibilities in emergency plan implementation.

FINAL

ES-401 **Record of Rejected K/As** **Form ES-401-4**

Tier / Group	Randomly Selected K/A	Reason for Rejection
T2G2	002K4.09	St. Lucie doe not have loop isolation valves (Ques. 57) Replaced with 002K4.10
T1G2	033AA2.09	St. Lucie does not have intermediate range NI's (SRO) (Ques. SRO 82) Replaced with 033AA2.07 Replace second time with 0037AA2.10
T1G2	032AK1.01	Source range NI's not voltage variable (Ques. 21) Replaced with 032AA2.09
T3	G2.3.6	K/A less than 2.5 (2.0) for RO exam (Ques. 72) Replaced with G2.3.4
T2G1	007A4.09	PSL has no bleed holdup tank (Ques. 34) Replaced with 007A4.10
T2G2	075A4.01	No relationship between Circ water and SWS pumps (Ques. 64) Replaced with 075A2.01
T1G1	057AA2.01	SI tank instrumentation is not off Instrument bus at PSL. Power is supplied from Power Panel from Motor Control Center (Ques. 12) Replaced with 057AA2.04
T2G2	029G2.4.18	Containment Purge: Knowledge of specific bases for EOP's. This K/A is very similar to 027A2.01 from T2G2 Containment Iodine Removal: High temperature in the filter system. Recommend changing 029G2.4.18 due to containment purge is used for H2 removal in the EOP's and same containment purge has iodine removal charcoal filters which would be used in EOP's. To meet both K/A's, question would have to be similar. (Ques. SRO 92) Replaced with 029G2.4.50
T3	G2.4.39	Emergency Procedures/Plans: Knowledge of the RO's responsibilities in emergency plan implementation. Cannot write question and meet 'Guidelines for SRO only Questions' Rev. 0 (Ques. SRO 100) Replaced with G2.4.30
T3	G2.2.43	Same KA for RO and SRO exam. Recommend change RO exam KA (Ques. 70) Replaced with G2.2.39

Tier / Group	Randomly Selected K/A	Reason for Rejection
T1G2	051AG2.4.3	No relationship to loss of Condenser Vacuum and post-accident instrumentation. (Ques. 24) Replaced with 051AG2.4.35
T1G1	008AA1.08	Replaced due to conflict with 007A4.10 Recognition of leaking PORV/code safety (Ques. 34) (Ques. 2) Replaced with 008AA1.06
T2G1	004G2.4.30	Unable to write a discriminatory question. Replaced with 004G2.4.31 (Ques. 31)

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ES-401 **Written Examination Quality Checklist** **Form ES-401-6**

Facility: St. Lucie Date of Exam: 12/15/09 Exam Level: RO ☒ SRO ☒

Item Description				Initial a	Initial b*	Initial c#
1.	Questions and answers are technically accurate and applicable to the facility.			LMR	[illegible]	[illegible]
2.	a. NRC K/As are referenced for all questions. b. Facility learning objectives are referenced as available.			LMR	[illegible]	[illegible]
3.	SRO questions are appropriate in accordance with Section D.2.d of ES-401			LMR	[illegible]	[illegible]
4.	The sampling process was random and systematic (If more than 4 RO or 2 SRO questions were repeated from the last 2 NRC licensing exams, consult the NRR OL program office).			N/A	N/A	[illegible]
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: __ the audit exam was systematically and randomly developed; or X the audit exam was completed before the license exam was started; or __ the examinations were developed independently; or __ the licensee certifies that there is no duplication; or __ other (explain)			LMR	[illegible]	[illegible]
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: 19 / 2 — 25% / 8%	Modified: 4 / 2 — 5% / 8%	New: 52 / 21 — 69% / 84%	LMR	[illegible]	[illegible]
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: 36 / 11 — 48% / 44%		C/A: 39 / 14 — 52% / 56%	LMR	[illegible]	[illegible]
8.	References/handouts provided do not give away answers or aid in the elimination of distractors.				LMR	[illegible]	[illegible]
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.				LMR	[illegible]	[illegible]
10.	Question psychometric quality and format meet the guidelines in ES Appendix B.				LMR	[illegible]	[illegible]
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.				LMR	[illegible]	[illegible]

	Printed Name / Signature	Date
a. Author	Larry Rich	9-28-09
b. Facility Reviewer (*)	Dave Lanyi	9/28/09
c. NRC Chief Examiner (#)	RICHARD S. BALOUGH	11/18/09
d. NRC Regional Supervisor	MALCOLM T. WIDMAYER	11/18/09

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.

FINAL

ST. LUCIE INITIAL DRAFT REVIEW

Instructions

[Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]

1. Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
2. Enter the level of difficulty (LOD) of each question using a 1 – 5 (easy – difficult) rating scale (questions in the 2 – 4 range are acceptable).
3. Check the appropriate box if a psychometric flaw is identified:
   - The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
   - The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).
   - The answer choices are a collection of unrelated true/false statements.
   - The distractors are not credible; single implausible distractors should be repaired, more than one is unacceptable.
   - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).
4. Check the appropriate box if a job content error is identified:
   - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
   - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
   - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
   - The question requires reverse logic or application compared to the job requirements.
5. Check questions that are sampled for conformance with the approved K/A and those that are *designated SRO-only* (K/A and license level mismatches are unacceptable).
6. Based on the reviewer's judgment, is the question as written (U)nsatisfactory (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
7. At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
															Generic Comments: 1. The alignment of each question appears differently. What I am saying is that the distractors should be aligned to the left and below the stem of the question. 2. Make sure all stem bullets are the same, have periods at the end. 3. Change the word "states" to "identifies" in question stem. 4. Add parenthesis for all noun names of procedures as well as valve and equipment names. 5. Make a table of contents for each exams references that will be handed to the applicants, RO and SRO so this can be used for the ADAMS submittal in stead of the actual handout.
1	F	2-3												S	007EG2.1.19, New, Memory12 Question appears to be ok

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
2	H	3						X						E S	008AA1.06, New, CA, Unit 1 Be consistent with the use of periods in each of the items in the initial conditions. Ask licensee if, this is an RO knowledge level question. It appears to be a basis of the procedure. If they state it is ok, leave it, if not then needs to be changed. Otherwise it appears to be ok. Thursday, September 10, 2009 Licensee/Operations state ok for RO
3	H	2-3				X								U S	011EK3.14, BANK, NRC 2001 PSL Exam, CA, Unit 1 Distractors D the second part does not seem plausible, neither does distractor A How about changing A to read as the last part of C and D to read something like answer in B. This way we will only have two thought in each item to concentrate on and not all 4 as it is now. A. ALL RCPs to enhance RCS heat removal. B. All RCPs due to loss of RCP NPSH. C. ONE RCP in each loop to enhance RCS heat removal. D. ONE RCP due to reduced RCP NPSH. What do you think of this? Thursday, September 10, 2009 Generic Reference s to be provided 1 A and 1 B. OK for the reference. Was not originally on the question. Discussion of the distractors from above. Accepted the recommended. OK with changes.
4	H	2-3				X								E S	015AK2.08, NEW, C/A While the stem asks in 1) what has closed the HCV-14-11B1. the second does not illicit the answer in the second part of each answer that states "Override and … (distractors B and D) This needs to be clearer on what is being overridden. The distractor speaking about High radiation Is not as valid as it could be. No reference was provided concerning the High Rad signal and how many high rad signals needed to cause an isolation. Fix is to add a value that represents high rad but not high enough to trigger the isolation of HCV-14-11B1. Will NOT do this. RSB I reviewed PSL OPS 0702209R08.doc, and it does not identify what it takes to cause the isolation. Discuss with licensee. Thursday, September 10, 2009

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
															Added the valve number as above, HCV 14 11 B1 to B and D. Valve ONLY closes on high temp NOT radiation.
5	H	3												E	022AA1.08, Modified Bank, Unit 1 Please change in the stem the symbol, that looks like it means it is steady, unless this is a normal symbol used in all previous examinations. The same goes for the down signal. It would be better to use words. Ie., steady, down, etc. Otherwise it appears to be ok. Thursday, September 10, 2009 Changed the arrows. OK as changed.
6	F	2-3												E S	025Ak1.01, Bank 2149, Unit 2? Need some clarification with a drawing to see what is being done. Distractors A and B are opposites of each other. Can distractors C and D be done to do the same? Don't believe that distractor D is plausible. Pressurizer and Hot leg? Interaction does not make sense, no distractor analysis done, only states its incorrect. Discuss why D is plausible? If C is reversed, is this also an answer? Seems so. Why is the procedure not identified in the stem? In accordance with (IAW) 2-NOP-01.04..... Is the information in the stem ALL necessary?? Thursday, September 10, 2009 Added procedure to the stem. Rewrote the questions as follows: What shutdown cooling loop is in operation? Requires A train operating and B in standby. If loss of SDC would occur WOOTF conditions could result in RCS pressurization and loss of inventory. Reworded EACH distractor. Appears to be ok as discussed.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
7	F	2-3												E S	026AK3.02, New, Memory, Both Units While the information provided identifies that a DBA LOCA is the basis for the CCW flow, this is really not identified in the two distractors. Is it necessary to add that to A and C? It would seem appropriate. Ask licensee. Thursday, September 10, 2009 Replaced LOCA with DBA for A and C. OK
8 8 Cont.	H H	2-3												E	027AK1.01, New, CA, Unit 1 027AK1.01, New, CA, Unit 1, (cont.) The stem uses "initially," does this have to be defined? It might help to avoid comments in the end. Use the words rather than the arrows. Separate the distractors A B C and D from the arrows. Otherwise appears to be ok. Thursday, September 10, 2009 Changed What will be the FIRST effect will this failure.... Got rid of the arrows. Replaced with Rising and Lowering. OK as changed.
9	F	2												S	038EG2.4.18, New, Memory, Unit 2 In the stem, put the words close fuses in quotes, "close fuses." Appears to be ok. Thursday, September 10, 2009 Decided to put quotes around close instead of what was suggested above. It will now read "close" fuses....
10	H	3				X								E S	055EA1.06, Bank 107 & 759, CA, Unit 1 The information for the UNIT 1 Permissive light, is immaterial for this question, since the Unit 1 light for each distractor is ON. This information can be removed from the stem. OR Change distractors C and D to have Unit 1 to be OFF. That way the applicant has to figure out which was the permissive light has to be. This would be a better way to do it, C and D should read Unit 1 OFF, Unit 2 ON, - - this way it is opposite of the answer. Thursday, September 10, 2009 Changed as requested. OK with change.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
11	H\ H	2-3 2-3				X X								U S	056AK1.01, New, CA, Unit 2 KA statement on the question states natural "circulation," however, the KA catalog states natural "convection." Is this question within the knowledge requirement of an RO, in that, the requirement to know that the safety function for both EDGs not running is NOT being met? ASK Licensee if they believe this is ok. If not, change. The licensee identifies that opening the PORV (ADV) will enhance the natural circulations the GREATEST, while this is stated in the answer, it is not identified in the reference material. Licensee states this is GFES INFO Also, There is no justification for single or two phase flow. What indications provided in the stem would indicate that two phase flow was present? This does not seem plausible. Need to use temp and pressure to determine subcooling, this will then determine single or two phase flow. If there is subcooling there is single phase flow. Applicants will have steam tables and figure 1A. The procedures name in distractors C and D is different than the actual procedure. Capitalize the word EFFECT in these distractors because it is part of the procedures name. Made the procedure name in caps. Thursday, September 10, 2009 They do expect RO to knowledge. IF you don't have DGs running, then you don't have maintenance of vital aux.. See above in blue. Changes OK.
12	F	3												S	057AA2.04, New, Memory, Unit 1 A NOT question, should be used sparingly. OK for this one. Appears to be ok. Thursday, September 10, 2009 ok
13	F	2-3				X								U	058AK3.01, New, Memory, Unit 1 Distractors C and D are missing the periods. Why is it expected that distractors A and B are plausible? What information is provided in the stem that would indicate that a SIAS or Loop occurred? This makes these 2 distractors implausible.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
															Thursday, September 10, 2009 Changed the entire question. Tuesday, July 13, 2010, 11:13 AM Replacement question. S Replacement question appears to be ok.
14	F	2-3												E S	062AG2.1.7, Bank 3284, Memory Unit 2 Re write the stem to state: Prior to reducing turbine load, WOOTF (which one of the following) will have the GREATEST impact in maintaining available heat removal capacity? Otherwise appears to be ok. Thursday, September 10, 2009 Used recommendation.
15	H	3												E S	065AA2.08, New, CA, Unit 2 Add the percent symbol (%) behind the 70 in the stem, should be 70%. Change the question to read, If Instrument Air continues to lower, WOOTF plant responses is expected? (Assume NO Operator actions are taken) This is the same as a previous question. \ Thursday, September 10, 2009 Accepted suggestion. OK, change is to are.
16	H	3												S? S	077AA2.10, Modified NRC Exam PSL 2008 Question 18, CA, Unit 1 In stem is 60 MVARS lag out redundant for lag only? Is this teaching? Can it be said that the unit can only maintain pressure at 45 psia vice having problems? The curve provided does not identify stator winding or rotor winding over heating, it just identifies rotor or stator heating. Is this the same? Ask Licensee? Meets requirements for modification. Otherwise appears to be ok Thursday, September 10, 2009 Removed the word "out." Only able to maintain 45 psis Hydrogen pressure. Removed winding from each of the first parts of each distractor.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
17	H	3												E S	CE05EK2.1, New, CA, Unit 2 Add the word "the" prior to 2A S/G. Add to the IC prior to the bullets, "The following conditions now exist." In the stem, change "states" to "identifies" to make clearer. In each distractor, separate each line out so that the two thoughts will be easier read. Currently the distractors are very hard to read. All BUT distractor "C" identifies MSIS Channel "A" as being activated. In C this should be the same. Change the format of the question to pull out the common part, ie MSIS Channel A has actuated and put it in the front of the question. This way you don't have to continually read this statement. Otherwise appears to be ok. Thursday, September 10, 2009 Added to stem – The following conditions now exist. In distractor C it is missing Channel A. Will SEND to be reviewed. Tuesday, July 13, 2010, 11:13 AM Changes are ok.
18	F	3												S	CE05EK2.1, New, Memory, Unit 1 Appears to be ok.
19	F	3												S	003AG2.1.28, New, Memory, Unit 2 Use commas and quotes as appropriate. Appears to be ok
20	H	3												S	028AK1.01, Bank, (2006 PSL 2006 Exam), CA, Unit 2 Appears to be ok
21	F	2-3												S	032AA2.09, New, Memory, Unit 0 Appears to be ok
22	H	3												S	028AA1.02, Bank 2005, CA, Unit 2 Do you need to add the RC-XX-XX number also, or is it enough to just have the GAG-XXX number? Add the word "IF" prior to "at the same time…"

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		
															Otherwise appears to be fine. Thursday, September 10, 2009 OK as is. And accepted the IF above.
23	H	3												U S	037AK3.07, Bank 2259, CA, Unit 1 Distractors C and D can be disqualified immediately because they are NOT less than the 930 psia maximum value listed in step 11 of EOP-04. Changed C and D to 840 to 890 which is 50 psig above with no below. The stem is NOT clear, in that, the stem is not clear where in the procedure you are trying to control RCS pressure. Information should be provided that indicates that the plant is about to Depressurize the RCS and …. This band should be changed so that the highest number for RCS pressure is a maximum of 930 psia. Discuss with licensee to make clearer what is being asked. Thursday, September 10, 2009 In stem RCS depressurization … OK as changed
24	F	2-3												E S	051AG2.4.35, New, Memory, Unit 1 In each distractor, use separate lines for each answer. Separated them Change the terminology used in C and D from "The Hogging ejector is experiencing Ejector Stalling." To, "The Hogging ejector exhaust exhibits indication of ejector stalling." Accepted. Generically, in the stem, identify the noun names for all the valves used there, so when they are used in each distractor then the valve number can be used. V 16203 has no noun name. Included. Thursday, September 10, 2009 Accepted as stated above. OK as changed.
25	H	3				X								U	060AA2.02, Bank 3314, CA, Unit 1 Handout needed for exam. OK I do not believe that the second parts of distractors A and D are plausible because they do not isolate V 6565 which is stated in the IC that the IC WGDT is used to do the release. Because of this I eliminated these as plausible. Why would anyone pick this if it didn't isolate the release? Ask licensee. The explanation for A does not make sense to me! IF the line up is just to the A and C tank, how does the B tank get the discharge to from the waste gas compressor? Ask licensee, how am I seeing this incorrectly? Replace distractors A and D.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
														S	Tuesday, July 13, 2010, 11:13 AM New question replaced old one. It looks like there is a period in the third bullet (solid) after …Stop valve". Additionally, a comma is needed after the V6565 in the same bullet. Distractors are OK. Distractor B and D need periods at the end of each and Distractor C only needs one, there are 2. The changes make this question ok
26	F	2-3												S	061AK2.01, Modified Bank 652, Memory, Unit 1 Is the answer D supposed to be Channel D or channel B? Ask licensee. Seems like it should be B. Otherwise appears to be ok. Thursday, September 10, 2009 Accepted and changed distractor D and made it B. ok
27	F	3												S	CE09EK3.3, Bank 1951), Memory, Unit 1 Commas and quotes where appropriate. Change answer to read Either 1A or 1B LPSI pump through Hot Leg injection. As it states in the procedure. Otherwise appears to be ok. Thursday, September 10, 2009 Accepted as written above OK changed.
28	F	2-3												S	003K1.02, New, Memory, Unit 0 Appears to be ok
29	F	2-3												S	003K6.02, New, Memory, Unit 1 Commas and quotes as appropriate Appears to be ok.
30	H	2-3												~~U~~	004A4.05, New, CA, Unit 1

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
														S	In sold pressure control, what is the position of PCV-2201? Is this actually in auto? It is actually in AUTO. Do not believe this is plausible, discuss with licensee why this is, not sure if it is in manual or auto or what the setpoint is. Thursday, September 10, 2009 Added the procedure to the stem. This is ok as changed. Was NOT originally a U. Changed to an S.
31	H	3												S	004G2.4.31, New, CA, Unit 1 Appears to be ok
32	H	3												S	005A1.07, Bank (HLC – 18 audit exam # 93, CA, Unit 2 Commas and quotes as appropriate. Appears to be ok
33	F	2-3												E S	006K2.04, New, Memory, Unit 2 Explain why distractor D is plausible. Suggest that the answers be A 1 1 B 1 2 C 2 1 new answer D 2 2 Ask licensee what was the basis for the original distractor D. Thursday, September 10, 2009 4 was the total number of valves on each header. Accepted as changed by NRC. Ok as changed.
34	F	3												S	007A4.10, New, Memory, Unit 1 Appears to be ok
35	H	3												S	008A4.10, New, CA, Unit 2 Use commas and quotes as appropriate Appears to be ok
36	H	3												E S	008K4.01, New, CA, Unit 2 Ensure that buses is spelled the same, can use busses or buses but they need to be used consistently. Replace states with identifies Otherwise, appears to be ok

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
															Thursday, September 10, 2009 Accepted as recommended.
37	H	3												S	010K1.08, Bank 2407, CA, Unit 2 Convention for using assuming no operator action. In other questions this was put in parenthesis, so the question would read: WOOTF would cause the observed conditions? (Assume NO Operator actions) Otherwise, appears to be ok Thursday, September 10, 2009 Accepted as recommended. Ok as changed.
38	H	3												S	010K3.02, New, CA, Unit 1 Appears to be ok.
39	F	2												S	012A2.03, Modified Bank 2773, Memory, Unit 1 Change states to identifies Question was changed and made easier, however, the answer did not change, Nor did the stem itself, the only thing that changed was to remove the procedure that was expected to be identified to take care of the loss. Otherwise appears to be ok. Thursday, September 10, 2009 Changed to bank question.
40	H	3												S	013A2.03, New, CA, Unit 2 Add commas and quotes as necessary. IS this something an RO is expected to know, the mitigation and use of a GOP where ESFAS has or has not been blocked? Ask the licensee to ensure that Operations agrees with this. Otherwise, appears to be ok. Thursday, September 10, 2009 Operations states that the RO should know. NOT blocked EOP, blocked ONP.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
41	F	3												~~U~~ ~~E~~ S	013G2.2.42, Bank (NRC 2006 Exam), Memory, Unit 2 In the stem, is it possible to change EARLIEST to FIRST? DID this? If distractor B was changed to use the A HPSI header vice the B header, this is still incorrect right? This makes it more plausible. Is there something that could make distractor C more plausible? Ask licensee to review this OLD NRC question. Plausibility of distractors. Thursday, September 10, 2009 Will change B to the A HPSI header vice B. OK as changed. NOT A U as originally thought. Change to an E.
42	H	3				X								U	022A2.05, New, CA, Unit 1 Add commas and quotes where appropriate. Separate the answers for each question in the distractors, this is to hard to read with both in one paragraph. Since LCO action statements for ROs are limited to 1 hour or less, distractors B and D could be discounted. This is not allowed for RO examinations. Discuss with licensee actions to add here that RO applicants would be required to know. This is considered non plausible Thursday, September 10, 2009 Rewrote answers, will send Tuesday, July 13, 2010, 11:13 AM Question was rewritten. Commas and quotes as needed. This is the question that you decided to skip one line between each part of the answer this is ok, however, if you do this, it will be necessary to do it for all the questions that appear like this. Same comment as above (in green), ask licensee how this is plausible. I see where the time went from 6 to 5 hours but not sure that this helps any. Since the answer does not have to deal with a TS, then is this considered TS required knowledge that it has nothing to do with a TS? Discuss with licensee. Still UNSAT! 11:13 AM
43	F	3												~~E~~	026A1.01, New, Memory, Unit 1 Add commas where necessary Abbreviations used in this question are not defined, for example CS, Cont. . Is this something the applicants will know and not have an issue with them? The revision provided with the question of EOP-15 for CTPC is rev 27A and the rev provided on the reference disc is 30. The reference is different. (Rev 30 is unit 2)

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
														S	Change the containment cooling equipment for distractor C to 1A CS pp with 2800 gpm flow and ONE Cont. Cooling Fan Discuss with licensee. Thursday, September 10, 2009 They know what CS is. No need to change. Accepted the change for C.
44	F	2-3												S	039G2.4.2, New, Memory Unit 1 & Unit 2 differences Add commas and quotes where necessary Appears to be ok
45	F	2-3												S	059A2.04, New, Memory, Unit 1 Change states to indicates Changed as requested. Otherwise appears to be ok.
46	F	2-3												S	059A3.03, Bank 2122, Unit 2 Change distractor B, 2 A condensate pump trips to MSIS occurs. This will bring in unit differences. Otherwise appears to be ok. Thursday, September 10, 2009 Makes more challenging question.
47	H	3												S	061K5.01, New, CA, Unit 2 Add commas as necessary Separate the first sentence from the second one with a line. Figures are ok to be used. Change the answer to read 104 gpm Agree with handouts for this question. Otherwise appears to be ok Thursday, September 10, 2009 Accepted recommendations.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
48	H	3												E S	062G2.4.4, New, CA, Unit 1 Add commas where necessary. Add quotes around the procedures names. Add line space between the WOOTF and the questions. In each distractor un-capitalize the first "Bus" Otherwise it appears to be ok Thursday, September 10, 2009 Accepted comments above. ok
49	H	3												E S	068K2.01, Modified Bank 670, CA, Unit 2 The second part of each answer is NOT elicited. Need to change the question to allow for the second answer. Can change this to a fill in the blank or just add the second question. Otherwise appears to be ok. Thursday, September 10, 2009 Changed this to 2 part question, part 1 and part 2. Will fax to see what was done. Tuesday, July 13, 2010, 11:13 AM Reformatted ok with format.
50	H	2-3												E S	064K1.02, New, CA, Unit 1 Change question to read: WOOTF identifies the 1A EDG responds to the lockout relay being reset? Changed as requested. Add the 1A to EDG in the "The 1A EDG will:" The second part of each stem, is not asked for in the question stem. Modify the question to elicit this information. Thursday, September 10, 2009 And what other conditions running/starting are applicable. Ok as changed.
51	F	2-3												E S	073K3.01, New, Memory, Unit 1 There is ONLY one monitor, the answer, that has a control function. This makes the other monitors implausible. Add another monitor that has a control function but does not result in an unmonitored release, if possible. Ask licensee if there is such a monitor? Thursday, September 10, 2009 C was replaced with S/G blowdown, will close but if not closed will be monitored.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
															Also capitalized in stem the word UNMONITORED.
52	H	2-3												U	076k4.06, New, CA, Unit 1 States to identifies Period at the end of distractor B. The way that distractors A and B are written, they do not have the word Operable in them. If an applicant chose an answer because of where the word is he/she would have a 50% chance to get it correct (in this case). Out of service does not mean operable or inoperable. Change the wording to reflect what is being asked. Distractors C and D have reasons why they are or are not operable. Distractors A and B do not. Add reasons for A and B Reword the question to ask: (the valve was already defined so use the valve number, vice noun name.) With SB21215 open, which one of the following.... Add to the stem, and why! Thursday, September 10, 2009 Will send the changes to this question. Tuesday, July 13, 2010, 11:13 AM Reformatted. Need commas in the stem between the valve number and name. If we are going to use caps for the second part of a question ie. WHY, we should do this for all the questions. OK as changed.
53	F	2-3												S	078A3.01, New, Memory, Unit 1 In the stem, 1 00 has a space between the 1 and the first 0. Bridge the gap. Add a period at the end of distractor D. Delete the character space in distractor D which is in front of RESET. Otherwise appears to be ok Thursday, September 10, 2009 Changes were made as requested.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
54	H	2-3												S	078K4.02, Bank 1894, CA, Unit 0 In the stem, change the word "states" to "identifies" Very low level CA Otherwise appears to be ok. Thursday, September 10, 2009 Changes made as requested. Ok as changed.
55	F	2-3												S	103K3.02, New, Memory, Unit 0 In the stem, capitalize the word VIOLATION. This will help the applicant be clear on what is being asked. Otherwise appears to be ok. Thursday, September 10, 2009 OK, changed as requested.
56	H	3												E S	001K3.02, Bank 2222, CA, Unit 1 Add in the stem that the "rod control switch can not be taken out of the WITHDRAW position. It is not clear if the rod that is below the group is in group 7. If this is true than say so. Otherwise appears to be ok. Thursday, September 10, 2009 Changed as requested. ok
57	H	3												S	002K4.10, New, CA, Unit 1 When RCS temperature is listed as that, what is it actually? Th Tc what Tave, have licensee explain. Appears to be ok. Thursday, September 10, 2009 Added as requested, RCS temperature is the cold leg, changed as requested.
58	H	3												E S	016K1.06, New, CA, Unit 1 On the S/G pressure line, S/G 1 B indicates 880psia for channel A and B. Need to put a character space between, 880 and psia. Done How about bolding and capitalizing **FAILED LOW** where it appears on the table. So the applicants do not miss one of them. Done The way this question is written, it is hard to read for some reason. There may not be a way to help that. On the stem of the question, capitalize and bold **LOCKOUT** Done Otherwise appears to be ok

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
															Thursday, September 10, 2009 All accepted.
59	H	2-3												E S	017K6.01, Bank 2007, CA, Unit 1 In the stem, operability is used and does not seem appropriate. Use "condition." Not sure this is better. Ask licensee to find better word. Used "status" The second part of the answer, Distractor A and distractor C are the same, however, they are written differently. Change A second part to look like C second part, which is: "Both channels are NOT used for further calculations." Accepted. Thursday, September 10, 2009 Changed from Operability to status.
60	F	3												E S	027K5.01, New, Memory, Unit 1 In the stem, is it necessary to highlight "limit the release" to ensue it is read by the applicants? Added this. For each distractor, put each item on a separate line. It is hard to determine where the second questions answer starts. As follows for distractor A: Shield building fans HVE-6A and HVE-6B with charcoal filter trains Demisters to remove water particles and heaters to reduce humidity. Thursday, September 10, 2009 Accepted second comment.
61	F	3												E S	028K2.01, New, Memory, Unit 1 In the stem the DGs loaded on each respective bus, right? Change this to make it clearer. Did this Reword the last to: However, the feeder breaker to MCC 1A 5 tripped open. This seems clearer. Otherwise appears ok. Thursday, September 10, 2009 Ok as changed.
62	H	2-3												S	029A3.01, Bank 2126, CA, Unit 1

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
															Containment purge, this question may provide information for one of the SRO questions, need to determine which one it is. SRO question 92 needs to be reviewed to ensure this question does not provide any guidance answering this one and vise virsa. Otherwise it appears to be ok. Thursday, September 10, 2009 Did not provide any information that could be used. Ok as is.
63	H	3												S	041A2.02, NEW, CA, Unit 1 Appears to be ok.
64	H	3												S	075A2.01, New, CA, both units Add commas, Skip a line between the Perform a Unit down… and the distractors. The stem seems to indicate the distractors are the next steps to get done. This is not what is indicated in the stem. Ask that! The SRO has decided to perform a Unit Shutdown and what are the order of expected actions he is going to direct his operator to perform. Otherwise appears to be ok. Thursday, September 10, 2009 Changed as requested above.
65	H	2-3												U S	086G2.4.18, New, CA, Units 1 & 2. Add appropriate commas, Add to the first question, IAW ONP-100.2 to ensure the link with this procedure when asking for the Appendix R connection. Did this. Why would anyone believe that the protective trips are disabled when going to ISOLATE? Is this a generic weakness or something? This does not seem very plausible. Most isolate switch s are a lot of other switches that have a lot of other idiosyncrasies, ok as it is. OK as is, Need to come up with another reason that is more plausible than this one. Thursday, September 10, 2009 Ok as is, with change(s) suggested.
66	H	2-3												S	G2.1.19, New, CA, Unit 1 For distractors C and D, add a comma after however, GV is not defined in this question. This needs to be done to insure no confusion. Some place. Otherwise appears to be ok. Thursday, September 10, 2009

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
															Defined GV earlier in the distractor.
67	F	3												S	G2.1.34, New, Memory, Unit 1 Separate each distractor so each thought in on a separate line. This will make it easier to read. Did this. Is this operationally valid for the RO applicants? Ask licensee and operations. YES they are expected. Otherwise appears to be ok. Thursday, September 10, 2009 OK as changed as well as RO level. They are expected to know this information.
68	F	2-3												S	G2.1.4, New, Memory, Unit 0 Appears to be ok.
69	F	2-3												S	G.2.35, New, Memory, Unit 1 Is this something you expect that an RO is expected to know? Ask Licensee to make sure this is an RO knowledge. Make sure Operations agrees with this. Appears to be ok Thursday, September 10, 2009 Operations state should know this. And they will know this.
70	F	2-3												S	G.2.2.39, New, Memory, Unit 1 Appears to match KA
71	F	3												S	G2.3.13, New, Memory, Unit 1 In the first sentence, the first letter of the word "Unit" should be a small letter. Commas where necessary. The KA is sort of matched in that the KA states that "Knowledge of radiological safety procedures pertaining to licensed operators' duties/radiological control. Well the procedure hits the KA, in that, it asks about contacting HP to notify the start of the Charging pump. Agree, meets the KA.
72	CA	3												S	G2.3.4, Bank, 2034, CA

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
															Appears to be ok.
73	F	3												U S	G2.4.18, New, Memory, Unit 1 Commas where necessary. Add to the stem the procedure that directs these actions. We need to insure that there are no other procedures that could be called upon to answer the question. What procedure is it? Are there 2 procedures or just one? This will tighten up the question. This questions KA is the specific knowledge of EOPs/Emergency Procedures. The question lends itself to identify what actions are necessary in the area of interest. This question, however, does NOT match the KA. Needs to be replaced. Thursday, September 10, 2009 Question was rewritten. Will review after it is sent. Tuesday, July 13, 2010, 11:13 AM Question completely changed. As changed ok.
74	F	2-3												S	G2.4.2, New, Memory, Unit 1 In the stem, change the word "states" to the word "identifies" Appears to be ok. Thursday, September 10, 2009 Changed as requested.
75	F	3												S	G2.4.6, New, Memory, Unit 1 Commas as necessary Appears to be ok.
SRO ONLY Questions															
76	H	2-3												E	007EG2.4.20. New, CA, Unit 2 In the stem, after 2-EOP-1 SPTAs add a comma after 2-EOP-1 but before SPTAs Discussion for distractor C states that it is a recent change (11/06/07), this is considered recent? Ask licensee. YES Generically, place each thought on a separate line, it is hard to read both when they are on the same line. Separate them out. Done Add to the stem the required procedure, ie OP-521, Emergency Operating Procedure Implementation. Think about re-writing to something like "...WOOTF directions CAN be given IAW OP-521 to the crew, ..." Done This way there is no reason why the applicants would not know where the requirement comes from.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
														S	What is the required minimum subcooled margin? Ask licensee. Use figure 1 A and/or 1B. Usually approx. 20 deg F. Otherwise appears to be ok. Thursday, September 10, 2009 Ok as changed.
77	H	3				X								E S	009EA2.14, New CA UNIT 1 Add a comma after the EOP between LOCA. Done What RCS temperature is this representing? Tcold? Ask licensee. T_{hot} The NOTE prior to step 67 states "Cooldown rates up to 100F in any 1 hour period are permitted to regain or maintain minimum subcooling." This seems to be a better second answer then what is presently there. Change distractors A and B second part to read, Should have been B and C not A. Cool down rates up to 100 F in any one hour are permitted. Thursday, September 10, 2009 Changed B and C to read as recommended.
78	H	3												E S	022AA2.04, New, CA, Unit 2 Add a comma between procedure number and procedure name. Done Change the value of time in B and D to be 0358, this is closer to the limit when the PZR becomes INOPERABLE. Done Is this an SRO only question as well as is this a number expected to be remembered by SROs ie. The 6 hour time requirement. Ask the licensee If licensee agrees it appears to be ok. Thursday, September 10, 2009, Operations expects that the SROs are responsible to know this information.
79	H	3												E	058AG2.2.4, NEW, CA, Unit 1 Do you have to use the full name as Trip Channel Bypass vice channel bypass? Would this be more correct or is it ok the way it is? Ask licensee. No do not need to use the formal name, as is, is ok.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
														S	Add to the stem, Which one of the following: Between the first sentence and then the questions. Done Otherwise appears to be ok Tuesday, July 13, 2010 OK as changed.
80	H	2-3											X	U S	**062AA2.05**,New, CA, Unit 2 Use a comma after the procedure number and noun name. Put quotes around the noun name for the valve, as was done for the procedures. The level of this question is not considered as CA. This question results from a direct quote/memory item from the procedure. The level of the question needs to be changed. Discuss with licensee. SRO level, discuss with licensee why it is not! **Replaced this KA with **0038EA1.41****. was unable to write a SRO question, spent many hours trying. Tuesday, July 13, 2010 Replaced this question will send for review. Tuesday, July 13, 2010, 11:13 AM Question completely re-written. New, CA NO reference material! Is this something an SRO would know from Memory, ask licensee? If licensee says yes, appears to be ok.
81	M	2											X	U	065AG2.4.50, NEW, Memory, Unit 1 Since there is a leak in the containment instrument air system, would this pressure be lower than 80 (the setpoint) or lowering. This should be changed to 79 and lower, to get off the setpoint and then slowly?? Ask licensee. Done, to 79 and slowly lowering. Why is distractor A and B different where the valve MV-18-1 is listed? Is it listed in B second because of the implication that the EOP would be entered first? IF so then this seems implausible. Changed B to have the procedure, valve (18-1) then the tripping of the RCPs. Also need to capitalize CLOSE in distractor A. (The Answer.) Separate question 2 into 2 parts, where, the part "A few minutes later it was determined an instrument air leak is occurring," in a sentence prior to the second question. Done This would look like: 1) Which one of the following is performed IAW the ARP?

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
														S	A few minutes later it was determined an instrument air leak is occurring. Added this as recommended. 2) If containment air press….. IS this SRO, and why. Seem that this question can be answered with JUST RO knowledge. Selection of appropriate procedures. Strategy or action of procedure. Accept as SRO ONLY. The question is NOT clear if the leak is inside containment, can this be tightened up? Containment instrument is 79 psig and slowly lowering and outside instrument air pressure 105 psig and stable. OK with change. ARE THE ACTIONS ON UNIT 2 DIFFERENT? Tuesday, July 13, 2010 OK with changes.
82	H	2-3												~~U~~ S	037AA.10, New, CA, Unit 1 Change distractor A to be the total of the 1A and 1B SGs together exceeds…This way there is no dispute that it is a correct answer. Discuss with licensee. Change as requested, this could have been considered correct. Why would it be expected to select answer C. There seems to be information missing concerning the change in leakage from the last reading. If this information is not provided then the applicant can discount this answer on first go around. More information is necessary to make this plausible. Ok as is nothing has to change with this one. Why is this entire question considered SRO only? This question is asking the applicant to recall information from the LCO (top) of the TS 3.4.6.2, this is RO knowledge based on the SRO only guidance. Discuss with licensee. Page 4 of SRO only, second part is below the line, states the licensee. Tuesday, July 13, 2010 Will send a re write to use SGs only? Tuesday, July 13, 2010, 11:13 AM Question re-written. Recommended comments accepted. Ok as changed. [redacted]
83	H	2-3												~~E~~	067AG2.4.21, New, CA, Unit 1

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
														S	I believe that distractors B and C have a time frame of 15 minutes after the discovery of the file. Is this true? NO is it 10 min. How about changing distractors A and B time from 0940 to 0950. This would make the 10 min mark from 0940. Discuss with licensee. Otherwise appears to be ok. Tuesday, July 13, 2010 Added "uncontrolled" in the stem to ensure OK as is, no changes necessary based on validation.
84	H	3												S	074EG2.2.40, New, Unit 1 Is this something that an SRO is expected to know from memory? Ask licensee. Otherwise appears to be ok. Tuesday, July 13, 2010 There is a specific objective in the classroom. Ops states tough but fail question. Ok as is.
85	F	2-3												E S	076AA2.04, New, Memory, Unit 1 Add the word "the" prior to selected in the stem. Done. In the stem, change question 1) from what is occurring to what has occurred. Done, Why would a crud burst happen if power was constant and nothing occurred to provoke it? Ask licensee if this is plausible. A change in pH would do this. Not stated in the stem. While the note in the provided procedure indicates that the information provided, only iodine increasing, would be the cause of fuel element failure, how else would the applicant know this? Do we need to add the procedure to lock in this answer, or is this ok the way it is? Tuesday, July 13, 2010 In the stem, remove the word FUEL, Add comma between 2202 and Process.
86	H	3												E	003G2.1.32, New, CA, Unit 1, Add comma between procedure number and name. Spell out SNO, what is this? Short Notice Outage Change distractors A and B first part to look like C and D first part. The RCP may NOT be started with the current RCS/Steam Generator delta T. This way, it is not highlighted that the temp of the SG is higher, this way the applicant has to determine if it is within the range. IT does not provide any help. Followed recommendation.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
														S	Based on the initial conditions, it appears that LTOP would be in service and does not have to be identified in the stem. Is this correct? No it does not have to be identified. Otherwise appears to be ok. Tuesday, July 13, 2010 OK with changes made.
87	H	3												S	010A2.01, Bank (NRC 2004 Exam), CA, Unit 2, What is the purpose of the second Given bullet? Explain! Also, in this statement, the word "method" missing from the statement as it is written in the reference. Makes the distractors more credible. Is it expected for the SROs to know the expected surveillance number for the heater KW of 155? Ask licensee. Otherwise question appears to be ok. Tuesday, July 13, 2010 OK as is.
88	F	2-3												S	012G2.4.31, New, Memory, Unit 2 Change the word "would" to "could" in the first question. Done In each distractor, where the word "however" is used, it should be preceded and followed by a comma. For example, He did not kill her, however, he wished he had. Done Otherwise appears to be ok Tuesday, July 13, 2010 Ok as changed.
89	F	3												S	063A2.01, New, Memory, Unit 1 In the stem there is a statement about the cross tie of the 1AB and the 1B DC buses. Is this necessary to describe system lineup, or it is teaching? AB can be aligned to A or B. Commas after procedure number and noun name. Done Procedure 1- ONP-50.01, page 14 of 14, flow chart identifies all Ground Isolation procedures as Ground Detection procedures. This is misleading and should be changed. Will capture in condition report system to fix. On the edge of being an SRO knowledge.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
															Otherwise appears to be ok. Tuesday, July 13, 2010 OK as changed.
90	F	3												S	076A2.01, Modified Bank (2008 NRC Exam), Unit 2 In the first question, 1), highlight the words "immediate attempt" by putting quotes around them, as seen above. Done In question 2), start the question by stating WOOTF would be the required actions if the pump started with the 2C ICW pump valve alignment was configured to the B side but the electrical alignment remained on the A side? Done In question 2, which pump is postulated in starting? Is it the 2C or the 2B pump from above? This is the 2C pump. Meets the requirements for modification. Otherwise appears to be ok. Tuesday, July 13, 2010 OK the way it was changed.
91	H	3												~~U~~ ~~E~~ S	027A2.01, New, CA, Unit 2 In question 1), add comma after …-03, and put name in quotes. The way the distractors are written is confusing. Done For distractors A and B, add "After" before consultation. Done For distractors C and D, add, After consultation with the TSC with any H2 concentration when H 2 Recombiners are NOT available. Done. Distractors that have "High Containment temperature," are NOT plausible. This does not make sense that a high containment temp would cause the adsorber bed temp hi alarm. Come up with another reason. This is not a good one. Seems like this is a valid distractor based on validation. Change this from a U to an E, initial review. Tuesday, July 13, 2010 Changes made are ok.
92	H	2-3												~~U~~	029G2.4.50, New, CA, Unit 1 The reference material provided does not show the TS internal pressure of -0.7 psig, not sure where this came from, ask licensee to show. Correct Comment Found TS 3.6.1.4, which identifies the -0.7 psig value. Based on the TS *3.6.1.4 Primary containment internal pressure shall be maintained between –0.7 and 2.4 PSIG.* It appears that this knowledge is RO knowledge and is a 1 hour or less TS. The way this question is written is RO and NOT SRO ONLY knowledge. This needs to be changed.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
														S	Tuesday, July 13, 2010 Will receive a NEW copy that made the second part SRO only. Tuesday, July 13, 2010 11:13 AM Replacement question Appears to be ok.
93	F	3												S	034K4.03, New, Memory, Unit 2 add a comma after procedure number and put procedures in quotes, also add a space between the first 2 sentences. (one more space prior to Appendix F). Change the stem to read; As the Refueling SRO, WOOTF identifies the direction you would provide to the Refueling Machine operator and why? Done Distractor D, does not make sense to me and therefore not plausible. When it is read it talks about the Bridge and Trolley manual positioning… this information is NOT presented in the question and therefore could be ruled out. Replace distractor D! Tuesday, July 13, 2010 Will leave distractor D as is, there were no validators that selected this answer. It is identified in the procedure , which I did not see before.
94	F	3												S	G2.1.1, New, Memory, Unit 2 Add commas where needed. Appears to be ok.
95	H	3												S	G2.1.9, New, CA, Unit 2 Appears to be ok
96	F	2-3												S	G2.2.17, New, Memory, Unit 0 Question appears to be ok, not very challenging
97	F	3												S	G2.2.43, New, Memory, Unit 1 Did not receive ADM 17.18. Skip a line space after the first sentence, as done in question 98. Appears to be ok.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
98	F	3												S	G2.2.11, Bank (NRC 2004), Memory, Unit 1 (is this KA correct, have to check it out, seems like it is out of place). Appears to be ok.
99	CA	3												S	G.2.4.19, LAST NRC EXAM, CA, Unit 1 Appears to be ok.
100	F	2-3												S	G2.4.30, New, Memory, Unit 0 What ever convention has been used, highlight the word "REQUIRED" in the stem to ensure the applicants read it. Appears to be ok.
															SRO ONLY 5 Unsats 8 enhancements. 12 sats
															RO 11 Unsats 24 enhancements 40 sats

ES-403, Rev. 9 **Written Examination Grading Quality Checklist** **Form ES-403-1**

Facility: ST. LUCIE Date of Exam: December 15, 2009 Exam Level: RO/SRO

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

	Printed Name/Signature	Date
a. Grader	Richard S. Baldwin/	01/21/2010
b. Facility Reviewer(*)	NA	
c. NRC Chief Examiner (*)	Mark A. Bates/	01/25/2010
d. NRC Supervisor (*)	Malcolm T. Widmann/	01/25/2010

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