

Facility: <del>Beaver Valley 2</del> <u>Beaver Valley 2</u>		Date of Examination: <u>9/24/12</u>
Developed by: Written - Facility <input checked="" type="checkbox"/> NRC <input type="checkbox"/> // Operating - Facility <input checked="" type="checkbox"/> NRC <input type="checkbox"/>		
Target Date*	Task Description (Reference)	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a and b)	JS
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	JS
-120	3. Facility contact briefed on security and other requirements (C.2.c)	JS
-120	4. Corporate notification letter sent (C.2.d)	JS
[-90]	[5. Reference material due (C.1.e; C.3.c; Attachment 3)]	JS
{-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)	JS
{-70}	{7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)}	JS
{-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)	JS
-30	9. Preliminary license applications (NRC Form 398's) due (C.1.i; C.2.g; ES-202)	JS
-14	10. Final license applications due and Form ES-201-4 prepared (C.1.i; C.2.i; ES-202)	JS
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	NA
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f and h; C.3.g)	NA
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	JS
-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)	JS
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee (C.3.k)	JS
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	JS
<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: <b>Beaver Valley Unit 2</b>		Date of Examination: <b>9/24 thru 10/4 2012</b>			
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 per ES-401.	Bj3	QNT	W	
	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.	Bj3	QNT	W	
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	Bj3	QNT	W	
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	Bj3	QNT	W	
2. S I M	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.	Bj3	QNT	W	
	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 applicant's audit test(s), and scenarios will not be repeated on subsequent days.	Bj3	QNT	W	
	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.	Bj3	QNT	W	
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 applicant's 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.	Bj3	QNT	W	
	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.	Bj3	QNT	W	
	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.	Bj3	QNT	W	
	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 section.	Bj3	QNT	W
		b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	Bj3	QNT	W
		c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	Bj3	QNT	W
d. Check for duplication and overlap among exam sections.		Bj3	QNT	W	
e. Check the entire exam for balance of coverage.		Bj3	QNT	W	
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	Bj3	QNT	W	
Printed Name / Signature		Date			
a. Author	R. J. Brooks / <i>RJ Brooks</i>	6/29/12			
b. Facility Reviewer (*)	DAVE HELD / <i>Dave Held</i>	6/28/12			
c. NRC Chief Examiner (#)	David Silk / <i>David Silk</i>	8/6/12 *			
d. NRC Supervisor	Donald Jackson / <i>Donald Jackson</i>	8/9/12			
Note: # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required. * Not applicable for NRC-prepared examination outlines					

\* Changes were required to the outlines. will be modified with 45 day submittal

1. Pre-Examination**ORIGINAL**

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of **9/24 – 10/5 2012 (BVPS UNIT 2)** 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 9/24/12 @ BVPS Unit 2. 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>Ian Forbes</u>	<u>Exam Developer</u>	<u>[Signature]</u>	<u>4/19/12</u>	<u>[Signature]</u>	<u>10/4/12</u>	
2. <u>PAUL EISENMANN</u>	<u>FLEET EXAM DEV/EXAM DEV.</u>	<u>[Signature]</u>	<u>4/19/12</u>	<u>[Signature]</u>	<u>10/4/12</u>	
3. <u>RICHARD J. BROOKS</u>	<u>FLEET EXAM DEV/LEAD</u>	<u>[Signature]</u>	<u>4/19/12</u>	<u>[Signature]</u>	<u>10/4/12</u>	
4. <u>DAVE HELD</u>	<u>SRO/ FACILITY REVIEWER</u>	<u>[Signature]</u>	<u>5/17/12</u>	<u>[Signature]</u>	<u>10/5/12</u>	
5. <u>WILLIAM J. RUDOLPH</u>	<u>SUPT. OPERATIONS TRNG</u>	<u>[Signature]</u>	<u>6/29/12</u>	<u>[Signature]</u>	<u>10/5/12</u>	
6. <u>THOMAS A. GAYDOSIK</u>	<u>SUPERVISOR LOIT</u>	<u>[Signature]</u>	<u>7-13-12</u>	<u>[Signature]</u>	<u>10/5/12</u>	
7. <u>TERRY A. PITTUS</u>	<u>RO/ops validator</u>	<u>[Signature]</u>	<u>7-16-12</u>	<u>[Signature]</u>	<u>10-5-12</u>	
8. <u>Richard Romisher</u>	<u>SRO/ops Validator</u>	<u>[Signature]</u>	<u>7-16-12</u>	<u>[Signature]</u>	<u>10-6-12</u>	
9. <u>ANDREW DOBY</u>	<u>RO/OPS VALIDATOR</u>	<u>[Signature]</u>	<u>7/17/12</u>	<u>[Signature]</u>	<u>10/5/12</u>	
10. <u>Joe Greco</u>	<u>RO OPS Validator</u>	<u>[Signature]</u>	<u>7-19-12</u>	<u>[Signature]</u>	<u>10-5-12</u>	
11. <u>Russell C. Earnfield</u>	<u>Sim Sup. Exam Dev.</u>	<u>[Signature]</u>	<u>7-19-12</u>	<u>[Signature]</u>	<u>10/6/12</u>	
12. <u>KEVIN F. LARSEN</u>	<u>Exam Validator</u>	<u>[Signature]</u>	<u>8-1-12</u>	<u>[Signature]</u>	<u>10-6-12</u>	
13. <u>KEVIN F. LARSEN</u>	<u>RO/OP VALIDATION</u>	<u>[Signature]</u>	<u>8/1/2012</u>	<u>[Signature]</u>	<u>10/8/12</u>	①
14. <u>Brian F. Haffey</u>	<u>RO/OP Validation</u>	<u>[Signature]</u>	<u>8/1/2012</u>	<u>[Signature]</u>	<u>10-6-12</u>	
15. <u>JAMES D. LUTZ</u>	<u>SM unit 2</u>	<u>[Signature]</u>	<u>8-1-12</u>	<u>[Signature]</u>	<u>10-7-12</u>	

NOTES: ① signed-off via telecon [Signature]

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1. Pre-Examination**ORIGINAL**

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9/24-10/5 (BUPS Unit 2) 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 9/24/12 @ BUPS UNIT 2 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. Donna Hunderski	Intermediate Clerk	<i>Donna Hunderski</i>	8/2/12	<i>Donna Hunderski</i>	10/4/12	
2. MICHAEL P. ADAMS	UNIT 2 SM	<i>Michael P. Adams</i>	8-27-12	<i>Michael P. Adams</i>	10-5-12	
3. MICHAEL S HAYSON	RO	<i>Michael S. Hayson</i>	8-27-12	<i>Michael S. Hayson</i>	10-5-12	
4. BRIAN F SEPELAK	COMPLIANCE SUPERVISOR	<i>Brian F. Sepelek</i>	8/29/12	<i>Brian F. Sepelek</i>	10/5/12	
5. Marina Jones	Intermediate Clerk	<i>Marina Jones</i>	9-17-12	<i>Marina Jones</i>	10/4/12	
6. Michael Kogelschitz	Shift MANAGER	<i>Michael Kogelschitz</i>	9-20-12	<i>Michael Kogelschitz</i>	10/4/12	
7. DENNIS W CATCOTT	Training Inst.	<i>Dennis W. Catcott</i>	9-24-12	<i>Dennis W. Catcott</i>	10-4-12	
8. Michael Klingensmith	Training Inst.	<i>Michael Klingensmith</i>	9-24-12	<i>Michael Klingensmith</i>	10-8-12	
9. Greg Polke	Training	<i>Greg Polke</i>	9/24/12	<i>Greg Polke</i>	10/4/12	
10. Michael Azure	Training Inst.	<i>Michael Azure</i>	9/24/12	<i>Michael Azure</i>	10/4/12	
11. Wayne Hendrick	Training Inst.	<i>Wayne Hendrick</i>	9/24/12	<i>Wayne Hendrick</i>	10/4/12	
12. Hugh E Bruner	Hardware Support	<i>Hugh E. Bruner</i>	9-24-12	<i>Hugh E. Bruner</i>	10-4-12	
13.						
14.						
15.						

NOTES:

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Facility: Beaver Valley Unit 2		Date of Exam 9/24 thru 10/4 2012		Operating Test No.: NRC 2LOT8	
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).	RE	QWH	H	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	RE	QWH	H	
c.	The operating test shall not duplicate items from the applicants' audit test(s) (see Section D.1.a).	RE	QWH	H	
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	RE	QWH	H	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	RE	QWH	H	
2. WALK-THROUGH CRITERIA			Initials		
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>• 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>	RE	QWH	H	
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.	RE	QWH	H	
3. SIMULATOR CRITERIA			Initials		
a.	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	RE	QWH	H	
Printed Name / Signature		Date			
a. Author	Paul T. Eisenmann / Paul T. Eisenmann	9/16/12			
b. Facility Reviewer (*)	DAVE HELD / Dave Held	9/17/12			
c. NRC Chief Examiner (#)	David Silk / David Silk	9/18/12			
d. NRC Supervisor	Donald E. Jackson / Donald E. Jackson	9/18/12			
NOTE: * The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.					

Facility: <u>Beaver Valley Unit 2</u>		Date of Exam <u>9/24 thru 10/4 2012</u>		Operating Test No.: <u>2LOT8</u>				
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.				PR	QWB	JS	
2.	The scenarios consist mostly of related events.				PR	QWB	JS	
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>				PR	QWB	JS	
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.				PR	QWB	JS	
5.	The events are valid with regard to physics and thermodynamics.				PR	QWB	JS	
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.				PR	QWB	JS	
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.				PR	QWB	JS	
8.	The simulator modeling is not altered.				PR	QWB	JS	
	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.				PR	QWB	JS	
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.				PR	QWB	JS	
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).				PR	QWB	JS	
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).				PR	QWB	JS	
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.				PR	QWB	JS	
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.5.d)					Actual Attributes			
1. Total malfunctions (5-8)	7	7	5	7	8	PR	QWB	JS
2. Malfunctions after EOP entry (1-2)	3	4	3	3	4	PR	QWB	JS
3. Abnormal events (2-4)	3	2	2	4	3	PR	QWB	JS
4. Major transients (1-2)	1	2	1	2	1	PR	QWB	JS
5. EOPs entered/requiring substantive actions (1-2)	4	2	2	2	2	PR	QWB	JS
6. EOP contingencies requiring substantive actions (0-2)	0	1	0	1	0	PR	QWB	JS
7. Critical tasks (2-3)	3	3	3	3	4	PR	QWB	JS

Facility: **Beaver Valley Unit 2**Date of Exam **9/24 thru 10/4 2012**Operating Test No.: **2LOT8**

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(-)			
		2			1			4			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					
<b>M A S T E R</b>	RX		2			1			3							1	1	0
	NOR				1		1	2	2							1	1	1
	I/C	1,2,5 7,8	1	2,5,7 8	3,4,5 7,8,9	3,4,7	4,5,8 9	1,3,4 5,8	1,3,5	4,8	1,3,4 6,7,8 9	1,4,6 8,9	3,7			4	4	2
	MAJ	4,6	4,6	4,6	6	6	6	6,7	6,7	6,7	5	5	5			2	2	1
	TS	1,3			2,4			1,5			2,4					0	2	2
SROI-1 <input checked="" type="checkbox"/>	RX								3						1	1	1	0
	NOR				1				2						2	1	1	1
	I/C				3,4,5 7,8,9				1,3,5		1,3,4 6,7,8 9				16	4	4	2
	MAJ				6				6,7		5				4	2	2	1
	TS				2,4						2,4				4	0	2	2
SROI-2 <input checked="" type="checkbox"/>	RX														0	1	1	0
	NOR						1	2							2	1	1	1
	I/C						4,5,8 9	1,3,4 5,8				1,4,6 8,9			14	4	4	2
	MAJ						6	6,7				5			4	2	2	1
	TS							1,5							2	0	2	2
SROI-3 <input checked="" type="checkbox"/>	RX								3						1	1	1	0
	NOR				1				2						2	1	1	1
	I/C				3,4,5 7,8,9				1,3,5		1,3,4 6,7,8 9				16	4	4	2
	MAJ				6				6,7		5				4	2	2	1
	TS				2,4						2,4				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 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.
- 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.

Facility: <u>Beaver Valley Unit 2</u>		Date of Exam <u>9/24 thru 10/4 2012</u>		Operating Test No.: <u>2LOT8</u>													
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 (-)		
		2			1			4			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
SROI -4 <input checked="" type="checkbox"/>	RX													0	1	1	0
	NOR						1	2						2	1	1	1
	I/C						4,5,8 9	1,3,4 5,8				1,4,6 8,9		14	4	4	2
	MAJ						6	6,7				5		4	2	2	1
	TS							1,5						2	0	2	2
SROI -5 <input checked="" type="checkbox"/>	RX					1								1	1	1	0
	NOR													0	1	1	1
	I/C			2,5,7 8		3,4,7					1,3,4 6,7,8 9			14	4	4	2
	MAJ			4,6		6					5			4	2	2	1
	TS										2,4			2	0	2	2
SROI -6 <input checked="" type="checkbox"/>	RX													0	1	1	0
	NOR					1		2						2	1	1	1
	I/C					3,4,5 7,8,9		1,3,4 5,8			1,4,6 8,9			16	4	4	2
	MAJ					6		6,7			5			4	2	2	1
	TS					2,4		1,5						4	0	2	2
SROI -7 <input checked="" type="checkbox"/>	RX							3						1	1	1	0
	NOR							2						1	1	1	1
	I/C	1,2,5 7,8						1,3,5				3,7		10	4	4	2
	MAJ	4,6						6,7				5		5	2	2	1
	TS	1,3												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 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.
- 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.



Facility: <b>Beaver Valley Unit 2</b>		Date of Exam <b>9/24 thru 10/4 2012</b>		Operating Test No.: <b>2LOT8</b>														
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 (-)			
		2			1			4			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	
RO -1 <input checked="" type="checkbox"/>	RX					1									1	1	1	0
	NOR														0	1	1	1
	I/C					3,4,7				4,8			3,7	7	4	4	2	
	MAJ					6				6,7			5	4	2	2	1	
	TS													0	0	2	2	
RO -2 <input checked="" type="checkbox"/>	RX					1									1	1	1	0
	NOR													0	1	1	1	
	I/C					3,4,7				4,8			3,7	7	4	4	2	
	MAJ					6				6,7			5	4	2	2	1	
	TS													0	0	2	2	
RO -3 <input checked="" type="checkbox"/>	RX		2												1	1	1	0
	NOR						1							1	1	1	1	
	I/C		1				4,5,8 9			4,8				7	4	4	2	
	MAJ		4,6				6			6,7				5	2	2	1	
	TS													0	0	2	2	
	RX														1	1	0	
	NOR														1	1	1	
	I/C														4	4	2	
	MAJ														2	2	1	
	TS														0	2	2	

## Instructions:

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Facility: <b>Beaver Valley Unit 2</b>		Date of Exam <b>9/24 thru 10/4 2012</b>		Operating Test No.: <b>2LOT8</b>															
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 Spare																	
		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
<b>M A S T E R</b>	RX		1														1	1	0
	NOR	1															1	1	1
	I/C	4,6,7 8	4,8	6,7													4	4	2
	MAJ	5	5	5													2	2	1
	TS	2,3															0	2	2
	RX																1	1	0
	NOR																1	1	1
	I/C																4	4	2
	MAJ																2	2	1
	TS																0	2	2
	RX																1	1	0
	NOR																1	1	1
	I/C																4	4	2
	MAJ																2	2	1
	TS																0	2	2

**Instructions:**

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Facility: <b>Beaver Valley Unit 2</b>		Date of Exam <b>9/24 thru 10/4 2012</b>					Operating Test No.: <b>2LOT8</b>									
Competencies	APPLICANTS															
	ATC <input checked="" type="checkbox"/>					BOP <input checked="" type="checkbox"/>					SRO-I <input checked="" type="checkbox"/>					
	SCENARIO					SCENARIO					SCENARIO					
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Interpret/Diagnosis Events and Conditions	1,3, 4,6, 7	1,2, 4,6	1,4, 5,8	1,2, 3,5, 6,7	1,4, 5,6, 8,9	4,5, 6,8, 9	2,4, 5,6, 7,8	5,6, 7	4,6, 7,8	3,5, 7	1,2, 3,4, 5,6, 7,8, 9	1,2, 3,4, 5,6, 7,8	1,2, 3,4, 5,6, 7,8	1,2, 3,4, 5,6, 7,8	1,2, 3,4, 5,6, 7,8, 9	
Comply With and Use Procedures (1)	1,3, 4,6, 7	1,2, 4,6	1,4, 5,8	1,2, 3,5, 6,7	1,4, 5,6, 8,9	4,5, 6,8, 9	2,4, 5,6, 7,8	5,6, 7	4,6, 7,8	3,5, 7	1,2, 3,4, 5,6, 7,8, 9	1,2, 3,4, 5,6, 7,8	1,2, 3,4, 5,6, 7,8	1,2, 3,4, 5,6, 7,8	1,2, 3,4, 5,6, 7,8, 9	
Operate Control Boards (2)	1,3, 4,6, 7	1,2, 4,6	1,4, 5,8	1,2, 3,5, 6,7	1,4, 5,6, 8,9	4,5, 6,8, 9	2,4, 5,6, 7,8	5,6, 7	4,6, 7,8	3,5, 7						
Communicate and Interact	1,3, 4,6, 7	1,2, 4,6	1,4, 5,8	1,2, 3,5, 6,7	1,4, 5,6, 8,9	4,5, 6,8, 9	2,4, 5,6, 7,8	5,6, 7	4,6, 7,8	3,5, 7	1,2, 3,4, 5,6, 7,8, 9	1,2, 3,4, 5,6, 7,8	1,2, 3,4, 5,6, 7,8	1,2, 3,4, 5,6, 7,8	1,2, 3,4, 5,6, 7,8, 9	
Demonstrate Supervisory Ability (3)											1,2, 3,4, 5,6, 7,8, 9	1,2, 3,4, 5,6, 7,8	1,2, 3,4, 5,6, 7,8	1,2, 3,4, 5,6, 7,8	1,2, 3,4, 5,6, 7,8, 9	
Comply With and Use Tech. Specs. (3)											2,4	1,3	2,3	1,5	2,4	
<b>Notes:</b> (1) Includes Technical Specification compliance for an RO. (2) Optional for an SRO-U. (3) Only applicable to SROs.																

## Instructions:

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

Facility: Beaver Valley Unit 2 Date of Exam 9/24 thru 10/5 2012

Exam Level: RO ☒ SRO ☒

Item Description	Initial																	
	a	b*	c*															
1. Questions and answers technically accurate and applicable to facility	<i>JS</i>	<i>QW</i>	<i>JS</i>															
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	<i>JS</i>	<i>QW</i>	<i>JS</i>															
3. SRO questions are appropriate per Section D.2.d of ES-401	<i>JS</i>	<i>QW</i>	<i>JS</i>															
4. The sampling process was random and systematic (If more than 4 RO or 2 SRO questions are repeated from the last two NRC licensing exams, consult the NRR OL program office.)			<i>JS</i>															
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 checked="" type="checkbox"/> the audit exam was completed before the license exam was started; or <input checked="" 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)	<i>JS</i>	<i>QW</i>	<i>JS</i>															
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 14/1 (18.6%/4%)	Modified 1/0 (1.3%/0%)	New 60/24 (80.0%/96%)															
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 32/1 (42.6%/4%)	C/A 43/24 (57.3%/96%)																
8. References/handouts provided do not give away answers or aid in the elimination of distractors.	<i>JS</i>	<i>QW</i>	<i>JS</i>															
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	<i>JS</i>	<i>QW</i>	<i>JS</i>															
10. Question psychometric quality and format meet the guidelines in ES Appendix B.	<i>JS</i>	<i>QW</i>	<i>JS</i>															
11. The exam contains the required number of one-point, multiple choice items; the total is correct and agrees with value on cover sheet	<i>JS</i>	<i>QW</i>	<i>JS</i>															
<table border="0"> <tr> <td colspan="2">Printed Name / Signature</td><td>Date</td></tr> <tr> <td>a. Author</td><td><i>Jon Forbes / Richard J. Brooks</i></td><td>9/17/12</td></tr> <tr> <td>b. Facility Reviewer (*)</td><td><i>DAVE HELD / Dave Held</i></td><td>9/17/12</td></tr> <tr> <td>c. NRC Chief Examiner (#)</td><td><i>David Silk / David Kelly</i></td><td>9/18/12</td></tr> <tr> <td>d. NRC Supervisor</td><td><i>DONALD E. JACKSON</i></td><td>9/18/12</td></tr> </table>				Printed Name / Signature		Date	a. Author	<i>Jon Forbes / Richard J. Brooks</i>	9/17/12	b. Facility Reviewer (*)	<i>DAVE HELD / Dave Held</i>	9/17/12	c. NRC Chief Examiner (#)	<i>David Silk / David Kelly</i>	9/18/12	d. NRC Supervisor	<i>DONALD E. JACKSON</i>	9/18/12
Printed Name / Signature		Date																
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d. NRC Supervisor	<i>DONALD E. JACKSON</i>	9/18/12																
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: <b>BVPS UNIT 2</b>		Date of Exam: <b>9/24 thru 10/4 2012</b>		Exam Level: RO <input checked="" type="checkbox"/> SRO <input checked="" type="checkbox"/>	
Item Description		Initials			
		a	b	c	
1.	Clean answer sheets copied before grading	RJG	Qwt	wt	
2.	Answer key changes and question deletions justified and documented	N/A	NA	NA	
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	RJG	Qwt	wt	
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	RJG	Qwt	wt	
5.	All other failing examinations checked to ensure that grades are justified	N/A	NA	NA	
6.	Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	RJG	Qwt	wt	
Printed Name/Signature		Date			
a. Grader	Richard J. Brooks / RJG	10/8/12			
b. Facility Reviewer(*)	DAVE HELD / Dave Held	10/9/12			
c. NRC Chief Examiner (*)	David Silk / David Silk	10/11/12			
d. NRC Supervisor (*)	Donald Jackson / Donald Jackson	10/17/12			
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					