

VARIOUS CHECKLISTS

FOR THE PERRY INITIAL EXAMINATION - MARCH 2002

PERRY
INITIAL LICENSE EXAM
MARCH 5 THRU 13, 2002

Form ES-201-1, "Examination
Preparation Checklist"

Facility: PERRY

Date of Examination: 03/04/02 - 03/15/02

Examinations Developed by:

Facility 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)	<i>[Handwritten Initials]</i>
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	<i>[Handwritten Initials]</i>
-120	3. Facility contact briefed on security & other requirements (C.2.c)	<i>[Handwritten Initials]</i>
-120	4. Corporate notification letter sent (C.2.d)	<i>[Handwritten Initials]</i>
[-90]	[5. Reference material due (C.1.e; C.3.c)]	N/A
-75	6. Integrated examination outline(s) due (C.1.e & f; C.3.d)	<i>[Handwritten Initials]</i>
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	<i>[Handwritten Initials]</i>
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	<i>[Handwritten Initials]</i>
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	<i>[Handwritten Initials]</i>
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	<i>[Handwritten Initials]</i>
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	<i>[Handwritten Initials]</i>
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	<i>[Handwritten Initials]</i>
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	<i>[Handwritten Initials]</i>
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	<i>[Handwritten Initials]</i>
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	<i>[Handwritten Initials]</i>
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	<i>[Handwritten Initials]</i>

* 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.

[] Applies only to examinations prepared by the NRC.

PERRY
INITIAL LICENSE EXAM

MARCH 5 THRU 13, 2002

Form ES-301-3, "Operating Test Quality
Checklist"

Facility: Perry	Date of Examination: 3/4/2002	Operating Test Number: 2002-01	
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).	EPJ	HL	DJP
b. There is no day-to-day repetition between this and other operating tests to be administered during this examination.	EPJ	HL	DJP
c. The operating test shall not duplicate items from the applicants' audit test(s)(see Section D.1.a).	EPJ	HL	DJP
d. Overlap with the written examination and between operating test categories is within acceptable limits.	EPJ	HL	DJP
e. It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	EPJ	HL	DJP
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 · 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 	EPJ	HL	DJP
b. The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	EPJ	HL	DJP
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.	EPJ	HL	DJP
d. At least 20 percent of the JPMs on each test are new or significantly modified.	EPJ	HL	DJP
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.	EPJ	HL	DJP
a. Author	Printed Name / Signature	Date	
	David P. Johnson / <i>David P. Johnson</i>	1-10-02	
b. Facility Reviewer(*)	Robert J. Sacka / <i>Robert J. Sacka</i>	1-10-02	
c. NRC Chief Examiner (#)	DAVID L. PELTON / <i>David L. Pelton</i>	2/29/02	
d. NRC Supervisor	David E. A-16 / <i>David E. A-16</i>	3/1/02	
NOTE: * The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.			

PERRY
INITIAL LICENSE EXAM

MARCH 5 THRU 13, 2002

Form ES-301-4, "Simulator Scenario
Quality Checklist"

Facility: Pery		Date of Exam: 3/4/2002		Scenario Numbers: 2 / 3 / 4		Operating Test No.: 2002-01			
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.	PPF	ML	PPF					
2.	The scenarios consist mostly of related events.	PPF	ML	PPF					
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) 	PPF		ML		PPF			
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.	PPF	ML	PPF					
5.	The events are valid with regard to physics and thermodynamics.	PPF	ML	PPF					
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	PPF	ML	PPF					
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.	PPF	ML	PPF					
8.	The simulator modeling is not altered.	PPF	ML	PPF					
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.	PPF	ML	PPF					
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.	PPF	ML	PPF					
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	PPF	ML	PPF					
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).	PPF	ML	PPF					
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	PPF	ML	PPF					
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)		Actual Attributes		--	--	--	--		
1.	Total malfunctions (5-8)	6 / 6 / 4		PPF	ML	PPF			
2.	Malfunctions after EOP entry (1-2)	1 / 2 / 1		PPF	ML	PPF			
3.	Abnormal events (2-4)	3 / 2 / 3		PPF	ML	PPF			
4.	Major transients (1-2)	3 / 2 / 2		PPF	ML	PPF			
5.	EOPs entered/requiring substantive actions (1-2)	1 / 2 / 2		PPF	ML	PPF			
6.	EOP contingencies requiring substantive actions (0-2)	3 / 3 / 2		PPF	ML	PPF			
7.	Critical tasks (2-3)	5 / 2 / 2		PPF	ML	PPF			

Facility: Perry		Date of Exam: 3/4/2002		Scenario Numbers: 1 / /		Operating Test No.: 2002-01	
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.	DPF	MM	DPF			
2.	The scenarios consist mostly of related events.	DPF	MM	DPF			
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) 	DPF	MM	DPF			
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.	DPF	MM	DPF			
5.	The events are valid with regard to physics and thermodynamics.	DPF	MM	DPF			
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	DPF	MM	DPF			
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.	DPF	MM	DPF			
8.	The simulator modeling is not altered.	DPF	MM	DPF			
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.	DPF	MM	DPF			
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.	DPF	MM	DPF			
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	DPF	MM	DPF			
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).	DPF	MM	DPF			
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	DPF	MM	DPF			
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)		Actual Attributes					
1.	Total malfunctions (5-8)	4	/ /	DPF	MM	DPF	
2.	Malfunctions after EOP entry (1-2)	2	/ /	DPF	MM	DPF	
3.	Abnormal events (2-4)	2	/ /	DPF	MM	DPF	
4.	Major transients (1-2)	2	/ /	DPF	MM	DPF	
5.	EOPs entered/requiring substantive actions (1-2)	2	/ /	DPF	MM	DPF	
6.	EOP contingencies requiring substantive actions (0-2)	2	/ /	DPF	MM	DPF	
7.	Critical tasks (2-3)	2	/ /	DPF	MM	DPF	

PERRY
INITIAL LICENSE EXAM
MARCH 5 THRU 13, 2002

Form ES-301-5, "Transient and Event
Checklist"

OPERATING TEST NO.: 2002-01 Perry Composite (Master)

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO/BOP	Reactivity	1	2	4	1	5
	Normal	1	1	2	2	1
	Instrument/Component	4	2,3,4,5	1,3,4,5,6	1,3,5,6,7	2,3,4,6
	Major	1	4,6	7,8,9	7,8	6,7
RO	Reactivity	1	2	4	1	5
	Normal	0	NA	NA	NA	NA
	Instrument/Component	2	2,3	1,5	1,3	3,4
	Major	1	4,6	7,8,9	7,8	6,7
SRO-I	Reactivity	0	NA	NA	NA	NA
	Normal	1	1	2	2	1
	Instrument/Component	2	2,3,4,5	1,3,4,5,6	1,3,5,6,7	2,3,4,6
	Major	1	4,6	7,8,9	7,8	6,7
As SRO	Reactivity	0	NA	NA	NA	NA
	Normal	1	1	2	2	1
	Instrument/Component	2	2,3,4,5	1,3,4,5,6	1,3,5,6,7	2,3,4,6
	Major	1	4,6	7,8,9	7,8	6,7
SRO-U	Reactivity	0	NA	NA	NA	NA
	Normal	1	1	2	2	1
	Instrument/Component	2	2,3,4,5	1,3,4,5,6	1,3,5,6,7	2,3,4,6
	Major	1	4,6	7,8,9	7,8	6,7

- 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.
 - (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 requirement.

Author: David P. Colman

NRC Reviewer: Sam H. H. H.

OPERATING TEST NO.: RO-1

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2 BOP	3	4 RO
RO/BOP	Reactivity	1		NA		5
	Normal	1		2		NA
	Instrument/ Component	4		3,4,6		3,4
	Major	1		7,8,9		6,7
RO	Reactivity	1				
	Normal	0				
	Instrument/ Component	2				
	Major	1				
SRO-I	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	Major	1				
As SRO	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	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.
 - (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 requirement.

Author: David P. Johnson

NRC Reviewer: [Signature]

OPERATING TEST NO.: RO-2

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

Author: David P. Johnson

NRC Reviewer: [Signature]

OPERATING TEST NO.: RO-3

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3 RO	4 BOP
RO/BOP	Reactivity	1			1	NA
	Normal	1			NA	1
	Instrument/ Component	4			1,3	2,6
	Major	1			7,8	6,7
RO	Reactivity	1				
	Normal	0				
	Instrument/ Component	2				
	Major	1				
SRO-I	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	Major	1				
As SRO	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	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.
 - (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 requirement.

Author:

David P. Johnson

NRC Reviewer:

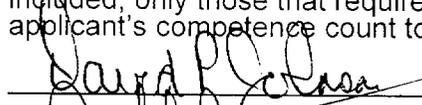
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OPERATING TEST NO.: **SROI-1**

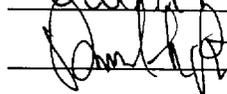
Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3 RO	4 SRO
RO/BOP	Reactivity	1				
	Normal	1				
	Instrument/ Component	4				
	Major	1				
RO	Reactivity	1			1	
	Normal	0			NA	
	Instrument/ Component	2			1,3	
	Major	1			7,8	
SRO-I	Reactivity	0				NA
	Normal	1				1
	Instrument/ Component	2				2,3,4, 6
	Major	1				6,7
SRO-U	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	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.
 - (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 requirement.

Author:



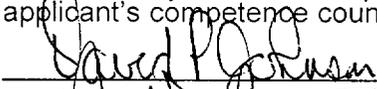
NRC Reviewer:



OPERATING TEST NO.: **SROI-2**

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2 SRO	3	4 RO
RO/BOP	Reactivity	1				
	Normal	1				
	Instrument/ Component	4				
	Major	1				
RO	Reactivity	1				5
	Normal	0				NA
	Instrument/ Component	2				3,4
	Major	1				6,7
SRO-I	Reactivity	0		NA		
	Normal	1		2		
	Instrument/ Component	2		1,3,4, 5,6		
	Major	1		7,8,9		
As SRO	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	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.
 - (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 requirement.

Author: 

NRC Reviewer: 

OPERATING TEST NO.: **SROI-3**

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2 RO	3 SRO	4
RO/BOP	Reactivity	1				
	Normal	1				
	Instrument/ Component	4				
	Major	1				
RO	Reactivity	1		4		
	Normal	0		NA		
	Instrument/ Component	2		1,5		
	Major	1		7,8,9		
SRO-I	Reactivity	0			NA	
	Normal	1			2	
	Instrument/ Component	2			1,3,5, 6,7	
	Major	1			7,8	
As SRO	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	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.
 - (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 requirement.

Author: David P. Johnson

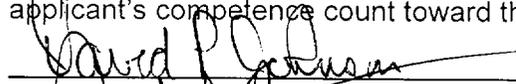
NRC Reviewer: [Signature]

OPERATING TEST NO.: **SROI-4**

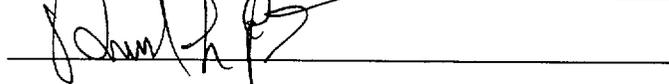
Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2 RO	3 SRO	4
RO/BOP	Reactivity	1				
	Normal	1				
	Instrument/ Component	4				
	Major	1				
RO	Reactivity	1		4		
	Normal	0		NA		
	Instrument/ Component	2		1,5		
	Major	1		7,8,9		
SRO-I	Reactivity	0			NA	
	Normal	1			2	
	Instrument/ Component	2			1,3,5, 6,7	
	Major	1			7,8	
As SRO	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	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.
 - (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 requirement.

Author:



NRC Reviewer:



OPERATING TEST NO.: **SROI-5**

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3 RO	4 SRO
RO/BOP	Reactivity	1				
	Normal	1				
	Instrument/ Component	4				
	Major	1				
RO	Reactivity	1			1	
	Normal	0			NA	
	Instrument/ Component	2			1,3	
	Major	1			7,8	
SRO-I	Reactivity	0				NA
	Normal	1				1
	Instrument/ Component	2				2,3,4, 6
	Major	1				6,7
SRO-U	Reactivity	0				
	Normal	1				
	Instrument/ Component	2				
	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.
 - (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 requirement.

Author:

David P. Johnson

NRC Reviewer:

Walter B.

OPERATING TEST NO.: **SROU**

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

- 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.
 - (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 requirement.

Author: David Johnson

NRC Reviewer: [Signature]

PERRY
INITIAL LICENSE EXAM

MARCH 5 THRU 13, 2002

Form ES-301-6, "Competencies
Checklist"

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

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: David Johnson
 NRC Reviewer: [Signature]

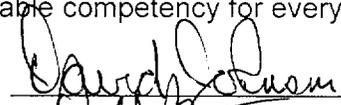
CREW A Competencies	SROI-1				SROI-2				SROI-3			
	SCENARIO				SCENARIO				SCENARIO			
	1	2	3 RO	4 SRO	1	2 SRO	3	4 RO	1	2 RO	3 SRO	4
Understand and Interpret Annunciators and Alarms			3,5,7	2,3,4 5,6,7		1,3,4 5,6,7 8		3,4,6		1,4,5 7,8	2,3,5 6,7	
Diagnose Events and Conditions			1,3,7 8	2,3,4 5,6,7		1,3,4 5,6,7 8,9		3,4,6		1,4,5 7,8	1,3,5 6,7,8	
Understand Plant and System Response			1,3,7 8	2,3,4 5,6,7		1,3,4 5,6,7 8,9		3,4,5 6,7		1,4,5 6,7,8	1,2,3 5,6,7 8	
Comply With and Use Procedures (1)			1,3,4 7,8	2,3,4 5,6,7		1,3,4 5,6,7 8,9		3,4,5 6,7		1,4,5 6,7,8 9	1,3,4 5,6,7 8	
Operate Control Boards (2)			1,3,4 7,8	NA		NA		3,4,5 6,7		1,4,5 6,7,8 9	NA	
Communicate and Interact With the Crew			1,3,4 5,7,8	ALL		ALL		3,4,5 6,7		1,4,5 6,7,8 9	ALL	
Demonstrate Supervisory Ability (3)			NA	ALL		ALL		NA		NA	ALL	
Comply With and Use Tech. Specs. (3)			NA	3,4		1,2,4		NA		NA	3,5	
<p>Notes:</p> <p>(1) Includes Technical Specification compliance for an RO.</p> <p>(2) Optional for an SRO-U.</p> <p>(3) Only applicable to SROs.</p>												

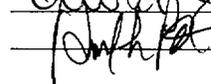
Instructions:

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:

NRC Reviewer:





CREW B Competencies	SROI-4				SROI-5				RO-1			
	SCENARIO				SCENARIO				SCENARIO			
	1	2 RO	3 SRO	4	1	2	3 RO	4 SRO	1	2 BOP	3	4 RO
Understand and Interpret Annunciators and Alarms		1,4,5 7,8	2,3,5 6,7				3,5,7	2,3,4 5,6,7		3,4,6		3,4,6
Diagnose Events and Conditions		1,4,5 7,8	1,3,5 6,7,8				1,3,7 8	2,3,4 5,6,7		3,4,6 7,9		3,4,6
Understand Plant and System Response		1,4,5 6,7,8	1,2,3 5,6,7 8				1,3,7 8	2,3,4 5,6,7		2,3,4 6,7,8 9		3,4,5 6,7
Comply With and Use Procedures (1)		1,4,5 6,7,8 9	1,3,4 5,6,7 8				1,3,4 7,8	2,3,4 5,6,7		2,3,4 6,7,8 9		3,4,5 6,7
Operate Control Boards (2)		1,4,5 6,7,8 9	NA				1,3,4 7,8	NA		2,3,4 6,7,8 9		3,4,5 6,7
Communicate and Interact With the Crew		1,4,5 6,7,8 9	ALL				1,3,4 5,7,8	ALL		2,3,4 6,7,8 9		3,4,5 6,7
Demonstrate Supervisory Ability (3)		NA	ALL				NA	ALL		NA		NA
Comply With and Use Tech. Specs. (3)		NA	3,5				NA	3,4		NA		NA

Notes:

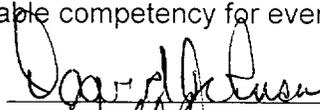
(1) Includes Technical Specification compliance for an RO.
 (2) Optional for an SRO-U.
 (3) Only applicable to SROs.

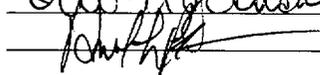
Instructions:

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:

NRC Reviewer:





CREW D Competencies	SROU				RO-2				RO-3			
	SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4 SRO	1	2	3 BOP	4 RO	1	2	3 RO	4 BOP
Understand and Interpret Annunciators and Alarms				2,3,4 5,6,7			2,5,6 7	3,4,6			3,5,7	2,5,6 7
Diagnose Events and Conditions				2,3,4 5,6,7			5,6,7 8	3,4,6			1,3,7 8	2,5,6 7
Understand Plant and System Response				2,3,4 5,6,7			2,5,6 7,8	3,4,5 6,7			1,3,7 8	1,2,5 6,7
Comply With and Use Procedures (1)				2,3,4 5,6,7			2,5,6 7,8	3,4,5 6,7			1,3,4 7,8	1,2,5 6,7
Operate Control Boards (2)				NA			2,5,6 7,8	3,4,5 6,7			1,3,4 7,8	1,2,5 6,7
Communicate and Interact With the Crew				ALL			2,5,6 7,8	3,4,5 6,7			1,3,4 5,7,8	1,2,5 6,7
Demonstrate Supervisory Ability (3)				ALL			NA	NA			NA	NA
Comply With and Use Tech. Specs. (3)				3,4			NA	NA			NA	NA
<p>Notes:</p> <p>(1) Includes Technical Specification compliance for an RO.</p> <p>(2) Optional for an SRO-U.</p> <p>(3) Only applicable to SROs.</p>												

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:

David Johnson

NRC Reviewer:

[Signature]

PERRY
INITIAL LICENSE EXAM

MARCH 5 THRU 13, 2002

Form ES-401-7, "Written Examination
Quality Checklist"

Facility: Perry		Date of Exam: 3/4/2002		Exam Level: RO/SRO		
Item Description	Initial					
	a	b*	c#			
1. Questions and answers technically accurate and applicable to facility	epj	HL	epj			
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	epj	HL	epj			
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	epj	HL	epj			
1. Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process			epj			
5. Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: <input type="checkbox"/> the audit exam was systematically and randomly developed; or <input type="checkbox"/> the audit exam was completed before the license exam was started; or <input type="checkbox"/> the examinations were developed independently; or <input checked="" type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)	epj	HL	epj			
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	Bank	Modified	New	epj	HL	epj
	10 13	41	86			
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		epj	HL	epj
	43	57				
8. References/handouts provided do not give away answers	epj	HL	epj			
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	epj	HL	epj			
10. Question psychometric quality and format meet ES, Appendix B, guidelines	epj	HL	epj			
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	epj	HL	epj			
Printed Name / Signature			Date			
a. Author	David P. Johnson		1-10-02			
b. Facility Reviewer (*)	Robert J. Suckia		1-10-02			
c. NRC Chief Examiner (#)	DAVID L. PELTON		3/1/02			
d. NRC Regional Supervisor	David E. Hill		3/1/02			
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.						

Facility: Perry		Date of Exam: 3/4/2002		Exam Level: RO/SRO		
Item Description	Initial					
	a	b*	c#			
1. Questions and answers technically accurate and applicable to facility	DPJ	IKL	DPJ			
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	DPJ	IKL	DPJ			
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	DPJ	IKL	DPJ			
1. Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process			DPJ			
5. Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: <input type="checkbox"/> the audit exam was systematically and randomly developed; or <input type="checkbox"/> the audit exam was completed before the license exam was started; or <input type="checkbox"/> the examinations were developed independently; or <input checked="" type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)	DPJ	IKL	DPJ			
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	Bank	Modified	New	DPJ	IKL	DPJ
	12 15 <small>DPJ 2/28/02</small>	4 1 <small>DPJ 2/28/02</small>	84			
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	C/A		DPJ	IKL	DPJ
	48 50 <small>DPJ 2/28/02</small>	52 50 <small>DPJ 2/28/02</small>				
8. References/handouts provided do not give away answers	DPJ	IKL	DPJ			
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	DPJ	IKL	DPJ			
10. Question psychometric quality and format meet ES, Appendix B, guidelines	DPJ	IKL	DPJ			
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	DPJ	IKL	DPJ			
Printed Name / Signature				Date		
a. Author	David P. Johnson / David P. Johnson			1-10-02		
b. Facility Reviewer (*)	Robert J. Sachra / Robert J. Sachra			1-10-02		
c. NRC Chief Examiner (#)	DAVID L. PELTON / David L. Pelton			3/1/02		
d. NRC Regional Supervisor	David E. Hillis / David E. Hillis			3/1/02		
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.						

PERRY
INITIAL LICENSE EXAM

MARCH 5 THRU 13, 2002

Form ES-403-1, "Written Examination
Grading Quality Checklist"

Facility: PERRY		Date of Exam: 03/13/02		Exam Level: RO	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading	Sum	N/A	Dep		
2. Answer key changes and question deletions justified and documented	Sum	N/A	Dep		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	Sum	N/A	Dep		
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	Sum N/A	N/A	Dep		
5. All other failing examinations checked to ensure that grades are justified	Sum N/A	N/A	Dep		
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	Sum	N/A	Dep		
Printed Name / Signature		Date			
a. NRC Grader	<u>Deil R. McNeil / Deil R. McNeil</u>		<u>03/22/02</u>		
b. Facility Reviewer(*)	<u>N/A</u>		<u>N/A</u>		
c. NRC Chief Examiner (*)	<u>DAVID L. PELTON / [Signature]</u>		<u>3/22/02</u>		
d. NRC Supervisor (*)	<u>Aironori Peterson / [Signature]</u>		<u>3/22/02</u>		
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					

Facility: PERRY		Date of Exam: 03/13/02		Exam Level: SRO	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading	<i>sm</i>	N/A	<i>DJP</i>		
2. Answer key changes and question deletions justified and documented	<i>sm</i>	N/A	<i>DJP</i>		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<i>sm</i>	N/A	<i>DJP</i>		
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	<i>sm</i> N/A	N/A	<i>DJP</i>		
5. All other failing examinations checked to ensure that grades are justified	<i>sm</i> N/A	N/A	<i>DJP</i>		
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	<i>sm</i>	N/A	<i>DJP</i>		
Printed Name / Signature		Date			
a. NRC Grader	<i>Scott R. McNeil</i> / <i>Scott R. McNeil</i>		<u>03/22/02</u>		
b. Facility Reviewer(*)	N/A		N/A		
c. NRC Chief Examiner (*)	<i>DAVID L. PELTON</i> / <i>[Signature]</i>		<u>3/22/02</u>		
d. NRC Supervisor (*)	<i>Hironori Peterson</i> / <i>[Signature]</i>		<u>3/22/02</u>		
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					