

VARIOUS CHECKLISTS

FOR THE BRAIDWOOD INITIAL EXAMINATION - JULY 2002

Facility: <u>Braidwood</u>		Date of Examination: <u>July 8, 2002</u>
Examinations Developed by: <u>Facility</u> / NRC (circle one)		
Target Date*	Task Description / Reference	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a & b)	BP MGB
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	BP MGB
-120	3. Facility contact briefed on security & other requirements (C.2.c)	BP MGB
-120	4. Corporate notification letter sent (C.2.d)	BP MGB
[-90]	[5. Reference material due (C.1.e; C.3.c)]	NA
-75	6. Integrated examination outline(s) due (C.1.e & f; C.3.d)	BP MGB
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	BP MGB
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	BP MGB
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	BP MGB
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	BP MGB
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	BP MGB
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	BP MGB
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	BP MGB
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	BP MGB
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	BP MGB
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	BP MGB
<p>* Target dates 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 to examinations prepared by the NRC.</p>		

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 7/8-22/02 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. 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 7/8-22/02. 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)	DATENOTE
1. <u>Mark G Olsad</u>	<u>Instructor / Exam Author</u>	<u>[Signature]</u>	<u>2/14/02</u>	<u>[Signature]</u>	<u>7/17/02</u>
2. <u>SCOTT M DEARST</u>	<u>Ex. Dev. Coord</u>	<u>[Signature]</u>	<u>2/14/02</u>	<u>[Signature]</u>	<u>7/17/02</u>
3. <u>Steven Russell</u>	<u>Examiner Coord</u>	<u>[Signature]</u>	<u>2/21/02</u>	<u>[Signature]</u>	<u>7/17/02</u>
4. <u>Terry D'Orazio</u>	<u>Shift Manager / Facility Rep.</u>	<u>[Signature]</u>	<u>3/10/02</u>	<u>[Signature]</u>	<u>7-22-02</u>
5. <u>SCOTT McALLEN</u>	<u>S/M SVP</u>	<u>[Signature]</u>	<u>3/15/02</u>	<u>[Signature]</u>	<u>7/24/02</u>
6. <u>CAROL A. ROCHA</u>	<u>UNIT SUPV / SRO</u>	<u>[Signature]</u>	<u>4/29/02</u>	<u>[Signature]</u>	<u>7/24/02</u>
7. <u>D. Ackerman</u>	<u>U/S - SRO</u>	<u>[Signature]</u>	<u>4-29-02</u>	<u>[Signature]</u>	<u>7-24-02</u>
8. <u>BRIAN KEMPEN</u>	<u>RO</u>	<u>[Signature]</u>	<u>4-29-02</u>	<u>[Signature]</u>	<u>7-31-02</u>
9. <u>Dale Burchfield</u>	<u>RO</u>	<u>[Signature]</u>	<u>4-29-02</u>	<u>[Signature]</u>	<u>7-22-02</u>
10. <u>Daniel P. Burt</u>	<u>LOFT Op Lead</u>	<u>[Signature]</u>	<u>6-3-02</u>	<u>[Signature]</u>	<u>7-17-02</u>
11. <u>GREGORY BARKER</u>	<u>LOFT INSTRUCTOR</u>	<u>[Signature]</u>	<u>6-4-02</u>	<u>[Signature]</u>	<u>7-17-02</u>
12. <u>Ronald Tapak</u>	<u>SIMULATOR HARDWARE Support</u>	<u>[Signature]</u>	<u>6-10-02</u>	<u>[Signature]</u>	<u>7-29-02</u>
13. <u>JOHN IAFF</u>	<u>FS SRO</u>	<u>[Signature]</u>	<u>6-10-02</u>	<u>[Signature]</u>	<u>7-22-02</u>
14. <u>Greg Harolis</u>	<u>RO</u>	<u>[Signature]</u>	<u>6-10-02</u>	<u>[Signature]</u>	<u>7-22-02</u>
15. <u>CRAIG INGOLD</u>	<u>SRO / LOFT INSTRUCTOR</u>	<u>[Signature]</u>	<u>6-11-02</u>	<u>[Signature]</u>	<u>7-17-02</u>

NOTES:

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 7/8-22/02 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. 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 7/8-22/02. 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)	DATENOTE
1. WAYNE FARUGA	SIM SUPPORT	<i>Wayne Faruga</i>	6/11/02	<i>Wayne Faruga</i>	7/19/02
2. Sandra L. Malone	Office Service Specialist	<i>Sandra L. Malone</i>	7/2/02	<i>Sandra L. Malone</i>	7/18/02
3. WILLIAM A. SMITH	ILT INSTRUCTOR	<i>William A. Smith</i>	7/8/02	<i>William A. Smith</i>	7/19/02
4. PAUL J. HIPPELY	ILT Group LEAD / Surrogate	<i>Paul J. Hippeley</i>	7/9/02	<i>Paul J. Hippeley</i>	7/17/02
5. DARREN C. STIVES	ILT INSTRUCTOR	<i>Darren C. Stives</i>	7/8/02	<i>Darren C. Stives</i>	7/17/02
6. James R. Smith	ILT Instructor	<i>James R. Smith</i>	7/8/02	<i>James R. Smith</i>	7/17/02
7. ROBERT M. CAMELON	ILT INSTRUCTOR	<i>Robert M. Camelon</i>	7/8/02	<i>Robert M. Camelon</i>	7/17/02
8. JERRY D. BURKETT	ILT INST.	<i>Jerry D. Burkett</i>	7/8/02	<i>Jerry D. Burkett</i>	7/17/02
9. Ken Maack	ILT INST.	<i>Ken Maack</i>	7/8/02	<i>Ken Maack</i>	7/17/02
10. MARK TRUXHEIM	SOS/OPERATOR	<i>Mark Truxheim</i>	7/8/02	<i>Mark Truxheim</i>	7-17-2
11. Steve Rantz	LORT Instructor	<i>Steve Rantz</i>	7/9/02	<i>Steve Rantz</i>	7/17/02
12.					
13.					
14.					
15.					

NOTES:

Facility: <u>Bridwood</u>		Date of Examination: <u>7/8-19/02</u>		Operating Test Number: <u>01</u>	
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).	MD	TD	BP MGB	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	MD	TD	BP MGB	
c.	The operating test shall not duplicate items from the applicants' audit test(s) (see Section D.1.a).	MD	TD	BP MGB	* *
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	MD	TD	BP MGB	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	MD	TD	BP MGB	
2. WALK-THROUGH (CATEGORY A & B) CRITERIA			a	b*	c#
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> initial conditions initiating cues references and tools, including associated procedures reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time critical by the facility licensee specific performance criteria that include: <ul style="list-style-type: none"> detailed expected actions with exact criteria and nomenclature system response and other examiner cues statements describing important observations to be made by the applicant criteria for successful completion of the task identification of critical steps and their associated performance standards restrictions on the sequence of steps, if applicable 	MD	TD	BP MGB	
b.	The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	NA	NA	BP NA	
c.	Repetition from operating tests used during the previous licensing examination is within acceptable limits (30% for the walk-through) and do not compromise test integrity.	MD	TD	BP MGB	
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	MD	TD	BP MGB	
3. SIMULATOR (CATEGORY C) CRITERIA			a	b*	c#
a.	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	MD	TD	BP MGB	
Printed Name / Signature		Date			
a. Author	<u>Mark G. Olson / m2kg</u>	<u>5/13/02</u>			
b. Facility Reviewer(*)	<u>Terrence D'Drazio / Terry D'Drazio</u>	<u>5/13/02</u>			
c. NRC Chief Examiner (#)	<u>Michael F. Bielby Sr / Michael F. Bielby Sr</u>	<u>5/23/02</u>			
d. NRC Supervisor	<u>Bruce Palagi / Bruce Palagi</u> <u>Dell R. McNeil / Dell R. McNeil</u>	<u>5/23/02</u> <u>7/4/02</u>			
NOTE: * The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.					

* * Will verify after audit test is administered. MGB 5/23/02
 23 of 26 NUREG-1021, Revision 8, Supplement 1

Facility: Braidwood Date of Exam: 7/8-19/02 Scenario Numbers: 1/2/3 Operating Test No.: 01

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.	nd	TD	BP MFB
2.	The scenarios consist mostly of related events.	nd	TD	BP MFB
3.	Each event description consists of • the point in the scenario when it is to be initiated • the malfunction(s) that are entered to initiate the event • the symptoms/cues that will be visible to the crew • the expected operator actions (by shift position) • the event termination point (if applicable)	nd	TD	BP MFB
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.	nd	TD	BP MFB
5.	The events are valid with regard to physics and thermodynamics.	nd	TD	BP MFB
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	nd	TD	BP MFB
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.	nd	TD	BP MFB
8.	The simulator modeling is not altered.	nd	TD	BP MFB
9.	The scenarios have been validated. Any open simulator performance deficiencies have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.	nd	TD	BP MFB *
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.4 of ES-301.	nd	TD	BP MFB
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	nd	TD	BP MFB
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).	nd	TD	BP MFB
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	nd	TD	BP MFB

TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)		Actual Attributes			
1.	Total malfunctions (5-8)	8 1 7 8	nd	TD	BP MFB
2.	Malfunctions after EOP entry (1-2)	2 1 2 2	nd	TD	BP MFB
3.	Abnormal events (2-4)	4 1 4 4	nd	TD	BP MFB
4.	Major transients (1-2)	2 1 1 2	nd	TD	BP MFB
5.	EOPs entered/requiring substantive actions (1-2)	2 1 2 2	nd	TD	BP MFB
6.	EOP contingencies requiring substantive actions (0-2)	1 1 0 1	nd	TD	BP MFB
7.	Critical tasks (2-3)	3 1 4 3	nd	TD	BP MFB

* Scenarios will be validated week of 6/10/02 MFB 5/23/02

OPERATING TEST: Bwd 2001-01

Competencies	Applicant #1 SRO-(I)				Applicant #2 RO				Applicant #3 BOP (RO)			
	SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4
Understand and Interpret Annunciators and Alarms	2-8	2-8	2-9	2-7	2,4 6-8	2,5 6-8	3,4 6-9	3-7	3 5-8	3,4 6-8	2 5-9	2 4-9
Diagnose Events and Conditions	1-8	1-8	1-9	1-7	1,2 4 6-8	1,2 5-8	1,3 4 6-9	1 3-7	1,3 5-8	1,3 4 6-8	1,2 5-9	1,2 4-7
Understand Plant and System Response	1-8	1-8	1-9	1-7	1-8	1-8	1-9	1-7	1-8	1-8	1-9	1-7
Comply With and Use Procedures (1)	1-8	1-8	1-9	1-7	1-8	1-8	1-9	1-7	1-8	1-8	1-9	1-7
Operate Control Boards (2)	1-8	1-8	1-9	1-7	1,2 4 6-8	1,2 5-8	1,3 4 6-9	1 3-7	1,3 5-8	1,3 6-8	1,2 5-9	1,2 4-7
Communicate and Interact With the Crew	1-8	1-8	1-9	1-7	1-8	1-8	1-9	1-7	1-8	1-8	1-9	1-7
Demonstrate Supervisory Ability (3)	1-8	1-8	1-9	1-7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Comply With and Use Tech. Specs. (3)	2,5	2,4 5	2,4 5	3,4	N/A	N/A	N/A	N/A	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:

Circle 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.

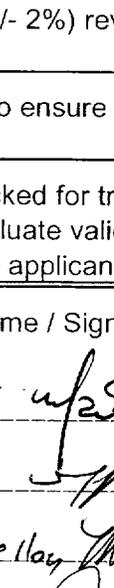
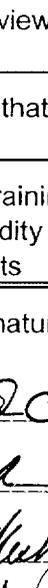
NOTE: Scenario #4 is a "spare" scenario and is presented for comparison purposes only in Examination Outline submittal. The order of listing for candidates is SRO, RO, and BOP by position.

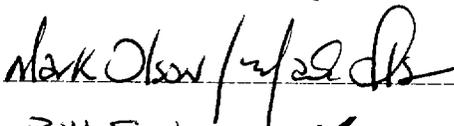
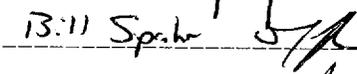
Author: W. G. [Signature] 5/13/02

NRC Reviewer: Michael E. Bully [Signature] 5/23/02
Bruce Palasi [Signature] 5/23/02

Facility: Braidwood		Date of Exam: 7/8-19/02		Exam Level: SRO/RO				
Item Description				Initial				
				a	b*	c#		
1.	Questions and answers technically accurate and applicable to facility	MD	TD	BP	MGB			
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	MD	TD	BP	MGB			
3.	RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	MD	TD	BP	MGB			
4.	Question section and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process.			BP	MGB			
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 <input checked="" type="checkbox"/> the audit exam was completed before the license exam was started; or ___ the examinations were developed independently; or ___ the licensee certifies that there is no duplication; or ___ other (explain)	MD	TD	BP	MGB			
6.	Bank use meets limits (no more than 75 percent from the bank at least 10 percent new, and the rest modified); enter the actual question distribution at right. (SRO/RO)	Bank 32 / 38	Modified 15 / 14	New 53 / 48	MD	TD	BP	MGB
7.	Between 50 and 60 percent of the questions on the exam (including 10 new questions) are written at the comprehension/analysis level; enter the actual question distribution at right	Memory SRO/RO 44 / 43	Comp-Applic SRO/RO 56 / 57	MD	TD	BP	MGB	
8.	References/handouts provided do not give away answers	MD	TD	BP	MGB			
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	MD	TD	BP	MGB			
10.	Question psychometric quality and format meet ES, Appendix B, guidelines	MD	TD	BP	MGB			
11.	The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	MD	TD	BP	MGB			
Printed Name / Signature					Date			
a. Author	Mark G. Olson / <i>Mark G. Olson</i>				5/13/02			
b. Facility Reviewer (*)	Terry D'Orazio / <i>Terry D'Orazio</i> BRUCE PALAGI / <i>Bruce Palagi</i>				5/13/02 5/23/02			
c. NRC Chief Examiner (#)	Michael E. Bielby / <i>Michael E. Bielby</i>				5/23/02			
d. NRC Regional Supervisor	De L. R. McNeil / <i>De L. R. McNeil</i>				7/4/02			
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.								

* Will verify after audit test is administered BP 5/23/02

Facility:		Date of Exam:		Exam Level: <u>RO/SRO</u>		
Item Description				Initials		
				a	b	c
1.	Clean answer sheets copied before grading	MD	✓	BBP		
2.	Answer key changes and question deletions justified and documented	MD	✓	BBP		
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	MD	✓	BBP		
4.	Grading for all borderline cases (80% +/- 2%) reviewed in detail NA	MD	✓	BBP		
5.	All other failing examinations checked to ensure that grades are justified NA	MD	✓	BBP		
6.	Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	MD	✓	BBP		
		Printed Name / Signature			Date	
a.	Grader	<u>Mark Olson</u> 			<u>7/18/02</u>	
b.	Facility Reviewer(*)	<u>B. J. Spahr</u> 			<u>7/22/02</u>	
c.	NRC Chief Examiner (*)	<u>Michael E. Biello</u> 			<u>7/23/02</u>	
d.	NRC Supervisor (*)	<u>David L. Peltan</u> 			<u>7/24/02</u>	
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.						

Facility:		Date of Exam:		Exam Level: RO (SRO)		
Item Description				Initials		
				a	b	c
1.	Clean answer sheets copied before grading	MD	✓	BBP		
2.	Answer key changes and question deletions justified and documented	MD	✓	BBP		
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	MD	✓	BBP		
4.	Grading for all borderline cases (80% +/- 2%) reviewed in detail	NA MD	✓	BBP		
5.	All other failing examinations checked to ensure that grades are justified	NA MD	✓	BBP		
6.	Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	MD	✓	BBP		
		Printed Name / Signature			Date	
a.	Grader	Mark Olson / 			7/18/02	
b.	Facility Reviewer(*)	B:11 Spr. hr 			7/22/02	
c.	NRC Chief Examiner (*)	Michael E. Bielby 			7/23/02	
d.	NRC Supervisor (*)	DAVID L. PELTON 			7/24/02	
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.						