Facility: Turkey Point 2013-301 Date of Examination: 03/04/2013

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)	6/26/2012
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	6/26/2012
-120	3. Facility contact briefed on security and other requirements (C.2.c)	9/18/2012
-120	4. Corporate notification letter sent (C.2.d)	
[-90]	[5. Reference material due (C.1.e; C.3.c; Attachment 2)]	01/18/2013
{-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)	12/17/2012
{-70}	{7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)}	12/24/2012
{-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)	01/18/2013
-30	9. Preliminary license applications (NRC Form 398's) due (C.1.l; C.2.g; ES-202)	02/04/2012
-14	10. Final license applications due and Form ES-201-4 prepared (C.1.l; C.2.i; ES-202)	2/18/2013
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f) (Licensee prepared examination).	N/A
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f and h; C.3.g)	2/18/2013
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	2/25/2013
-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)	2/25/2013
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee (C.3.k)	2/25/2013
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	2/25/2013

* Target dates are generally based on facility-prepared examinations and are keyed to the examination date identified in the corporate notification letter. They are for planning purposes and may be adjusted on a case-by-case basis in coordination with the facility licensee.
[Applies only] {Does not apply} to examinations prepared by the NRC.

Facility:	Turkey Point	Date of Examination:	3/4/13		
Item	Task Description		Initials a	b*	c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model per ES-401.		MOS		
	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.		MOS		
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.		MOS		
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.		MOS		
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.		MOS		
	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 scenarios will not be repeated on subsequent days.		MOS		
	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.		MOS		
3. W/T	a. Verify that 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 alternate path, low-power, emergency and RCA tasks meet the criteria on the form.		MOS		
	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		MOS		
	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.		MOS		
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.		MOS		
	b. Assess whether the 10CFR 55.41/43 and 55.45 sampling is appropriate.		MOS		
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.		MOS		
	d. Check for duplication and overlap among exam sections.		MOS		
	e. Check the entire exam for balance of coverage.		MOS		
	f. Assess whether the exam fits the appropriate job level (RO or SRO).		MOS		

		Printed Name / Signature	Date
a.	Author	David Lazarony/Western Technical Services, Inc. MOS Smiley	2/18/13 2/21/13
b.	Facility Reviewer (*)	SEAN BIRMAN	2/21/13
c.	NRC Chief Examiner (#)	GEORGE W. LASKA	2/22/13
d.	NRC Supervisor	MALCOLM T. WIDMANN	02/22/13

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

Sheet 1 of 8

1. **Pre-Examination**

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of March 4, 2013 March 11, 2013 March 18, 2013 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 3/4-3/25/13. 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 Sinley	LOI Supervisor / Exam Supervisor	[signature]	7/7/12	[signature]	3/17/13	
2.	Mark Wilson	Exam Developer	[signature]	7/20/12	[signature]	3/19/13	
3.	FRANK LEON	SIM. ENGR.	[signature]	7-23-12	[signature]	3-18-13	
4.	EMMANUEL PESCH	SIM. ENGR.	[signature]	7-23-12	[signature]	3-18-13	
5.	DONALD NOE	SIM ENGR	[signature]	7-25-12	[signature] for D. Noe	3/20/13	per email
6.	Tim Jamer	Exam Developer	[signature]	7/31/12	[signature]	3/18/13	
7.	C.A. Fernandez	Exam Developer	[signature]	7/30/12	[signature]	3/19/13	
8.	Del Buffett	Supervisor	[signature]	7-30-12	[signature]	3-18-13	
9.	Gail Bowen	EP coordinator EALs	[signature]	8-10-12	[signature] for G. Bowen	3/18/13	per e-mail
10.	TOM WENDEL	SIM ENGR	[signature]	8-20-12	[signature]	3-18-13	
11.	Chantele Bayard Mazza	Vault Tech	[signature]	8-21-12	[signature]	3/18-13	
12.	Bill Bushea	I&C Spec Sim	[signature]	10/2/12	[signature]	03/19/13	
13.	Tessa Doorman	Vault Tech	[signature]	10/15/12	[signature]	3/19/13	
14.	SEAN BLOOM	Facility Reviewer	[signature]	11/1/12	[signature] for S. Bloom	3/18/13	per e-mail
15.	MARK SKETCHLEY	CORPORATE OVERSIGHT	[signature]	11/6/12	[signature] for M. Sketchley	3/18/13	per e-mail

NOTES:

Sheet 2a of 8

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 March 4th, 11th & 18th 2013 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

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

	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1.	David Lazarony	Exam Developer		7/10/12			
2.	Robert Hendekey	Exam Developer		7/24/12	for R Hendekey		per telephone
3.	TASSON ALEXANDER	REVIEWER		7/24/12			
4.	GREGORY A. LAUGHLIN	REVIEWER		8/15/12			
5.	FRANK E. WILSON	REVIEWER		11/15/12	for F Wilson		per telephone
6.	LAURA BROOKS	Administrative		11-14-12			
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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 March 4th, 11th & 18th 2013 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

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

	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1.	David LaFrance	Exam Developer		7/6/12			
2.	Robert Haskell	Exam Developer		7/24/12			
3.	Joseph Alexander	Reviewer		7/24/12			
4.	Geoffrey A. Laughlin	Reviewer		8/15/12			
5.	Mark A. Wilson	Reviewer		11/8/12			
6.	Laura Brooks	Administrative		11-14-12		3-18-13	
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Sheet 2c of 8

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of March 4th, 11th & 18th 2013 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

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

	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1.	David Lazarony	Exam Developer	[signature]	7/9/12	[signature]	3/18/13	
2.	Robert Heidecker	Exam Developer	[signature]	7/24/12			
3.	Joseph Altizer	Reviewer	[signature]	7/24/12			
4.	Gregory A. Laughlin	Reviewer	[signature]	8/15/12	[signature]	3/18/13	
5.	Frank E. Nisbet	Reviewer	[signature]	11/8/12			
6.	Laura Brooks	Administrative	[signature]	11-14-12			
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NOTES:

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 MARCH 4th, 11th, 18th 2013 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

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

	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1.	David LaBarbera	Exam Developer		7/12/12			
2.	Robert Hendecker	Exam Developer		7/24/12			
3.	Joseph Arfuso	Reviewer		7/24/12		3/18/13	
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NOTES:

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 March 4-22, 2013 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 3/4-3/15/13 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.	GEORGE MOYSSIDIS	SIMULATOR ENGINEER		11-24-12		3/18/13
2.	Luis Sapion	Instructor / Validator		11 25 12		3/18/13
3.	A. Michalski	R Validator		12-7-12	for N. Michalski	3/18/13 per e-mail
4.	Eddie Neville	Ops Validator		12-7-12		3-18-13
5.	Juan Garcia	OPS Validator		12-7-12	for J. Garcia	3/15/13 per e-mail
6.	Brian Clark	INSTRUCTOR		12-9-12		3/18/13
7.	RICH RUTGERSON	SRO OPS Validator		12-11-12	for R. Rutgerson	3/22/13 per email
8.	DAVID BROOKINS	SRO OPS VALIDATOR		12-11-12	for D. Brookins	3/18/13 per e-mail
9.	Adam Law	RO OPS Validator		12-11-12	for A. Law	3/22/13 per email
10.	GLENN W. BOREE	SRO ON THE BOARD		12/12/12	for G. Boree	3/18/13 per e-mail
11.	Dave Funk	Shift Manager		12/12/12		3/18/13 per e-mail
12.	Jose Izquierdo	R.O. Validator		12/12/12	for J Izquierdo	4/12/13
13.	JOHN McGOWAN	R.O. Validation		12/12/12	for J McGowan	3/28/13 per email
14.	D.B. FULBRIGHT	INSTRUCTOR / DEVELOPER		12/12/12		3/18/13
15.	C Doty	Ops Validator		1/1/13	for C Doty	3/15/13 per verbal

NOTES:

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 MARCH 4-22, 2013 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 3/11 - 3/15. 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.	ED TREMBLAY	FS/SRO		1/1/13	for E. Tremblay	3/20/13 per email
2.	RJ Hess	ADM		1/2/13	for RJ Hess	3/18/13 per e-mail
3.	Roger Montgomery	SRO OPS Validator		1/4/13	for R. Montgomery	3/14/13 per verbal
4.	David Bell	RO		1/8/13	for D. Bell	3/22/13 per email
5.	William Burrows	SRO		1/4/13		3/18/13
6.	R HOSACK	RO		1-9-13	for R Hosack	3/22/13 per email
7.	HOUGH	OS		1/7/13	for M. Hough	3/20/13 per e-mail
8.	T.S. WALL	SM		1/7/13	for T.S.Wall	3/19/13 per e-mail
9.	CM LAUGHLIN	RO		1-7-13	for C Laughlin	3/18/13 per email
10.	KARL FROEHLICH	RO		1-7-13	for K. Froehlich	3/19/13 per e-mail
11.	AD HONAKER	SRO		1-8-13	for T Honaker	3/19/13 per e-mail
12.	Chris Lawrence	RO		1/12/13	for C. Lawrence	3/22/13 per email
13.	Mike Murphy	S.M.		1/12/13	for M. Murphy	3/19/13 per e-mail
14.	JOE MCKEE	S.M.		1/22/13	for J. McKee	3/20/13 per email
15.	John Harrigan	RO		1-12-13	for J. Harrigan	3/20/13 per email

NOTES:

PTN 2-13-1 NRC Exam

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 March 4, 2013 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. **Post-Examination**

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

	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1.	Russell Joplin	TVA Exam MGR/ PEER Review	RWJ	1/2/13	for R. Joplin	3/4/13	per e-mail
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NOTES:

PTN 2-13-1 NRC Exam

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 March 4, 2013 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. **Post-Examination**

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

	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1.	GLEN BLINDE	FLEET OPS TRNG COORD.		16 JAN 13	For G Blinde	3/18/13	per e-mail
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PTN 2-13-1 NRC Exam

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 March 11, 2013 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 3/4-3/15. 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.	Rocky Schoenhals	Control Room Supervisor/SRO		01/16/13	for R Schoenhals	3/19/13	per e-mail
2.	Steve Murano	Shift Manager		1/16/13	for S Murano	4/25/13	per text msg.
3.	David Sluss	Work Control Manager		1/18/13	for D. Slusser	3/19/13	per e-mail
4.	Jim Goodrich	SRO		1/25/13	for J. Goodrich	3/18/13	per e-mail
5.	Gene Odom	RRA Manager/SRO		1/31/13		3/18/13	
6.	Pablo Pasteris	RCO		2-11-13	for P. Pasteris	3/19/13	per e-mail
7.	Michael Kiley	Site Vice President		2-11-13		3/18/13	
8.	J.R. Kelly	Public Counsel		2-11-13	for JR Kelly	3/18/13	per e-mail
9.	Ronald A. Brisé	Public Service Commission		2/11/13	for RA Brisé	4/1/13	per e-mail
10.	Kenneth A. Hoffman	VP, Reg. Affairs, FPL		2/11/13	for K. Hoffman	3/18/13	per e-mail
11.	Sandra Russ	Maint Training Supv		3/11/13	for S Russ	3/18/13	per telephone
12.	Sherry Cox	RP Training		2/20/13		3/18/13	
13.	Stephen Moore	Rx Operator		2/22/13	for S Moore	3/29/13	per e-mail
14.	EDMUND LAMB	Rx OPERATOR		2/22/13	for E. Lamb	3/29/13	per e-mail
15.	Jose' A Vasquez	Control Room Supervisor/SRO		2/24/13	for J. Vasquez	3/29/13	per e-mail

NOTES:

Sheet 8 of 8

PTN L-134 NRC Exam

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 3/4/2013 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 3/4/2013. 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.	Matthew Glanor	ILT Lead Instructor	[signature]	2/25/13	[signature]	3/18/13	
2.	Richard Van R. Petts	Lic Instructor	[signature]	2-1-13	[signature]	3/18/13	
3.	Sam Shafer	AOM	[signature]	3/4/13	[signature] for S. Shafer	3/18/13	per verbal
4.	Thomas Wsch	Lic Instructor	[signature]	~~3/5/13~~ 3/4/13	[signature]	3/18/13	
5.	Mark Jones	OPS DIR	[signature]	~~3/5/13~~ 3/5/13	[signature] for M. Jones	3/18/13	per e-mail
6.	Keith Dolle	OPS Instructor	[signature]	3/4/13	[signature]	3/18/13	
7.	Tim Hodge	OPS instructor	[signature]	3/6/13	[signature]	3/18/13	
8.	VAL MIKLAUSICH	OPS INSTRUCTOR	[signature]	3/6/13	[signature]	3/18/13	
9.	TIM KOGELMANN	SURROGATE	[signature]	3/7/13	[signature]	3/18/13	
10.	R. Stamp	T.M.	[signature]	3-8-13	[signature]	3/18/13	per verbal
11.	A Chatterton	OPS INS	[signature]	3-8-13	[signature]	3/18/13	
12.	Jim Barry	OPS Instructor	[signature]	3-15-13	[signature]	3/18/13	
13.							
14.							
15.							

NOTES:

Facility: Turkey Point		Date of Examination:	3/4/13
Examination Level:	RO	Operating Test Number:	L-13-1

Administrative Topic (see Note)	Type Code*	Describe activity to be performed	
Conduct of Operations	M, R	2.1.7 (4.4)	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation.
		JPM:	Calculate QPTR
Conduct of Operations	M, R	2.1.37 (4.3)	Knowledge of procedures, guidelines, or limitations associated with reactivity management.
		JPM:	Verify Adequate Shutdown Margin
Equipment Control	D, R	2.2.40 (3.4)	Ability to apply Technical Specifications for a system.
		JPM:	Perform Accident Monitoring Instrument Channel Checks
Radiation Control	P,M, R	2.3.12 (3.2)	Knowledge of radiological safety principles pertaining to licensed operator duties, such as containment entry requirements, fuel handling responsibilities, access to locked high-radiation areas, aligning filters, etc.
		JPM:	Evaluate conditions for restart of Refueling Preshuffle in the spent fuel pit.

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

*Type Codes & Criteria:
(C)ontrol room, **(0)** (S)imulator, **(0)** or Class(R)oom **(4)**
(D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes) **(1)**
(N)ew or (M)odified from bank (≥ 1) **(3)**
(P)revious 2 exams (≤ 1; randomly selected) **(1)**

Facility: Turkey Point		Date of Examination:	3/4/13
Examination Level:	SRO	Operating Test Number:	L-13-1

Administrative Topic (see Note)	Type Code*	Describe activity to be performed	
Conduct of Operations	M, R	2.1.7 (4.7)	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation.
		JPM:	Calculate QPTR
Conduct of Operations	N, R	2.1.23 (4.4)	Ability to perform specific system and integrated plant procedures during all Mode of plant operations.
		JPM:	Determine Contingency Actions for a Loss of RHR in Mode 5 and the loops are not available.
Equipment Control	D, R	2.2.40 (4.7)	Ability to apply Technical Specifications for a system.
		JPM:	Perform Accident Monitoring Instrument Channel Checks
Radiation Control	P, M, R	2.3.12 (3.7)	Knowledge of radiological safety principles pertaining to licensed operator duties, such as containment entry requirements, fuel handling responsibilities, access to locked high-radiation areas, aligning filters, etc.
		JPM:	Evaluate conditions for restart of Refueling Preshuffle in the spent fuel pit.
Emergency Plan/Procedures	M, R	2.4.41 (4.6)	Knowledge of the emergency action level thresholds and classifications.
		JPM:	Classify the Event and Issue PARs

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

*Type Codes & Criteria:
(C)ontrol room, **(0)** (S)imulator, **(0)** or Class(R)oom **(5)**
(D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes) **(1)**
(N)ew or (M)odified from bank (≥ 1) **(4)**
(P)revious 2 exams (≤ 1; randomly selected) **(1)**

Facility: Turkey Point	Date of Examination: 3/4/2013
Exam Level (circle one): Reactor Operator	Operating Test No.: L-13-1

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
A. 001 Control Rod Drive System [001 A4.14(3.0/3.4)] Respond to Control Bank D Demanded Past 230 Steps	S, M, A	1
B. APE 028 PZR Level Control Malfunction [028 AA1.05(2.7/2.8)] Place Excess Letdown in Service	S, N, A	2
C. 010 Pressurizer Pressure Control System [010 A2.03(4.1/4.2)] Respond to PORV Leakage	S, M, A	3
D. 005 Residual Heat Removal System [005 A4.01(3.6/3.4)] Place RHR in service	S, D, L	4P
E. 061 Auxiliary Feedwater System [061 A2.01(2.9/2.8)] Shutdown of AFW Pump(s) from Emergency Plant Operation	N, S	4S
F. 064 Emergency Diesel Generators [064 A4.01(4.0/4.3)] Perform EDG Normal Start Test	S, D, A, EN	6
G. 012 Reactor Protection System [012 A4.04 (3.3/3.3)] Trip Bistables for LT-474 Failure	S, D	7
H. 007 PRT/Quench Tank System [007 A1.03 (3.3/3.3)] Reduce PRT Temperature	S, N	5
In-Plant Systems@ (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)		
I. APE 068 Control Room Evacuation [068 AA1.02 (4.3/4.5)] Locally Align AFW Flow for Safe Shutdown	D, E	8
J. 062 AC Electrical Distribution System [062 A4.04 (2.6/2.7)] Restore Power to 120V Vital Instrument Bus	N, E	6
K. 068 Liquid Radwaste System [068 A4.02 (3.2/3.1)] Perform a Liquid Release from Recycle Monitor Tank A	D, R	9

Facility: Turkey Point		Date of Examination:	3/4/2013
Exam Level (circle one):	Senior Reactor Operator (I)	Operating Test No.:	L-13-1
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
A.	001 Control Rod Drive System [001 A4.14(3.0/3.4)] Respond to Control Bank D Demanded Past 230 Steps	S, M, A	1
B.	APE 028 PZR Level Control Malfunction [028 AA1.05(2.7/2.8)] Place Excess Letdown in Service	S, N, A	2
C.	010 Pressurizer Pressure Control System [010 A2.03(4.1/4.2)] Respond to PORV Leakage	S, M, A	3
D.	005 Residual Heat Removal System [005 A4.01(3.6/3.4)] Place RHR in service	S, D, L	4P
E.	061 Auxiliary Feedwater System [061 A2.01(2.9/2.8)] Shutdown of AFW Pump(s) from Emergency Plant Operation	N, S	4S
F.	064 Emergency Diesel Generators [064 A4.01(4.0/4.3)] Perform EDG Normal Start Test	S, D, A, EN	6
G.	012 Reactor Protection System [012 A4.04 (3.3/3.3)] Trip Bistables for LT-474 Failure	S, D	7
H.	NA		
In-Plant Systems@ (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)			
I.	APE 068 Control Room Evacuation [068 AA1.02 (4.3/4.5)] Locally Align AFW Flow for Safe Shutdown	D, E	8
J.	062 AC Electrical Distribution System [062 A4.04 (2.6/2.7)] Restore Power to 120V Vital Instrument Bus	N, E	6
K.	068 Liquid Radwaste System [068 A4.02 (3.2/3.1)] Perform a Liquid Release from Recycle Monitor Tank A	D, R	9

Facility:	Turkey Point	Date of Examination:	3/4/2013
Exam Level (circle one):	Senior Reactor Operator (U)	Operating Test No.:	L-13-1

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
A. NA		
B. APE 028 PZR Level Control Malfunction [028 AA1.05(2.7/2.8)] Place Excess Letdown in Service	S, N, A	2
C. NA		
D. 005 Residual Heat Removal System [005 A4.01(3.6/3.4)] Place RHR in service	S, D, L	4P
E. NA		
F. 064 Emergency Diesel Generators [064 A4.01(4.0/4.3)] Perform EDG Normal Start Test	S, D, A, EN	6
G. NA		
H. NA		
In-Plant Systems@ (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)		
I. APE 068 Control Room Evacuation [068 AA1.02 (4.3/4.5)] Locally Align AFW Flow for Safe Shutdown	D, E	8
J. NA		
K. 068 Liquid Radwaste System [068 A4.02 (3.2/3.1)] Perform a Liquid Release from Recycle Monitor Tank A	D, R	9

@ 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.

Facility: Turkey Point	Date of Examination: 3/4/13	Operating Test Number: L-13-1

	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).	MDS	GB	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	MDS	GB	
c.	The operating test shall not duplicate items from the applicants' audit test(s) (see Section D.1.a).	MDS	GB	
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	MDS	GB	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	MDS	GB	
	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	MDS	GB	
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.	MDS	GB	
	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.		MDS	GB	

		Printed Name / Signature	Date
a.	Author	David Lazarony, Western Technical Services, Inc. SIMILEY, MARK MDS	2/18/13 2/21/13
b.	Facility Reviewer (*)	SEAN BLOOM	2/21/13
c.	NRC Chief Examiner (#)	GERARD W. LASKA / Gerard W. Laska	2/22/2013
d.	NRC Supervisor	MARCELL T. WIDMANN /	02/22/13

NOTE: * The facility signature is not applicable for NRC-developed tests.

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

Facility: Turkey Point	Date of Exam: 3/4/13	Scenario Numbers: 1 2 4	Operating Test No.:	L-13-1

	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.			
2.	The scenarios consist mostly of related events.			
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)			
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.			
5.	The events are valid with regard to physics and thermodynamics.			
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.			
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.			
8.	The simulator modeling is not altered.			
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.			
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.			
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).			
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).			
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.			

	Target Quantitative Attributes (Per Scenario; See Section D.5.d)	Actual Attributes Scen 1	Scen 2	Scen 4	-	-	-
1.	Total malfunctions (5-8)	7	7	10			
2.	Malfunctions after EOP entry (1-2)	1	1	3			
3.	Abnormal events (2-4)	4	4	3			
4.	Major transients (1-2)	1	1	2			
5.	EOPs entered/requiring substantive actions (1-2)	1	1	1			
6.	EOP contingencies requiring substantive actions (0-2)	1	0	3			
7.	Critical tasks (2-3)	2	2	3			

Facility: Turkey Point	Date of Exam: 3/4/13	Scenario Numbers: 5	Operating Test No.: L-13-1

	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.	MCS	GS	
2.	The scenarios consist mostly of related events.	MCS	GS	
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)	MCS	GS	
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.	MCS	GS	
5.	The events are valid with regard to physics and thermodynamics.	MCS	GS	
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	MCS	GS	
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.	MCS	GS	
8.	The simulator modeling is not altered.	MCS	GS	
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.	MCS	GS	
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.	MCS	GS	
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	MCS	GS	
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).	MCS	GS	
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	MCS	GS	

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

Facility:	Turkey Point						Date of Exam:	3/4/13						Operating Test No.:	L-13-1		
APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		L-13-1-1			L-13-1-2			L-13-1-4			L-13-1-5 (Spare)						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP		R	I	U
SROU-1	RX													0	1	1	**0**
	NOR	4												1	1	1	**1**
	I/C	1,2, 3,5			1,2 3,4									8	4	4	**2**
	MAJ	6			5									2	2	2	**1**
	TS	2,3			1,4									4	0	2	**2**
SROI-1	RX					2								1	1	**1**	0
	NOR	4						1						2	1	**1**	1
	I/C	1,2, 3,5				1,3		2,3, 4,5						10	4	**4**	2
	MAJ	6				5		6,8						4	2	**2**	1
	TS	2,3						3,4						4	0	**2**	2
SROI-2	RX		4											1	1	**1**	0
	NOR							1						1	1	**1**	1
	I/C		1,3		1,2, 3,4			2,3, 4,5						10	4	**4**	2
	MAJ		6		5			6,8						4	2	**2**	1
	TS				1,4			3,4						4	0	**2**	2
SROI-3	RX								1					1	1	**1**	0
	NOR	4												1	1	**1**	1
	I/C	1,2, 3,5			1,2 3,4				2,5					10	4	**4**	2
	MAJ	6			5				6,8					4	2	**2**	1
	TS	2,3			1,4									4	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 service 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.

Facility: Turkey Point		Date of Exam: 3/4/13												Operating Test No.: L-13-1			
APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		L-13-1-1			L-13-1-2			L-13-1-4			L-13-1-5 (Spare)						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP		R	I	U
RO-1	RX		4											1	**1**	1	0
	NOR						3			1				2	**1**	1	1
	I/C		1,3				2,4			3,4				6	**4**	4	2
	MAJ		6				5			6,8				4	**2**	2	1
	TS													0	**0**	2	2
RO-2	RX								1					1	**1**	1	0
	NOR			4										1	**1**	1	1
	I/C			2,5					2,5					4	**4**	4	2
	MAJ			6					6,8					3	**2**	2	1
	TS													0	**0**	2	2
RO-3	RX					2								1	**1**	1	0
	NOR			4						1				2	**1**	1	1
	I/C			2,5		1,3				3,4				6	**4**	4	2
	MAJ			6		5				6,8				4	**2**	2	1
	TS													0	**0**	2	2
RO-4	RX								1					1	**1**	1	0
	NOR						3							1	**1**	1	1
	I/C						2,4		2,5					4	**4**	4	2
	MAJ						5		6,8					3	**2**	2	1
	TS													0	**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 service 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.

Facility:	Turkey Point					Date of Exam:	3/4/13					Operating Test No.:	L-13-1			
APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		L-13-1-1			L-13-1-2			L-13-1-4			L-13-1-5 (Spare)						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP		R	I	U
RO-5	RX		4											1	1	1	0
	NOR						3			1				2	1	1	1
	I/C		1,3				2,4			3,4				6	4	4	2
	MAJ		6				5			6,8				4	2	2	1
	TS													0	0	2	2
RO-6	RX					2								1	1	1	0
	NOR			4										1	1	1	1
	I/C			2,5		1,3								4	4	4	2
	MAJ			6		5								2	2	2	1
	TS													0	0	2	2
	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														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 service 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.

Facility: Turkey Point	Date of Examination: 3/4/13								Operating Test No.: L-13-1			
Competencies	APPLICANTS											
	SRO (U/I)				RO/ATC				BOP			
	SCENARIO				SCENARIO				SCENARIO			
	1	2	4	5	1	2	4	5	1	2	4	5
Interpret/Diagnose Events and Conditions	1-7	1-6	1-9	1-6	1-7	1-6	1-9	1-6	1-7	1-6	1-9	1-6
Comply With and Use Procedures (1)	1-7	1-6	1-9	1-6	1-7	1-6	1-9	1-6	1-7	1-6	1-9	1-6
Operate Control Boards (2)	NA	NA	NA	NA	1, 3,4,6	1,2, 3,5	1,2,5 6,7,8 ,9	1,2,3 ,6	2,4, 5,6,7	2,3, 4,5,6	1,3,4 6,8	1,4,5 ,6
Communicate and Interact	1-7	1-6	1-9	1-6	1-7	1-6	1-9	1-6	1-7	1-6	1-9	1-6
Demonstrate Supervisory Ability (3)	1-7	1-6	1-9	1-6	NA	NA	NA	NA	NA	NA	NA	NA
Comply With and Use Tech. Specs. (3)	2,3	1,4	3,4	2,3	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

(1) Includes Technical Specification compliance for RO.

(2) Optional for an SRO-U.

(3) Only applicable to SROs.

Instructions:

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

Tier / Group	Randomly Selected KA	Reason for Rejection
1 / 2	037 / AA2.07 replaced by 037 / AA2.07	Transposed in Error
1 / 2	059 / AA2.01 replaced by 037 / AA2.07	Transposed in Error
2 / 2	014 / K4.01 replaced by 014 / K4.06	The subject K/A isn't relevant at the subject facility.
1 / 2	059 / AK1.05 replaced by 059 / AK1.01	It isn't possible to prepare a psychometrically sound question related to the subject K/A.
2 / 1	076 / 2.4.31 replaced by 005 / 2.4.31	Too much overlap for test items developed in subject area

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

Facility: **Turkey Point 2013-301 March 2013**

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	2			1	9	2	2	4
	Tier Totals	5	4	5				4	5			4	27	5	5	10
2. Plant Systems	1	2	3	2	3	3	2	3	3	2	2	3	28	2	3	5
	2	1	1	0	1	1	1	1	1	1	1	1	10	1	2	3
	Tier Totals	3	4	2	4	4	3	4	4	3	3	4	38	3	5	8
3. Generic Knowledge and Abilities Categories		1			2			3			4		10	1	2	3	4	7
		2			2			3			3			1	2	2	2	

Note: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.

e. 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. 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.

ES-401	PWR Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 1 (RO / SRO)						Form ES-401-2	
E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	IR	#
000007 (BW/E02&E10; CE/E02) Reactor Trip - Stabilization - Recovery / 1				X			007EA1.02 **Ability to operate and monitor the following as they apply to a reactor trip**: MFW System.	3.8/3.7	
000008 Pressurizer Vapor Space Accident / 3		X					**008AK2.02 Knowledge of the interrelations between the Pressurizer Vapor Space Accident and the following:** Sensors and Detectors.	2.7/2.7	
000009 Small Break LOCA / 3					X		**009EA2.02 Ability to determine or interpret the following as they apply to a small break LOCA**: Possible leak paths.	3.5/3.8	
000011 Large Break LOCA / 3	X						**011EK1.01 Knowledge of the operational implications of the following concepts as they apply to the Large Break LOCA:** Natural circulation and cooling, including reflux boiling.	4.1/4.1	
000015/17 RCP Malfunctions / 4 (SRO)						X	**015AG2.4.8 Knowledge of how abnormal operating procedures are used in conjunction with EOPs.**	3.8/4.5	
000015/17 RCP Malfunctions / 4	X						**015AK1.04 Knowledge of the operational implications of the following concepts as they apply to Reactor Coolant Pump Malfunctions (Loss of RC Flow):** Basic steady state thermodynamic relationship between RCS loops and S/Gs resulting from unbalanced RCS flow.	2.9/3.1	
000022 Loss of Rx Coolant Makeup / 2						X	**022G2.1.20 Ability to execute procedure steps.**	4.6/4.6	
000022 Loss of Rx Coolant Makeup / 2 (SRO)						X	**022G2.4.20 Knowledge of the operational implications of EOP warnings, cautions, and notes.**	3.8/4.3	

000025 Loss of RHR System / 4			X				**025AK3.02 Knowledge of the reasons for the following responses as they apply to the Loss of Residual Heat Removal System:** Isolation of RHR low-pressure piping prior to pressure increase above specified level.	3.3/3.7	
000026 Loss of Component Cooling Water / 8									
000027 Pressurizer Pressure Control System Malfunction / 3						X	**027AG2.1.28 Knowledge of the purpose and function of major system components and controls.**	4.1/4.1	
000027 Pressurizer Pressure Control System Malfunction / 3 (SRO)						X	**027G2.4.11 Knowledge of abnormal condition procedures.**	4.0/4.2	
000029 ATWS / 1		X					**029EK2.06 Knowledge of the interrelations between an ATWS and the following:** Breakers, relays, and disconnects.	2.9/3.1	
000038 Steam Gen. Tube Rupture / 3	X						**038EK1.02 Knowledge of the operational implications of the following concepts as they apply to the SGTR:** Leak rate vs. pressure drop.	3.2/3.5	
000038 Steam Gen. Tube Rupture / 3 (SRO)					X		**038A2.03 Ability to determine or interpret the following as they apply to a SGTR:** Which S/G is ruptured	4.4/4.6	
000040 (BW/E05; CE/E05; W/E12) Steam Line Rupture - Excessive Heat Transfer / 4				X			**040AA1.19 Ability to operate and / or monitor the following as they apply to the Steam Line Rupture:** Post accident monitoring panel indicators.	3.8/3.9	
000054 (CE/E06) Loss of Main Feedwater / 4			X				**054AK3.04 Knowledge of the reasons for the following responses as they apply to the Loss of Main Feedwater (MFW):** Actions contained in EOPs for loss of MFW.	4.4/4.6	
000055 Station Blackout / 6									
000056 Loss of Off-site Power / 6						X	**056G2.4.11 Knowledge of abnormal condition procedures.**	4.0/4.2	

000057 Loss of Vital AC Inst. Bus / 6				X			**057AA1.04 Ability to operate and / or monitor the following as they apply to the Loss of Vital AC Instrument Bus:** RWST and VCT valves.	3.5/3.6	
000058 Loss of DC Power / 6 (SRO)					X		**058AA2.01 Ability to determine and interpret the following as they apply to the Loss of DC Power:** That a loss of dc power has occurred; verification that substitute power sources have come on line	3.7/4.1	
000062 Loss of Nuclear Svc Water / 4					X		**062AA2.06 Ability to determine and interpret the following as they apply to the Loss of Nuclear Service Water:** The length of time after the loss of SWS flow to a component before that component may be damaged.	2.8/3.1	
000062 Loss of Nuclear Svc Water / 4 (SRO)					X		**062AA2.03 Ability to determine and interpret the following as they apply to the Loss of Nuclear Service Water:** The valve lineups necessary to restart the SWS while bypassing the portion of the system causing the abnormal condition.	2.6/2.9	
000065 Loss of Instrument Air / 8			X				**065AK3.03 Knowledge of the reasons for the following responses as they apply to the Loss of Instrument Air:** Knowing effects on plant operation of isolating certain equipment from instrument air.	2.9/3.4	
000077 Generator Voltage and Electric Grid Disturbances / 6									
W/E04 LOCA Outside Containment / 3		X					**WE04EK2.2 Knowledge of the interrelations between the (LOCA Outside Containment) and the following:** Facility's heat removal systems, including primary coolant, emergency coolant, the decay heat removal systems, and relations between the proper operation of these systems to the operation of the facility.	3.8/4.0	
BW/E04; W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4									
W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4					X		**WE05EA2.2 Ability to determine and interpret the following as they apply to the (Loss of Secondary Heat Sink)** Adherence to appropriate procedures and operation within the limitations in the facility's license and amendments.	3.7/4.3	
WE11; Loss of Emergency Coolant Recirculation									
K/A Category Totals:	3	3	3	3	3	3			18
SRO K/A Category Totals:					3	3	Group Point Total:		6

ES-401	PWR Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 2 (RO / SRO)						Form ES-401-2		
E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	IR	#
000001 Continuous Rod Withdrawal / 1									
000003 Dropped Control Rod / 1			X				**003AK3.07 Knowledge of the reasons for the following responses as they apply to the Dropped Control Rod:** Tech-Spec limits for T-ave.	3.8/3.9	
000003 Dropped Control Rod / 1 (SRO)						X	**003G2.1.19 Ability to use plant computers to evaluate system or component status.**	3.9/3.8	
000005 Inoperable/Stuck Control Rod / 1				X			**005AA1.01 Ability to operate and / or monitor the following as they apply to the Inoperable / Stuck Control Rod:** CRDS .	3.6/3.4	
000024 Emergency Boration / 1					X		**024AA2.01 Ability to determine and interpret the following as they apply to the Emergency Boration:** Whether boron flow and/or MOVs are malfunctioning, from plant conditions	3.8/4.1	
000028 Pressurizer Level Malfunction / 2 (SRO)						X	**028G2.4.30 Knowledge of events related to system operation/status that must be reported to internal organizations or external agencies, such as the State, the NRC, or the transmission system operator.**	2.7/4.1	
000032 Loss of Source Range NI / 7					X		**032AA2.05 Ability to determine and interpret the following as they apply to the Loss of Source Range Nuclear Instrumentation:** Nature of abnormality, from rapid survey of control room data.	2.9/3.2	
000033 Loss of Intermediate Range NI / 7			X				**033AK3.01 Knowledge of the reasons for the following responses as they apply to the Loss of Intermediate Range Nuclear Instrumentation:** Termination of startup following loss of intermediate-range instrumentation.	3.2/3.6	
000036 (BW/A08) Fuel Handling Accident / 8									
000037 Steam Generator Tube Leak / 3 (SRO)					X		**037AA2.07 Ability to determine and interpret the following as they apply to the Steam Generator Tube Leak:** Flowpath for dilution of ejector exhaust air	3.1/3.6	
000051 Loss of Condenser Vacuum / 4									

000059 Accidental Liquid RadWaste Rel. / 9	X						**059AK1.05 Knowledge of the operational implications of the following concepts as they apply to Accidental Liquid Radwaste Release:** The calculation of offsite doses due to a release from the power plant	3.2/3.5	
000059 Accidental Liquid RadWaste Rel. / 9 (SRO)					X		**059AA2.01 Ability to determine and interpret the following as they apply to the Accidental Liquid Radwaste Release:** The failure-indication light arrangement for a radioactive-liquid monitor	3.2/3.5	
000060 Accidental Gaseous Radwaste Rel. / 9									
000061 ARM System Alarms / 7		X					**061AK2.01 Knowledge of the interrelations between the Area Radiation Monitoring (ARM) System Alarms and the following:** Detectors at each ARM system location	2.5/2.6	
000067 Plant Fire On-site / 8									
000068 (BW/A06) Control Room Evac. / 8									
000069 (W/E14) Loss of CTMT Integrity / 5									
000074 (W/E06&E07) Inad. Core Cooling / 4									
000076 High Reactor Coolant Activity / 9									
W/EO1 & E02 Rediagnosis & SI Termination / 3									
W/E13 Steam Generator Over-pressure / 4									
W/E15 Containment Flooding / 5						X	**WE15EG2.1.27 Ability to perform specific system and integrated plant procedures during all modes of plant operation.**	4.3/4.4	
W/E16 High Containment Radiation / 9									
BW/A01 Plant Runback /									
BW/A02&A03 Loss of NNI-X/Y / 7									
BW/A04 Turbine Trip / 4									
BW/A05 Emergency Diesel Actuation / 6									
BW/A07 Flooding / 8									
BW/E03 Inadequate Subcooling Margin / 4	X						**WE03EK1.1 Knowledge of the operational implications of the following concepts as they apply to the (LOCA Cooldown and Depressurization):** Components, capacity, and function of emergency systems.	3.4/4.0	
BW/E08; W/E03 LOCA Cooldown - Depress. / 4									
BW/E09; CE/A13; W/E09&E10 Natural Circ. / 4									
BW/E13&E14 EOP Rules and Enclosures									
CE/A11; W/E08 RCS Overcooling - PTS / 4									
CE/A16 Excess RCS Leakage / 2									
CE/E09 Functional Recovery									
K/A Category Point Totals:	2	1	2	1	2	1	Group Point Total:		9
K/A Category Point Totals: (SRO)					2	2	Group Point Total:		4

ES-401	PWR Examination Outline Plant Systems - Tier 2/Group 1 (RO / SRO)											Form ES-401-2		
System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G	K/A Topic(s)	IR	#
003 Reactor Coolant Pump					X							**003K5.02 Knowledge of the operational implications of the following concepts as they apply to the RCPS:** Effects of RCP coastdown on RCS parameters.	2.8/3.2	
004 Chemical and Volume Control					X							**004K5.19 Knowledge of the operational implications of the following concepts as they apply to the CVCS**: Concept of SDM'	3.5/3.9	
005 Residual Heat Removal						X						**005K6.03 Knowledge of the effect of a loss or malfunction on the following will have on the RHRS:** RHR heat exchanger.	2.5/2.6	
005 Residual Heat Removal **(SRO)**								X				005A2.01 **Ability to (a) predict the impacts of the following malfunctions or operations on the RHRS, and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations:** Failure modes for pressure, flow, pump motor amps, motor temperature, and tank level instrumentation.	2.7/2.9	
006 Emergency Core Cooling							X					**006A1.18 Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the ECCS controls including:** PZR level and pressure.	4.4/4.3	
007 Pressurizer Relief/Quench Tank	X											**007K1.01 Knowledge of the physical connections and/or cause-effect relationships between the PRTS and the following systems:** Containment system.	2.9/3.1	
007 Pressurizer Relief/Quench Tank				X								**007K4.01 Knowledge of PRTS design feature(s) and/or interlock(s) which provide for the following:** Quench tank cooling.	2.6/2.9	
008 Component Cooling Water	X											**008K1.01 Knowledge of the physical connections and/or cause-effect relationships between the CCWS and the following systems:** SWS.	3.1/3.1	

008 Component Cooling Water (SRO)										X	**008G2.1.23 Ability to perform specific system and integrated plant procedures during all modes of plant operation.**	4.3/4.4	
010 Pressurizer Pressure Control					X						**010K5.02 Knowledge of the operational implications of the following concepts as the apply to the PZR PCS:** Constant enthalpy expansion through a valve.	2.6/3.0	
010 Pressurizer Pressure Control						X					**010K6.01 Knowledge of the effect of a loss or malfunction of the following will have on the PZR PCS:** Pressure detection systems.	2.7/3.1	
012 Reactor Protection		X									**012K2.01 Knowledge of bus power supplies to the following:** RPS channels, components, and interconnections.	3.3/3.7	
012 Reactor Protection (SRO)								X			**012A2.01 Ability to (a) predict the impacts of the following malfunctions or operations on the RPS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations:** Faulty bistable operation.	3.1/3.6	
013 Engineered Safety Features Actuation				X							**013K4.19 Knowledge of ESFAS design feature(s) and/or inter-lock(s) which provide for the following:** Reason for opening breaker on high-head injection pump.	3.0/3.4	
013 Engineered Safety Features Actuation									X		**013A3.01 Ability to monitor automatic operation of the ESFAS including:** Input channels and logic	3.7/3.9	
022 Containment Cooling									X		**022A4.02 Ability to manually operate and/or monitor in the control room:** CCS pumps.	3.2/3.1	
025 Ice Condenser													
026 Containment Spray							X				**026A1.01 Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the CSS controls including:** Containment pressure	3.9/4.2	
026 Containment Spray										X	**026G2.2.39 Knowledge of less than or equal to one hour Technical Specification action statements for systems.**	3.9/4.5	

026 Containment Spray (SRO)										X	**026G2.4.45 Ability to prioritize and interpret the significance of each annunciator or alarm.**	4.1/4.3	
039 Main and Reheat Steam									X		**039A4.01 Ability to manually operate and/or monitor in the control room:** Main steam supply. Valves.	2.9/2.8	
059 Main Feedwater				X							**059K4.19 Knowledge of MFW design feature(s) and/or interlock(s) which provide for the following:** Automatic feedwater isolation of MFW.	3.2/3.4	
061 Auxiliary/Emergency Feedwater								X			**061A3.05 Ability to monitor automatic operation of the AFW, including:** Recognition of leakage, using sump level changes.	2.5/2.5	
062 AC Electrical Distribution							X				**062A2.16Ability to (a) predict the impacts of the following malfunctions or operations on the ac distribution system; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations:** Degraded system voltages.	2.5/2.9	
062 AC Electrical Distribution (SRO)							X				**062A2.04 Ability to (a) predict the impacts of the following malfunctions or operations on the ac distribution system; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations:** Effect on plant of de-energizing a bus	3.1/3.4	
063 DC Electrical Distribution		X									**063K2.01 Knowledge of bus power supplies to the following:** Major DC loads	2.9/3.1	
063 DC Electrical Distribution			X								**063K3.01 Knowledge of the effect that a loss or malfunction of the DC electrical system will have on the following:** ED/G	3.7/4.1	
064 Emergency Diesel Generator										X	**064G2.2.42 Ability to recognize system parameters that are entry-level conditions for Technical Specifications.**	3.9/4.6	
073 Process Radiation Monitoring							X				**073 A2.02 Ability to (a) predict the impacts of the following malfunctions or operations on the PRM system; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations:**	2.5/2.9	

076 Service Water							X				**076A1.02 Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the SWS controls including:** Reactor and turbine building closed cooling water temperatures	2.6/2.6	
076 Service Water										X	**076G2.4.31 Knowledge of annunciator alarms, indications, or response procedures.**	4.2/4.1	
078 Instrument Air		X									**078K2.01 Knowledge of bus power supplies to the following:** Instrument air compressor	2.7/2.9	
103 Containment			X								**103K3.03 Knowledge of the effect that a loss or malfunction of the containment system will have on the following:** Loss of containment integrity under refueling operations.	3.7/4.1	
103 Containment								X			**103A2.03 Ability to (a) predict the impacts of the following malfunctions or operations on the containment system- and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations:** Phase A and B isolation	3.5/3.8	
K/A Category Point Totals:	2	3	2	3	3	2	3	3	2	2	3	Group Point Total:	28
K/A Category Point Totals: (SRO)								3			2	Group Point Total:	5

ES-401	PWR Examination Outline Plant Systems - Tier 2/Group 2 (RO / SRO)											Form ES-401-2		
System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G	K/A Topic(s)	IR	#
001 Control Rod Drive						X						**001K6.13 Knowledge of the effect of a loss or malfunction on the following CRDS components:** Location and operation of RPIS	3.6/3.7	
002 Reactor Coolant														
011 Pressurizer Level Control		X										**011K2.01 Knowledge of bus power supplies to the following:** Charging pumps	3.1/3.2	
014 Rod Position Indication				X								**014K4.01 Knowledge of RPIS design feature(s) and/or interlock(s) which provide for the following**: Upper electrical limit	2.5/2.7	
015 Nuclear Instrumentation														
016 Non-nuclear Instrumentation														
017 In-core Temperature Monitor					X							**017K5.01 Knowledge of the operational implications of the following concepts as they apply to the ITM system:** Temperature at which cladding and fuel melt	3.1/3.9	
028 Hydrogen Recombiner and Purge Control														
029 Containment Purge							X					**029A1.03 Ability to predict and/or monitor changes in parameters to prevent exceeding design limits) associated with operating the Containment Purge System controls including:** Containment pressure, temperature, and humidity	3.0/3.3	
033 Spent Fuel Pool Cooling														
034 Fuel Handling Equipment (SRO)								X				**034A2.01 Ability to (a) predict the impacts of the following malfunctions or operations on the Fuel Handling System ; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations:** Dropped fuel element	3.6/4.4	
035 Steam Generator														

041 Steam Dump/Turbine Bypass Control									X		**041A4.02 Ability to manually operate and/or monitor in the control room:** Cooldown valves	2.7/2.9	
045 Main Turbine Generator							X				**045A2.12 Ability to (a) predict the impacts of the following mal-functions or operation on the MT/G system; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations:** Control rod insertion limits exceeded (stabilize secondary)	2.5/2.8	
056 Condensate										X	**056G2.1.28 Knowledge of the purpose and function of major system components and controls.**	4.1/4.1	
068 Liquid Radwaste													
071 Waste Gas Disposal (SRO)							X				**071A2.02 Ability to (a) predict the impacts of the following malfunctions or operations on the Waste Gas Disposal System; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations:** Use of waste gas release monitors, radiation, gas flow rate, and totalizer.	3.3/3.6	
072 Area Radiation Monitoring								X			**072A3.01 Ability to monitor automatic operation of the ARM sys-tem, including:** Changes in ventilation alignment	2.9/3.1	
075 Circulating Water	X										**075K1.01 Knowledge of the physical connections and/or cause-effect relationships between the circulating water system and the following systems:** SWS	2.5/2.5	
079 Station Air (SRO)										X	**079G2.4.35 Knowledge of local auxiliary operator tasks during an emergency and the resultant operational effects.**	3.8/4.0	
086 Fire Protection													
K/A Category Point Totals:	1	1	0	1	1	1	1	1	1	1	Group Point Total:		10
K/A Category Point Totals: (SRO)								2			3	Group Point Total:	3

Facility:	Turkey Point	Date of Exam:	3/2013 2013-301

Category	K/A #	Topic	RO		SRO-Only	
			IR	Q#	IR	Q#
1. Conduct of Operations	2.1.14	Knowledge of the process for controlling equipment configuration or status	3.1		3.1	
	2.1.38	Knowledge of the station's requirements for verbal communications when implementing procedures.	3.7		3.8	
	2.1.37	Knowledge of procedures, guidelines, or limitations associated with reactivity management.	4.3		4.6	
	Subtotal		2		1	
2. Equipment Control	2.2.22	Knowledge of pre- and post-maintenance operability requirements.	4.0		4.7	
	2.2.25	Knowledge of the bases in Technical Specifications for limiting conditions for operations and safety limits.	3.2		4.2	
	2.2.11	Knowledge of the process for controlling temporary design changes.			3.3	
	2.2.35	Ability to determine Technical Specification Mode of Operation.			4.5	
	Subtotal		2		2	
	2.3.4	Knowledge of radiation exposure limits under normal and emergency conditions.			3.7	
3. Radiation Control	2.3.5	Ability to use radiation monitoring systems, such as fixed radiation monitors and alarms, portable survey instruments, personnel monitoring equipment, etc.			2.9	
	2.3.13	Knowledge of radiological safety procedures pertaining to licensed operator duties	3.4		3.8	
	2.3.14	Knowledge of radiation or contamination hazards that may arise during normal, abnormal, or emergency conditions or activities.	3.4		3.8	
	2.3.7	Ability to comply with radiation work permit requirements during normal or abnormal conditions.	3.5		3.6	
	Subtotal		3		2	
4. Emergency Procedures / Plan	2.4.20	Knowledge of the operational implications of EOP warnings, cautions, and notes.	3.8		4.3	
	2.4.41	Knowledge of the emergency action level thresholds and classifications.	2.9		4.6	
	2.4.42	Knowledge of emergency response facilities.	2.6		3.8	
	2.4.34	Knowledge of RO tasks performed outside the main control room during an emergency and the resultant operational effects.			4.1	
	2.4.37	Knowledge of the lines of authority during implementation of the emergency plan.			4.0	
	Subtotal		3		2	
Tier 3 Point Total			10		7	

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

FINAL

Facility: Turkey Point Units 3 & 4 Date of Exam: Exam Level: RO X SRO X

Item Description					Initial a	Initial b*	Initial c#
1.	Questions and answers are technically accurate and applicable to the facility.				MBS	GB	
2.	a. NRC K/As ar referenced for all questions.				MBS	GB	
	b. Facility learning objectives are referenced as available.				MBS	GB	
3.	SRO questions are appropriate in accordance with Section D.2.d of ES-401				MBS	GB	
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 NRR OL program office.)				MBS	GB	
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 __ the audit exam was completed before the license exam was started; or __ the examinations were developed independently; or XX__ the license certifies that there is no duplication; or __ other (explain)				MBS	GB	
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 26 / 3	Modified 11 / 0	New 38 / 22	MBS	GB	
7.	Between 50 and 60 percent of the questions on the RO exam are written at the comprehensive/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 35 / 9	C/A 40 / 16		MBS	GB	
8.	References/handouts provided do not give away answers or aid in the elimination of distractors.				MBS	GB	
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.				MBS	GB	
10.	Question psychometric quality and format meet the guidelines in ES Appendix B.				MBS	GB	
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.				MBS	GB	

	Printed Name / Signature	Date
a. Author	Mark Similey	3/1/13
b. Facility Reviewer (*)	SEAN BLOOM	3/1/13
c. NRC Chief Examiner (#)	Gerard W Laska / Gerard W. Laska	3/1/2013
d. NRC Regional Supervisor	MARK FRANKE	3/11/13

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

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation

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: If a question had two distractors that were not plausible, but were part of a 2X2 the question was graded as an Enhancement. If the question had two distractors that were totally not plausible, the question was graded as unsatisfactory.															
1	F	2	X											E	**007EA1.02** Question appears to match the K/A. Question is kind of confusing as written. It also does not match the procedures you sent with the reference package. The next procedural check of S/G level (in ES-0.1)? Need to add all to "maintain all S/G levels... **NEW 1/24/2013** **Made changes as requested 2/27/2013**
2	H	2				X								E	**008AK2.04** Question appears to match the K/A. As written distractors C and D are not plausible. State that the leak is from the pressurizer upper level tap or reference leg. Remove vapor space from the stem (this is a cue). That would make C and D more plausible. When you state it is a vapor space accident, everyone is taught pressurizer level rises. **Modified 1/24/2013** **Changed to small break LOCA, and ran on simulator. SAT 2/27/2013**
3	H	2				X								E	**009EA2.02** Question appears to match the K/A. As written distractors B and C are not very plausible. Suggest change third bullet in stem to containment sump level is rising. And change correct answer to C. **NEW 1/24/2013** **Made Changes as Requested SAT 2/27/2013**

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
4	F	2												S	**011EK1.1** Question appears to match the K/A. Not very discriminating but SAT **BANK** **SAT as written 2/27/2013**
5	H	1		X		X	X							U	**015AK1.04** Question appears to match the K/A. Cueing in stem Loss of RCP = Reactor Trip. What is the definition of significant? If delta T was 1 degree higher, would that be significant. Depending os significant, B could be argued correct. Using this word could lead to post exam comments. Distractor A and D are not plausible. Distractor analysis is incorrect, it states D is the correct answer. As written LOD=1 **BANK 1/24/2013** **Replaced question Ask about setpoints SAT 2/27/2013 Setpoints pre-EPU. SAT**
6	H	1				X								E	**022G2.1.20** Question appears to match the K/A. Do not believe C and D are plausible. MOV 3-381 is not listed in the procedure reference provided. The noun name does match another valve listed in step 6. Is this another valve in the flow path? Need to have another action for C and D. **BANK 1/24/2013** **Discussed distractors C and D, and these valves are similar to valves listed in the procedure but will not stop the loss of inventory. SAT 2/27/2013**
7	F	2				X	X							E	**025AK3.02** Question appears to match the K/A. Is RHR maintained in automatic when in cooldown line-up? If so, that D is not plausible. The system will maintain the flowrate at setpoint. When is bypassing of the interlocks allowed? Can an

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
															applicant assume the interlock is bypassed, can the interlock be bypassed with the plant in this condition/line-up? If so, B could be considered correct. **BANK 1/28/2013** **Interlock is not bypassed in this condition, distractor D changed to make it a little more plausible. SAT 2/27/2013**
8	H	2	X			X						X		U	**027G2.1.28** Do not believe the question matches the K/A. (if it does it is in a backwards manner, will discuss). Distractor A is not plausible. Fourth Bullet should read: CV-4-311 Auxiliary Spray Valve indicates dual (red and green lights lit). Remove the rest, this is a cue. **NEW 1/28/2013** **Question replaced. Not real keen on distractor D Will discuss. 2/27/2013 Still Working Rewrote question, SAT 2/28/2013**
9	F	2												E	**029EK2.06** Question appears to match the K/A. Distractor C should read the same as distractor D: both reactor trip and bypass breakers. **BANK 1/28/2013** **Made change as requested SAT 2/27/2013**
10	H	2				X								E	**038EK1.02** Question appears to match K/A. With RCPs secured in the stem it would be better to have distractors A and B begin with open one PORV to…This would test the opposite of the earlier step in E-3 where the preferred method is sprays/PORVs/ then Aux spray. **MODIFIED 1/28/2013** **Made change as requested SAT 2/27/2013**

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	2				X								E	**040AA1.09** Question appears to match the K/A. I think 450°F is a little high. Also what RCS temperature is qualified as a post accident monitoring instrument? Some stations have specific channels i. e. RCS wide range etc. Please ensure that the question is specific to the actual post accident monitoring channel, or someone could claim there is not a correct answer. Licensee submitted a new question to replace the original question submitted during an early question submittal. The new question has two distractors that are not plausible (A and C). The original question would be satisfactory if answers A and B were changed to RCS wide range Tcold approximately 350°F, and RCS wide range Tcold approximately 300°F. Distractor C should be changed to approximately 350°F. Then the question would be SAT. **NEW 1/28/2013** **Licensee replaced question with a new question. New Question is SAT 2/27/2013**
12	F	2				X								U	**054AK3.04** Question appears to match the K/A. Distractors A and D are not plausible. I realize this is a bank question previously given on an NRC exam, but these two distractors are not plausible. Replace A and D. **BANK 1/28/2013** **Changed distractor A and D as requested. SAT 2/27/2013**

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
13	**F**	2	X											E	**056G2.4.11** Question appears to match the K/A. The use of the word "Preferred" should be avoided. Could "first" be used and still be correct IAW the ONOP? This question appears to be written at the fundamental level. **BANK 1/28/2013** **Made changes as requested. SAT 2/27/2013**
14	H	2												S	**057AA1.04** Question appears to match the K/A. Please change the answer order so that A is not the correct answer. The bank question answer is A. Otherwise SAT **BANK 1/28/2013** **Made change as requested. SAT 2/27/2013**
15	F	2	X											E	**062AA2.06** Question appears to match the K/A. The initial conditions states that flow is less than that for all three CCW heat exchangers is less than the minimum required. The stem states the minimum ICW flows to each CCW heat exchanger. What are we attempting to ask? This could be confusing to the applicants. **NEW 1/28/2013** **After discussion left question as is. SAT 2/27/2013**
16	H	2												S	**065AK3.03** Question appears to match the K/A. SAT **NEW 1/28/2013** **Question is sat, need to have verb agreement with disctractor C. 2/27/2013 SAT**

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	2				X								E	**WE04EK2.2** Question appears to match the K/A. The applicant is informed of break isolation (RCS pressure going up) therefore, distractor D is not plausible. **BANK 1/28/2013** **Changed distractor as requested. SAT 2/27/2013**
18	H	2										X		U	**WE05EA2.2** Question does not appear to match the K/A. What limit are we testing? While you have a limit on flow in several of the distractors, it is not applicable to the situation. Need to reword question/stem so that a limit is tested. With DWDS-3-012 danger tagged closed, distractors C and D are not plausible. (standby feed is not available.) **MODIFIED** **Licensee changed question but is it is now similar to one of the scenarios. Remove DWDS-3-012 danger tagged closed from the stem and leave the rest of the original question as is.** Made changes as requested. SAT 2/27/2013
19	H	2	X			X								U	**003AK3.07** Question kind of matches the K/A. Distractor B does not have a reason. Not sure you could achieve these conditions with only one dropped rod. Did you try this on the simulator? With all the RCPs running, I don't think you could get here. Distractor analysis does not match for B, no mention of 1 hour in the distractor. Distractor C is not plausible, why would I trip the reactor if I was above the minimum temperature for criticality? This question needs some work **BANK 1/28/2013** **Made several changes to question as requested. SAT 2/27/2013**

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
20	F	2												S	**005AA1.01** Question appears to match K/A. SAT **BANK 1/28/2013 (Previous TP NRC exam)**
21	H	2												S	**024AA2.01** Question appears to match K/A. Change distractor A to read flow indicated is adequate. Otherwise SAT **NEW 1/28/2013**
22	H	2												S	**032AA2.05** Question appears to match the K/A. SAT **BANK 1/28/2013**
23	H	2												E	033AK3.01 Question appears to match the K/A. Distractor D is not plausible as written. Why would power have to be maintain below P-6 if only one intermediate range detector was required? **NEW 1/28/2012** **Changed distractor D. Need to ensure D is not correct. Then SAT. 2/27/2012 Changed wording on distractor D to clarify. Now SAT 2/28/2013**
24	F	2				X						X		U	059AK1.05 This is a tough K/A, and I don't really think you hit it. But it was a good try. Distractors A and B are not plausible. There is not mention of calculation (although in the answer you do state that chemistry needs to determine off-site dose rates. I think this question should be asked using the concept of limits (2 X ODCM limits or something similar) Will discuss and determine if a new K/A needs to be given. No changes were made to the question. Comments still stand.

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
															NEW 1/28/2013 **Changed K/A to AK1.01 or 1.02 02/20/2013 Wrote new question to new K/A. SAT 2/27/2013**
25	F	2												S	**061AK2.01** Question appears to match the K/A. SAT **NEW 1/28/2013**
26	F	2												S	**WE15G2.1.27** Question kind of matches the K/A. SAT **NEW 1/28/2013** **After further review, change the stem to state: WOOTF identifies a system ...Made changes as requested. SAT. 2/27/2013**
27	F	2				X		X				X		U	**WE03EK1.1** Question does not meet the K/A. This is a diesel load limit question and has nothing to do with ES-1.2. Need a different question that talks about the capacity of systems used to mitigate or are used in a Cooldown and depressurization. Question also has two distractors that are not plausible, A and C. Why would you not start a charging pump in ES-1.2 this is a major mitigation strategy. Operational Validity? **NEW1/28/2013** **Question re-written, appears to be okay, what reference is to be provided, and why do the applicant require it? 2/27/2013 change stem to read heater breakers, use redacted reference is okay. SAT 2/27/2013**

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
28	F	2												S	**003K5.02** Question appears to match the K/A. SAT This is a memory level question not higher cognitive. **BANK 1/29/2013**
29	H	2												S	**004K5.19** Question appears to match the K/A. SAT **MODIFIED 1/29/2013**
30	H	2												E	**005K6.03** Question appears to match the K/A. Change stem of question to state the required method that will initially re-establish cooling ... **BANK 1/29/2013** **Initially was not inserted as requested. Is there a reason for this? Added Initially SAT 2/27/2013**
31	H	2				X	X							E	**006A1.18** Question appears to match the K/A. Distractor B is not plausible. As stated in your distractor analysis, with an RCP running, there is not bubble in the head. Need to discuss in detail why distractor C is not correct. If the leak was beyond the capability of 1 HHSI pump, and 1 charging pump, RCS pressure could decrease to the point of saturation. **BANK 1/29/2013** **Changed distractor B, with the leak limited to 250gpm and capacity of the SI pumps, it appears that C is incorrect. SAT 2/27/2013**
32	F	1				X								U	**007K1.01** Question appears to match the K/A. Not very discriminating. Do not believe distractor B is plausible. LOD=1. Question is asked as a fundamental level. **NEW 1/29/2013**

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
															Wrote new question SAT 2/27/2013
33	F	2												S	**007K4.01** Question appears to match the K/A. Question is adequate, please place the only after the valves. The operator must manually close CV-4-519B, PRT PRIMARY MAKE UP ONLY. **NEW 1/29/2013** **Made changes as requested SAT 2/27/2013.**
34	F	2		X										E	**008K1.01** Question appears to match the K/A. This question is very similar to RO question 15. Both have numbers for ICW and this will cue the applicant that 11,000 gpm is above the limit. One of the questions must be changed. **NEW 1/29/2013** **Made changes as requested SAT 2/27/2013**
35	H	2				X								E	**010K5.02** Question appears to match K/A. The original question that was used on a previous TP exam stated the indications could not be used. Which one is correct? Not sure 400°F is plausible, will discuss. Question does appear to be **MODIFIED. 1/29/2013** **After discussion, with the safety valve lifting the indications can be used. SAT 2/27/2013**
36	H	2												S	**010K6.01** Question appears to match K/A. The question appears to be modified. SAT **MODIFIED1/29/2013**

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
37	H	2												E	**012K2.01** Question appears to match the K/A. Is this the same on Unit 4? If so, or similar we could modify this question. **BANK 1/29/2013** **Licensee stated question could not be verified for unit 4. Determined question to be SAT 2/27/2013**
38	H	2												S	**013K4.19** Question appears to match K/A. SAT **NEW 1/29/2013**
39	H	2												E	**013A3.01** Question appears to match K/A. You are testing three items again and the applicant need only know two of them. Suggest the following answer scheme: A. Active Active Active B. Active Active Blocked C. Blocked Blocked Active D. Blocked Blocked Blocked This way you are really only testing two items. Will Discuss **NEW 1/29/2013 Made changes 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
40	H	2				X								U	022A4.02 Question appears to match the K/A. As written the second part of the question is moot, the applicant need only know which fans will start, because the actions are so different. (Only the first part is required to match the K/A.) Suggest: Which one of the following describes which Emergency Containment Coolers will automatically start as a result of safety injection and the above failure. A. ONLY 3C B. ONLY 3A and 3C C. ONLY 3B and 3C D. 3A, 3B and 3C With D being the correct answer **NEW** This question was changed from the first version you asked me to look at. Why the change? Was it technically incorrect? I believe the first version should be tested unless it is wrong. Will discuss. As written I do not believe this is a new question any longer. After the changes to the question A and D are not plausible, **1/29/2013** **Did not make all changes as requested. Will discuss 2/27/2013 SAT**
41	H	2												S	**026A1.01** Question kind of matches the K/A. SAT **NEW 1/29/2013**

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
42	F	2												E	**026G2.2.39** Question kind of matches the K/A. You are a little past the 1 hour point with the answer. Not sure if I would expect an RO to know this. Will Discuss. You ask for the maximum time for the unit to be in mode 3, but the statement in Technical Specifications uses the word Hot Standby. To be totally correct the question should use this word also. **NEW 1/29/2013** **Made changes as requested. SAT 2/27/2013**
43	H	2	X											E	**039A4.01** Question appears to match the K/A. The second half of A and D do not appear to be actions. May need to change the wording in the stem. **NEW 1/29/2013** **Replaced Question Distractors C and Dare not plausible. Change to MSIV and MSIV bypass…** **Will add something to stem and rewrite using MSIV and bypasses. 2/27/2013 Included an MSIV bypass valve. SAT 2/28/2013**
44	H	1				X								E/U	**059K4.19** Question kind of matches the K/A. Although this version is a little easier than the original version. The original version asks what can be used to feed the generators, this version just asks for the position of the valves after a trip. Most plants do not have the bypass valves in automatic at 100% power, so after the trip of course they should be closed. This may be a level of difficulty LOD= 1. I will have another examiner review. Distractor A is not plausible. **BANK 1/29/2013.** **Replaced Question SAT. 2/27/2013**

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
45	H	2												S	**061A3.05** Question kind of matches the K/A. SAT **NEW 1/29/2013**
46	H	2		X		X								E/U	**062A2.16** Question appears to match the K/A. Cueing in the stem. Remove below the administrative limit. Distractor B is not plausible. Voltage is low due to total grid voltage being low, which means there is not enough MVARS being shared with other units (or large losses in the lines). Reducing generator MW would make the problem worse. Distractor C may be correct, if the generator is not at max Mvars out, this is what would be performed. **NEW 1/29/2013 Change to distractor C acceptable, Distractor B is still not plausible. How about start DGs in anticipation of a loss of offsite power? (Usually this is not acceptable).** **Will make changes as requested. Made changes as requested. SAT 2/28/2013.**
47	F	2												S	**063K2.01** Question appears to match the K/A. SAT this question is listed as modified but the original was not provided to verify. **MODIFIED/BANK 1/29/2013**
48	H	2												E	**063K3.01** Question appears to match the K/A. Distractors C and D do not need the reasons. Distractors A and B do not have reasons. Just state 3A EDG auto-started but 3A EDG output breaker did NOT close, and 3A EDG auto-started but has no output voltage. **BANK 1/29/2013**

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
49	F	2												S	**064G2.2.42** Question appears to match the K/A. SAT **NEW 1/29/2013**
50	F	2				X								E	**073A2.02** Question appears to match the K/A. Distractors A and B are not plausible. Power increases do not depend on process radiation monitors. Need new first part of distractors. **NEW 1/29/2012** **Kind of rewrote question, A can also be argued as a correct answer. Will discuss options Rework A and B 2/27/2013 Changed A and B, Okay, but now C and D do not read correctly, change C and D to there are no restriction on power ascension. Made changes as requested SAT 2/28/2013.**
51	H	2				X								E/U	**076A1.02** Question kind of meets the K/A. The question does not test the temperature of TPCW or Reactor cooling water. The temperature is listed in the stem and you tell them the temperature limits. Distractors B and C are not plausible. If the throttle valve is shut in B why would the operator place another heat exchanger on service? In distractor C if the valve is opened why would the operator reduce load. These do not make sense. Recommend using a 2X2 with different temperatures; remain less than 110°F or another temperature. **BANK 1/30/2013** **After a long discussion remove several items from the stem, determined that the question is testing two limits, temperature and flow. SAT 2/27/2013**

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
52	H	2		X										E/U	**076G2.4.31** Question kind of matches the K/A. Is very similar to the previous question. May be some cueing between questions. This cueing will make distractor D not plausible. One of these K/As may need to be changed if a question cannot be developed that is sufficiently different enough to prevent cueing. **NEW 1/30/2013** **Changed K/A to 005G2.4.31 Replaced question New question states ARG reference provided. The reference will cause more confusion than not having it. Question is SAT without a reference. 2/27/2013**
53	F	2												S	**078K2.01** Question appears to match the K/A. SAT. Where are the locations of these Load Centers? **NEW 1/30/2013**
54	F	2				X								E	**103K3.03** Question appears to match the K/A. Distractor D is not plausible. **BANK 1/30/2012** **Changed distractor D. SAT 2/27/2013**
55	H	2				X								E	**103A2.03** Question appears to match the K/A. As written distractor D is not plausible. With a loss of TB cooling and Seal Injection RCPs are always secured. (usually within 10 minutes). Change first part of C and D to read, Both seal injection flowpath and thermal barrier cooling have been isolated. (Less words). In the second part of A and D use something like Check all RCP seal return temperatures are less than 235°F, reset SI, establish Seal injection, then RCP may remain running.(Still do not believe this is very plausible.) With a large break LOCA in progress RCPs are secured for two

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
															reasons, seal/RCP cooling, and loss of subcooling. So it is very difficult to have distractors that are plausible. **NEW 1/30/2013** **Made changes as requested. Need to add s to RCP in distractors A and D. Then SAT 2/27/2013**
56	F	2												S	**001K6.13** Question appears to match the K/A. Second parts of B and D do not read correctly with the stem above. Should they read: comparing (them) against the Acceptance Criteria contained in 4-OSP-201.1, RO Daily Logs. Otherwise SAT. **BANK1/30/2013** **Made changes as requested remove the (Parenthesis) from them 2/27/2013Made changes as requested SAT. 2/28/2013**
57	F	2				X								E	**011K2.01** Question appears to match the K/A. Distractors C and D are not plausible with 3B as the normal supply. **NEW 1/30/2013** **Completely rewrote question, still need to discuss how the 3C chg pump is supplied by LC-3C. Change D to until the 3C chg pump is stopped. Then SAT. Made changes as requested SAT. 2/28/2013**
58	F	2				X								U	**014K4.06** Question appears to match the K/A. Distractors C and D are not plausible. The title of the annunciator specifically speaks to shutdown bank rods, not control bank rods. **BANK 1/30/2013** **After further discussion concerning the**

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
															annunciator, it was determined question is SAT as written. 2/27/2013
59	F	2												S	**017K5.01** Question appears to match the K/A. SAT **NEW 1/30/2013**
60	F	2				X								E	**029A1.03** Question appears to match the K/A. Distractor D is not plausible. **NEW 1/30/2013** **Changed distractor D. Initial distractor D was more plausible. Please change it back. 2/27/2013** **Done 2/27/2013**
61	H	2				X								E	**041A4.02** Question appears to match the K/A. Do these valves work in pairs? From the information provided with the question it appears they do not. So why at 40% demand do 4 valves open seem plausible?. According to your figure six, two valves will be full open at 50%, so with the numbers presented it would appear three valves would be more appropriate. **NEW 1/30/2013 Valves do not operate in pairs. Discuss (Licensee did not change anything). Change to 3. Then SAT 2/27/2013 Made changes as requested. Now SAT 2/28/2013**

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
62	F	2				X								E	**045A2.12** Question appears to match the K/A. Distractor D is not plausible. If the technical specification is not exceeded, why would you commence an emergency boration? Too many words, this would be better for the applicant if you just did a 2X2 with is the T/S exceeded Yes or no, and a second part with immediately commence a... Emergency boration IAW... and a 16 gpm boration IAW... **NEW 1/30/2013 Made changes as requested SAT 2/27/2013**
63	H	2				X								E	**056G2.1.28** Question appears to match the K/A. Was 220 psig the old number? If so we should use this number, not the feed pump trip setpoint. **BANK 1/30/2013 Made changes as requested. SAT 2/27/2013**
64	F	2										X		E/U	**072A3.01** Question does not appear to match the K/A. What change in ventilation alignment are we testing? I understand the control room ventilation gets isolated, (and it usually goes to a recirc mode). What changes needs to be tested, line up etc? I know this was question was used before on an exam but we are not testing line-up changes in ventilation Will discuss. **BANK 1/30/2013** **Made requested changes and question now tests ventilation line-up changes. SAT 2/27/2013**

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
65	H	2				X								E	**075K1.01** Question appears to match the K/A. The stem in the question states that reactor power is 28%, however distractor A analysis states 8 %, with reactor power at 8% this makes the choices of just tripping the turbine more plausible. Above 10% at your facility tripping just the turbine is not plausible. Question still appears to be Modified. **MODIFIED 1/30/2013** **Will the turbine be online at 8%? If so, then question is SAT. 2/27/2013**
66	F	2				X								E	**G2.1.14** Question appears to match the K/A. If the operator was required to announce entry in to 3-ONOP-071.2; would he not have to announce entry into 3-GOP-100? Just attempting to find plausibility in distractors B and C. Distractor analysis does not match the question. **NEW 1/30/2013** **Made changes to all distractors. SAT 2/27/2013**
67	F	2												S	**G2.1.38** Question appears to match the K/A. Not very discriminating. **NEW 1/30/2013**
68	F	2				X								E	**G2.2.22** Question appears to match the K/A. Change times in distractors Band D to 1 hour, 60 minutes is never used in tech specs. Or you could use 30 minutes. **BANK 1/30/2013** **Changed to 30 Minutes SAT 2/27/2013**

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
69	H	2												S	**G2.2.25** Question appears to match the K/A. SAT. **BANK 1/30/2013**
70	F	2				X								U	**G2.3.13** Question appears to match the K/A. Distractors C and D are not plausible. How can an area of containment be posted as a Locked High Radiation Area? Unless this term means something different. It would be more plausible if it was posted as a high radiation area and flashing lights or something like that but not locked. Distractor D is the only distractor that lists and elevation, and states nothing else is required. Not plausible. **NEW 1/30/2013** **Made changes as discussed. SAT 2/27/2013**
71	F	2				X								E	**G2.3.14** Question kind of matches the K/A. Distractors B and D are not plausible. How with the valve in manual and closed, will is minimize RCS subcooling? If the valve failed open, that would minimize subcooling. With the valve in automatic set at 1060, how would that minimize RCS subcooling? Need to find another reason for these. **BANK 1/30/2013. Not sure if it is really a bank question it is not similar to the attached bank question. Changed B and D SAT 2/27/2013**

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
72	F	2				X								E	**G2.3.7** Question appears to match the K/A. Distractors C and D first parts are not plausible, unless an individual can make an entry into containment on a General RWP. You could use a Special RWP or something similar. I don't know all of your terms. **You did not make any changes based on the early review.** **NEW 1/30/2013** **Replaced question, see if SF pool mapping requires a Specific RWP. Changed to SFP mapping. SAT 2/28/2013**
73	H	2	X											E	**G2.4.20 Question appears to match K/A. Question is kind of confusing as written.** Suggest: Which one of the follow describes RHR pump operation based on the above conditions? A. Manually start 3A and 3B RHR pumps. B. Start 3B RHR ONLY; since cooling is not available to RHR Heat Exchanger 3A. C. 3A and 3B RHR pumps will auto start when the SI signal is received due to the High Containment Pressure D. Start 3B RHR only; 3A RHR is not needed under the present plant conditions **BANK 1/30/2013** **Made changes as requested SAT 2/27/2013**

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
74	F	2												S	**G2.4.41** Question appears to match K/A. SAT Paperwork states question is modified, however a original question is not included. This question is written at the fundamental level. **BANK 1/30/2013**
75	F	2												S	**G2.4.42** Question appears to match the K/A. Distractor D is the only distractor with a reason, please remove it. D should state: Site assembly area. (You will not evacuate any operations staff) this would be cueing. Otherwise **SAT.** **NEW 1/30/2013**

24 Sat, 11 Unsats, and 40 Enhancements

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

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 Comment: it appears that you are using the foldout page of procedures as a procedure selection point for SRO only questions. Foldout page transitions are typically RO knowledge, RO have a copy of the page and monitor the control boards to inform others when a transition is required.
76	H	2	X											E	**015G2.4.8** Question appears to match the K/A. Appears to have an SRO aspect to it. Is excess seal leakoff and immediate trip criteria in the ONOP or NOP? Is it required to close the B loop spray valve? If so, there does not appear to be a correct answer. On what indicator can seal D/P been seen lowering. (Usually in a Westinghouse plant this indicator is 0-200 psig. Would the D/P be this low? If the operators cannot see this in the control room, or on the computer then is should not be an observed condition. In the stem you ask for the procedure action required, IAW what procedure, the ONOP, EOP, or NOP? Distractor A should have a procedure listed in the disctractor, IAW some normal shutdown procedure etc. The end of distractor C should read: ...while performing actions of 3-EOP-0 The end of distractor D should read:...in parallel with 3-EOP-0. **BANK 01/23/2013** **Made changes as requested 2/27/2013 SAT**

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
77	H	2	X									X	X	U	**022G2.4.20** Not sure the K/A is matched, what note or a caution is being tested? I could not tell from the material you sent. This question is not SRO only. One only need know the entry conditions for ONOP-47.1, or ONOP-46.4. Distractor C does not have the procedure name listed and all of the other distractors do. The material you included with the questions states that ONOP-47.1 is titled Shutdown LOCA Mode 3 (<1000 psig) or Mode 4. The background document states this is loss of charging flow in modes 1-4. Neither one talks about a caution or a note as described in the K/A. If you are meaning to test the note in the background document, then you should be testing weather to shut down or not. It appears you are attempting to test the note prior to step 9 of ONOP-47.1, and if so, this is still RO knowledge (system knowledge) **NEW 01/23/2013** **Replaced Question. Appears to be SAT. 2/27/2013**

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
78	H	2				X								E	**027G2.4.11** Question appears to match the K/A. Appears to have an SRO aspect to it. (due to the note informing the operator to perform a shutdown IAW T/S. Not sure distractors B and D are totally plausible, Level transmitter 459A is at the appropriate level, why would removing it from the pressurizer level control circuit mitigate the malfunction. Would you not just select another channel to replace 459A? If so, that may be a better response. Unless you have another way to "remove 459 from the control circuit". Distractor analysis is not correct. NEW **Made changes to distractors B and D per discussion in the licensee's office. SAT 2/27/2013**
79	H	2	X	X										E/U	038EA2.03 Question appears to match the K/A. The transitions tend to test some SRO knowledge. Informing the applicants that an RCP has tripped causing the reactor to trip is cueing. For this block just state power is loss to bus XXX (power to the RCP) and the reactor trips. That will add some more plausibility to the 3A S/G. (it will test which pump is powered from which bus). The third bullet is incomplete. Who reports? Just state the following conditions are observed. With flow throttled to 50 gpm in A S/G, and 300 gpm in B S/G, are you meeting minimum AFW flow numbers? Not sure what your numbers are. ***The knowledge to SI the plant and go to E0 is foldout page knowledge, and is considered RO knowledge. (ROs are the ones who monitor the foldout page)***

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
															Suggest: Unit 3 is at 100% The feeder breaker for bus XXX trips open The crew is performing the actions of ES0.1 and the following parameters are observed: 3A S/G level approximately 50% NR with AFW throttled to 50 gpm. 3B S/G level NR off scale low with 300 gpm AFW flow. 3C S/G level approximately 65% level with AFW flow throttled to 50 gpm The rest of the question would be the same. (this still does not fix the foldout page issue) **NEW 01/23/2013** **Rewrote question, still need to reword distractors to state:** **3A S/G is ruptured requiring a NOUE to be declared** **3C S/G is ruptured requiring a NOUE to be declared** **3A S/G is ruptured requiring an Alert to be declared** **3CS/G is ruptured requiring an Alert to be declared** **Made changes as requested. SAT 2/28/2013**

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
80	H	3				X								U	**058AA2.01** Question appears to match the K/A. Appears to have an SRO aspect to it. On the initial question submittal, the TS reference was not to be distributed to the applicants. Why was this changed? This was changed from the original question, and distractors A and B are no longer plausible. From the T/S given to the applicants, nothing has 12 hours as a time for getting to cold S/D. In fact giving the applicants the TS aids them in answering the question. All actions in the TS provided state cold shutdown in 30 hours, so why would anyone pick 12 hours. **NEW 01/23/2013** **Question Is SAT without the TS, this is a 3.0.3 call and should be able to answer from memory.**
81	H	2				X								E	**062AA2.03** Question appears to match the K/A, and appears to be SRO only. Distractor D needs only added after Declare the 4A ICW header inoperable **ONLY.** What makes distractors B and C plausible? **Distractor analysis is not correct.** **NEW 01/23/2013** **After discussion with plant staff, the failure of the one valve to open (valve does get a SI signal to operate). However the valve position for SI actuation is (closed). Because it is already in that position, TS entry into 3.3.2 is not required. Borderline SRO will allow because it is testing the operability of the TPCW valves and SI actuation system. SAT 2/28/3013.**

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
82	H	2				X						X	X	U	**003G2.1.19** Question appears to match the K/A. Do not think the question tests the K/A at the SRO level. The question is flawed in that you are asking for three items, and the applicant need only know two of them to answer the question correctly. The applicant needs to know where QPTR is measured (or obtained) and that power should be reduced 12% from 100% (rated thermal power) or why power is reduced. One of these items should be removed. If I know that we lower power to monitor FQ@Z, and that power should be lowered to 88%, I would answer B, and I did not need to know where to get QPTR data from. (then the question does not match the K/A). **NEW 01/23/2013** **Made changes as requested SAT 2/28/2013**
83	H	2												S	**028G2.4.30** Question appears to match the K/A. Appears to be SRO only. SAT **NEW 01/23/2013**
84	H	2				X								E	**037AA2.**07 Question kind of matches the K/A. Appears to be SRO only. Do not believe distractor B is plausible. I can understand how someone can come up with neither monitor exceeds a tech spec limit, and both exceed, but not one. **NEW 01/23/2013** **Rewrote question to test action levels. Are all the action levels correct for the corresponding numbers? Will discuss. Made changes as requested SAT 2/28/2013.**

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
85	H	2												S	**055AA2.01** Question appears to match the K/A. Appears to be SRO only knowledge. SAT **NEW 01/23/2013**
86	H	2	X			X								E	**005A2.01** Question appears to match the K/A. Appears to contain some SRO knowledge. Distractors A and B do not appear to be plausible. Suggest changing question to read: Which ONE of the following identifies the action required in accordance with 3-ONOP-050, Loss of RHR? **Isolate containment and:** A. **Start an RCP, and feed associated S/G with auxiliary feed water flow.** B. **Start an RCP and feed associated S/G with standby feed water flow.** C. **Open S/G atmospheric dump valves; feed S/Gs with auxiliary feed water flow.** D. **Open S/G atmospheric dump valves; feed S/Gs with standby feed water flow.** **Still not sure A and B distractors are plausible.** **NEW 01/23/2013** **Reworded question as requested. Discussed plausibility of A and B, increased RCS pressure to 210 psig to make A and B more plausible.SAT 2/28/2013**

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
87	F	1				X							X	U	**008G2.1.23** Question appears to match the K/A. Do not believe it is SRO only. Had question reviewed by another examiner and he agreed it was not SRO only. By knowing two CCW heat exchangers are required for power operation, and with only 3C out of service, why would an applicant pick A or D. B has the operator perform an OSP that would be performed for a degraded heat exchanger, not for backwashing one, so why would an applciant pick B? That leaves C as the correct answer, and I arrived at this answer without any SRO knowledge. The OSP also does not have a title. The question needs to be asked at the On line risk level to make it SRO only (how is it determined etc.) **NEW 01/23/2013** **Replaced question with new question. Need to discuss question. Licensee to noodle on question to make it clearer. Made changes as requested SAT. 2/28/2013**
88	F	2				X								E	**012A2.01** Question appears to match the K/A. Appears to have an SRO only aspect to it. Distractors A and C are not plausible. Is there a case where Turkey Point only places one of the channels bistables in trip? I don't think so. **NEW 01/23/2013** **After further discussion determined that there were times only one bistable is placed in trip. Items in the stem were changed to make A and C more plausible. SAT 2/28/2013**

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
89	H	2				X							X	E/U	**026G2.4.45** Question kind of matches the K/A. There is only one annunciator in the stem, but the applicant is informed that RWST level is 152,000 gallons. Do not believe the question is SRO only. Going to ES-1.3 is on the foldout page and that is RO knowledge. Second part of question is in the ARP. I do not believe it is SRO only either. ES-1.3 has the operator secure one CSP but not both. With containment pressure at 24 psig, CSPs will not be secured until directed. Will have another examiner review the question. Distractors A and D are not plausible as written. With CTMT pressure at 24 psig, no one is going to secure both CSP. **NEW 1/24/2013** **Rewrote question 31 days after a LOCA, Conditions do not appear to be plausible or operationally valid. Need to work on this question. 31 days is part of Up rate analysis, decided to change the question to LOCA occurred 4 hours ago. SAT 2/28/2013**
90	H	2											X	U	**062A2.04** Question appears to match the K/A. Does not appear to be SRO only. Initial part of question can be answered using RO systems knowledge (did the reactor trip as a result of the loss of 4P08 or not. That gets the selection down to A or B. The correct answer is a one hour action statement. This is RO knowledge. Therefore, the question can be answered using only RO knowledge. **MODIFIED 1/24/2013** **Completely rewrote question. SAT 2/28/2013**

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
91	F	2				X								E	**034A2.01** Question appears to match the K/A. Question does have an SRO aspect to it. Again you are testing three for four items in the question, and the applicant need only know two of these to get the correct answer. (Who needs to be evacuated, or who controls access.) Who controls access, or who should be evacuated. The second part of the question is acceptable. **NEW 1/24/2013** **Rewrote question what procedure does this come from. The stem should state IAW... Then SAT 2/28/2013**
92	H	2				X								E	**071A2.02** Question appears to match the K/A. Appears to be SRO only. Is SPING channel 5 in the effluent flow path of the gas tank release? If not then distractors B or D are not plausible. (Typically spent fuel pool storage areas normally are not monitored by instruments in the flow stack) Maybe your plant if different. Not sure if reference is required. Will discuss. **NEW 1/24/2013** **After discussion rewrote question. New question appears to be acceptable, need to discuss reference. Also add corrective maintenance to stem for sping channel. Made changes as requested, limited reference to 3-12 to 3-15. SAT 2/28/2013**

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
93	H	2												S	**079G2.4.35** Question appears to match the K/A, and appears to be SRO knowledge. Will get another opinion from another C.E. (good attempt at a tough K/A). **NEW 1/24/2013** **Allowed the ONOP to be tested due to service air K/A. Tough K/A to match, but it does test an SRO aspect, and local actions SAT**
94	F	2				X								E	**G2.1.37** Question appears to match the K/A, and appears to be SRO knowledge. What is an AR, and why is this plausible? Do not think the Plant Manager is plausible either. Is his permission required for other items? **NEW 1/24/2013** **Replaced Plant Manager with Shift Manager. Need to state SM may… Then SAT 2/28/2013.**
95	F	2				X								E	**G2.2.11** Question appears to match the K/A, and appears to be SRO knowledge. Distractor D is not plausible. Typically operators in the control room do not make changes to drawings. Need to replace D distractor. **NEW 1/24/2013** **Changed distractor D, now more plausible. SAT 2/28/2013.**
96	H	2		X										E	**G2.2.35** Question appears to match the K/A. Appears to have an SRO aspect to it. With the reference provided, this would be a direct lookup. The ** note informing the operator of 380 °F is clearly listed and this would be a cue. **NEW 1/24/2013**

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
															Removed reference SAT 2/28/2013
97	F	2				X								E	**G2.3.4** Question appears to match the K/A, and appears to be SRO knowledge. Distractor D is not plausible. Especially the part of the plant manager approval is required to allow volunteers to use emergency dose limits. **BANK 1/24/2013 SAT 2/28/2013**
98						X								E	**G2.3.5** Question appears to match the K/A, and appears to be SRO knowledge. I realize this was on another exam (TP 2009), but I don't know what validity every 15 minutes provides. Do not think distractors containing every 15 minutes is plausible. **BANK 1/24/2013 SAT 2/28/2013**
99	H	2										X		E/U	**G2.4.34** Question does not meet the K/A at the SRO level. Will consider replacing the K/A. (this question could be improved if the basis document was used for performing of the RO tasks during an emergency (why or why not does the RO do something) Just a thought. **NEW 1/24/2013** **Changed question to a time line to allow the applicant to determine length of time to get to the required conditions. SAT 2/28/2013**

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
100	H	2												S	**G2.4.37** Question appears to match the K/A. Appears to be written at the SRO level. **NEW 1/24/2013**

4 Sats, 5 Unsats, and 16 Enhancements

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

Facility: Turkey Point Nuclear Plant | Date of Exam: 03/15/2013 | Exam Level: **RO/SRO**

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

	Printed Name/Signature	Date
a. Grader	Amanda Toth /	4/8/13
b. Facility Reviewer(*)	N/A	N/A
c. NRC Chief Examiner (*)	Gerard W. Laska /	4/23/2013
d. NRC Supervisor (*)	MALCOLM T. WIDMANN /	04/23/13

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