

Facility: <u>ROBINSON</u>		Date of Examination: <u>AUG/SEPT'14</u>
Developed by: Written - Facility <input type="checkbox"/> NRC <input checked="" 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)	MB
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	MB
-120	3. Facility contact briefed on security and other requirements (C.2.c)	MB
-120	4. Corporate notification letter sent (C.2.d)	MB
[-90]	[5. Reference material due (C.1.e; C.3.c; Attachment 3)]	MB
{-75}	6. Integrated examination outline(s) due, including Forms ES-201-2, ES-201-3, ES-301-1, ES-301-2, ES-301-5, ES-D-1's, ES-401-1/2, ES-401-3, and ES-401-4, as applicable (C.1.e and f; C.3.d)	MB
{-70}	{7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)}	MB
{-45}	8. Proposed examinations (including written, walk-through JPMs, and scenarios, as applicable), supporting documentation (including Forms ES-301-3, ES-301-4, ES-301-5, ES-301-6, and ES-401-6, and any Form ES-201-3 updates), and reference materials due (C.1.e, f, g and h; C.3.d)	MB
-30	9. Preliminary license applications (NRC Form 398's) due (C.1.i; C.2.g; ES-202)	MB
-14	10. Final license applications due and Form ES-201-4 prepared (C.1.i; C.2.i; ES-202)	MB
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	MB
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f and h; C.3.g)	MB
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	MB
-7	14. Final applications reviewed; 1 or 2 (if >10) applications audited to confirm qualifications / eligibility; and examination approval and waiver letters sent (C.2.i; Attachment 5; ES-202, C.2.e; ES-204)	MB
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee (C.3.k)	MB
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	MB
<p>* 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.</p> <p>[Applies only] {Does not apply} to examinations prepared by the NRC.</p>		

Facility: <u>H.B. Robinson</u>		Date of Examination: <u>8/12/2014</u>		
Item	Task Description	Initials		
		a	b*	c#
1. W R I T T E N	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	N/A	N/A	N/A
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	N/A	N/A	N/A
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	N/A	N/A	N/A
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	N/A	N/A	N/A
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.	A	A	NB
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity, and ensure that each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s), and that scenarios will not be repeated on subsequent days.	A	A	NB
	c. To the extent possible, assess whether the outline(s) conform(s) with the qualitative and quantitative criteria specified on Form ES-301-4 and described in Appendix D.	A	A	NB
3. W / T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.	A	A	NB
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations	A	A	NB
	c. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.	A	A	NB
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.	A	A	NB
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	A	A	NB
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	A	A	NB
	d. Check for duplication and overlap among exam sections.	A	A	NB
	e. Check the entire exam for balance of coverage.	A	A	NB
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	A	A	NB
a. Author <u>Michael Anderson /</u> b. Facility Reviewer (*) <u>Charles Hill /</u> c. NRC Chief Examiner (#) <u>Mark A. Bates /</u> d. NRC Supervisor <u>William T. Vidmann /</u>		Printed Name/Signature <u>Michael Anderson</u> <u>Charles Hill</u> <u>Mark A. Bates</u> <u>William T. Vidmann</u>		
Note: # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required. * Not applicable for NRC-prepared examination outlines		Date <u>8/11/14</u> <u>8/11/14</u> <u>8/12/14</u> <u>08/12/14</u>		

Facility: <u>Robinson</u>		Date of Examination: <u>Sept 2014</u>		
Item	Task Description	Initials		
		a	b*	c#
1. W R I T T E N	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	<u>M</u>	<u>N/A</u>	<u>MB</u>
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	<u>M</u>	<u>N/A</u>	<u>MB</u>
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	<u>M</u>	<u>N/A</u>	<u>MB</u>
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	<u>M</u>	<u>N/A</u>	<u>MB</u>
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.		<u>N/A</u>	
	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. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.			
	b. 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.	<u>M</u>	<u>N/A</u>	<u>MB</u>
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	<u>M</u>	<u>N/A</u>	<u>MB</u>
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	<u>M</u>	<u>N/A</u>	<u>MB</u>
	d. Check for duplication and overlap among exam sections.	<u>M</u>	<u>N/A</u>	<u>MB</u>
	e. Check the entire exam for balance of coverage.	<u>M</u>	<u>N/A</u>	<u>MB</u>
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	<u>M</u>	<u>N/A</u>	<u>MB</u>

a. Author	<u>MICHAEL MEERS</u>	Printed Name	<u>Michael Meers</u>	Date	<u>09/03/2014</u>
b. Facility Reviewer (*)	<u>N/A</u>				
c. NRC Chief Examiner (#)	<u>MARK A. BATES</u>		<u>Mark A. Bates</u>		<u>N/A</u>
d. NRC Supervisor	<u>WILCOU T. WOODMAN</u>		<u>Wilcou T. Woodman</u>		<u>09/03/2014</u>










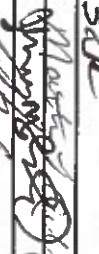




















Note: # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.  
\* Not applicable for NRC-prepared examination outlines

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9/16/14 - 9/23/14 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 9/16/14 - 9/23/14. 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. Michael Anderson	Inspector / EDC		10/5/13		9/24/14
2. F. Schur	Instructor / Facility Auditor		12/1/13		9/23/14
3. H. Horgan	Instructor		12/9/13		09/16/14
4. David BaCan	Simulator Engineer		12/9/13		9/16/14
5. David Smith	Simulator Engineer		12/9/13		9/16/2014
6. James C. Horgan	Simulator TOC / Exam Support		12-09-13		10-02-2014
7. James C. Horgan	Simulator TOC / Exam Support		11/14/14		9/16/14
8. W.E. Storn	Simulator Specialist		11/14/14		9/16/14
9. SAIED KHALFAY	Simulator Specialist		11/28/14		9/16/14
10. M. David	Simulator Specialist		11/14/14		9/16/14
11. M. David	Simulator Specialist		11/14/14		9/16/14
12. D. Smith	Simulator Specialist		4-2-14		9-9-14
13. J. Horgan	Simulator Specialist		5/14/14		9/30/14
14. M. Smith	Simulator Specialist		9/15/14		10/1/14
15. Laura Baster	Shift A CTS		9/15/14		10/1/14

NOTES:



1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of March 9-11 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 March 9-11. 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. Tony C. Somers	DO	<i>Tony C. Somers</i>	5/15/14	<i>Tony C. Somers</i>	9/3/14
2. Patrick Lantier	SRO	<i>Patrick Lantier</i>	5-30-14	<i>Patrick Lantier</i>	9-23-14
3. William Pulliam	SRO	<i>William Pulliam</i>	5-20-14	<i>William Pulliam</i>	9-24-14
4. Michael Fend	RES	<i>Michael Fend</i>	5-22-14	<i>Michael Fend</i>	9/16/14
5. Todd Johnson	DO	<i>Todd Johnson</i>	5/27/14	<i>Todd Johnson</i>	10/2/14
6. Larnal Anders	SRO	<i>Larnal Anders</i>	5/27/14	<i>Larnal Anders</i>	10-2-14
7. Randy Edmuns	SRO	<i>Randy Edmuns</i>	5-22-14	<i>Randy Edmuns</i>	10-1-14
8. Ronald's Fortis, Jr.	Radiation Protection Area	<i>Ronald's Fortis, Jr.</i>	5-27-14	<i>Ronald's Fortis, Jr.</i>	9-23-14
9. Kiel Scherer	RO	<i>Kiel Scherer</i>	6/4/14	<i>Kiel Scherer</i>	9/16/14
10. Joseph L Rhoda	SRO	<i>Joseph L Rhoda</i>	6/4/14	<i>Joseph L Rhoda</i>	10-1-14
11. S. Scott Blake	SRO	<i>S. Scott Blake</i>	6/20/14	<i>S. Scott Blake</i>	9/16/14
12. Jesse Seymour	SRO	<i>Jesse Seymour</i>	6/25/14	<i>Jesse Seymour</i>	10-2-14
13. Daniel Hendrick	RO	<i>Daniel Hendrick</i>	6-25-14	<i>Daniel Hendrick</i>	9/16/14
14. Paul Lattie	MSO	<i>Paul Lattie</i>	06/25/14	<i>Paul Lattie</i>	09/16/14
15. Aaron Furish	Fleet NRC Extensive	<i>Aaron Furish</i>	07/07/14	<i>Aaron Furish</i>	9/16/14

NOTES:

① No longer employed by company.

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of July 14-17, 2014 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 July 14-17, 2014. 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>Edward A. French</u>	<u>NRC Superintendent</u>	<u>[Signature]</u>	<u>7/10/14</u>	<u>[Signature]</u>	<u>9-29-14</u>
2. <u>David C. Kistner</u>	<u>CO</u>	<u>[Signature]</u>	<u>7/10/14</u>	<u>[Signature]</u>	<u>9/29/14</u>
3. <u>Donald K. Webb</u>	<u>DOM-1</u>	<u>[Signature]</u>	<u>7/10/14</u>	<u>[Signature]</u>	<u>9/29/14</u>
4. <u>William D. Hightower</u>	<u>SR. GRG / Reg Affairs</u>	<u>[Signature]</u>	<u>7/29/14</u>	<u>[Signature]</u>	<u>10/2/14</u>
5. <u>William D. Hightower</u>	<u>Manager Nuc Reg. Affairs</u>	<u>[Signature]</u>	<u>7/29/14</u>	<u>[Signature]</u>	<u>9/29/14</u>
6. <u>Mark Krueger</u>	<u>INSTRUTOR</u>	<u>[Signature]</u>	<u>7/29/14</u>	<u>[Signature]</u>	<u>9/29/14</u>
7. <u>R.O. Moore</u>	<u>EXAM DEVELOPER</u>	<u>[Signature]</u>	<u>7/29/14</u>	<u>[Signature]</u>	<u>9/29/14</u>
8. <u>Charles H. Hill</u>	<u>Instructor</u>	<u>[Signature]</u>	<u>7/29/14</u>	<u>[Signature]</u>	<u>9/29/14</u>
9. <u>William A. Musielak</u>	<u>DEVELOPER</u>	<u>[Signature]</u>	<u>8/13/14</u>	<u>[Signature]</u>	<u>9/29/14</u>
10. <u>John Krenz</u>	<u>SR</u>	<u>[Signature]</u>	<u>8/14/14</u>	<u>[Signature]</u>	<u>9/29/14</u>
11. <u>Joe Kadden</u>	<u>Instructor</u>	<u>[Signature]</u>	<u>8/14/14</u>	<u>[Signature]</u>	<u>9/29/14</u>
12. <u>Larry Reed</u>	<u>Instructor</u>	<u>[Signature]</u>	<u>8/14/14</u>	<u>[Signature]</u>	<u>9/29/14</u>
13. <u>Rick Stebbins</u>	<u>INSTRUCTOR</u>	<u>[Signature]</u>	<u>8/14/14</u>	<u>[Signature]</u>	<u>9/29/14</u>
14. <u>Robert Smith</u>	<u>OIT Supervisor</u>	<u>[Signature]</u>	<u>8/14/14</u>	<u>[Signature]</u>	<u>9/29/14</u>
15. <u>David P. Webb</u>	<u>SA/REG</u>	<u>[Signature]</u>	<u>9/14/14</u>	<u>[Signature]</u>	<u>9/29/14</u>

NOTES:

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 9/14/14. 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>M. S. Bouskell</u>	<u>CAS - B</u>	<u>[Signature]</u>	<u>9/14/14</u>	<u>[Signature]</u>	<u>10/2/14</u>
2. <u>Justin Gentry</u>	<u>CAS</u>	<u>[Signature]</u>	<u>9/14/14</u>	<u>[Signature]</u>	<u>10/1/14</u>
3. <u>Green Hill</u>	<u>RD</u>	<u>[Signature]</u>	<u>9-14-14</u>	<u>[Signature]</u>	<u>10-2-14</u>
4. <u>Vincent Roth</u>	<u>CAS</u>	<u>[Signature]</u>	<u>9/14/14</u>	<u>[Signature]</u>	<u>9/14/14</u>
5. <u>Steve Heller</u>	<u>SM</u>	<u>[Signature]</u>	<u>9/14/14</u>	<u>[Signature]</u>	<u>10/1/14</u>
6. <u>MARK Santoluc</u>	<u>INSTRUCTION</u>	<u>[Signature]</u>	<u>9/14/14</u>	<u>[Signature]</u>	<u>9/17/2014</u>
7. _____	_____	_____	_____	_____	_____
8. _____	_____	_____	_____	_____	_____
9. _____	_____	_____	_____	_____	_____
10. _____	_____	_____	_____	_____	_____
11. _____	_____	_____	_____	_____	_____
12. _____	_____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____	_____

NOTES:

Facility: H B RobinsonDate of Examination: 8/18/14Examination Level: RO **X** SROOperating Test Number: ILC-14

Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations A1-1	N, R	Complete an Estimated Critical Position GP-003 Attachment 10.1  <b>(Common for RO and SRO candidates)</b>
Conduct of Operations A1-2	P, R	Calculate the Boron Addition Required Prior to Initiating a Natural Circulation Cooldown to CSD
Equipment Control A2	M, R	Determine Proper Equipment Boundaries
Radiation Control A3	N, R	Release of Items From the RCA  <b>(Common for RO and SRO candidates)</b>
Emergency Procedures/Plan A4		

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

\* Type Codes & Criteria:

(C)ontrol room, (S)imulator, or Class(R)oom  
 (D)irect from bank ( $\leq 3$  for ROs;  $\leq 4$  for SROs & RO retakes)  
 (N)ew or (M)odified from bank ( $\geq 1$ )  
 (P)revious 2 exams ( $\leq 1$ ; randomly selected)



## **2014 NRC RO Admin JPM Summary**

**2014 NRC JPM Admin RO A1-1** - Complete an Estimated Critical Position GP-003 Attachment 10.1

G 2.1.37 Knowledge of procedures, guidelines, or limitations associated with reactivity management. (CFR: 41.1 / 43.6 / 45.6) RO 4.3 SRO 4.6

The candidate will be given GP-003 Attachment 10.1 Estimated Critical Condition Form to backup Reactor Engineering's Powertrax calculation for criticality. The candidates calculation will need to be between 719-1954 PCM.

**2014 NRC JPM Admin RO A1-2** - Calculate the Boron Addition Required Prior to Initiating a Natural Circulation Cooldown to CSD

G 2.1.25 Ability to interpret reference materials, such as graphs, curves, tables, etc. (CFR: 41.10 / 43.5 / 45.12) RO 3.9 SRO 4.2

The candidate will be expected to calculate the boron addition needed for the plant to be placed in the cold shutdown condition while in natural circulation. This boration includes calculating the change in boric acid storage tank level.

**2014 NRC JPM Admin RO A2** - Determine Proper Equipment Boundaries

G2.2.13 Knowledge of tagging and clearance procedures. (CFR: 41.10 / 45.13) RO 4.1 SRO 4.3

The candidate will need to determine the pump boundaries and power supply necessary to isolate the leakage from relief valve CVC-2080 using plant drawings and the EDP's (Electrical Distribution Procedures).

## **2014 NRC JPM Admin RO-SRO A3 – Release of Items From the RCA**

G2.3.15 Knowledge of radiation monitoring systems, such as fixed radiation monitors and alarms, portable survey instruments, personnel monitoring equipment, etc. (CFR: 41.12 / 43.4/45.9) RO 2.9, SRO 3.1 (Common for RO and SRO candidates)

The candidate need to determine the requirements to release equipment used during the performance of an OST from the RCA. These items will include a D/P Gauge, the paper work for the OST, a clipboard, a pen, and PPE. The candidate can "SAM out" the paper work for the OST, clipboard, pen, and PPE, however, when they do so, the SAM will alarm and the candidate is supposed to call for a Health Physics technician. The D/P gauge cannot be released by the candidate and they will have to get a Health Physics technician to release this item.

Facility: H B RobinsonDate of Examination: 8/18/14

Examination Level: RO

SRO X

Operating Test Number: ILC-14

Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	N, R	Complete an Estimated Critical Position GP-003 Attachment 10.1  <b>(Common for RO and SRO candidates)</b>
Conduct of Operations	M, R	Complete Equipment Inoperable Record IAW OMM-007
Equipment Control	M, R	Review a Completed Surveillance Procedure (OST-702-2, Secondary Side In-service Valve Test for Main Feedwater)
Radiation Control	N, R	Release of Items From the RCA  <b>(Common for RO and SRO candidates)</b>
Emergency Procedures/Plan	N, R	Classify an Emergency Event
NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when all 5 are required.		
* Type Codes & Criteria: <ul style="list-style-type: none"> <li>(C)ontrol room, (S)imulator, or Class(R)oom</li> <li>(D)irect from bank (<math>\leq 3</math> for ROs; <math>\leq 4</math> for SROs &amp; RO retakes)</li> <li>(N)ew or (M)odified from bank (<math>\geq 1</math>)</li> <li>(P)revious 2 exams (<math>\leq 1</math>; randomly selected)</li> </ul>		

## **2014 NRC SRO Admin JPM Summary**

**2014 NRC JPM Admin SRO A1-1** – Complete an Estimated Critical Position GP-003 Attachment 10.1

G 2.1.37 Knowledge of procedures, guidelines, or limitations associated with reactivity management. (CFR: 41.1 / 43.6 / 45.6) RO 4.3 SRO 4.6

The candidate will be given GP-003 Attachment 10.1 Estimated Critical Condition Form to backup Reactor Engineering's Powertrax calculation for criticality. The candidates calculation will need to be between 719-1954 PCM.

**2014 NRC JPM Admin SRO A1-2** – Complete Equipment Inoperable Record

G2.1.18 Ability to make accurate, clear, and concise logs, records, status boards, and reports. (CFR: 41.1 / 45.12/ 45.13) RO 3.9, SRO 4.0

The candidate will be given OMM-007 to complete for SW Pump 'B' OOS for emergent work due to failed inboard motor bearing. The candidate will complete OMM-007 Attachment 10.1, EIR-ITS/TRM/ODCM/RG 1.97. The candidate will identify the ITS requirements associated with SW Pump 'B' being inoperable.

**2014 NRC JPM Admin SRO A2** – Review a Completed Surveillance Procedure (OST-702-2, Secondary Side In-service Valve Test for Main Feedwater)

G2.2.12 Knowledge of surveillance procedures. (CFR: 41.10 / 45.13) RO 3.7, SRO 4.1

The candidate will be given a completed OST-702-2 that has been reviewed and signed off as satisfactory by the STA. The candidate will need to identify that FW-V2-6B, Feedwater Header Section Valve has exceeded its limiting value and is inoperable. Also, FCV-488, SG 'B' Feedwater Regulating Valve has exceeded its limiting value and is inoperable.



## **2014 NRC JPM Admin RO-SRO A3 – Release of Items From the RCA**

G2.3.15 Knowledge of radiation monitoring systems, such as fixed radiation monitors and alarms, portable survey instruments, personnel monitoring equipment, etc. (CFR: 41.12 / 43.4/45.9) RO 2.9, SRO 3.1 (**Common for RO and SRO candidates**)

The candidate need to determine the requirements to release equipment used during the performance of an OST from the RCA. These items will include a D/P Gauge, the paper work for the OST, a clipboard, a pen, and PPE. The candidate can “SAM out” the paper work for the OST, clipboard, pen, and PPE, however, when they do so, the SAM will alarm and the candidate is supposed to call for a Health Physics technician. The D/P gauge can not be released by the candidate and they will have to get a Health Physics technician to release this item.

## **2014 NRC JPM Admin SRO A4 – Classify an Emergency Event.**

G2.4.41 Knowledge of the emergency action level thresholds and classifications. (CFR: 41.10 / 43.5 / 45.11) RO 2.9, SRO 4.6

The candidate will be given the necessary plant conditions to classify that an emergency event has occurred. This classification is required to be determined within 15 minutes of the onset of the event. The turbine will overspeed causing extensive turbine damage and multiple components ejecting from the turbine enclosure. These projectiles will puncture the CST. This will result in a declaration of HA1.4, “Turbine failure generated missiles result in any visible damage to or penetration of any Table H-1 area” or HA2.1 Fire, explosion, or steam line break (non-hostile) in any table H-1 area AND EITHER Affected system parameter indications show degraded performance OR Plant personnel report visible damage to permanent structures or equipment within the specified area. The table has the CST listed. Once the classification is communicated to the examiner, the candidate will be expected to fill out the Emergency Notification Form for communication to the state and counties within 15 minutes. Both portions of this JPM are time critical with a 15 minute completion criteria on each section.

Facility: RobinsonDate of Examination: 8/18/14Exam Level: RO ☐ SRO-I ☐ SRO-U ☐

Operating Test No.: \_\_\_\_\_

Control Room Systems® (8 for RO); (7 for SRO-I, a-g); (2 or 3 for SRO-U, including 1 ESF)

System / JPM Title	Type Code*	Safety Function
<b>a. Restore Control Power to SI Valves and Isolate Accumulators IAW EPP-008.</b>	<b>EN, A, D, S</b>	<b>3</b>
b. Fill Reactor Coolant Stand Pipe	A, D, S	4P
c. Terminate an Inadvertent CV Spray Actuation	N, S	5
d. Perform an Emergency Boration IAW EOP-ES-0.1, using the RWST	A, L, D, S	1
<b>e. Remove N-44 from service IAW OWP-011</b>	<b>D, S</b>	<b>7</b>
f. Respond to a Reactor trip and Turbine trip	A, M, S	4S
g. Restore Normal Power after Loss of Startup Transformer	D, S	6
h. Respond to a Loss of a Circulating Water Pump	D, S	8

In-Plant Systems® (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)

<b>i. Trip the Reactor Locally as Outside Auxiliary Operator</b>	<b>D, E</b>	<b>1</b>
<b>j. Local Control of S/G Level and Pressure during a Site Black Out</b>	<b>D, E</b>	<b>4S</b>
<b>k. Locally align containment isolation valves following a Safety Injection</b>	<b>R, D, E</b>	<b>5</b>

@ 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	<p>4-6 / 4-6 / 2-3</p> <p><math>\leq 9 / \leq 8 / \leq 4</math>  <math>\geq 1 / \geq 1 / \geq 1</math>  - / - / <math>\geq 1</math> (control room system)  <math>\geq 1 / \geq 1 / \geq 1</math>  <math>\geq 2 / \geq 2 / \geq 1</math>  <math>\leq 3 / \leq 3 / \leq 2</math> (randomly selected)  <math>\geq 1 / \geq 1 / \geq 1</math></p>

JPM A: Restore Control Power to SI Valves and Isolate Accumulators IAW EPP-008.

K/A 009 EA1.13: Ability to operate and monitor the following as they apply to a small break LOCA: ESFAS (009 Small Break LOCA) The plant has been tripped due to a small break LOCA. The crew is in EPP-8 and they are at the point to restore control power to SI Valves and isolate or depressurize SI Accumulators. The candidate will be given a marked up copy of EPP-8 to this point. The candidate will then restore power to multiple SI Valves. After that they will verify SI Accumulator Discharge valves are shut. One valve will not be shut and they will then have to depressurize the accumulator to prevent it from discharging. Once the Accumulator is depressurized, the JPM will be complete. (Bank JPM CR-069) (RO, SRO-I, SRO-U)

JPM B: Fill Reactor Coolant Stand Pipe

K/A 003 A4.05: Ability to manually operate and/or monitor in the control room: RCP seal leakage detection instrumentation.

(003 Reactor Coolant Pump System (RCPS)) The plant will be at 100% power. The candidate will assume the watch. APP-001-C5, RCP STANDPIPE HI/LO LVL is in alarm. The candidate will use OP-101 Section 8.2 to refill the standpipe until APP-001-C5 is extinguished. RC-519B will not close which will force them to OP-103 to relieve the Hydraulic lock. Once RC-519B goes closed, the JPM will be complete. (Bank JPM CR-111) (RO, SRO-I)

JPM C: Terminate an Inadvertent CV Spray Actuation(New)

K/A 026 A4.01: Ability to manually operate and/or monitor in the control room: CSS Controls.

(026 Containment Spray System(CSS)) The plant will have just tripped. The candidate will take the watch while in EOP-E-0, REACTOR TRIP OR SAFETY INJECTION, at step 9, Check CV Spray NOT Required. The candidate will verify that CV spray is not required but that it has actuated. The candidate will go through the actions to terminate CV Spray. Once CV Spray is terminated, the JPM will be complete. (RO, SRO-I)

JPM D: Perform an Emergency Boration IAW EOP-ES-0.1

K/A 024 AA1.02/AA1.04: Ability to operate and/or monitor the following as they apply to Emergency Boration: Boric Acid Pump/Manual boration valve.

(024 Emergency Boration) The plant has tripped and the crew is in EOP-ES-0.1, REACTOR TRIP RESPONSE. The candidate will recognize that two control rods are stuck out and will need to emergency borate the RCS to cold shutdown. The candidate will attempt to borate via the BAST but this will not work. The candidate will then transition to borating from the RWST. Once the candidate has an emergency boration flow path from the RWST aligned, the JPM will be complete. (Bank JPM CR-054 ) (RO, SRO-I)

JPM E: Remove N-44 from service IAW OWP-011

K/A 015 A4.03: Ability to manually operate and/or monitor in the control room: Trip Bypasses

(015 Nuclear Instrumentation System(NIS)) The plant is at 100% power. The candidate will be directed to remove NI-44 from service IAW OWP-011. The candidate will get OWP-011 and remove NI-44 from service. Once the NI is removed from service, the JPM will be complete. (Bank JPM CR-009) (RO, SRO-I, SRO-U)

JPM F: Respond to a Reactor Trip and Turbine Trip

K/A 007 EA1.07: Ability to operate and monitor the following as they apply to a reactor trip: MT/G trip; verification that the MT/G has been tripped.

(007 Reactor Trip) The candidate will assume the watch at 100% power. The reactor will fail to automatically trip and the candidate will be required to depress either reactor trip pushbutton. The turbine will fail to trip. The candidate will be required to respond to the reactor trip IAW EOP-E-0, REACTOR TRIP OR SAFETY INJECTION. The candidate will verify the reactor is tripped then respond to the turbine not being tripped. The candidate will attempt to run the turbine back, however, this will not work. The candidate will then shut the MSIV's. The candidate will finish the Immediate Actions of EOP-E-0. Once these Immediate Actions are complete, the JPM is complete. (Bank JPM CR-085 modified) (RO, SRO-I, SRO-U)

JPM G: Restore normal power after loss of startup transformer

K/A 062 A4.01: Ability to manually operate and/or monitor in the control room: All breakers(including available switchyard)

(062 AC Electrical Distribution System) The plant will be shutdown due to a reactor trip and Safety Injection from a loss of the startup transformer. The candidate is directed by the CRS to perform OP-603 Section 6.4.1(with the exception of E-1, E-2, and 480V bus 4 and 4KV bus 5). The candidate will make multiple switch manipulations in order to restore power. Once power is restored, the JPM is complete. (Bank JPM CR-28) (RO, SRO-I)

JPM H: Respond to a Loss of a Circulating Water Pump

K/A 075 A2.02: Ability to (a) predict the impacts of the following malfunctions or operations on the circulating water system; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Loss of Circulating Water Pumps

(075 Circulating Water System) The plant is at 50% power. The Candidate will be given the shift and told to respond as necessary. Circulating Water Pump "A" will trip. The candidate will recognize the pump has tripped and take Immediate Actions of AOP-012, PARTIAL LOSS OF CONDENSER VACUUM OR CIRCULATING WATER PUMP TRIP. The candidate will then start Circulating Water Pump "C". Once Circulating Water Pump "A" discharge valve has closed, the JPM is complete. (Bank JPM CR-055) (RO)

JPM I: Trip the Reactor Locally as Outside Auxiliary Operator(OAO).

K/A 029 EA1.12: Ability to operate and monitor the following as they apply to a ATWS: M/G Set power supply and reactor trip breakers.

(029 ATWS) The plant is at 100% power with an ATWS in progress. As the OAO, the CRS has dispatched the candidate to 480V Busses 2B and 3 to trip the following breakers: ROD DRIVE MOTOR GENERATOR SET A and ROD DRIVE MOTOR GENERATOR SET B. The candidate will go to the 4Kv room and find 480V bus 2B and breaker 52/10B. The candidate will then open the breaker by depressing the trip pushbutton in the center of the cubicle door. The candidate will find 480V bus 3 and breaker 52/14A in the 4Kv room. The candidate will then open the breaker by depressing the trip pushbutton in the center of the cubicle door. Once the breakers are open, the JPM will be complete. (RO, SRO-I, SRO-U)



JPM J: Local Control of S/G Level and Pressure during a Site Black Out.



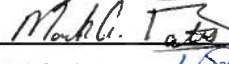
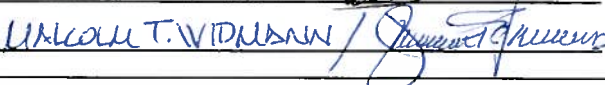
K/A 061 A1.01/A1.02: Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the AFW controls including: S/G Level and S/G Pressure.

(061 Auxiliary/Emergency Feedwater(AFW) System) The plant has experienced a loss of onsite and offsite power. EPP-1 has been implemented. S/G levels are currently 55%. The candidate will be directed by the CRS to perform Attachment 1 of EPP-1 which is Local Control of S/G Level and Pressure. The candidate will first go to the Pipe Jungle and open one of the V1-8A/B/ or C Steam Supply to the SDAFW Pump. Next, the candidate will go to the Secondary Control Panel area and manually throttle V2-14A/B/C to control S/G level between 60-68%. Next, the candidate will go to the Pipe Jungle and perform several valve manipulations to align Nitrogen to the S/G PORV's. Once the candidate has notified the Control Room that S/G level is under control locally and the S/G PORV's have Nitrogen supplied for motive air, the JPM will be complete. (RO, SRO-I, SRO-U)

JPM K: Locally align containment isolation valves following a Safety Injection.

K/A E02 EA1.1: Ability to operate and / or monitor the following as they apply to the (SI Termination); Components, and functions of control and safety systems, including instrumentation, signals, interlocks, failure modes, and automatic and manual features.

(E02 SI Termination) A plant trip and Safety Injection have occurred. EPP-7 is currently being implemented and the CRS has directed the candidate to perform Attachment 2 of EPP-7, Realignment of Components following SI Termination for Inside AO. The candidate will have to go to several different locations inside the Auxiliary Building(RCA) and reset multiple valves in order to realign components necessary to terminate Safety Injection. Once the Control Room is notified that the attachment is complete, the JPM will be complete. (RO, SRO-I, SRO-U)

Facility: H B Robinson		Date of Examination: 8/18/2014		Operating Test Number: ILC-14	
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).	A	MB	MB	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	A	MB	MB	
c.	The operating test shall not duplicate items from the applicants' audit test(s). (see Section D.1.a.)	A	MB	MB	
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	A	MB	MB	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	A	MB	MB	
2. Walk-Through Criteria			a	b*	c#
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> <li>initial conditions</li> <li>initiating cues</li> <li>references and tools, including associated procedures</li> <li>reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time-critical by the facility licensee</li> <li>operationally important specific performance criteria that include: <ul style="list-style-type: none"> <li>detailed expected actions with exact criteria and nomenclature</li> <li>system response and other examiner cues</li> <li>statements describing important observations to be made by the applicant</li> <li>criteria for successful completion of the task</li> <li>identification of critical steps and their associated performance standards</li> <li>restrictions on the sequence of steps, if applicable</li> </ul> </li> </ul>	A	MB	MB	
b.	Ensure that any changes from the previously approved systems and administrative walk-through outlines (Forms ES-301-1 and 2) have not caused the test to deviate from any of the acceptance criteria (e.g., item distribution, bank use, repetition from the last 2 NRC examinations) specified on those forms and Form ES-201-2.	A	MB	MB	
3. Simulator Criteria			a	b*	c#
The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.			A	MB	MB
Printed Name / Signature		Date			
a.	Author Mike Anderson / 	8/7/14			
b.	Facility Reviewer(*) James Conder / 	8/7/14			
c.	NRC Chief Examiner (#) Mark bates / 	8/11/14			
d.	NRC Supervisor LAWRENCE T. WIDMANN / 	08/12/14			
NOTE: * The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.					

Facility: H.B. Robinson		Date of Exam: 8/18/2014		Scenario Numbers: 3 / 2 / 5		Operating Test No.: ILC-14	
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.			A	<i>[Signature]</i>	MB	
2.	The scenarios consist mostly of related events.			A	<i>[Signature]</i>	MB	
3.	Each event description consists of <ul style="list-style-type: none"> <li>the point in the scenario when it is to be initiated</li> <li>the malfunction(s) that are entered to initiate the event</li> <li>the symptoms/cues that will be visible to the crew</li> <li>the expected operator actions (by shift position)</li> <li>the event termination point (if applicable)</li> </ul>			A	<i>[Signature]</i>	MB	
4.	No more than one non-mechanistic failure (e.g., pipe break) is incorporated into the scenario without a credible preceding incident such as a seismic event.			A	<i>[Signature]</i>	MB	
5.	The events are valid with regard to physics and thermodynamics.			A	<i>[Signature]</i>	MB	
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.			A	<i>[Signature]</i>	MB	
7.	If time compression techniques are used, the scenario summary clearly so indicates. Operators have sufficient time to carry out expected activities without undue time constraints. Cues are given.			A	<i>[Signature]</i>	MB	
8.	The simulator modeling is not altered.			A	<i>[Signature]</i>	MB	
9.	The scenarios have been validated. Pursuant to 10 CFR 55.46(d), any open simulator performance deficiencies or deviations from the referenced plant have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.			A	<i>[Signature]</i>	MB	
10.	Every operator will be evaluated using at least one new or significantly modified scenario. All other scenarios have been altered in accordance with Section D.5 of ES-301.			A	<i>[Signature]</i>	MB	
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).			A	<i>[Signature]</i>	MB	
12.	Each applicant will be significantly involved in the minimum number of transients and events specified on Form ES-301-5 (submit the form with the simulator scenarios).			A	<i>[Signature]</i>	MB	
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.			A	<i>[Signature]</i>	MB	
<b>Target Quantitative Attributes (Per Scenario; See Section D.5.d)</b>				<b>Actual Attributes</b>			
1.	Total malfunctions (5-8)			10/10/11	A	<i>[Signature]</i> MB	
2.	Malfunctions after EOP entry (1-2)			2/3/4	A	<i>[Signature]</i> MB	
3.	Abnormal events (2-4)			4/3/3	A	<i>[Signature]</i> MB	
4.	Major transients (1-2)			2/2/1	A	<i>[Signature]</i> MB	
5.	EOPs entered/requiring substantive actions (1-2)			3/3/2	A	<i>[Signature]</i> MB	
6.	EOP contingencies requiring substantive actions (0-2)			0/1/2	A	<i>[Signature]</i> MB	
7.	Critical tasks (2-3)			5/6/4	A	<i>[Signature]</i> MB	

Facility: H.B. Robinson		Date of Exam: 8/18/2014		Scenario Numbers: 4 / /		Operating Test No.: ILC-14	
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.		A	X	MB		
2.	The scenarios consist mostly of related events.		A	X	MB		
3.	Each event description consists of <ul style="list-style-type: none"> <li>the point in the scenario when it is to be initiated</li> <li>the malfunction(s) that are entered to initiate the event</li> <li>the symptoms/cues that will be visible to the crew</li> <li>the expected operator actions (by shift position)</li> <li>the event termination point (if applicable)</li> </ul>		A	X	MB		
4.	No more than one non-mechanistic failure (e.g., pipe break) is incorporated into the scenario without a credible preceding incident such as a seismic event.		A	X	MB		
5.	The events are valid with regard to physics and thermodynamics.		A	X	MB		
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.		A	X	MB		
7.	If time compression techniques are used, the scenario summary clearly so indicates. Operators have sufficient time to carry out expected activities without undue time constraints. Cues are given.		A	X	MB		
8.	The simulator modeling is not altered.		A	X	MB		
9.	The scenarios have been validated. Pursuant to 10 CFR 55.46(d), any open simulator performance deficiencies or deviations from the referenced plant have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.		A	X	MB		
10.	Every operator will be evaluated using at least one new or significantly modified scenario. All other scenarios have been altered in accordance with Section D.5 of ES-301.		A	X	MB		
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).		A	X	MB		
12.	Each applicant will be significantly involved in the minimum number of transients and events specified on Form ES-301-5 (submit the form with the simulator scenarios).		A	X	MB		
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.		A	X	MB		
Target Quantitative Attributes (Per Scenario; See Section D.5.d)			Actual Attributes				
			-	-	-		
1.	Total malfunctions (5-8)	11/ /	A	X	MB		
2.	Malfunctions after EOP entry (1-2)	2/ /	A	X	MB		
3.	Abnormal events (2-4)	4/ /	A	X	MB		
4.	Major transients (1-2)	2/ /	A	X	MB		
5.	EOPs entered/requiring substantive actions (1-2)	2/ /	A	X	MB		
6.	EOP contingencies requiring substantive actions (0-2)	2/ /	A	X	MB		
7.	Critical tasks (2-3)	4/ /	A	X	MB		



ES-301		Transient and Event Checklist												Form ES-301-5					
Facility: H B Robinson		Date of Exam: 8/18/14						Operating Test No.: ILC-14											
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 (*)				
		3			2			5											
		C R E W  P O S I T I O N			C R E W  P O S I T I O N			C R E W  P O S I T I O N			C R E W  P O S I T I O N								
		S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P						
I1	RX	5																	
	NOR						1			6						2	1	1	0
	I/C	1, 2, 3, 4, 6, 8					3, 10			3, 4,						10	4	4	2
	MAJ	9, 10					7, 8			7						5	2	2	1
	TS	2, 3, 4, 5														4	0	2	2
I2	RX		5		1											2	1	1	0
	NOR									6						1	1	1	1
	I/C		1, 3, 8		3, 4, 6,					1, 8, 9, 10, 11						11	4	4	2
	MAJ		9, 10		7, 8					7						5	2	2	1
	TS				2, 5,											2	0	2	2
I3	RX					1		6								2	0	2	2
	NOR			5												2	1	1	0
	I/C			2, 4, 6		4, 6, 11		1, 3, 4								9	4	4	2
	MAJ			9, 10		7, 8		7								5	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

ES-301		Transient and Event Checklist												Form ES-301-5				
Facility: H B Robinson		Date of Exam: 8/18/14												Operating Test No.: ILC-14				
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 (*)			
		3			2			5										
		C R E W  P O S I T I O N			C R E W  P O S I T I O N			C R E W  P O S I T I O N			C R E W  P O S I T I O N							
		S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P					
															R	I	U	
U1	RX	5													1	1	1	0
	NOR														0	1	1	1
	I/C	1, 2, 3, 4, 6, 8													6	4	4	2
	MAJ	9, 10													2	2	2	1
	TS	2, 3, 4, 5													4	0	2	2
U2	RX				1										1	1	1	0
	NOR														0	1	1	1
	I/C				3, 4, 6,										3	4	4	2
	MAJ				7, 8										2	2	2	1
	TS				2, 5,										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:

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

ES-301		Transient and Event Checklist												Form ES-301-5				
Facility: H B Robinson		Date of Exam: 8/18/14												Operating Test No.: ILC-14				
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 (*)			
		3			2			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	
R1	RX		5															
	NOR						1								1	1	1	0
	I/C		1, 3, 8				3, 10								1	1	1	1
	MAJ		9, 10				7, 8								5	4	4	2
	TS														4	2	2	1
R2	RX					1									0	0	2	2
	NOR			5											1	1	1	0
	I/C			2, 4, 6		4, 6, 11									1	1	1	1
	MAJ			9, 10		7, 8									6	4	4	2
	TS														4	2	2	1
	RX														0	0	2	2
	NOR															1	1	0
	I/C															1	1	1
	MAJ															4	4	2
	TS															2	2	1
	RX															0	2	2
	NOR															1	1	0
	I/C															1	1	1
	MAJ															4	4	2
	TS															2	2	1
	RX															0	2	2
	NOR															1	1	0
	I/C															1	1	1
	MAJ															4	4	2
	TS															2	2	1
	RX															0	2	2
	NOR															1	1	0
	I/C															1	1	1
	MAJ															4	4	2
	TS															2	2	1
	RX															0	2	2
	NOR															1	1	0
	I/C															1	1	1
	MAJ															4	4	2
	TS															2	2	1
	RX															0	2	2
	NOR															1	1	0
	I/C															1	1	1
	MAJ															4	4	2
	TS															2	2	1

ES-301		Transient and Event Checklist												Form ES-301-5			
Facility: H B Robinson		Date of Exam: 8/18/14												Operating Test No.: ILC-14			
A	E	Scenarios															

P P L I C A N T	V E N T  T Y P E	4(Spare)												T O T A L	M I N I M U M (*)		
		C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N				R	I	U
		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				
	RX	5	5												1	1	0
	NOR			5											1	1	1
	I/C	2, 3, 6, 7	3, 6, 7	2											4	4	2
	MAJ	8, 9	8, 9	8, 9											2	2	1
	TS	1, 6													0	2	2
	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2



Facility: H.B. Robinson		Date of Examination: 8/18/2014		Operating Test No.: ILC-14				
Competencies	APPLICANTS							
	RO 1 <input type="checkbox"/>		RO 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 type="checkbox"/>	
	SCENARIO		SCENARIO		SCENARIO		SCENARIO	
	3	2	3	2				
Interpret/Diagnose Events and Conditions	1, 3, 5, 8, 9, 10	1, 3, 7, 8, 10	2, 4, 5, 6, 9, 10	1, 4, 6, 7, 8, 11				
Comply With and Use Procedures (1)	1, 3, 5, 8, 9, 10	1, 3, 7, 8, 10	2, 4, 5, 6, 9, 10	1, 4, 6, 7, 8, 11				
Operate Control Boards (2)	1, 3, 5, 8, 9, 10	1, 3, 7, 8, 10	2, 4, 5, 6, 9, 10	1, 4, 6, 7, 8, 11				
Communicate and Interact	1, 3, 5, 8, 9, 10	1, 3, 7, 8, 10	2, 4, 5, 6, 9, 10	1, 4, 6, 7, 8, 11				
Demonstrate Supervisory Ability (3)	N/A	N/A	N/A	N/A				
Comply With and Use Tech. Specs. (3)	N/A	N/A	N/A	N/A				
Notes: (1) Includes Technical Specification compliance for an RO. (2) Optional for an SRO-U. (3) Only applicable to SROs.								

**Instructions:**

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

Facility: H.B. Robinson

Date of Examination: 8/18/2014

Operating Test No.: ILC-14

Competencies	APPLICANTS											
	SRO-I 1			SRO-I 2			SRO-I3					
	SCENARIO			SCENARIO			SCENARIO			SCENARIO		
	3	2	5	3	2	5	3	2	5	3	2	5
Interpret/Diagnose Events and Conditions	1, 2, 3, 4, 5, 6, 8, 9, 10	1, 3, 10, 7, 8	3, 4, 6, 7	1, 3, 5, 8, 9, 10	1, 3, 4, 6, 7, 8	1, 6, 7, 8, 9, 10, 11	2, 4, 5, 6, 9, 10	1, 4, 6, 7, 8, 11	1, 3, 4, 6, 7			
Comply With and Use Procedures (1)	1, 2, 3, 4, 5, 6, 8, 9, 10	1, 3, 10, 7, 8	3, 4, 6, 7	1, 3, 5, 8, 9, 10	1, 3, 4, 6, 7, 8	1, 6, 7, 8, 9, 10, 11	2, 4, 5, 6, 9, 10	1, 4, 6, 7, 8, 11	1, 3, 4, 6, 7			
Operate Control Boards (2)	N/A SRO	1, 3, 10, 7, 8	3, 4, 6, 7	1, 3, 5, 8, 9, 10	N/A SRO	1, 6, 7, 8, 9, 10, 11	2, 4, 5, 6, 9, 10	1, 4, 6, 7, 8, 11	N/A SRO			
Communicate and Interact	1, 2, 3, 4, 5, 6, 8, 9, 10	1, 3, 10, 7, 8	3, 4, 6, 7	1, 3, 5, 8, 9, 10	1, 3, 4, 6, 7, 8	1, 6, 7, 8, 9, 10, 11	2, 4, 5, 6, 9, 10	1, 4, 6, 7, 8, 11	1, 3, 4, 6, 7			
Demonstrate Supervisory Ability (3)	1, 2, 3, 4, 5, 6, 8, 9, 10	N/A	N/A	N/A	1, 3, 4, 6, 7, 8	N/A	N/A	N/A	1, 3, 4, 6, 7			
Comply With and Use Tech. Specs. (3)	2, 3, 4, 5	N/A	N/A	N/A	2, 5	N/A	N/A	N/A	3, 4			

Notes:

(1) Includes Technical Specification compliance for an RO.

(2) Optional for an SRO-U.

(3) Only applicable to SROs.

**Instructions:**

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

Facility: H.B. Robinson

Date of Examination: 8/18/2014

Operating Test No.: ILC-14

Competencies	APPLICANTS															
	SRO-U 1				SRO-U 2											
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	3				2											
Interpret/Diagnose Events and Conditions	1, 2, 3, 4, 5, 6, 8, 9, 10				1, 3, 4, 6, 7, 8											
Comply With and Use Procedures (1)	1, 2, 3, 4, 5, 6, 8, 9, 10				1, 3, 4, 6, 7, 8											
Operate Control Boards (2)	N/A				N/A											
Communicate and Interact	1, 2, 3, 4, 5, 6, 8, 9, 10				1, 3, 4, 6, 7, 8											
Demonstrate Supervisory Ability (3)	1, 2, 3, 4, 5, 6, 8, 9, 10				1, 3, 4, 6, 7, 8											
Comply With and Use Tech. Specs. (3)	2, 3, 4, 5				2, 5											

Notes:

(1) Includes Technical Specification compliance for an RO.

(2) Optional for an SRO-U.

(3) Only applicable to SROs.

**Instructions:**

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

Robinson 2014-301 Exam

ES-401-2 (Final Written Sample Plan) is a combination of ES-401-4 and the Draft Sample Plan



Facility: <u>Robinson</u>		Date of Exam: <u>Sept 2014</u>		Exam Level: RO <input checked="" 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.	MB	N/A	MB						
2. a. NRC K/As are referenced for all questions. b. Facility learning objectives are referenced as available.	MB	N/A	MB						
3. SRO questions are appropriate in accordance with Section D.2.d of ES-401	MB	N/A	MB						
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).			MB						
5. Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: ___ the audit exam was systematically and randomly developed; or ___ the audit exam was completed before the license exam was started; or <input checked="" type="checkbox"/> the examinations were developed independently; or ___ the licensee certifies that there is no duplication; or ___ other (explain)	MB	N/A	MB						
6. Bank use meets limits (no more than 75 percent from the bank, at least 10 percent new, and the rest new or modified); enter the actual RO / SRO-only question distribution(s) at right.	<table border="1"> <tr> <th>Bank</th> <th>Modified</th> <th>New</th> </tr> <tr> <td>R: 14 (19%) S: 2 (8%)</td> <td>R: 14 (19%) S: 6 (24%)</td> <td>47 (63%) 17 (68%)</td> </tr> </table>	Bank	Modified	New	R: 14 (19%) S: 2 (8%)	R: 14 (19%) S: 6 (24%)	47 (63%) 17 (68%)	N/A	MB
Bank	Modified	New							
R: 14 (19%) S: 2 (8%)	R: 14 (19%) S: 6 (24%)	47 (63%) 17 (68%)							
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.	<table border="1"> <tr> <th>Memory</th> <th>C/A</th> </tr> <tr> <td>R: 37 (49.3%) S: 17 (28.6%)</td> <td>R: 38 (50.7%) S: 18 (72.2%)</td> </tr> </table>	Memory	C/A	R: 37 (49.3%) S: 17 (28.6%)	R: 38 (50.7%) S: 18 (72.2%)	N/A	MB		
Memory	C/A								
R: 37 (49.3%) S: 17 (28.6%)	R: 38 (50.7%) S: 18 (72.2%)								
8. References/handouts provided do not give away answers or aid in the elimination of distractors.	MB	N/A	MB						
9. Question content conforms with specific K/A statements in the previously approved examination outline and is appropriate for the tier to which they are assigned; deviations are justified.	MB	N/A	MB						
10. Question psychometric quality and format meet the guidelines in ES Appendix B.	MB	N/A	MB						
11. The exam contains the required number of one-point, multiple choice items; the total is correct and agrees with the value on the cover sheet.	MB	N/A	MB						
Printed Name / Signature a. Author <u>Michael G. Donithan / Michael A. Donithan</u> b. Facility Reviewer (*) <u>N/A</u> c. NRC Chief Examiner (#) <u>MARK A. BATES / Mark A. Bates</u> d. NRC Regional Supervisor <u>MALCOLM T. WIDMANN / Malcolm T. Widmann</u>		Date a. Author <u>9/3/2014</u> b. Facility Reviewer (*) <u>N/A</u> c. NRC Chief Examiner (#) <u>9/3/2014</u> d. NRC Regional Supervisor <u>09/03/14</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.									



Robinson 2014-301 Exam

ES-401-9 was not performed because it was an internally written exam.