

Facility: <u>Robinson</u>		Date of Examination: 2/01/2016
Developed by: Written: Facility <input checked="" type="checkbox"/> NRC <input type="checkbox"/> // Operating Facility <input checked="" type="checkbox"/> NRC <input type="checkbox"/>		
Target Date*	Task Description (Reference)	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a and b)	8/5/2015
-150	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	9/4/2015
-150	3. Facility contact briefed on security and other requirements (C.2.c)	9/4/2015
-150	4. Corporate notification letter sent (C.2.d)	9/4/2015
[-120]	5. Reference material due (C.1.e; C.3.c; Attachment 3)	N/A
{-90}	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, ES-401-1/2, ES-401N-1/2, ES-401-3, ES-401N-3, ES-401-4, and ES-401N-4, as applicable (C.1.e and f; C.3.d)	11/3/2015
{-85}	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	11/8/2015
{-60}	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, ES-401N-6, and any Form <u>ES-201-2</u> , <u>ES-201-3</u> , <u>ES-301-1</u> , or <u>ES-301-2</u> updates), and reference materials due (C.1.e, f, g and h; C.3.d)	12/3/2015
-45	9. Written exam and operating test reviews completed. (C.3.f)	12/18/2015
-30	10. Preliminary license applications (NRC Form 398's) due (C.1.i; C.2.g; ES-202)	1/2/2016
-21	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	1/28/2016
-21	12. Examinations reviewed with facility licensee (C.1.j; C.2.f and h; C.3.g)	1/28/2016
-14	13. Final license applications due and Form ES-201-4 prepared (C.1.i; C.2.i; ES-202)	1/18/2016
-14	14. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	2/11/2016 1/28/16
-7	15. Facility licensee management queried regarding the licensee's views on the examination. (C.2.j)	2/11/2016 1/28/16
-7	16. 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 5; ES-202, C.2.e; ES-204)	1/29/2016
-7	17. Proctoring/written exam administration guidelines reviewed with facility licensee (C.3.k)	2/11/2016
-7	18. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	1/28/2016

* 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: ROBINSON

Date of Examination: FEBRUARY 2016

Item	Task Description	Initials		
		a	b*	c#
1. W R I T T E N	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401 or ES-401N.	M	N/A	CB
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 or ES-401N and whether all K/A categories are appropriately sampled.	M	N/A	CB
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	M	N/A	CB
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	M	N/A	CB
2. S I M U L A T O R	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.			
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity, and ensure that each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s), and that scenarios will not be repeated on subsequent days.			
	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.			
3. W A L K T H R O U G H	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.	N		A
	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			
	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.			
4. G E N E R A L	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	M	N/A	CB
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	M	N/A	CB
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	M	N/A	CB
	d. Check for duplication and overlap among exam sections.	N/A	N/A	N/A
	e. Check the entire exam for balance of coverage.	M	N/A	CB
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	M	N/A	CB
a. Author		MICHAEL MEERS / Michael Meers		
b. Facility Reviewer (*)		N/A		
c. NRC Chief Examiner (#)		Daniel M. Bacon / Daniel M. Bacon		
d. NRC Supervisor		Eugene Conthrice / Eugene Conthrice		
		Date: 06/22/2015		
		N/A		
		06/23/2015		
		6/24/15		
Note:		# Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.		
		* Not applicable for NRC-prepared examination outlines.		




























Facility: Robinson		Date of Examination: 2/2016		
Item	Task Description	Initials		
		a	b*	c#
WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model per ES-401 or ES-401N.	✓	N/A	✓
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 or ES-401N and whether all K/A categories are appropriately sampled.	✓	N/A	✓
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	✓	✓	✓
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	✓	✓	✓
SIMULATOR	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	✓	✓	✓
	b. 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.	✓	✓	✓
	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.	✓	✓	✓
WALKTHROUGH	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 new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency and RCA tasks meet the criteria on the form.	✓	✓	✓
	b. 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	✓	✓	✓
	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.	✓	✓	✓
GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	✓	✓	✓
	b. Assess whether the 10CFR 55.41/43 and 55.45 sampling is appropriate.	✓	✓	✓
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	✓	✓	✓
	d. Check for duplication and overlap among exam sections.	✓	✓	✓
	e. Check the entire exam for balance of coverage.	✓	✓	✓
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	✓	✓	✓
Printed Name / Signature		Date		
a. Author	<i>Christopher McComber</i>	1/26/16		
b. Facility Reviewer (*)	<i>John R. Little III</i>	01/26/16		
c. NRC Chief Examiner (#)	<i>Daniel Bacon / Daniel Bacon</i>	1/27/16		
d. NRC Supervisor	<i>Eugene Guthrie / Eugene Guthrie</i>	1/28/16		
NOTE: # Independent NRC reviewer initial items in Column "c", chief examiner concurrence required. * Not applicable for NRC-prepared examination outlines				

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 2/1/16 - 2/19/16 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 2/1/16 - 2/19/16. 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. FRANK GIANCONE	Ops Team Mgr		7/6/15		2/22/16	
2. DAVID LAZARONI	Exam Author		7/6/15	Per Telecom	2/23/16	
3. CHRISTOPHER McGUIRE	DEVELOPMENTAL INSTRUCTOR		7/7/15		2/23/16	
4. JESSE BARNLEY	SUPERVISOR - TRAINING		7/7/15		2/19/16	
5. Aaron Farshy	Fleet Exam Spec		7/7/15	Per Telecom	2/23/16	
6. HOWARD WLODAR	EXAM AUTHORITY		7/7/15		2/19/16	
7. TERRY GIESE	Second Instructor		7/7/15		2/22/16	
8. DILLIP SUNDHAR	Simulator		7/23/15		2/22/16	
9. DANIEL BACON	Simulator		7/23/15		2/22/16	
10. SAFFED KHALFAY	Simulator		8/13/15	Sakhuyev	2/22/16	
11. Glenn Hill	RO		8/3/15		2/22/16	
12. SHANE LEWIS	SRO		9/3/15		3/1/16	
13. JAMES HOFFMAN	SRO		9/10/15		3/1/16	
14. Tyler Stephenson	RO		9/10/15		3/1/16	
15. LARA BASTA	SRO		9/15/15		3/23/16	

NOTES:

See 1 of 4

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 2-1-16 - 2-18-16, 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 2-1-16 - 2-17-16. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1. <u>P. Amos</u>	<u>SRO</u>	<u>[Signature]</u>	<u>9-17-15</u>	<u>[Signature]</u>	<u>3-15-16</u>	
2. <u>F. J. Jamin</u>	<u>RO</u>	<u>[Signature]</u>	<u>9-12-15</u>	<u>[Signature]</u>	<u>2-12-16</u>	
3. <u>B. Sastak</u>	<u>SRO</u>	<u>[Signature]</u>	<u>9-22-15</u>	<u>[Signature]</u>	<u>2-15-16</u>	
4. <u>D. Hendrick</u>	<u>RU</u>	<u>[Signature]</u>	<u>9-23-15</u>	<u>[Signature]</u>	<u>2-22-16</u>	
5. <u>Matthew Nelson</u>	<u>EP Manager</u>	<u>[Signature]</u>	<u>9-23-15</u>	<u>[Signature]</u>	<u>2-24-16</u>	
6. <u>Matthew Nelson</u>	<u>Fleet / FP</u>	<u>[Signature]</u>	<u>9-23-15</u>	<u>[Signature]</u>	<u>3-15-16</u>	
7. <u>M. J. Gonski</u>	<u>SRO</u>	<u>[Signature]</u>	<u>10-1-15</u>	<u>[Signature]</u>	<u>2-22-16</u>	
8. <u>Zory Fredrick</u>	<u>SRO</u>	<u>[Signature]</u>	<u>10-1-15</u>	<u>[Signature]</u>	<u>3-15-16</u>	
9. <u>JM Griffin</u>	<u>RU</u>	<u>[Signature]</u>	<u>10-9-15</u>	<u>[Signature]</u>	<u>3-15-16</u>	
10. <u>John Laine</u>	<u>MSO</u>	<u>[Signature]</u>	<u>10-20-15</u>	<u>[Signature]</u>	<u>3-15-16</u>	
11. <u>J. Gajny</u>	<u>SRO</u>	<u>[Signature]</u>	<u>10-21-15</u>	<u>[Signature]</u>	<u>3-15-16</u>	
12. <u>V. Gajny</u>	<u>SRO</u>	<u>[Signature]</u>	<u>10-21-15</u>	<u>[Signature]</u>	<u>3-15-16</u>	
13. <u>R. K. Gajny</u>	<u>SRO</u>	<u>[Signature]</u>	<u>10-21-15</u>	<u>[Signature]</u>	<u>3-15-16</u>	
14. <u>Jay Rhoda</u>	<u>SAO</u>	<u>[Signature]</u>	<u>10-31-15</u>	<u>[Signature]</u>	<u>3-17-16</u>	
15. <u>John McDonald</u>	<u>SRO</u>	<u>[Signature]</u>	<u>11-2-15</u>	<u>[Signature]</u>	<u>2-22-16</u>	

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1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 2/1/16-2/18/16 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 2/1/16-2/17/16. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1. <u>B. Mulligan</u>	<u>SRO</u>	<u>B. Mulligan</u>	<u>11-7-15</u>	<u>B. Mulligan</u>	<u>2-25/16</u>	
2. <u>D. Knowles</u>	<u>SRO</u>	<u>D. Knowles</u>	<u>11-2-15</u>	<u>D. Knowles</u>	<u>2/1/16</u>	
3. <u>D. Simms</u>	<u>R</u>	<u>D. Simms</u>	<u>11-5-15</u>	<u>D. Simms</u>	<u>2-25/16</u>	
4. <u>H. Clark Fletcher</u>	<u>NWS Exam Writer</u>	<u>H. Clark Fletcher</u>	<u>11-10-15</u>	<u>H. Clark Fletcher</u>	<u>2/25/16</u>	
5. <u>Archie Lucky</u>	<u>HNP Ops Instructor</u>	<u>Archie Lucky</u>	<u>11-10-15</u>	<u>Archie Lucky</u>	<u>3/2/16</u>	
6. <u>James Uy</u>	<u>CPES</u>	<u>James Uy</u>	<u>11/12/15</u>	<u>James Uy</u>	<u>3/18/16</u>	
7. <u>Scott Blaker</u>	<u>SRO</u>	<u>Scott Blaker</u>	<u>11/12/15</u>	<u>Scott Blaker</u>	<u>2/25/16</u>	
8. <u>Robert G. Carr</u>	<u>INSTRUCTOR / ADMIN</u>	<u>Robert G. Carr</u>	<u>12/8/15</u>	<u>Robert G. Carr</u>	<u>3/1/16</u>	
9. <u>George Corbis</u>	<u>SRO</u>	<u>George Corbis</u>	<u>11/3/15</u>	<u>George Corbis</u>	<u>2/25/16</u>	
10. <u>James C. Jameson</u>	<u>R</u>	<u>James C. Jameson</u>	<u>11/11/15</u>	<u>James C. Jameson</u>	<u>2/25/16</u>	
11. <u>Carlton Dickson</u>	<u>RNP Instructor</u>	<u>Carlton Dickson</u>	<u>11/26/15</u>	<u>Carlton Dickson</u>	<u>2/22/16</u>	
12. <u>Martin L. Arnold</u>	<u>Instructor</u>	<u>Martin L. Arnold</u>	<u>1/20/16</u>	<u>Martin L. Arnold</u>	<u>2/22/16</u>	
13. <u>Steve Miller</u>	<u>SM, SRO</u>	<u>Steve Miller</u>	<u>1/28/16</u>	<u>Steve Miller</u>	<u>2/25/16</u>	
14. <u>Charles H. II</u>	<u>Instructor</u>	<u>Charles H. II</u>	<u>1/28/16</u>	<u>Charles H. II</u>	<u>2/22/16</u>	
15. <u>Jeff Kiesten</u>	<u>R</u>	<u>Jeff Kiesten</u>	<u>1/31/16</u>	<u>Jeff Kiesten</u>	<u>2/25/16</u>	

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1. Pre-Examination

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2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 2/1/16 - 2/22/16. 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. James Condon	ADM - I Oversight		2/1/16		2/22/16	
2. Rick Stebbins	Supv. - OIT		2/1/16		2/18/16	
3. Rick Stebbins	INSTRUCTOR		2/1/16		2/22/16	
4. FB Scherwin	Facilitator		2/1/16		2-22-16	
5. D. Rich	Shift Manager		2/1/16		3-9-16	
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Facility: HB Robinson		Date of Examination:	2/2016
Examination Level: RO		Operating Test Number:	N16-1
Administrative Topic (see Note)	Type Code*	Describe activity to be performed	
Conduct of Operations	D, 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	N, R	2.1.4 (3.3)	Knowledge of individual licensed operator responsibilities related to shift staffing, such as medical requirements, "no-solo" operation, maintenance of active license status, 10CFR55, etc.
		JPM:	Determine License Status
Equipment Control	D, P, R	2.2.41 (3.5)	Ability to obtain and interpret station electrical and mechanical drawings.
		JPM:	Determine Proper Equipment Boundaries
Radiation Control	N, R	2.3.7 (3.5)	Ability to comply with radiation work permit requirements during normal or abnormal conditions.
		JPM:	Evaluate Stay Time with Lowered SFP Level
<p>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.</p>			
<p>*Type Codes & Criteria:</p> <p>(C)ontrol room, (0) (S)imulator, (0) or Class(R)oom (4)</p> <p>(D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes) (2)</p> <p>(N)ew or (M)odified from bank (≥ 1) (2)</p> <p>(P)revious 2 exams (≤ 1; randomly selected) (1)</p>			

RO Admin JPM Summary

- A1a This is a modified Bank JPM. The operator will be told that the plant is operating at 60% power and that ERFIS is OOS. The operator will be provided with Power Range Excore Nuclear Instrumentation indicated and normalizing detector currents, and directed to manually calculate Quadrant Power Tilt Ratio, and identify whether or not any limitations have been exceeded. The operator will be expected to calculate QPTR in accordance with FMP-007, Quadrant Power Tilt, and identify that Technical Specification LCO 3.2.4, Quadrant Power Tilt Ratio (QPTR), is NOT met.
- A1b This is a new JPM. The operator will be told that they are a Licensed Reactor Operator who was assigned to the day shift staff for a special project, and not routinely standing watch in the Control Room. They will be provided with a work history and various qualification dates, and then directed to identify any requirements that must be met prior to the end of the quarter that are required to maintain their license ACTIVE; and any additional requirements that are required to maintain their qualification to stand watch in the Control Room. The operator will be expected to evaluate their work history and identify that four 12-hour shifts must be completed as either the RO or the BOP prior to the end of the quarter to maintain their license ACTIVE, and that an SCBA quantitative and qualitative fit test must be completed prior to standing watch in the Control Room again.
- A2 This is a Bank JPM. The operator will be told that the plant is in Mode 1 at 100%, Charging Pump "A" suction relief valve CVC-2080 has failed open, and that the operating crew has entered AOP-016, Excessive Primary Plant Leakage, to control the plant. The operator will be provided with the EDPs, and the P&IDs, and directed to use all available resources to identify the pump boundary valves needed to be closed to isolate the leak, and identify the motor breaker to electrically isolate the pump motor. The operator will be expected to identify that the leak can be isolated by closing three valves; CVC-270, CVC-290 and CVC-291, and that the pump motor can be electrically isolated by opening Breaker 52/34B. This JPM was previously used on the 2014 NRC Exam, randomly selected for use on the 2016 Exam.
- A3 This is a new JPM. The operator will be told that a station wide accident has occurred due to an Earthquake, that the plant is in Mode 6 with a full core off-load, that the Spent Fuel Pool level has lowered to 10 feet above the top of the fuel, and has stabilized at this level, and that the crew is implementing AOP-036 (SFP Events). The operator will be provided with an R-5 reading, a dose limit of 25 mrem, and the assignment of a repetitive task within AOP-036 which will require entry into the Spent Fuel Building for 3 minutes, before exiting; and will be directed to estimate how many times the operator can perform this repetitive task before they must be replaced by another operator. The operator will be expected to determine that the dose rate around the Spent Fuel Pool area is 193 mrem/hour and based on this the operator will determine that the repetitive task can be performed 2 times before another operator will need to perform the task.

Facility: H B Robinson		Date of Examination: 2/2016
Examination Level: SRO		Operating Test Number: N16-1
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	D, 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	2.1.4 (3.8) Knowledge of individual licensed operator responsibilities related to shift staffing, such as medical requirements, "no-solo" operation, maintenance of active license status, 10CFR55, etc.
		JPM: Determine License Status
Equipment Control	D, R	2.2.38 (4.5) Knowledge of conditions and limitations in the facility license.
		JPM: Determine if Mode Change is Permissible
Radiation Control	N, R	2.3.8 (3.7) Ability to approve release permits.
		JPM: Approve a Waste Gas Release Permit
Emergency Plan	D, R	2.4.41 (4.4) Knowledge of the emergency action level thresholds and classifications.
		JPM: Emergency Classification
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) (3) (N)ew or (M)odified from bank (≥ 1) (2) (P)revious 2 exams (≤ 1 ; randomly selected) (0)		

SRO Admin JPM Summary

- A1a This is a modified Bank JPM. The operator will be told that the plant is operating at 100% power and that ERFIS is OOS. The operator will be provided with Power Range Excore Nuclear Instrumentation indicated and normalized detector currents, and directed to calculate Quadrant Power Tilt Ratio, identify whether or not any limitations have been exceeded, and if so, what, if any ACTION, is required. The operator will be expected to calculate QPTR in accordance with FMP-007, Quadrant Power Tilt, identify that Technical Specification LCO 3.2.4, Quadrant Power Tilt Ratio (QPTR), is NOT met, and identify that all six ACTIONS (A.1-A.6) must be taken for Condition A of LCO 3.2.4, including the maximum permitted power level of 91.3%.
- A1b This is a new JPM. The operator will be told that they are a Licensed Senior Reactor Operator who was assigned to the day shift staff for a special project, and not routinely standing watch in the Control Room. They will be provided with a work history and various qualification dates, and then directed to identify any requirements that must be met prior to the end of the quarter that are required to maintain their license ACTIVE; and any additional requirements that are required to maintain their qualification to stand watch in the Control Room. The operator will be expected to evaluate their work history and identify that four 12-hour shifts must be completed as either the SM, CRS, RO or the BOP prior to the end of the quarter to maintain their license ACTIVE, and that an SCBA quantitative and qualitative fit test must be completed prior to standing watch in the Control Room again.
- A2 This is a Bank JPM. The operator will be told that the plant is in Mode 5, returning from a refueling outage, that the RCS temperature is 165°F and there is a bubble in the PZR, and that RHR Loop "A" is maintaining RCS temperature. The operator will be provided with an Inoperable Equipment List and directed to complete the attached OMM-001-12, MINIMUM EQUIPMENT LIST AND SHIFT RELIEF, Attachment 2, 200°F to 350°F (MODE 4) MEL, that was started on the previous shift and to determine if any Mode 4 restrictions exists. The operator will be expected to complete Attachment 2 and determine that the Mode change cannot occur with current plant conditions, per the attached KEY.
- A3 This is a new JPM. The operator will be told that the plant is in Mode 1 at 100% power, and that a Waste Gas Release Permit for the "A" WGDT has been presented to the Shift Manager for review and approval. The operator will be provided with a WGDT Release Permit and directed to review and approve the Waste Gas Release Permit, or to identify all issues found which would prevent approval. The operator will be expected to review the WGDT Release Permit and identify that it cannot be approved because (1) it has been written for the wrong WGDT and (2) the R14C setpoint is less conservative than required.
- A4 This is a Bank JPM. The operator will be given an initial set of plant conditions. The operator will be directed to classify the event in accordance with the Robinson Nuclear Plant Emergency Action Level Matrix. The operator will be expected to declare an ALERT based on HA4.1, Confirmed Security event in a plant Protected Area or notification of either an airborne attack threat or hostile threat within the Owner Controlled Area, within 15 minutes. Then, the operator must prepare an Emergency

Notification Form for this event in accordance with EPCLA-01 (Emergency Control), also within 15 minutes.

Facility:	H B Robinson	Date of Examination:	2/2016
Exam Level (circle one):	RO (only) / SRO(I) / SRO (U)	Operating Test No.:	N16-1
Control Room Systems® (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)			
System / JPM Title		Type Code*	Safety Function
A.	062 AC Electrical Distribution System [062 A2.08 (3.6/3.4)] Operation With High Switchyard Voltage	S, P, D, A	6
B.	059 Main Feedwater System [059 A4.08 (3.2/2.9)] Transfer From the FRV Bypass Valves to the FRVs	S, M, A	4S
C.	007 Pzr Relief Tank/Quench Tank System [007 A1.01 (2.9/3.1)] Restore PRT to Normal Operating Conditions	S, D, A	5
D.	001 Control Rod Drive System [001 A1.06 (4.1/4.4)] Reactor Startup with Ejected Control Rod	S, N, A, L	1
E.	011 Large Break LOCA [EPE 011 EA1.11 (4.2/4.2)] Transfer to Long Term Recirculation	S, D, A, EN	3
F.	006 Emergency Core Cooling System [006 A4.02 (4.0/3.8)] Fill a Safety Injection Accumulator	S, P, D, EN	2
G.	015 Nuclear Instrumentation System [015 A4.03 (3.8/3.9)] Remove Source Range Channel N-31 From Service	S, D, L	7
H.	003 Reactor Coolant Pump System [003 A4.03 (2.8/2.5)] Start a Reactor Coolant Pump	S, D, L	4P
In-Plant Systems® (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)			
I.	APE 055 Loss of Offsite and Onsite Power [EPE 055 EA2.01 (3.4/3.7)] Locally Establish AFW Flow from the SDAFW Pump and Control S/G Levels and Pressures	D, P, E	6
J.	065 Loss of Instrument Air [065 AA1.04 (3.5/3.4)] Respond to a Loss of Instrument Air	D, R, E	8
K.	APE 062 Loss of Service Water [APE 062 AA2.01 (2.9/3.5)] Loss of North SW Header in the Auxiliary Building	D, R, E	4S

@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.	
* Type Codes	Criteria for RO / SRO-I / SRO-U
(A)lternate path (C)ontrol room (D)irect from bank (E)mergency or abnormal in-plant (EN)gineered Safety Feature (L)ow-Power / Shutdown (N)ew or (M)odified from bank including 1(A) (P)revious 2 exams (R)CA (S)imulator	4-6 (5) / 4-6 (5) / 2-3 (3) ≤ 9 (9) / ≤ 8 (8) / ≤ 4 (4) ≥ 1 (3) / ≥ 1 (3) / ≥ 1 (2) ≥ 1 (2) / ≥ 1 (2) / ≥ 1 (2) (Control Room System) ≥ 1 (3) / ≥ 1 (2) / ≥ 1 (1) ≥ 2 (2) / ≥ 2 (2) / ≥ 1 (1) ≤ 3 (3) / ≤ 3 (3) / ≤ 2 (2) (Randomly Selected) ≥ 1 (2) / ≥ 1 (2) / ≥ 1 (1)

JPM Summary

JPM A This is a Bank JPM. The operator will be told that the plant is at 100% power, that due to abnormal conditions on the Grid, 480V Bus E-2 currently has exceeded 505 volts, that AOP-031, Operation with High Switchyard Voltage, has been completed up to step 21, and other preliminary information. The operator will be directed to continue with AOP-031 until 480V Bus E-2 voltage is restored to less than 505 Volts. The operator will be expected to transfer 4KV Bus 4 & 5 from the UAT to the SUT (via 4KV Bus 3) in an effort to lower Switchyard Voltage; and when Breaker 50/20 fails to automatically OPEN (**Alternate Path**), the operator will manually open it per AOP-31. This JPM was previously used on the 2013 NRC Exam, randomly selected for use on the 2016 Exam.

JPM B This is a modified Bank JPM. The operator will be told that a plant startup is in progress with reactor power approximately 18%, that the "A" and "B" S/G levels are being controlled with the Feedwater Regulating Valves operating in AUTO, and that the "C" S/G level is being controlled on the Feedwater Regulating Bypass Valve. The operator will be directed to transfer the "C" S/G level control to the Main Feedwater Regulating Valve in accordance with Step 6.4.12 of GP-005, Power Operation. The operator will be expected to place the "C" Feed Reg Valve in AUTO, and then take manual control of the "B" Feed Reg Valve and stabilize the "B" S/G level (**Alternate Path**) when it is determined that the "B" Feed Reg Valve has failed to control the "B" S/G level in AUTO.

JPM C This is a Bank JPM The operator will be told that the plant is at 100% power, that APP-003-D3, PRT HI/LO LEVEL, has alarmed, that the cause of the low level is known leakage from the PRT to the RCDT, and that the PRT level is stable at 67%. The operator will be directed to restore PRT level to normal IAW OP-103, Pressurizer Relief Tank Control System. The operator will be expected to refill the PRT in accordance with Section 8.2.2 of OP-103; and then diagnose and relieve the hydraulic lock on RC-519B (**Alternate Path**) in accordance with Section 8.4.1 of OP-103.

JPM D This is a New JPM. The operator will be told that the plant is stabilized at 2% power, that the RCS is at normal operating temperature and pressure, and that a plant startup is in progress IAW GP-003, Normal Plant Startup From Hot Shutdown to Critical, and complete through Step 8.4.7. They will also be told that they are the OATC, and that the

BOP is temporarily outside the Control Room. The operator will be directed to pull control rods to stabilize reactor power between 3-5% by continuing with Step 8.4.8 of GP-003. The operator will start to raise reactor power to 3-5%. Then, the operator will manually trip the reactor, attempt to manually actuate Safety Injection and manually start SI Pumps in response to an ejected rod (**Alternate Path**).

JPM E This is a Bank JPM. The operator will be told that a large break LOCA has occurred, and that the plant is currently on Cold Leg Recirculation IAW EOP-ES-1.3, Transfer to Cold Leg Recirculation. The operator will be directed to transfer to Long Term Recirculation IAW EOP-ES-1.4, Transfer to Long Term Recirculation. The operator will be expected to align for Long Term Recirculation per EOP-ES-1.4, and align only the B RHR Pump for operation when it is determined that SI-863A has failed to OPEN (**Alternate Path**).

JPM F This is a Bank JPM. The operator will be told that the plant is at 100% power, that the SI ACCUM C HI/LO LVL (APP-002-E4) alarm has been received and actions have been reviewed by the RO, that OP-202, Section 5.2.1.1 Initial Conditions have been completed, and other preliminary information. The operator will be directed to fill SI Accumulator "C" to reset the low level alarm IAW OP-202, Section 5.2.1. The operator will be expected to refill SI Accumulator "C" to reset the low level alarm without exceeding specified limits. This was previously used on the 2013 NRC Exam, randomly selected for use on the 2016 Exam.

JPM G This is a Bank JPM. The operator will be told that the plant is shutdown 36 hours after a trip from 100% power, and that SR Channel N-31 has just failed low. The operator will be directed to remove SR Channel N-31 from service IAW OWP-011, Nuclear Instrumentation. The operator will be expected to remove SR Channel N-31 from service IAW NI-5 of OWP-011.

JPM H This is a Bank JPM. The operator will be told that the plant is shutdown at normal operating temperature and pressure, that the "B" RCP was stopped 7 hours earlier for motor inspection, that Section 8.1 of OP-101, Reactor Coolant System and Reactor Coolant Pump Startup and Operation, has been completed through Step 8.1.1.2.y in preparation for starting the Reactor Coolant Pump, and that it is intended to bypass the Degraded Grid Protection prior to the RCP start and return it to service after the RCP is started per OP-101, and an AO is standing by to assist in this process. The operator will be directed to start the B Reactor Coolant Pump by continuing with Step 8.1.1.2.z of OP-101. The operator will be expected to start the B RCP IAW OP-101.

JPM I This is a Bank JPM. The operator will be told that the Plant has experienced a loss of onsite and offsite power, that EOP-ECA-0.0, Loss of All AC Power, has been implemented, that Wide Range levels in all three SGs are 55%, that Steam Generator pressures are 1075 psig, and that the SDAFW Pump has just been started. The operator will be directed to locally perform Attachment 4, Local Control Of S/G Level And Pressure, of EOP-ECA-0.0. The operator will be expected to control AFW flow to the Steam Generators and align the Nitrogen System to the SG PORVs IAW Attachment 4 of EOP-ECA-0.0. This was previously used on the 2014 NRC Exam, randomly selected for use on the 2016 Exam.

JPM J This is a Bank JPM. The operator will be told that the IA Header Pressure is 75 PSIG and lowering, that AOP-017, Loss Of Instrument Air, has been entered, that the Station

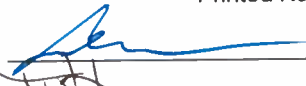


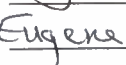

Air Compressor is under clearance and disassembled, and that the Station Air Receiver is depressurized and vented. The operator will be directed to perform AOP-017 Step 8. The operator will be expected to start IA Compressors "A" and "B" and align their discharge to supply air to the Instrument Air Header in accordance with Step 8 of AOP-017.

JPM K This is a Bank JPM. The operator will be told that the plant is at 100% power, that the North SW header has ruptured inside the Auxiliary Building, and that the Control Room has implemented AOP-022 (Loss of Service Water) for a leak in the North header. The operator will be directed to perform the local subsequent actions IAW Attachment 6 of AOP-022. The operator will be expected to isolate the intact SW header from the ruptured header, isolate the leak, and align cooling water to critical loads IAW Attachment 6 of AP-022.

Facility: Robinson

Date of
Examination: 2/2016

Operating Test Number: N16-1

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).	C	J	Q
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	C	J	Q
c.	The operating test shall not duplicate items from the applicants' audit test(s) (see Section D.1.a).	C	J	Q
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	C	J	Q
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	C	J	Q
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	C	J	Q
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.	C	J	Q
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.		C	J	Q
Printed Name / Signature		Date		
a.	Author  Christopher McLane	1/26/16		
b.	Facility Reviewer (*)  JOHN R. LITTLE III	01/26/16		
c.	NRC Chief Examiner (#)  Daniel M. Bacon / Daniel M. Bacon	1/27/16		
d.	NRC Supervisor  Eugene Guthrie / 	1/28/16		
NOTE: * The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.				

Facility:	Robinson	Date of Exam:	2/2016	Scenario Numbers:	1, 2, 3	Operating Test No.:	N16-1	
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.					C	J	ck
2.	The scenarios consist mostly of related events.					C	J	ck
3.	Each event description consists of <ul style="list-style-type: none"> the point in the scenario when it is to be initiated the malfunction(s) or conditions 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) 					C	J	B
4.	The events are valid with regard to physics and thermodynamics.					C	J	ck
5.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.					C	J	ck
6.	If time compression techniques are used, the scenario summary clearly so indicates. Operators have sufficient time to carry out expected activities without undue time constraints. Cues are given.					C	J	ck
7.	The simulator modeling is not altered.					C	J	ck
8.	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.					C	J	ck
9.	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.					C	J	ck
10.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).					C	J	ck
11.	The scenario set provides the opportunity for each applicant to be evaluated in each of the applicable rating factors. (Competency Rating factors as described on forms ES-303-1 and ES-303-3.)					C	J	ck
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).					C	J	ck
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.					C	J	ck
Target Quantitative Attributes (Per Scenario; See Section D.5.d)						Actual Attributes		
						1	2	3
1.	Malfunctions after EOP entry (1-2)					1	2	2
2.	Abnormal events (2-4)					4	4	5
3.	Major transients (1-2)					1	1	1
4.	EOPs entered/requiring substantive actions (1-2)					2	2	1
5.	EOP contingencies requiring substantive actions (0-2)					0	1	1
6.	Critical tasks (2-3)					3	3	2
NOTE:								
* The facility signature is not applicable for NRC-developed tests.								
# Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.								

Facility:	Robinson	Date of Exam:	2/2016	Scenario Numbers:	4, 5, 6	Operating Test No.:	N16-1	
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.					✓	J	✓
2.	The scenarios consist mostly of related events.					✓	J	✓
3.	Each event description consists of <ul style="list-style-type: none"> the point in the scenario when it is to be initiated the malfunction(s) or conditions 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) 					✓	J	✓
4.	The events are valid with regard to physics and thermodynamics.					✓	J	✓
5.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.					✓	J	✓
6.	If time compression techniques are used, the scenario summary clearly so indicates. Operators have sufficient time to carry out expected activities without undue time constraints. Cues are given.					✓	J	✓
7.	The simulator modeling is not altered.					✓	J	✓
8.	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.					✓	J	✓
9.	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.					✓	J	✓
10.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).					✓	J	✓
11.	The scenario set provides the opportunity for each applicant to be evaluated in each of the applicable rating factors. (Competency Rating factors as described on forms ES-303-1 and ES-303-3.)					✓	J	✓
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).					✓	J	✓
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.					✓	J	✓
Target Quantitative Attributes (Per Scenario; See Section D.5.d)						Actual Attributes		
						4	5	6
1.	Malfunctions after EOP entry (1-2)					1	1	3
2.	Abnormal events (2-4)					4	3	4
3.	Major transients (1-2)					2	1	1
4.	EOPs entered/requiring substantive actions (1-2)					2	2	2
5.	EOP contingencies requiring substantive actions (0-2)					1	1	1
6.	Critical tasks (2-3)					2	2	2
NOTE:								
* The facility signature is not applicable for NRC-developed tests.								
# Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.								

Facility:		Robinson		Date of Exam:		2/2016		Operating Test No.:		N16-1							
A P P L I C A N T	E V E N T T Y P E	Scenarios												T O T A L	M I N I M U M(*)		
		N16-1-1			N16-1-2			N16-1-3			N16-1-6						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P		R	I	U
SROI-1	RX								3					1	1	1	0
	NOR	3											2	2	1	1	1
	I/C	1, 2, 4, 5							1, 4, 5				1, 3, 7, 9	11	4	4	2
	MAJ	6							6				6	3	2	2	1
	TS	1, 2												2	0	2	2
SROI-3	RX												2	1	1	1	0
	NOR			1, 3	1									3	1	1	1
	I/C			2, 4, 7	2, 3, 4, 5								4, 5	9	4	4	2
	MAJ			6	6								6	3	2	2	1
	TS				3, 4									2	0	2	2
SROI-5	RX					1								1	1	1	0
	NOR							3					2	2	1	1	1
	I/C				2, 4, 8, 9			1, 2, 4, 5					1, 3, 7, 9	12	4	4	2
	MAJ				6			6					6	3	2	2	1
	TS							1, 5						2	0	2	2
SROI-6	RX												2	1	1	1	0
	NOR					1	3							2	1	1	1
	I/C					3, 5	1, 2, 4, 5					4, 5		8	4	4	2
	MAJ					6	6					6		3	2	2	1
	TS						1, 5							2	0	2	2

Instructions:

- 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 (SRO-I) 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-I *additionally* serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for the ATC position.
- 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.
- 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.
- For licensees that use the ATC operator primarily for monitoring plant parameters, the chief examiner may place SRO-I applicants in either the ATC or BOP position to best evaluate the SRO-I in manipulating plant controls.

Facility:		Robinson		Date of Exam:		2/2016		Operating Test No.:		N16-1							
A P P L I C A N T	E V E N T T Y P E	Scenarios												T O T A L	M I N I M U M (*)		
		N16-1-1			N16-1-2			N16-1-3			N16-1-6						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P		R	I	U
SROI-7	RX										2		1	1	1	0	
	NOR					1	3						2	1	1	1	
	I/C					3, 5	1, 2, 4, 5				4, 5		8	4	4	2	
	MAJ					6	6				6		3	2	2	1	
	TS						1, 5						2	0	2	2	
SROI-8	RX							3					1	1	1	0	
	NOR			1, 3							2		3	1	1	1	
	I/C			2, 4, 7				1, 4, 5			1, 3, 4, 5		10	4	4	2	
	MAJ			6				6			6		3	2	2	1	
	TS										3, 4		2	0	2	2	
SROI-9	RX							3					1	1	1	0	
	NOR			1, 3							2		3	1	1	1	
	I/C			2, 4, 7				1, 4, 5			1, 3, 4, 5		10	4	4	2	
	MAJ			6				6			6		3	2	2	1	
	TS										3, 4		2	0	2	2	
RO-1	RX		3										1	1	1	0	
	NOR								3				1	1	1	1	
	I/C		1, 4, 5						1, 2, 7				6	4	4	2	
	MAJ		6						6				2	2	2	1	
	TS												0	0	2	2	

Instructions:

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- 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.
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Facility:		Robinson		Date of Exam:		2/2016		Operating Test No.:		N16-1							
A P P L I C A N T	E V E N T T Y P E	Scenarios												T O T A L	M I N I M U M(*)		
		N16-1-1			N16-1-2			N16-1-3			N16-1-6						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P		R	I	U
RO-2	RX					1								1	1	1	0
	NOR									3				1	1	1	1
	I/C					2, 4, 8, 9				1, 2, 7				7	4	4	2
	MAJ					6				6				2	2	2	1
	TS													0	0	2	2
RO-3	RX					1								1	1	1	0
	NOR									3				1	1	1	1
	I/C					2, 4, 8, 9				1, 2, 7				7	4	4	2
	MAJ					6				6				2	2	2	1
	TS													0	0	2	2
RO-4	RX		3											1	1	1	0
	NOR						1							1	1	1	1
	I/C		1, 5				3, 5							4	4	4	2
	MAJ		6				6							2	2	2	1
	TS													0	0	2	2
SROU-1	RX													0	1	1	0
	NOR	3								2				2	1	1	1
	I/C	1, 2, 4, 5								1, 3, 4, 5				8	4	4	2
	MAJ	6								6				2	2	2	1
	TS	1, 2								3, 4				4	0	2	2

Instructions:

- 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 (SRO-I) 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-I *additionally* serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for the ATC position.
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Facility:		Robinson		Date of Exam:		2/2016		Operating Test No.:		N16-1							
A P P L I C A N T	E V E N T T Y P E	Scenarios												T O T A L	M I N I M U M(*)		
		N16-1-1			N16-1-2			N16-1-6			N16-1-5						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P		R	I	U
SROU-2	RX												0	1	1	0	
	NOR	3										1	2	1	1	1	
	I/C	1, 2, 4, 5									2, 3, 4, 5		8	4	4	2	
	MAJ	6									6		2	2	2	1	
	TS	1, 2									3, 5		4	0	2	2	
SROI-2	RX		3										1	1	1	0	
	NOR				1							1	2	1	1	1	
	I/C		1, 5		2, 3, 4, 5							2, 3	8	4	4	2	
	MAJ		6		6							6	3	2	2	1	
	TS				3, 4								2	0	2	2	
SROI-4	RX											1	1	1	1	0	
	NOR				1					2			2	1	1	1	
	I/C				2, 3, 4, 5					1, 3, 7, 9		4, 5, 7	11	4	4	2	
	MAJ				6					6		6	3	2	2	1	
	TS				3, 4								2	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:

- 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 (SRO-I) 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-I *additionally* serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for the ATC position.
- 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.
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Facility:	Robinson	Date of Examination:	2/2016	Operating Test No.:	N16-1							
Competencies	APPLICANTS											
	SRO (U/I)				RO/ATC				BOP			
	SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	1-7	1-9	1-8	1-9	1-7	1-9	1-8	1-9	1-7	1-9	1-8	1-9
Comply With and Use Procedures (1)	1-7	1-9	1-8	1-7	1-7	1-9	1-8	1-9	1-7	1-9	1-8	1-9
Operate Control Boards (2)	NA	NA	NA	NA	1,3,5,6	1,2,4,6,8,9	1,3,4,5,6	1,2,3,7,9	1,2,3,4,6,7	1,3,5,6	1,2,3,6,7	2,4,5,6,7,8,9
Communicate and Interact	1-7	1-9	1-8	1-9	1-7	1-9	1-8	1-9	1-7	1-9	1-8	1-9
Demonstrate Supervisory Ability (3)	1-7	1-9	1-8	1-9	NA	NA	NA	NA	NA	NA	NA	NA
Comply With and Use Tech. Specs. (3)	1-2	3-4	1,5	4-5	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:

Check the applicants' license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant. (This includes all rating factors for each competency.) (Competency Rating factors as described on forms ES-303-1 and ES-303-3.)

Facility:	Robinson	Date of Examination:	2/2016	Operating Test No.:	N16-1							
Competencies	APPLICANTS											
	SRO (U/I)				RO/ATC				BOP			
	SCENARIO				SCENARIO				SCENARIO			
	5	6			5	6			5	6		
Interpret/Diagnose Events and Conditions	1-7	1-9			1-7	1-9			1-7	1-9		
Comply With and Use Procedures (1)	1-7	1-9			1-7	1-9			1-7	1-9		
Operate Control Boards (2)	NA	NA			1,4,5,6,7	2,4,5,6			1,2,3,6	1,2,3,6,7,9		
Communicate and Interact	1-7	1-9			1-7	1-9			1-7	1-9		
Demonstrate Supervisory Ability (3)	1-7	1-9			NA	NA			NA	NA		
Comply With and Use Tech. Specs. (3)	3,5	3-4			NA	NA			NA	NA		
Notes: (1) Includes Technical Specification compliance for RO. (2) Optional for an SRO-U. (3) Only applicable to SROs.												

Instructions:

Check the applicants' license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant. (This includes all rating factors for each competency.) (Competency Rating factors as described on forms ES-303-1 and ES-303-3.)

Facility: ROBINSON		Date of Exam: FEBRUARY 2016																
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	1	2	2				1	2				1	9	2		2	4
	Tier Totals	4	5	5				4	5				4	27	5		5	10
2. Plant Systems	1	3	3	2	2	3	2	2	3	3	3	2	28	3		2	5	
	2	1	1	1	1	1	1	1	1	0	1	1	10	0	2	1	3	
	Tier Totals	4	4	3	3	4	3	3	4	3	4	3	38	5		3	8	
3. Generic Knowledge and Abilities Categories					1		2		3		4		10	1	2	3	4	7
					3		2		2		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). (One Tier 3 Radiation Control K/A is allowed if the K/A is replaced by a K/A from another Tier 3 Category).
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 with justification; operationally important, site-specific systems/evolutions that are not included on the outline should be added. Refer to Section D.1.b of ES-401 for guidance regarding the elimination of inappropriate K/A statements.
4. Select topics from as many systems and evolutions as possible; sample every system or evolution in the group before selecting a second topic for any system or evolution.
5. Absent a plant-specific priority, only those K/As having an importance rating (IR) of 2.5 or higher shall be selected. Use the RO and SRO ratings for the RO and SRO-only portions, respectively.
6. Select SRO topics for Tiers 1 and 2 from the shaded systems and K/A categories.
7. The generic (G) K/As in Tiers 1 and 2 shall be selected from Section 2 of the K/A Catalog, but the topics must be relevant to the applicable evolution or system. Refer to Section D.1.b of ES-401 for the applicable K/As.
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 a category other than Category A2 or G* on the SRO-only exam, enter it on the left side of Column A2 for Tier 2, Group 2 (Note #1 does not apply). Use duplicate pages for RO and SRO-only exams.
9. For Tier 3, select topics from Section 2 of the K/A catalog, and enter the K/A numbers, descriptions, IRs, and point totals (#) on Form ES-401-3. Limit SRO selections to K/As that are linked to 10 CFR 55.43.

G* Generic K/As

KA	NAME / SAFETY FUNCTION:	TOPIC:												
		IR		G										
		RO	SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	
007EK2.02	Reactor Trip - Stabilization - Recovery / 1	2.6	2.8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Breakers, relays and disconnects
008AG2.1.30	Pressurizer Vapor Space Accident / 3	4.4	4.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to locate and operate components, including local controls.
009EA1.10	Small Break LOCA / 3	3.8	3.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Safety parameter display system
011EK3.15	Large Break LOCA / 3	4.3	4.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Criteria for shifting to recirculation mode
022AA2.03	Loss of Rx Coolant Makeup / 2	3.1	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Failures of flow control valve or controller
025AG2.4.47	Loss of RHR System / 4	4.2	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to diagnose and recognize trends in an accurate and timely manner utilizing the appropriate control room reference material.
027AK2.03	Pressurizer Pressure Control System Malfunction / 3	2.6	2.8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Controllers and positioners
029EK2.06	ATWS / 1	2.9	3.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Breakers, relays, and disconnects.
038EK1.04	Steam Gen. Tube Rupture / 3	3.1	3.3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reflux boiling
040AK1.05	Steam Line Rupture - Excessive Heat Transfer / 4	4.1	4.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reactivity effects of cooldown
054AA1.03	Loss of Main Feedwater / 4	3.5	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AFW auxiliaries, including oil cooling water supply

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
055EK3.02	Station Blackout / 6	RO	SRO											Actions contained in EOP for loss of offsite and onsite power
		4.3	4.6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
056AA2.11	Loss of Off-site Power / 6	2.9	2.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operational status of service water booster pump
057AA2.00- 2.15	Loss of Vital AC Inst. Bus / 6	3.2 3.8	3.2 4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AG instrument bus alarms for the inverter and alternate power sources That a loss of ac has occurred
058AA1.02	Loss of DC Power / 6	3.1	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Static inverter dc input breaker, frequency meter, ac output breaker and ground fault detector
we04EG2.4.4	LOCA Outside Containment / 3	4.2	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to verify that the alarms are consistent with the plant conditions.
WE05EK3.4	Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4	3.7	3.9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RO or SRO function within the control room team as appropriate to the assigned position, in such a way that procedures are adhered to and the limitations in the facilities license and amendments are not violated.
WE11EK1.1	Loss of Emergency Coolant Recirc. / 4	3.7	4.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Components, capacity, and function of emergency systems.

KA	NAME / SAFETY FUNCTION:	TOPIC:										TOPIC:	
		IR	K1	K2	K3	K4	K5	K6	A1	A2	A3		A4
005AK2.02	Inoperable/Stuck Control Rod / 1	2.5	2.6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Breakers, relays, disconnects and control room switches
028AK1.01	Pressurizer Level Malfunction / 2	2.8	3.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PZR reference leak abnormalities
032AA2.02	Loss of Source Range NI / 7	3.6	3.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Expected change in source range count rate when rods are moved
033AK3.01	Loss of Intermediate Range NI / 7	3.2	3.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Termination of startup following loss of intermediate-range instrumentation
060AK2.01	Accidental Gaseous Radwaste Rel. / 9	2.6	2.9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ARM system, including the normal radiation-level indications and the operability status
067AA1.09	Plant Fire On-site / 8	3	3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plant fire zone panel (including detector location)
068AK3.12	Control Room Evac. / 8	4.1	4.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Required sequence of actions for emergency evacuation of control room
076AA2.04	High Reactor Coolant Activity / 9	2.6	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Process effluent radiation chart recorder
we09EG2.1.20	Natural Circ. / 4	4.6	4.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to execute procedure steps.

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
003A3.01	Reactor Coolant Pump	3.3	3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Seal injection flow
003K4.07	Reactor Coolant Pump	3.2	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimizing RCS leakage (mechanical seals)
004K2.06	Chemical and Volume Control	2.6	2.7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control instrumentation
005A2.02	Residual Heat Removal	3.5	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pressure transient protection during cold shutdown
005K6.03	Residual Heat Removal	2.5	2.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RHR heat exchanger
006A1.13	Emergency Core Cooling	3.5	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accumulator pressure (level, boron concentration)
006K5.01	Emergency Core Cooling	2.8	3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Effects of temperatures on water level indications
007K3.01	Pressurizer Relief/Quench Tank	3.3	3.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Containment
008A4.01 4.01	Component Cooling Water	2.7 3.3	2.6d 3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Throttling of the CCW pump discharge valve CCW indications and controls
010K6.04	Pressurizer Pressure Control	2.9	3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PRT
012A3.06	Reactor Protection	3.7	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Trip logic

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
012K1.05	Reactor Protection	3.8	3.9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ESFAS
013K5.02	Engineered Safety Features Actuation	2.9	3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Safety system logic and reliability
022A4.04	Containment Cooling	3.1	3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Valves in the CCS
026A2.08	Containment Spray	3.2	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Safe securing of containment spray when it can be done)
039A1.10	Main and Reheat Steam	2.9	3.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Air ejector PRM
059K4.02	Main Feedwater	3.3	3.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Automatic turbine/reactor trip runback
061K5.01	Auxiliary/Emergency Feedwater	3.6	3.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Relationship between AFW flow and RCS heat transfer
062K1.04	AC Electrical Distribution	3.7	4.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Off-site power sources
062K2.01	AC Electrical Distribution	3.3	3.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Major system loads
063A3.01	DC Electrical Distribution	2.7	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Meters, annunciators, dials, recorders and indicating lights
064A2.18	Emergency Diesel Generator	2.6	2.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Consequences of premature opening of breaker under load

KA	NAME / SAFETY FUNCTION:	TOPIC:												
		IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	
		RO	SRO											
064K2.02	Emergency Diesel Generator	2.8	3.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fuel oil pumps
073A4.01	Process Radiation Monitoring	3.9	3.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Effluent release
073G2.4.9	Process Radiation Monitoring	3.8	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of low power / shutdown implications in accident (e.g. LOCA or loss of RHR) mitigation strategies.
076K1.15	Service Water	2.5	2.6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FPS
078K3.03	Instrument Air	3.0	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cross-tied units
103G2.1.7	Containment	4.4	4.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior and instrument interpretation.

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											Location and operation of RPIS
001K6.13	Control Rod Drive	3.6	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
002K4.01	Reactor Coolant	2.7	3.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Filling and draining the RCS
011A1.02	Pressurizer Level Control	3.3	3.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Charging and letdown flows
014K5.01	Rod Position Indication	2.7	3.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reasons for differences between RPIS and step counter
017A4.01	In-core Temperature Monitor	3.8	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actual in-core temperatures
027K2.01	Containment Iodine Removal	3.1	3.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fans
029G2.1.23	Containment Purge	4.3	4.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to perform specific system and integrated plant procedures during all modes of plant operation.
033K3.02	Spent Fuel Pool Cooling	2.8	3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Area and ventilation radiation monitoring systems
035A2.05	Steam Generator	3.2	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unbalanced flows to the 5/Gs
068K1.07	Liquid Radwaste	2.7	2.9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sources of liquid wastes for LRS

KA	NAME / SAFETY FUNCTION:	IR													TOPIC:			
		RO	SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G				
G2.1.29	Conduct of operations	4.1	4.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of how to conduct system lineups, such as valves, breakers, switches, etc.			
G2.1.36	Conduct of operations	3.0	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of procedures and limitations involved in core alterations			
G2.1.45	Conduct of operations	4.3	4.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to identify and interpret diverse indications to validate the response of another indication			
G2.2.38	Equipment Control	3.6	4.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of conditions and limitations in the facility license.			
G2.2.39	Equipment Control	3.9	4.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of less than one hour technical specification action statements for systems.			
G2.3.13	Radiation Control	3.4	3.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of radiological safety procedures pertaining to licensed operator duties			
G2.3.4	Radiation Control	3.2	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of radiation exposure limits under normal and emergency conditions			
G2.4.11	Emergency Procedures/Plans	4.0	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of abnormal condition procedures.			
G2.4.25	Emergency Procedures/Plans	3.3	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of fire protection procedures.			
G2.4.31	Emergency Procedures/Plans	4.2	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of annunciators alarms, indications or response procedures			

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
	ATWS / 1	RO	SRO											
029EA2.06		3.8	3.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Main turbine trip switch position indication
038EG2.4.47	Steam Gen. Tube Rupture / 3	4.2	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to diagnose and recognize trends in an accurate and timely manner utilizing the appropriate control room reference material.
054AG2.4.9	Loss of Main Feedwater / 4	3.8	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of low power / shutdown implications in accident (e.g. LOCA or loss of RHR) mitigation strategies.
055EA2.06	Station Blackout / 6	3.7	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Faults and lockouts that must be cleared prior to re-energizing buses
058AG2.2.22	Loss of DC Power / 6	4.0	4.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of limiting conditions for operations and safety limits.
077AA2.03	Generator Voltage and Electric Grd Disturbances / 6	3.5	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Generator current outside the generator capability curve

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
001AA2.02	Continuous Rod Withdrawal / 1	4.2	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Position of emergency boration valve
051AG2.4.35	Loss of Condenser Vacuum / 4	3.8	4.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of local auxiliary operator tasks during emergency and the resultant operational effects
061AA2.03	ARM System Alarms / 7	3	3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Setpoints for alert and high alarms
we06EG2.1.23	Degraded Core Cooling / 4	4.3	4.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to perform specific system and integrated plant procedures during all modes of plant operation.

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
012A2-0301 2.05	Reactor Protection	3.4 3.7 3.1 3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Incorrect channel bypassing Faulty or erratic operation of detectors and function generators
039A2.03	Main and Reheat Steam	3.4 3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Indications and alarms for main steam and area radiation monitors (during SGTR)
076G2.1.7	Service Water	4.4 4.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior and instrument interpretation.
078A2.01	Instrument Air	2.4 2.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Air dryer and filter malfunctions
103G2.4.35	Containment	3.8 4.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of local auxiliary operator tasks during emergency and the resultant operational effects

KA	NAME / SAFETY FUNCTION:	IR	TOPIC:													
			RO	SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	
015A2.04	Nuclear Instrumentation	3.3	3.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Effects on axial flux density of control rod alignment and sequencing, xenon production and decay, and boron vs. control rod reactivity changes
068A2.02	Liquid Radwaste	2.7	2.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lack of tank recirculation prior to release
071G2.4.21	Waste Gas Disposal	4.0	4.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of the parameters and logic used to assess the status of safety functions

Effects on axial flux density of control rod alignment and sequencing, xenon production and decay, and boron vs. control rod reactivity changes

Lack of tank recirculation prior to release

Knowledge of the parameters and logic used to assess the status of safety functions

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
G2.1.45	Conduct of operations	4.3	4.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to identify and interpret diverse indications to validate the response of another indication
G2.2.21	Equipment Control	2.9	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of pre- and post-maintenance operability requirements.
G2.2.36	Equipment Control	3.1	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to analyze the effect of maintenance activities, such as degraded power sources, on the status of limiting conditions of operations
G2.3.12	Radiation Control	3.2	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of radiological safety principles pertaining to licensed operator duties
G2.3.14	Radiation Control	3.4	3.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of radiation or contamination hazards that may arise during normal, abnormal, or emergency conditions or activities
G2.4.30	Emergency Procedures/Plans	2.7	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of events related to system operations/status that must be reported to internal organizations or outside agencies.
G2.4.46	Emergency Procedures/Plans	4.2	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to verify that the alarms are consistent with the plant conditions.

Facility: Robinson Nuclear Plant	Date of Exam: 2/1/2016	Exam Level: RO <input checked="" type="checkbox"/> SRO <input type="checkbox"/>
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Item Description	Initial		
	a	b*	c*
1. Questions and answers are technically accurate and applicable to the facility.	C	J	CB
2. a. NRC K/As are referenced for all questions. b. Facility learning objectives are referenced as available.	C	J	CB
3. SRO questions are appropriate in accordance with Section D.2.d of ES-401	C	J	CB
4. The sampling process was random and systematic (If more than 4 RO or 2 SRO questions were repeated from the last 2 NRC licensing exams, consult the NRR OL program office).	C	J	CB
5. Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: <input checked="" type="checkbox"/> the audit exam was systematically and randomly developed; or <input type="checkbox"/> the audit exam was completed before the license exam was started; or <input type="checkbox"/> the examinations were developed independently; or <input type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)	C	J	CB
6. Bank use meets limits (no more than 75 percent from the bank, at least 10 percent new, and the rest new or modified); enter the actual RO / SRO-only question distribution(s) at right.	Bank	Modified	New
	18 / -	5 / -	52 / -
7. Between 50 and 60 percent of the questions on the RO exam are written at the comprehension/ analysis level; the SRO exam may exceed 60 percent if the randomly selected K/As support the higher cognitive levels; enter the actual RO / SRO question distribution(s) at right.	Memory	C/A	
	32 / -	43 / -	
8. References/handouts provided do not give away answers or aid in the elimination of distractors.	C	J	CB
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.	C	J	CB
10. Question psychometric quality and format meet the guidelines in ES Appendix B.	C	J	CB
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.	C	J	CB

Printed Name / Signature	Date
a. Author <u>Christopher McOmee</u>	<u>2/3/16</u>
b. Facility Reviewer (*) <u>John R. Little</u>	<u>02/02/16</u>
c. NRC Chief Examiner (#) <u>Daniel M. Bach</u>	<u>2/3/16</u>
d. NRC Regional Supervisor <u>Deborah J. McCom</u>	<u>2/11/2016</u>

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

Facility: Robinson Nuclear Plant		Date of Exam: 2/1/2016		Exam Level: RO <input type="checkbox"/> SRO <input checked="" type="checkbox"/>			
Item Description				Initial			
				a	b*	c*	
1.	Questions and answers are technically accurate and applicable to the facility.			L	H	U	
2.	a. NRC K/As are referenced for all questions. b. Facility learning objectives are referenced as available.			L	J	U	
3.	SRO questions are appropriate in accordance with Section D.2.d of ES-401			L	J	U	
4.	The sampling process was random and systematic (If more than 4 RO or 2 SRO questions were repeated from the last 2 NRC licensing exams, consult the NRR OL program office).			L	J	U	
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: <input checked="" type="checkbox"/> the audit exam was systematically and randomly developed; or <input type="checkbox"/> the audit exam was completed before the license exam was started; or <input type="checkbox"/> the examinations were developed independently; or <input type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)			L	J	U	
6.	Bank use meets limits (no more than 75 percent from the bank, at least 10 percent new, and the rest new or modified); enter the actual RO / SRO-only question distribution(s) at right.	Bank	Modified	New	L	J	U
		18 / 4	5 / 5	52 / 16			
7.	Between 50 and 60 percent of the questions on the RO exam are written at the comprehension/ analysis level; the SRO exam may exceed 60 percent if the randomly selected K/As support the higher cognitive levels; enter the actual RO / SRO question distribution(s) at right.	Memory	C/A		L	J	U
		32 / 4	43 / 21				
8.	References/handouts provided do not give away answers or aid in the elimination of distractors.			L	J	U	
9.	Question content conforms with specific K/A statements in the previously approved examination outline and is appropriate for the tier to which they are assigned; deviations are justified.			L	J	U	
10.	Question psychometric quality and format meet the guidelines in ES Appendix B.			L	J	U	
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.			L	J	U	
Printed Name / Signature				Date			
a. Author	<u>CHRISTOPHER McCOMBER</u>			<u>2/3/16</u>			
b. Facility Reviewer (*)	<u>JOHN R. LITTLE III</u>			<u>02/03/16</u>			
c. NRC Chief Examiner (#)	<u>Daniel M. Bacon</u>			<u>2/3/16</u>			
d. NRC Regional Supervisor	<u>Samuel J. ...</u>			<u>2/11/2016</u>			
Note: * The facility reviewer's initials/signature are not applicable for NRC-developed examinations. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.							

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
1	F	2				X								B	U	<p>K/A EPE007 EK2.02</p> <p>Choices A and C are not plausible distractors.</p> <p>Question is Unsatisfactory due to two implausible distractors.</p> <p>1/4/2016 - Revised question is Satisfactory.</p>
2	H	2							?					N	E	<p>K/A APE008 2.1.30</p> <p>The first part question is too much overlap with Scenario 3 Event 5. They are the same immediate actions. Also, closing RC-535 is in all 4 answer choices.</p> <p>Is knowledge of this power supply minutia? You have used that argument for one of the early submittal questions.</p> <p>1/4/2016 - Revised question is Satisfactory.</p>
3	H	2						X						N	E	<p>K/A EPE009 EA1.10</p> <p>Knowledge of entry conditions for yellow paths is generally considered SRO knowledge. Following the procedure for a yellow path is based on the discretion of the SRO. You can test red and orange.</p> <p>1/4/2016 - Operations Management approves testing safety Yellow CSFST identification. They have valid objectives and ROs monitor the status of safety functions. This is not procedure selection. (John Little)</p>
4	F	2				X								N	E	<p>K/A EPE011 EK3.15</p> <p>Do not believe that the reason for choices C and D are plausible. Recommend asking what the maximum RWST level is that requires shifting to ECCS sump recirculation (19% or 27%) and giving times in the initial condition to choose between hot or cold leg recirculation. The "reason" for picking between hot or cold leg would be the time being greater or less than 11 hours.</p> <p>1/25/2016 - Revised question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
5	H	2	X											N	E	<p>K/A APE 022 AA2.03</p> <p>Need to address timing and equipment in AUTO.</p> <p>1/4/2016 - Revised question is Satisfactory.</p>
6	H	2		X		X								N	U	<p>K/A APE025 2.4.47</p> <p>Given that RCS flow is 3000 gallons per minute, the bypass valve demand is 60%, and RCS pressure is being controlled, choices B(1) and D(1) are not plausible.</p> <p>This is also a very good cue that there has not been a loss of RHR flow.</p> <p>Question is Unsatisfactory due to two implausible distractors.</p> <p>1/4/2016 - Revised question is Satisfactory.</p>
7	H	2	X	X										B	E	<p>K/A APE027 AK2.03</p> <p>The picture provided for question #2 provides a clue to one of the questions.</p> <p>The question and given conditions could be reworded and split into two parts that would make it less error likely for the applicants.</p> <p>1/4/2016 - Revised question is Satisfactory.</p>
8	H	2	X											N	E	<p>K/A EPE029 EK2.06</p> <p>The question needs to be reworded some because FRP-S.1 gives you a list of 4 different sets of breakers and tells you to open all of them. It could be argued that there is no correct answer.</p> <p>1/4/2016 - Revised question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
9	H	3	X											N	E	<p>K/A EPE038 EK1.04</p> <p>With a saturated system, both choices A and D could be argued to be correct. Also, cooling is based on a difference in temperature.</p> <p>Unable to write a operationally valid question to this K/A.</p> <p>K/A EPE038 EK1.01</p> <p>1/25/2016 - Revised question is Satisfactory.</p>
10	H	2										X		M	E	<p>K/A APE 040 AK1.05</p> <p>The first part question does not test the K/A and is more of a systems (tier 2) question. The second part of the question is a GFES question, but is related to the K/A. Recommend asking something about how to add the Boron or how much Boron to add (ECA-2.1). We can discuss.</p> <p>1/4/2016 - Revised question is Satisfactory.</p>
11	F	2				X								B	E	<p>K/A APE054 AA1.03</p> <p>Choice D is not plausible because it is cooled by Service Water. Is there another option?</p> <p>1/4/2016 - Revised question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
12	F	2	X			X								N	U	<p>K/A EPE055 EK3.02</p> <p>Question submitted for preliminary review and comment IAW ES-201 paragraph C.2.c.</p> <p>Distractor B does not appear to be plausible. When starting at a required pressurizer level of only greater than 14% and probable RCP seal leakage, it does not seem reasonable that pressurizer level greater than 7% can be ensured. Also, Distractors A and B are essentially the same thing. Distractor D is not plausible due to not being able to reach a red path if the cooldown rate limit is followed.</p> <p>The stem question statement is not totally correct. The procedure caution statement only says that pressure should not be lowered less than 190 psig, it does not say to stop before.</p> <p>Question is Unsatisfactory due to two non-plausible distractors.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Remove unnecessary information from current initial conditions. We can discuss specifics. Give two times (30 minutes apart) with S/G pressure and pressurizer level. For the first time, have pressurizer level less than 14%. For the second time, have S/G pressure at 190 psig and pressurizer level going off scale low. Ask: <u>IAW ECA-0.0</u>, what is the earliest time that the S/G depressurization is required to be stopped AND the reason for stopping the depressurization (preventing injection of accumulator nitrogen into the RCS or ensuring that no Reactor Vessel upper head voiding will occur). <p>12/3/2015- Question has been modified as recommended above. Request that you add something to the effect of "In accordance with EOP-ECA-0.0" to the question statement. Otherwise, the question is now Satisfactory.</p> <p>1/4/2016 - Revised question is Satisfactory.</p>
13	H	3												B	S	<p>K/A APE056 AA2.11</p> <p>Question is Satisfactory.</p>
14	H	3												N	S	<p>K/A APE057 AA2.15</p> <p>Question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
15	F	2				X								N	E	<p>K/A APE058 AA1.02</p> <p>Choices B(2) and D(2) are not plausible. Do you have any examples of a case where the electrical output breaker is closed prior to the input breaker when placing a component in service? There are several other possibilities for this K/A.</p> <p>1/25/2016 - Revised question is Satisfactory.</p>
16	H	3	X					X					X	N	U	<p>K/A WE04 G2.4.46</p> <p>Question submitted for preliminary review and comment IAW ES-201 paragraph C.2.c.</p> <p>The second part question appears to be asking procedure transition criteria, which is SRO knowledge.</p> <p>Question is Unsatisfactory due to license level mismatch.</p> <p>I am not sure that a leak in this location would always cause an APP-036-D7 alarm. The FSAR states that an alarm in this location would most likely be VCT or RWST water because there are so many check valves downstream. The R-4 alarm setpoint is 50 millirem per hour. Did or can you validate on the simulator?</p> <p>Why ask or mention D8, since it is given in all four answer choices?</p> <p>12/3/2015- Revised question was submitted. Choices A and D of the revised question are not plausible. How could you have a LOCA outside containment and not have a process monitor high rad alarm. Also, you could remove all of the "only" from the choices by adding "ALL of the" to the question stem.</p> <p>1/4/2016 - Revised question is Satisfactory.</p>
17	H	2				X		X						M	E	<p>K/A WE05 EK3.4</p> <p>Stating that a red condition exists for Heat Sink in the initial conditions makes choice A(2) not plausible. Also, should not state that the red condition exists when steam generator levels and AFW flow are given. The applicant should be able to figure that out. This also is more of an SRO question with procedure direction.</p> <p>1/4/2016 - Revised question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
18	H	2	X											N	E	<p>K/A WE11 EK1.1</p> <p>By my calculations, over 4 hours, the RWST level will lower for about 2.7 hours until the SI pump is shut off at 9% and then rise for the remainder. I do agree that overall the level will be lower. Need to work on the wording of the second part of the question in order for there to be a fully correct answer.</p> <p>Request and IAW statement be added to the stem question.</p> <p>1/4/2016 - Revised question is Satisfactory.</p>
19	F	1.5												B	S	<p>K/A APE005 AK2.02</p> <p>Question is Satisfactory.</p>
20	H	2				X								B	U	<p>K/A APE028 AK1.01</p> <p>Choices B and C are not plausible. If the controlling channel increases or decreases, how could other channels remain the same?</p> <p>Question is Unsatisfactory due to two non-plausible distractors.</p> <p>1/4/2016 - Revised question is Satisfactory.</p>
21	H	2	X											B	E	<p>K/A APE032 AA2.02</p> <p>This question does not appear to work IAW GP-003. You could go critical on any one of the steps for doubling and the procedure has you go to section 8.3 for critical operations. Is there really a minimum number of doublings?</p> <p>1/4/2016 - Revised question is Satisfactory.</p>
22	H	3										X		B	U	<p>K/A APE033 AK3.01</p> <p>Do you expect the ROs to know where 120 cps on the Source Range equates to the Immediate Range for this case?</p> <p>This does not match the K/A. It tests the cause of the loss of the IR instrument, not the reason for termination of the startup.</p> <p>Tier 1 should normally test procedure/evolution requirements vice systems knowledge, unless otherwise specified by the specific K/A.</p> <p>Question is Unsatisfactory due to not meeting the K/A.</p> <p>1/25/2016 - Revised question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only			
23	F	2												N	S	K/A APE060 AK2.01 Question is Satisfactory.
24	H	2	X			X								N	E	K/A APE067 AA1.09 Picture of Fire Alarm Console not provided. Reviewed picture in SRO exam. The picture is somewhat blurry on the computer. Need to ensure that the picture is clear and readable on the exams. Also need to ensure that the picture is provided for the RO exam. Given that both trains are actuated, this makes choices C(1) and D(1) not plausible. It would be OK to give only one train in alarm and test the other way. Need to correct # of alarms on pictured. 1/25/2016 - Revised question is Satisfactory.
25	H	3												N	S	K/A APE068 AK3.12 Question is Satisfactory.
26	H	2				X								M	E	K/A APE076 AA2.04 Choices B(1) and D(1) are not plausible. 1/25/2016 - Revised question is Satisfactory.
27	H	2	X											M	E	K/A WE09 2.1.20 With step 9 being a continuous actions step, how are there not two correct answers? 1/25/2016 - Revised question is Satisfactory.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
28	H	2				X								N	U	<p>K/A SYS003 A3.01</p> <p>The picture seems too hard to read.</p> <p>Since all of the parameters shown return to their original values, outright failures do not seem to be plausible.</p> <p>Question is Unsatisfactory due to two non-plausible distractors.</p> <p>1/25/2016 - Revised question is Satisfactory.</p>
29	H	3												B	S	<p>K/A SYS003 K4.07</p> <p>Question is Satisfactory.</p>
30	F	3										X		N	U	<p>K/A SYS004 K2.06</p> <p>Question submitted for preliminary review and comment IAW ES-201 paragraph C.2.c.</p> <p>The question does not meet the K/A. It does not test knowledge of power supplies <u>to</u> the instrumentation, it gives a power supply that is lost and tests knowledge of how the instruments will fail upon a loss of power. That would be more of a K6 K/A.</p> <p>Question is Unsatisfactory due to K/A mismatch.</p> <p>12/7/15- Question is Satisfactory.</p>
31	H	2	X			X								B	U	<p>K/A SYS005 A2.02</p> <p>Choices C and D are not plausible.</p> <p>Question is Unsatisfactory due to two non-plausible distractors.</p> <p>1/25/2016 - Revised question is Satisfactory.</p>
32	H	3	X			X								B	E	<p>K/A SYS005 K6.03</p> <p>Choice C is not plausible.</p> <p>Licensee explained how choice C could be plausible.</p>
33	F	3												N	S	<p>K/A SYS006 A1.13</p> <p>Question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only			
34	F	2	X											M	E	K/A SYS006 K5.01 The second part question needs to be a little more specific concerning temperature (higher, lower, increased, decreased). 1/25/2016 - Revised question is Satisfactory.
35	H	2												N	S	K/A SYS007 K3.01 Question is Satisfactory.
36	H	2	X			X								B	E	K/A SYS008 A4.01 Choice D is not plausible. The question stem does not exactly match the choices. 1/25/2016 - Revised question is Satisfactory.
37	H	1				X								N	U	K/A SYS010 K6.04 Choices A, B, and D are not plausible. LOD = 1. Question is Unsatisfactory due three non-plausible distractors and LOD = 1. 1/25/2016 - Revised question is Satisfactory.
38	H	2												B	S	K/A SYS012 A3.06 Question is Satisfactory.
39	F	2				X						?		N	E	K/A SYS012 K1.05 Choice D is not plausible. Need to discuss K/A match. 1/25/2016 - Revised question is Satisfactory.
40	F	2												N	S	K/A SYS013 K5.02 Question is Satisfactory.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
41	H	2				X								N	E	K/A SYS022 A4.04 Choice D is not plausible. Choice A is likely not plausible. 1/25/2016 - Revised question is Satisfactory.
42	H	2												N	S	K/A SYS026 A2.08 Question is Satisfactory.
43	F	2				X								N	E	K/A SYS039 A1.10 Choice A is not plausible. 1/25/2016 - Revised question is Satisfactory.
44	F	2												N	S	K/A SYS059 K4.02 Question is Satisfactory.
45	H	2				X								N	U	K/A SYS061 K5.01 Choices A and D are not plausible. There is no correct answer (must be > 600 gpm). Question is Unsatisfactory due to two non-plausible distractors. 1/25/2016 - Revised question is Satisfactory.
46	H	2												B	S	K/A SYS062 K1.04 Question is Satisfactory.
47	F	2												B	S	K/A SYS062 K2.01 Question is Satisfactory.
48	H	2				X								N	U	K/A SYS063 A3.01 Choices A and C are not plausible. Question is Unsatisfactory due to two non-plausible distractors. 1/25/2016 - Revised question is Satisfactory.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
49	F	2				X								N	U	K/A SYS064 A2.18 Choices C and D are not plausible. Question is Unsatisfactory due to two non-plausible distractors. 1/25/2016 - Revised question is Satisfactory.
50	F	2				?								B	E	K/A SYS064 K2.02 Can you give any examples where there are A and B components that the B component is powered from the lower numbered MCC? 1/25/2016 - Question is Satisfactory.
51	H	2												B	S	K/A SYS073 A4.01 Question is Satisfactory.
52	F	3						X				X		M	U	K/A SYS073 2.4.9 Question seems to be more related SRO procedure direction than mitigation strategy. It also does not seem to meet the K/A because it does not seem to test the PRM system. Selected K/A SYS073 2.4.11 1/26/16-New question is Satisfactory.
53	F	3												N	S	K/A SYS076 K1.15 Question is Satisfactory.
54	F	2												N	S	K/A SYS078 K3.03 Question is Satisfactory.
55	H	2	X											N	E	K/A SYS103 G2.1.7 Is a spray pump running? Does the number of HVH units running matter concerning the CSFST? Need to discuss plausibility of choice C. 1/25/2016 - Revised question is Satisfactory.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
56	H	2	X											N	E	<p>K/A SYS001 K6.13</p> <p>The given conditions “picture” is not included on anything that was submitted. Unable to review fully. It seems that operation or interpretation of RPI would be more relevant than location of cabinets that I&C personnel need to go to. If there is no IRPI rack in the Hagan room, then it is not plausible.</p> <p>1/25/2016 - Revised question is Satisfactory.</p>
57	F	2										X		N	U	<p>K/A SYS002 K4.01</p> <p>Question does not appear to test design features or interlocks.</p> <p>Question is Unsatisfactory due to not meeting the K/A.</p> <p>1/25/2016 - Revised question is Satisfactory.</p>
58	F	2	X											N	E	<p>K/A SYS011 A1.02</p> <p>Question submitted for preliminary review and comment IAW ES-201 paragraph C.2.c.</p> <p>Need to state (in the question stem) what procedure these values are in accordance with.</p> <p>1/25/2016 - Revised question is Satisfactory.</p>
59	H	2				X								B	U	<p>K/A SYS014 K5.01</p> <p>Choices A and B are not plausible.</p> <p>Question is Unsatisfactory due to two non-plausible distractors.</p> <p>1/25/2016 - Revised question is Satisfactory.</p>
60	F	2				X								B	U	<p>K/A SYS017 A4.01</p> <p>Choices A and B are not plausible.</p> <p>Question is Unsatisfactory due to two non-plausible distractors.</p> <p>1/28/2016 - Revised question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
61	F	2												B	S	K/A SYS027 K2.01 Question is Satisfactory.
62	F	2	X											N	E	K/A SYS029 G2.1.23 Need to show where this information is located in OP-921. I could not find it. Licensee is breaking stem into two separate questions. 1/28/2016 - Revised question is Satisfactory.
63	F	2		X		X								N	E	K/A SYS033 K3.02 Choices C(1) and D(1) are not plausible. They are process monitors. 1/26/16 - Revised question is Satisfactory.
64	H	2	X	X										N	E	K/A SYS035 A2.05 The choices for the second part question provide a direct cue to answer the first part question. 1/26/16 - Revised question is Satisfactory.
65	F	2	X											B	E	K/A SYS068 K1.07 Choice A should probably be in all capital letters to match other choices. 1/26/16 - Revised question is Satisfactory.
66	F	2												N	S	K/A G2.1.29 Question is Satisfactory.
67	F	2	X											B	E	K/A G2.1.36 Need nomenclature for NI-51 and NI-52. 1/26/16 - Revised question is Satisfactory.
68	H	2				X								N	E	K/A G2.1.45 Choice A is not plausible. Is it fair to have the applicant evaluate ΔT and MW without a reference? Need to discuss. 1/28/2016 - Revised question is Satisfactory.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
69	H	4												M	E	<p>K/A G2.2.38</p> <p>It seems that this question requires the applicant to know greater than one hour actions from memory.</p> <p>Operations (John Little) determined that this is RO required knowledge because it relates directly to licensed power level and the RO is responsible for monitoring.</p>
70	F	2												N	S	<p>K/A G2.2.39</p> <p>Question is Satisfactory.</p>
71	F	1												B	U	<p>K/A G2.3.13</p> <p>It does not seem plausible that you would not evacuate the containment vessel or initiate closure after a fuel assembly has been dropped and is causing the noble gas radiation monitor to increase.</p> <p>LOD = 1</p> <p>Question is Unsatisfactory due to more than one non-plausible distractor and LOD = 1.</p> <p>1/26/16 - Revised question is Satisfactory.</p>
72	H	2												B	S	<p>K/A G2.3.4</p> <p>Question is Satisfactory.</p>
73	H	3	X											N	E	<p>K/A 2.4.11</p> <p>The second part question could be reworded to read easier.</p> <p>1/26/16 - Revised question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
74	H	2	X											N	E	<p>K/A G2.4.25</p> <p>Question submitted for preliminary review and comment IAW ES-201 paragraph C.2.c.</p> <p>In the question stem, need to state what procedure the action(s) are in accordance with.</p> <p>Recommend stating in the initial conditions that either the block valves have been closed or the switches have been placed in the ISOLATED Position, then asking if the other action "is" or "is not" required.</p> <p>For plausibility, are there any other time critical actions that are 15 minutes?</p> <p>12/16/15 - Question is Satisfactory.</p>
75	F	1												N	U	<p>K/A G2.4.31</p> <p>This has overlap with the operating test. Every BOP will perform this during the operating test.</p> <p>Question is Unsatisfactory due to LOD = 1.</p> <p>1/26/16 - Revised question is Satisfactory.</p>
76	H	2				X								N	E	<p>K/A EPE029 EA2.06</p> <p>With operation of the steam dumps following turbine trip, do not believe that choices A(2) and D(2) are plausible. Could possibly change the second part question to an is or is not question.</p> <p>1/26/16 - Revised question is Satisfactory.</p>
77	H	1		X		X							X	N	U	<p>K/A EPE 038 2.4.47</p> <p>The first part question is direct lookup. This question can be answered using RO knowledge only.</p> <p>The question is Unsatisfactory due to LOD = 1 and not being SRO only.</p> <p>1/26/16 - Revised question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
78	H	2				X							X	B	U/E	<p>K/A APE054 2.4.9</p> <p>Knowledge of when to initiate bleed and feed is probably RO knowledge and is listed in the continuous action summary for FRP-H.1. This is also an objective in your lesson plan. The RO would be required to inform the SRO when conditions are met for bleed and feed.</p> <p>It is acceptable for one part of a two part question to be RO knowledge, however both parts should not be able to be answered using RO knowledge.</p> <p>ROs should also know that PORVs are opened for bleed and feed.</p> <p>We need to discuss this situation for steps on the foldout page.</p> <p>Also, since all of the choices listed in the second part question are done in the procedure, need to ask what should be done first.</p> <p>Question may be Unsatisfactory due to not being SRO only.</p> <p>1/29/2016 - Revised question is Satisfactory</p>
79	H	3	X									?		B	E	<p>K/A EPE055 EA2.06</p> <p>Is the first part of the question minutia? Does this lockout need to be cleared prior to re-energizing the buses? Does this meet the K/A? Please explain.</p> <p>1/28/2016 - Revised question is Satisfactory.</p>
80	H	2	X											B	E	<p>K/A APE058 2.2.22</p> <p>Per the TS 3.8 Bases, the selected answer for the second part question may not be correct.</p> <p>1/26/16 -Licensee explained Bases, Question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
81	H	1	X											M	U	<p>K/A APE077 AA2.03 Question submitted for preliminary review and comment IAW ES-201 paragraph C.2.c.</p> <p>The last bullet provides a direct cue that the qualified offsite circuit is INOPERABLE (inadequate voltage for a design basis event). This makes LOD = 1.</p> <p>Question is Unsatisfactory due to LOD = 1.</p> <p>12/22/15- Revised question reviewed. Is there any place in AOP-26 that the EDGs are aligned by the operators to E-1 and E-2 independently? If not, choices C(2) and D(2) are not plausible. The question still needs some enhancement.</p> <p>1/26/16 - Revised question is Satisfactory.</p>
82	H	2												N	S	<p>K/A APE001 AA2.02</p> <p>Question is Satisfactory.</p>
83	H	2	X			X							X	N	U	<p>K/A APE051 G2.4.35 Question submitted for preliminary review and comment IAW ES-201 paragraph C.2.c.</p> <p>The question is not SRO only. SRO only knowledge should not be claimed for major mitigative strategy or AOP entry conditions. See Attachment 2 of ES-401.</p> <p>Also, based on the wording of step 12 of AOP-012, the note prior to step 12, and the AOP-038 entry conditions, it appears that the SRO could perform a rapid power reduction if desired.</p> <p>With no indication of condenser backpressure value or trend, how is going to a rapid power reduction plausible?</p> <p>The question is Unsatisfactory because it is not SRO only.</p> <p>Based on a review of your procedures, this could be a very hard K/A to satisfy at the SRO only level. We can discuss randomly selecting another K/A.</p> <p>12/22/15 – Reviewed revised question. Question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
84	H	2	X											N	E	<p>K/A APE061 AA2.03</p> <p>The applicable answer choices do not include that a Portable Area Radiation Monitor in the CV area is also required in accordance with GP-010.</p> <p>1/26/16 - Revised question is Satisfactory.</p>
85	H	2	X											M	E	<p>K/A WE06 2.1.23</p> <p>Choice C needs to be worded more clearly.</p> <p>1/26/16 - Revised question is Satisfactory.</p>
86	H	2		X								X		N	U	<p>K/A SYS012 A2.05</p> <p>Providing LCO 3.3.1 gives clues to the correct answer or gives the correct answer for several other questions on this exam. (Question 1 for example, and also questions that hinge on the set points of Reactor Protection System interlocks)</p> <p>Question does not meet the K/A due to not predicting the impacts on the RPS.</p> <p>Question is Unsatisfactory due to K/A mismatch.</p> <p>1/26/16 - Revised question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
87	H	2	X	X										B	E	<p>K/A SYS039 A2.03 Question submitted for preliminary review and comment IAW ES-201 paragraph C.2.c.</p> <p>Please explain why it is required to secure feeding the "A" steam generator as stated in the first part question stem.</p> <p>Discussing transitioning to E-2 in the second part question stem provides a cue to the first part question and does not affect the answer. Indications of the faulted steam generator are provided in the initial conditions. Should just ask IAW the given conditions and E-3.</p> <p>12/22/15 – Reviewed the revised question.</p> <p>Based on the given conditions, it appears that the Secondary Integrity Criteria on the foldout page for E-3 are met. This would require a transfer to E-2. Since this is not one of the listed choices, there is no correct answer choice for this question.</p> <p>1/28/2016 - Revised question is Satisfactory.</p>
88	M	2												N	S	<p>K/A SYS076 2.1.7 Question is Satisfactory.</p>
89	H	2	X									X		N	U	<p>K/A SYS078 A2.01 Question submitted for preliminary review and comment IAW ES-201 paragraph C.2.c.</p> <p>Need to remove the information in the bullet that states "causing IA Header pressure to slowly lower." The applicants should know that a clogged air dryer will cause pressure to lower.</p> <p>The question does not really appear to be operational valid. We need to discuss the normal lineup of the instrument air system and how we would get in the situation proposed by the question.</p> <p>The question does not really test the K/A, but can be pretty easily fixed. We can discuss.</p> <p>Will need the appropriate IAW statement added to the question stem. Also, need to word question with regard to the fact that the use of attachment 2 or 3 is in a step that is based on order of preference.</p> <p>12/22/15 – Reviewed the revised question. Question is now Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
90	H	2										X	X	N	U	<p>K/A SYS103 G2.4.35</p> <p>Question submitted for preliminary review and comment IAW ES-201 paragraph C.2.c.</p> <p>This does not appear to meet the intent of the K/A. It seems to meet more of the RCP K/A than the type of topics listed for the Containment system.</p> <p>This does not appear to be an SRO only question. It does not have procedure selection and could be answered with RO knowledge.</p> <p>Based on a review of your procedures, this could be a very hard K/A to satisfy at the SRO only level. We can discuss randomly selecting another K/A.</p> <p>K/A SYS103 2.4.41</p> <p>Revised question is Unsatisfactory due to LOD = 1. The correct answer choice (both halves) is so strong and self-explanatory that it makes the question provide no discriminatory value.</p> <p>1/26/16 - Revised question is Satisfactory.</p>
91	H	2	X											N	E	<p>K/A SYS015 A2.04</p> <p>The bullet in the initial conditions that states that the crew lowered reactor power IAW AOP-101 needs to be more specific as to what the current reactor power is. It could be argued that if the crew lowered power IAW AOP-001, then it would be less than or equal to 50% and no further reduction would be required.</p> <p>It would probably be more clear just to ask whether the CRS is or is not required to direct a power reduction to less than or equal to 50% in accordance with AOP-001 Attachment 1 for the second part question.</p> <p>1/26/16 - Revised question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
92	F	2						X						M	E	<p>K/A SYS068 A2.02 Need a copy of EMP-006 to complete review of this question. Your lesson plan states that Chemistry does the sample and then provides the permit. Is determining whether or not the pH is acceptable an SRO job function?</p> <p>Operations representative (John Little) states that this is SRO job function because the SRO/Shift Manager is required to review and approve the report.</p> <p>1/28/2016 - Revised question is Satisfactory.</p>
93	F	2												M	E	<p>K/A SYS071 2.4.21 Need a copy of PLP-100 to complete review of this question. This procedure is not listed in the index provided.</p> <p>1/28/2016 - Revised question is Satisfactory.</p>
94	H	2												N	S	<p>K/A G2.1.45 Question is Satisfactory.</p>
95	H	2	X			X								N	E	<p>K/A G2.2.21 Choices B(2) and C(2) are not plausible. It is not operationally valid to ask for greater than one hour TS completion times without a reference.</p> <p>1/29/2016 - Revised question is Satisfactory</p>
96	H	2	X			X								N	E	<p>K/A G2.2.36 Choices A(2) and C(2) are not plausible. It is not operationally valid to ask for greater than one hour TS completion times without a reference.</p> <p>1/29/2016 - Revised question is Satisfactory.</p>
97	H	2	X											B	E	<p>K/A G2.3.12 There may be two correct answers to this question. OMM-001-2 doesn't really state that the RC Supervisor cannot grant access during EOPs, it just describes how he will do it during normal operations.</p> <p>1/28/2016 - Revised question is Satisfactory.</p>
98	H	2												N	S	<p>K/A G2.3.14 Question is Satisfactory.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only			
99	H	2	X											M	E	K/A G2.4.30 Need a copy of AP-030 to complete review of this question. Licensee is changing leakrate and adding EAL reference. 2/3/16 - Revised question is Satisfactory
100	H	2	X											N	E	K/A G2.4.46 The bullet for "Total calculated "B" RCP #1 seal leakoff flow: 6.5 gpm" is misleading. We need to discuss this. 1/29/2016 - Revised question is Satisfactory

Instructions

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

- Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
- 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).
- 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).
- 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.
- 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).
- Enter question source: (B)ank, (M)odified, or (N)ew. Check that (M)odified questions meet criteria of ES-401 Section D.2.f.
- 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?
- At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).

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

	Printed Name/Signature	Date
a. Grader	<i>A. Goldau</i> A. Goldau	2/25/16
b. Facility Reviewer(*)	N/A	
c. NRC Chief Examiner (*)	<i>Daniel M. Bacon</i> Daniel M. Bacon	03/11/2016
d. NRC Supervisor (*)	<i>Eugene Guthrie</i> Eugene Guthrie	3/22/16

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