

Facility: <u>Limerick</u>		Date of Examination: <u>4/3/99</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)	AB
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	AB
-120	3. Facility contact briefed on security & other requirements (C.2.c)	AB 12/3/99
-120	4. Corporate notification letter sent (C.2.d)	AB 12/3/99
[-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) 1/24/00	AB 1/21/00
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	AB 1/24
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	AB 2/24
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	AB
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	AB 3/16
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	AB 3/7/
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	AB 3/24
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	AB 3/24
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	AB 3/22
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	AB 3/27
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	AB 3/27

Called Malinowski on 1/7/00 - gave written on 3/31
delivered exam on 2/22

Facility:		Date of Examination:		
Item	Task Description	Initials		
		a	b*	c
W R I T T E N	1. a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	DAM	JTK	<i>[initials]</i>
	b. Assess whether the outline was systematically prepared and whether all knowledge and ability categories are appropriately sampled.	DAM	JTK	<i>[initials]</i>
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	DAM	JTK	<i>[initials]</i>
	d. Assess whether the repetition from previous examination outlines is excessive.	DAM	JTK	<i>[initials]</i>
S I M	2. a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, and major transients.	DAM	JTK	<i>[initials]</i>
	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; ensure each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s)*, and scenarios will not be repeated over successive days.	DAM	JTK	<i>[initials]</i>
	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.	DAM	JTK	<i>[initials]</i>
W I T	3. a. Verify that: (1) the outline(s) contain(s) the required number of control room and in-plant tasks, (2) no more than 30% of the test material is repeated from the last NRC examination, (3)* no tasks are duplicated from the applicants' audit test(s), and (4) no more than 80% of any operating test is taken directly from the licensee's exam banks.	DAM	JTK	<i>[initials]</i>
	b. Verify that: (1) the tasks are distributed among the safety function groupings as specified in ES-301, (2) one task is conducted in a low-power or shutdown condition, (3) 40% of the tasks require the applicant to implement an alternate path procedure, (4) one in-plant task tests the applicant's response to an emergency or abnormal condition, and (5) the in-plant walk-through requires the applicant to enter the RCA.	DAM	JTK	<i>[initials]</i>
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	DAM	JTK	<i>[initials]</i>
	d. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on successive days.	DAM	JTK	<i>[initials]</i>
G E N E R A L	4. a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	DAM	JTK	<i>[initials]</i>
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	DAM	JTK	<i>[initials]</i>
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	DAM	JTK	<i>[initials]</i>
	d. Check for duplication and overlap among exam sections.	DAM	JTK	<i>[initials]</i>
	e. Check the entire exam for balance of coverage.	DAM	JTK	<i>[initials]</i>
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	DAM	JTK	<i>[initials]</i>
a. Author <u>DAVID A. MALINOWSKI</u> b. Facility Reviewer(*) <u>JEFFREY T. KLENK</u> c. Chief Examiner <u>PAUL BISSETT</u> d. NRC Supervisor <u>R. V. Cowke</u>		Printed Name / Signature _____ _____ _____ _____		Date 1/18/00 1/21/00 1/24/00 1/24/00
(*) Not applicable for NRC-developed examinations.				

Facility:	Date of Examination:	Operating Test Number:		
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).	DAM	JTK	B
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	DAM	JTK	B
c.	The operating test shall not duplicate items from the applicants' audit test(s)(see Section D.1.a).	DAM	JTK	B
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	DAM	JTK	B
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	DAM	JTK	B
2. WALK-THROUGH (CATEGORY A & B) CRITERIA		--	--	--
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> · initial conditions · initiating cues · references and tools, including associated procedures · 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 	DAM	JTK	B
b.	The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	DAM	JTK	B
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.	DAM	JTK	B
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	DAM	JTK	B
3. SIMULATOR (CATEGORY C) CRITERIA		--	--	--
a.	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	DAM	JTK	B
Printed Name / Signature		Date		
a. Author	DAVID A. MALOWSKI <i>David A. Malowski</i>	2/24/00		
b. Facility Reviewer(*)	JEFFREY T. KLENK <i>Jeffrey T. Klenk</i>	2/24/00		
c. NRC Chief Examiner (*)	PAUL H. BISSETT <i>Paul H. Bissett</i>	3/23/00		
d. NRC Supervisor (*)	RICHARD J. CARTE <i>Richard J. Carte</i>	3/24/00		
(*) The facility signature is not applicable for NRC-developed tests; two independent NRC reviews are required.				

Facility: <i>LG3 Units 1 + 2</i> Date of Exam: <i>4/3/06</i> Scenario Numbers: <i>A/B/C/D</i> Operating Test No.:		Initials			
QUALITATIVE ATTRIBUTES		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.	DAM	JTK	B	
2.	The scenarios consist mostly of related events.	DAM	JTK	B	
3.	Each event description consists of <ul style="list-style-type: none"> • the point in the scenario when it is to be initiated • the malfunction(s) 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) 	DAM	JTK	B	
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.	DAM	JTK	B	
5.	The events are valid with regard to physics and thermodynamics.	DAM	JTK	B	
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	DAM	JTK	B	
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.	DAM	JTK	B	
8.	The simulator modeling is not altered.	DAM	JTK	B	
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.	DAM	JTK	B	
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.	DAM	JTK	B	
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	DAM	JTK	B	
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).	DAM	JTK	B	
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	DAM	JTK	B	
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)		Actual Attributes	-	-	
1.	Total malfunctions (5-8)	7, 7, 6, 7	DAM	JTK	B
2.	Malfunctions after EOP entry (1-2)	4, 4, 2, 3	DAM	JTK	B
3.	Abnormal events (2-4)	2, 2, 2, 2	DAM	JTK	B
4.	Major transients (1-2)	1, 1, 2, 1	DAM	JTK	B
5.	EOPs entered/requiring substantive actions (1-2)	2, 2, 2, 2	DAM	JTK	B
6.	EOP contingencies requiring substantive actions (0-2)	1, 1, 2, 1	DAM	JTK	B
7.	Critical tasks (2-3)	3, 4, 3, 3	DAM	JTK	B

OPERATING TEST NO.:

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1	2	1		
	Normal	1	1			
	Instrument	2	4	3		
	Component	2	7	6		
	Major	1	6	5		
As RO	Reactivity	1				
	Normal	0				
	Instrument	1				
	Component	1				
	Major	1				
SRO-I						
As SRO	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
 (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

Author:

Craig A. Fritz

Chief Examiner:

[Signature]

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Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1	2	1		
	Normal	1	1			
	Instrument	2	4	3		
	Component	2	7	6		
	Major	1	6	5		
As RO	Reactivity	1				
	Normal	0				
	Instrument	1				
	Component	1				
	Major	1				
SRO-I As SRO	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				

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Chief Examiner:

D. B. ...

OPERATING TEST NO.:

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1	2	1		
	Normal	1	1			
	Instrument	2	4	3		
	Component	2	7	6		
	Major	1	6	5		

As RO	Reactivity	1				
	Normal	0				
	Instrument	1				
	Component	1				
	Major	1				
SRO-I						
As SRO	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				

SRO-U	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				

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RO	Reactivity	1	2	1		
	Normal	1	1			
	Instrument	2	4	3		
	Component	2	7	6		
	Major	1	6	5		
As RO	Reactivity	1				
	Normal	0				
	Instrument	1				
	Component	1				
	Major	1				
SRO-I	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				

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Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1				
	Normal	1				
	Instrument	2				
	Component	2				
	Major	1				
As RO	Reactivity	1	2			
	Normal	0				
	Instrument	1	3			
	Component	1	5			
	Major	1	6			
SRO-I						
	Reactivity	0			5	
As SRO	Normal	1			1	
	Instrument	1			2,8	
	Component	1			3,4,7	
	Major	1			6	
	SRO-U	Reactivity	0			
Normal		1				
Instrument		1				
Component		1				
Major		1				

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			1	2	3	4
RO	Reactivity	1				
	Normal	1				
	Instrument	2				
	Component	2				
	Major	1				
As RO	Reactivity	1	2			
	Normal	0				
	Instrument	1	3			
	Component	1	5			
	Major	1	6			
SRO-I						
As SRO	Reactivity	0		1		
	Normal	1		2		
	Instrument	1		3,4		
	Component	1		6,7		
	Major	1		5		
SRO-U	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				

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Chief Examiner:

D. Bernard

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			1	2	3	4
RO	Reactivity	1				
	Normal	1				
	Instrument	2				
	Component	2				
	Major	1				
As RO	Reactivity	1	2			
	Normal	0				
	Instrument	1	3			
	Component	1	5			
	Major	1	6			
SRO-I						
As SRO	Reactivity	0		1		
	Normal	1		2		
	Instrument	1		3,4		
	Component	1		6,7		
	Major	1		5		
SRO-U	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				

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			1	2	3	4
RO	Reactivity	1				
	Normal	1				
	Instrument	2				
	Component	2				
	Major	1				
As RO	Reactivity	1	2			
	Normal	0				
	Instrument	1	3			
	Component	1	5			
	Major	1	6			
SRO-I						
	Reactivity	0		1		
As SRO	Normal	1		2		
	Instrument	1		3,4		
	Component	1		6,7		
	Major	1		5		
	SRO-U	Reactivity	0			
Normal		1				
Instrument		1				
Component		1				
Major		1				

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
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Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1				
	Normal	1				
	Instrument	2				
	Component	2				
	Major	1				
As RO	Reactivity	1			5	
	Normal	0				
	Instrument	1			8	
	Component	1			4	
	Major	1			6	
SRO-I						
As SRO	Reactivity	0		1		
	Normal	1		2		
	Instrument	1		3,4		
	Component	1		6,7		
	Major	1		5		
SRO-U	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
 (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

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RO	Reactivity	1				
	Normal	1				
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	Normal	0				
	Instrument	1				
	Component	1				
	Major	1				
SRO-I	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				
SRO-U	Reactivity	0	2			
	Normal	1	1			
	Instrument	1	3,4			
	Component	1	5,7			
	Major	1	6			

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 (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

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RO	Reactivity	1				
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	Normal	0				
	Instrument	1				
	Component	1				
	Major	1				
SRO-I						
As SRO	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				
SRO-U	Reactivity	0	2			
	Normal	1	1			
	Instrument	1	3,4			
	Component	1	5,7			
	Major	1	6			

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
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			1	2	3	4
RO	Reactivity	1				
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	Component	2				
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	Normal	0				
	Instrument	1				
	Component	1				
	Major	1				
SRO-I						
As SRO	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				
SRO-U	Reactivity	0	2			
	Normal	1	1			
	Instrument	1	3,4			
	Component	1	5,7			
	Major	1	6			

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
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			1	2	3	4
RO	Reactivity	1				
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	Major	1				
As RO	Reactivity	1				
	Normal	0				
	Instrument	1				
	Component	1				
	Major	1				
SRO-I						
As SRO	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				
SRO-U	Reactivity	0	2			
	Normal	1	1			
	Instrument	1	3,4			
	Component	1	5,7			
	Major	1	6			

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
 (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

Author:

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Chief Examiner:

[Signature]

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

Author:

Chief Examiner:

Craig A. Fritz
[Signature]

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

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.

Author:

Chief Examiner:

Craig A. Fritz
[Signature]

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

Author:

Craig A. Fritz

Chief Examiner:

[Signature]

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

Author:

Craig A. Fritz

Chief Examiner:

[Signature]

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

Author:

Chief Examiner:

Craig A. Fritz
[Signature]

Facility:		Date of Exam:		Exam Level: RO/SRO				
Item Description						Initial		
						a	b*	#
1.	Questions and answers technically accurate and applicable to facility			DAM	JTK	B		
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available			DAM	JTK	B		
3.	RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401			DAM	JTK	B		
4.	No more than 25 questions are duplicated from [practice exams, quizzes, and] the last two NRC licensing exams; enter the actual number of duplicated questions at right	NRC	Other	DAM	JTK	B		
		0	2					
5.	[No (Less than 5 percent) question duplication from the license screening/audit exam (if independently written)]			DAM	JTK	B		
6.	Bank use meets limits (no more than 50 percent from the bank, at least 10 percent new, and the rest modified); enter the actual question distribution at right	Bank	Modified	DAM	JTK	B		
		2	0				New	123
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	CIA	DAM	JTK	B		
		20	105					
8.	References/handouts provided do not give away answers			DAM	JTK	B		
9.	Question distribution meets previously approved examination outline; deviations are justified			DAM	JTK	B		
10.	Question psychometric quality and format meet ES, Appendix B, guidelines			DAM	JTK	B		
11.	The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet			DAM	JTK	B		
		Printed Name / Signature				Date		
a.	Author	DAVID A. MALINOWSKI <i>[Signature]</i>				2/24/00		
b.	Facility Reviewer(*)	JEFFREY T. KLENK <i>[Signature]</i>				2/24/00		
c.	NRC Chief Examiner(*)	PAUL H. BISSETT <i>[Signature]</i>				3/23/00		
d.	NRC Regional Supervisor(*)	Richard J. Conzo <i>[Signature]</i>				3/24/00		
<p>Note: * The facility reviewer's signature is not applicable for NRC-developed examinations; two independent NRC reviews are required. # See special instructions (Section E.2.c) for Items 1, 4, 5, and 6. [] The items in brackets do not apply to NRC-prepared examinations.</p>								

Facility: Limerick Generating Station		Date of Exam: 3/31/2000		Exam Level: RO	
Item Description	Initials				
	a	b	c		
1. Answer key changes and question deletions justified and documented	DAM	JTK	B		
2. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	DAM	JTK	B		
3. Grading for all borderline cases (80% +/- 2%) reviewed in detail	DAM	JTK	B		
4. All other failing examinations checked to ensure that grades are justified	N/A	N/A	N/A		
5. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	DAM	JTK	B		
Printed Name / Signature			Date		
a. Grader	DAVID A. MALINOWSKI <i>[Signature]</i>		4/13/00		
b. Facility Reviewer(*)	Jeffrey T. Klenk <i>[Signature]</i>		4/13/00		
c. NRC Chief Examiner (*)	PAUL H. BISSETT <i>[Signature]</i>		4/14/00		
d. NRC Supervisor (*)	Richard J. Cortel <i>[Signature]</i>		4/19/00		
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 4/3/00 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 4/3/00. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE NOTE
1. DAVID A. MALINOWSKI	INSTRUCTOR/EXAM LEAD/SAMPLE PLAN	<i>[Signature]</i>	1/3/00	<i>[Signature]</i>	4/11/00
2. Mike A. HANCHURUCK	EXAM WRITER	<i>[Signature]</i>	1/10/00	<i>[Signature]</i>	4/11/00
3. Craig A. Fritz	INSTRUCTOR	<i>[Signature]</i>	1/10/00	<i>[Signature]</i>	5/4/00
4. COREY B. GOFF	INSTRUCTOR	<i>[Signature]</i>	1/10/00	<i>[Signature]</i>	4/11/00
5. MARJORIE G. RYNO	CLERK	<i>[Signature]</i>	1/19/00	<i>[Signature]</i>	4/11/00
6. JEFFREY T. Klenk	MANAGER OPER TRAINING	<i>[Signature]</i>	1/29/00	<i>[Signature]</i>	5/4/00
7. PETER C. McGRUDDEN	INSTRUCTOR	<i>[Signature]</i>	1/28/00	<i>[Signature]</i>	4/11/00
8. Darren R. Weaver	SIMULATOR SUPPORT / SOFTWARE	<i>[Signature]</i>	2/02/00	<i>[Signature]</i>	4/11/00
9. KARL CARLSON	SIMULATOR SUPPORT / ITC	<i>[Signature]</i>	2/11/00	<i>[Signature]</i>	5-15-00
10. Scott H. Messner	Consultant / Simulator Support	<i>[Signature]</i>	2/14/00	<i>[Signature]</i>	5/8/00
11. Kevin Korch	SIMULATOR SUPPORT / ITC	<i>[Signature]</i>	2/14/00	<i>[Signature]</i>	5/8/00
12. VINCENT HYDRA JR	SIMULATOR Support	<i>[Signature]</i>	2/14/00	<i>[Signature]</i>	4/11/00
13. GREGORY J. Saxon	SHIFT MANAGER	<i>[Signature]</i>	2/22/00	<i>[Signature]</i>	5/24/00
14. Ronald J. DeStefano	R.O.	<i>[Signature]</i>	2/22/00	<i>[Signature]</i>	5-9-00
15. CLARENCE E. PEAKS JR	SHIFT SUPERVISOR	<i>[Signature]</i>	2/22/00	<i>[Signature]</i>	5/24/00

NOTES:

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 4/3/00 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 4/3/00. 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. CARL E. RICH JR	NUCLEAR SHIFT MGR/OPTIC CHAIRMAN	<i>[Signature]</i>	2-22-00	<i>[Signature]</i>	5-9-00
2. John De Santis	Instructional Tech/Comp Support	<i>[Signature]</i>	2-22-00	<i>[Signature]</i>	4/4/00
3. BRANDON K. SHULTZ	INSTRUCTOR / LSRO	<i>[Signature]</i>	3-9-00	<i>[Signature]</i>	5/29/00
4. ROBERT P. ALESZKOV	ENGR/LSOP	<i>[Signature]</i>	3/9/00	<i>[Signature]</i>	5/11/00
5. ROBERT C. BROWN	PROCEDURES/LSOP	<i>[Signature]</i>	3/9/00	<i>[Signature]</i>	5/11/00
6. ROBERT A. FURST	SRO INSTRUCTOR	<i>[Signature]</i>	3/17/00	<i>[Signature]</i>	5/11/00
7. LANE B. MCHUGH	R.O.	<i>[Signature]</i>	3/17/00	<i>[Signature]</i>	5/20/00
8. Douglas M. Antstield	SRO	<i>[Signature]</i>	3-17-00	<i>[Signature]</i>	5-20-00
9. ANTHONY J. WASONG	DIRECTOR OF TRAINING	<i>[Signature]</i>	4-3-00	<i>[Signature]</i>	5/16/00
10. Jeffrey A. Tucker	OPERATIONS MANAGER	<i>[Signature]</i>	4/3/00	<i>[Signature]</i>	5/17/00
11. RANDY S. BUNCE	R.O.	<i>[Signature]</i>	4/5/00	<i>[Signature]</i>	5-24-00
12. ROBERT P. ALESZKOV	ENGR/LSOP	<i>[Signature]</i>			
13.					
14.					
15.					

NOTES: