

Facility: <u>PILGRIM</u>		Date of Examination: <u>11/3 - WRITTEN</u> <u>11/6-8 - OPERATING</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)	g/HW
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	g/HW
-120	3. Facility contact briefed on security & other requirements (C.2.c)	6/28 g/HW
-120	4. Corporate notification letter sent (C.2.d)	6/29 g/HW
[-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)	8/22 g/HW 8/30
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	8/25 g/HW
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	9/21 g/HW
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	10/7 g/HW
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	10/23 g/HW
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	10/6 g/HW
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	10/10-11 g/HW
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	10/20 g/HW
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	10/20 g/HW
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	10/20 g/HW
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	N/A g/HW
<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>		

(4a)

ES-201

Examination Outline  
Quality Checklist

Form ES-201-2

Facility: Pilgrim		Date of Examination: 11/6/00		
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.	BA	N	ghm
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all knowledge and ability categories are appropriately sampled.	BA	N	ghm
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	BA	N	ghm
	d. Assess whether the repetition from previous examination outlines is excessive.	BA	N	ghm
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, and major transients.	BA	N	ghm
	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.	BA	N	ghm
	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.	BA	N	ghm
3. W / T	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.	BA	N	ghm
	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.	BA	N	ghm
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	BA	N	ghm
	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.	BA	N	ghm
	e. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	BA	N	ghm
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.	BA	N	ghm
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	BA	N	ghm
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	BA	N	ghm
	d. Check for duplication and overlap among exam sections.	BA	N	ghm
	e. Check the entire exam for balance of coverage.	BA	N	ghm
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	BA	N	ghm
a. Author	Bill Hendy		8/22/00	
b. Facility Reviewer(*)	Scott Willoughby		8/22/00	
c. Chief Examiner	Julian H. Williams		8/24/00	
d. NRC Supervisor	see later		8/24/00	

(\*) Not applicable for NRC developed examinations

REVISED

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ES-201

Examination Outline  
Quality Checklist

Form ES-201-2

Facility: Pilgrim		Date of Examination: 11/6/00		
Item	Task Description	Initials		
		a	b*	c
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	A	R	gHW
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all knowledge and ability categories are appropriately sampled.	A	R	gHW
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	A	R	gHW
	d. Assess whether the repetition from previous examination outlines is excessive.	B	R	gHW
2. SIM	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.	N/A	N/A	N/A
	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.			N/A
	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.			N/A
3. W/T	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.			N/A
	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.			N/A
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.			N/A
	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.	✓	✓	N/A
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	A	R	gHW
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	A	R	gHW
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	A	R	gHW
	d. Check for duplication and overlap among exam sections.	A	R	gHW
	e. Check the entire exam for balance of coverage.	A	R	gHW
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	A	R	gHW
a. Author	Richard Bolduc		Richard Bolduc	8/30/00
b. Facility Reviewer(*)	Scott Walling		Scott Walling	9/2/00
c. Chief Examiner	Julian H. Williams		Julian H. Williams	9/1/00
d. NRC Supervisor	R. J. Con Te		R. J. Con Te	9/1/00

(\*) Not applicable for NRC developed examinations

SUBMITTED WITH REVISED OUTLINE FOR WRITTEN

Facility: Pilgrim		Date of Examination: 11/06/00		Operating Test Number: 1		
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).			BA	n	ghw
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.			BA	n	ghw
c.	The operating test shall not duplicate items from the applicants' audit test(s)(see Section D.1.a).			BA	n	ghw
d.	Overlap with the written examination and between operating test categories is within acceptable limits.			BA	n	ghw
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.			BA	n	ghw
2. WALK-THROUGH (CATEGORY A & B) CRITERIA				--	--	--
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>- 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></ul></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>			BA	n	ghw
b.	The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.			BA	n	ghw
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.			BA	n	ghw
d.	At least 20 percent of the JPMs on each test are new or significantly modified.			BA	n	ghw
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.			BA	n	ghw
Printed Name / Signature				Date		
a. Author	Bill Hendy / <i>Bill Hendy</i>			9/21/00		
b. Facility Reviewer(*)	Scott Willoughby / <i>Scott Willoughby</i>			9/21/00		
c. NRC Chief Examiner (*)	J.H. Williams / <i>J.H. Williams</i>			10/20/00		
d. NRC Supervisor (*)	Richard J. Conte / <i>Richard J. Conte</i>			10/20/00		
(*) The facility signature is not applicable for NRC-developed tests; two independent NRC reviews are required.						

ES-301

Simulator Scenario Quality Checklist

Form ES-301-4

Facility: Pilgrim		Date of Exam: 11/06/00	Scenario Numbers: 1 / 2 / 3		Operating Test No.: 1
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.	BA	N	gHW	
2.	The scenarios consist mostly of related events.	BA	N	gHW	
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>	BA	N	gHW	
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.	BA	N	gHW	
5.	The events are valid with regard to physics and thermodynamics.	BA	N	gHW	
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	BA	N	gHW	
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.	BA	N	gHW	
8.	The simulator modeling is not altered.	BA	N	gHW	
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.	BA	N	gHW	
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.	BA	N	gHW	
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	BA	N	gHW	
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).	BA	N	gHW	
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	BA	N	gHW	
<b>TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)</b>		Actual Attributes	--	--	--
1.	Total malfunctions (5-8)	6 / 6 / 6	BA	N	gHW
2.	Malfunctions after EOP entry (1-2)	2 / 2 / 2	BA	N	gHW
3.	Abnormal events (2-4)	2 / 2 / 2	BA	N	gHW
4.	Major transients (1-2)	1 / 1 / 1	BA	N	gHW
5.	EOPs entered/requiring substantive actions (1-2)	1 / 1 / 2	BA	N	gHW
6.	EOP contingencies requiring substantive actions (0-2)	1 / 1 / 1	BA	N	gHW
7.	Critical tasks (2-3)	2 / 3 / 3	BA	N	gHW

Facility: Pilgrim		Date of Exam: 11/06/00		Scenario Numbers: 4 (spare)		Operating Test No.: 1	
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.	BA	R	g/m			
2.	The scenarios consist mostly of related events.	BA	R	g/m			
4.	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>	BA	R	g/m			
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.	BA	R	g/m			
5.	The events are valid with regard to physics and thermodynamics.	BA	R	g/m			
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	BA	R	g/m			
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.	BA	R	g/m			
8.	The simulator modeling is not altered.	BA	R	g/m			
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.	BA	R	g/m			
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.	BA	R	g/m			
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	BA	R	g/m			
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).	BA	R	g/m			
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	BA	R	g/m			
<b>TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)</b>		Actual Attributes	--	--	--		
1.	Total malfunctions (5-8)	5	BA	R	g/m		
2.	Malfunctions after EOP entry (1-2)	2	BA	R	g/m		
3.	Abnormal events (2-4)	2	BA	R	g/m		
4.	Major transients (1-2)	1	BA	R	g/m		
5.	EOPs entered/requiring substantive actions (1-2)	2	BA	R	g/m		
6.	EOP contingencies requiring substantive actions (0-2)	0 *	BA	R	g/m		
7.	Critical tasks (2-3)	3 *	BA	R	g/m		

\* - The scenario is designed so that low-pressure injection systems will inject prior to TAF, thus Alternate RPV Depressurization should not be required. The scenario guide takes into account that TAF may be reached. If so, contingency EOP actions would be required and an additional critical task would apply.

Transient and Event Checklist  
OPERATING TEST NO.: 1  
**OPERATOR 2/5**

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Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			<u>BOP</u> 1	<u>SRO</u> 2	<u>RO</u> 3	4
RO	Reactivity	1				
	Normal	1				
	Instrument	2				
	Component	2				
	Major	1				

As RO	Reactivity	1		—	(1)	
	Normal	0	(2)	—	(2)	
	Instrument	1	(4)	—	(3)	
	Component	1	(6,7)	—		
	Major	1	(5)	—	(5)	
SRO-I						
As SRO	Reactivity	0	—		—	
	Normal	1	—	(1,2)	—	
	Instrument	1	—	(3,7)	—	
	Component	1	—	(4,6)	—	
	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.

Author:

Chief Examiner:

*B. Hend*

*G. Williams*

Transient and Event Checklist  
OPERATING TEST NO.: 1  
**OPERATOR 1/4**

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			<u>RO</u> 1	<u>BOP</u> 2	<u>SRO</u> 3	4
RO	Reactivity	1				
	Normal	1				
	Instrument	2				
	Component	2				
	Major	1				

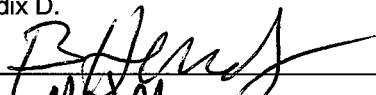
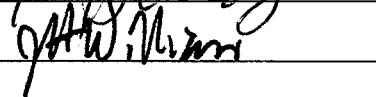
As RO	Reactivity	1	(1)		—	
	Normal	0		(2)	—	
	Instrument	1	(3)	(7)	—	
	Component	1		(4)	—	
	Major	1	(5)	(5)	—	
SRO-I						
As SRO	Reactivity	0	—	—		
	Normal	1	—	—	(1,2)	
	Instrument	1	—	—	(3,4)	
	Component	1	—	—	(6,7)	
	Major	1	—	—	(5)	

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.

Author:

Chief Examiner:



Transient and Event Checklist  
OPERATING TEST NO.: 1  
**OPERATOR 3/6**

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			<u>SRO</u> 1	<u>RO</u> 2	<u>BOP</u> 3	4
RO	Reactivity	1				
	Normal	1				
	Instrument	2				
	Component	2				
	Major	1				

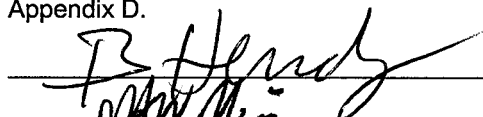
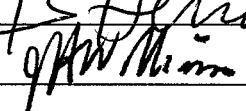
As RO	Reactivity	1	—	(1)		
	Normal	0	—			
	Instrument	1	—	(3)	(4)	
	Component	1	—	(6)	(6,7)	
	Major	1	—	(5)	(5)	
SRO-I						
As SRO	Reactivity	0		—	—	
	Normal	1	(1,2)	—	—	
	Instrument	1	(3,4)	—	—	
	Component	1	(6,7)	—	—	
	Major	1	(5)	—	—	

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.

Author:

Chief Examiner:

Transient and Event Checklist  
 OPERATING TEST NO.: 1  
SPARE

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

As RO/BOP	Reactivity	1				(1)	
	Normal	0					(2)
	Instrument	1				(3)	(7)
	Component	1				(5)	(4,5)
	Major	1				(6)	(6)
SRO-I							
As SRO	Reactivity	0					
	Normal	1				(1,2)	
	Instrument	1				(3,7)	
	Component	1				(4,5)	
	Major	1				(6)	

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:

Chief Examiner:


ES-301

## Competencies Checklist

Form ES-301-6

Competencies	Applicant #1 / #4 RO/ <del>SRO-I</del> /SRO-U				Applicant #2 / #5 RO/ <del>SRO-I</del> /SRO-U				Applicant #3 / #6 RO/ <del>SRO-I</del> /SRO-U			
	SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4
	RO	BOP	SRO		BOP	SRO	RO		SRO	RO	BOP	
Understand and Interpret Annunciators and Alarms	3,4 5	4,5 7	1-7		4-7	3,4 5,7	3,4 5		3-7	3,5	4-7	
Diagnose Events and Conditions	3,5	4,5 7	3-7		4-7	3-7	3,5		3-7	3,5 6	4-7	
Understand Plant and System Response	1,3 5	2,4 5,7	1-7		4-7	1-7	1,2 3,5		1-7	1,3 5,6	4-7	
Comply With and Use Procedures (1)	1,3 5	2,4 5,7	1-7		4-7	1-7	1,2 3,5		1-7	1,3 5,6	4-7	
Operate Control Boards (2)	1,3 5	2,5	—		2 4-7	—	1,2 3,5		—	1,5	4-7	
Communicate and Interact With the Crew	1,3 5	2,4 5,7	1-7		2 4-7	1-7	1,2 3,5		1-7	1,3 6	4-7	
Demonstrate Supervisory Ability (3)	—	—	1-7		—	1-7	—		1-7	—	—	
Comply With and Use Tech. Specs. (3)	—	—	3		—	3	—		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 the event numbers that test the competency for each scenario in the set.

Author:

Chief Examiner:

ES-301

## Competencies Checklist

Form ES-301-6

Competencies	Applicant #1 / #4 RO/ <del>SRO-I</del> /SRO-U				Applicant #2 / #5 RO/ <del>SRO-I</del> /SRO-U				Applicant #3 / #6 RO/ <del>SRO-I</del> /SRO-U			
	SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4
	RO	BOP	SRO		BOP	SRO	RO		SRO	RO	BOP	
Understand and Interpret Annunciators and Alarms	3,4 5	4,5 7	1-7		4-7	3,4 5,7	3,4 5		3-7	3,5	4-7	
Diagnose Events and Conditions	3,5	4,5 7	3-7		4-7	3-7	3,5		3-7	3,5 6	4-7	
Understand Plant and System Response	1,3 5	2,4 5,7	1-7		4-7	1-7	1,2 3,5		1-7	1,3 5,6	4-7	
Comply With and Use Procedures (1)	1,3 5	2,4 5,7	1-7		4-7	1-7	1,2 3,5		1-7	1,3 5,6	4-7	
Operate Control Boards (2)	1,3 5	2,5	—		2 4-7	—	1,2 3,5		—	1,5	4-7	
Communicate and Interact With the Crew	1,3 5	2,4 5,7	1-7		2 4-7	1-7	1,2 3,5		1-7	1,3 6	4-7	
Demonstrate Supervisory Ability (3)	—	—	1-7		—	1-7	—		1-7	—	—	
Comply With and Use Tech. Specs. (3)	—	—	3		—	3	—		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 the event numbers that test the competency for each scenario in the set.

Author:

Chief Examiner:

*B. Hend*

*J. H. Williams*

ES-301

Competencies Checklist

Form ES-301-6

Competencies	Applicant #1 / #4 RO/ <del>SRO-I</del> /SRO-U				Applicant #2 / #5 RO/ <del>SRO-I</del> /SRO-U				Applicant #3 / #6 RO/ <del>SRO-I</del> /SRO-U			
	SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4
	RO	BOP	SRO		BOP	SRO	RO		SRO	RO	BOP	
Understand and Interpret Annunciators and Alarms	3,4 5	4,5 7	1-7		4-7	3,4 5,7	3,4 5		3-7	3,5	4-7	
Diagnose Events and Conditions	3,5	4,5 7	3-7		4-7	3-7	3,5		3-7	3,5 6	4-7	
Understand Plant and System Response	1,3 5	2,4 5,7	1-7		4-7	1-7	1,2 3,5		1-7	1,3 5,6	4-7	
Comply With and Use Procedures (1)	1,3 5	2,4 5,7	1-7		4-7	1-7	1,2 3,5		1-7	1,3 5,6	4-7	
Operate Control Boards (2)	1,3 5	2,5	—		2 4-7	—	1,2 3,5		—	1,5	4-7	
Communicate and Interact With the Crew	1,3 5	2,4 5,7	1-7		2 4-7	1-7	1,2 3,5		1-7	1,3 6	4-7	
Demonstrate Supervisory Ability (3)	—	—	1-7		—	1-7	—		1-7	—	—	
Comply With and Use Tech. Specs. (3)	—	—	3		—	3	—		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 the event numbers that test the competency for each scenario in the set.

Author:

Chief Examiner:

*B. Hendy*  
*J. Williams*

SPARE

ES-301

## Competencies Checklist

Form ES-301-6

Competencies	SPARE <del>RO/SRO-U</del> SRO-U											
	SCENARIO											
		4										
	RO	BOP	SRO									
Understand and Interpret Annunciators and Alarms	1-6	2-7	1-7									
Diagnose Events and Conditions	3,5,6	3-7	3-7									
Understand Plant and System Response	1,3,5,6	2,4,5,7	1-7									
Comply With and Use Procedures (1)	1-6	2,4,5,7	1-7									
Operate Control Boards (2)	1-6	2-6	—									
Communicate and Interact With the Crew	1,-7	1-7	1-7									
Demonstrate Supervisory Ability (3)	—	—	1-7									
Comply With and Use Tech. Specs. (3)	—	—	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 the event numbers that test the competency for each scenario in the set.

Author:

Chief Examiner:

*B. Hend*

*J. Williams*

9

Facility: <u>Pilgrim Nuclear Power Station</u> Date of Exam: <u>November 3, 2000</u> Exam Level: <u>RO/SRO</u>				
Item Description				
Initial				
a	b*	c*		
1.	Questions and answers technically accurate and applicable to facility	B	R	gfw
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	B	R	gfw
3.	RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	B	R	gfw
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			
4.	[No (Less than 5 percent) Question duplication from the license screening/audit exam (if independently written) 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 licensee certifies that there is no duplication; or the license exam was prepared by the NRC	B	R	gfw
5.	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	New
		37	19	45
6.	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	
		42	58	
7.	References/handouts provided do not give away answers	B	R	gfw
8.	Question content conforms with specific K/A statements in the distribution meets previously approved examination outline; deviations are justified	B	R	gfw
9.	Question psychometric quality and format meet ES, Appendix B, guidelines	B	R	gfw
10.	The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	B	R	gfw
Printed Name / Signature				
a. Author	<u>RICHARD T. BOWUC / Richard T. Bowuc</u>			
b. Facility Reviewer(*)	<u>Scott Williams / Scott Williams</u>			
c. NRC Chief Examiner(*)	<u>J. H. Williams / J. H. Williams</u>			
d. NRC Regional Supervisor(*)	<u>Richard S. Conte / Richard S. Conte</u>			
Date				
<u>9/21/00</u>				
<u>7/2/00</u>				
<u>10/20/00</u>				
<u>10/20/00</u>				
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 68. [ ] The items in brackets do not apply to NRC-prepared examinations.				

ES-403

ES-403

Written Examination Grading  
Quality Assurance Checklist

Form ES-403-1

Facility: Pilgrim Nuclear Power Station      Date of Exam: November 3, 2000      Exam Level: RO/SRO	
Item Description	Initials
	a      b      c
1. Answer key changes and question deletions justified and documented	<i>MS</i> 11/9/00 <i>MS</i> 11/10/00 <i>MS</i> 11/14/00
2. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<i>R</i> 11/9/00 <i>MS</i> 11/10/00 <i>MS</i> 11/14/00
3. Grading for all borderline cases (80% +/- 2%) reviewed in detail	<i>R</i> 11/9/00 <i>MS</i> 11/10/00 <i>MS</i> 11/14/00
4. All other failing examinations checked to ensure that grades are justified	<i>N/A</i> <i>MS</i> 11/10/00 <i>N/A</i>
5. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	<i>R</i> 11/9/00 <i>MS</i> 11/10/00 <i>MS</i> 11/14/00

Printed Name / Signature	Date
a. Grader <i>Scott Willoughby</i>	11/9/00
b. Facility Reviewer(*) <i>Mark Santiago</i>	11/10/00
c. NRC Chief Examiner (*) <i>J.H. Williams</i>	11/14/00
d. NRC Supervisor (*) <i>Richard J. Carter</i>	11/20/00

(\*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.

\*\* Steve Dennis performed independent grading of borderline case



1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of <sup>BA</sup> 11/3 to 11/10/00 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 11/3 to 11/10/00. 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. Bill Hendy	Exam Team Senior Instructor - ops	<i>B Hendy</i>	7/14/00	<i>B Hendy</i>	11/9/00
2. RICH BOLDUC	Exam Team OPS IST	<i>R Bolduc</i>	7/11/00	<i>R Bolduc</i>	11/9/00
3. Scott Willems	S. S. T.	<i>Scott Willems</i>	7/12/00	<i>Scott Willems</i>	11/9/00
4. Richard P. Mander	S. S. T.	<i>Richard P. Mander</i>	7/20/00	<i>Richard P. Mander</i>	11/14/00
5. MAUREEN GIBBONS	AA	<i>Maureen Gibbons</i>	7/31/00	<i>M. Gibbons</i>	11-9-00
6. DAVE NOYES	CRS - OPS LIASON	<i>D Noyes</i>	8/21/00	<i>D Noyes</i>	11/9/00
7. MICHAEL GIERDOLSKI	INSTRUCTOR / EXAM DEVELOPMENT	<i>Michael Gierdolski</i>	8/24/00	<i>M Gierdolski</i>	11/14/00
8. ANITA MOSHER	ADMIN. ASSISTANT	<i>Anita Mosher</i>	8-30-00	<i>Anita Mosher</i>	11-14-00
9. BRENT LYONS	Ops Supp Sup	<i>Brent Lyons</i>	9/7/2000	<i>Brent Lyons</i>	11/9/00
10. YAN KEE KO	Sim Software	<i>Yan Kee Ko</i>	9/14/2000	<i>Yan Kee Ko</i>	11/9/00
11. Leo Nichols	Sim S.S.T.S.	<i>Leo Nichols</i>	9/14/2000	<i>Leo Nichols</i>	11/9/00
12. W. ANDRUSON	Sim Soft	<i>W. Andruson</i>	9/14/00	<i>W. Andruson</i>	11/9/00
13. FRANCO PASQUALE	Sim SUPERVISOR	<i>Franco Pasquale</i>	09/14/00	<i>Franco Pasquale</i>	11/9/00
14. BRIAN LEUS	OPS/CRS	<i>Brian Leus</i>	9/14/00	<i>Brian Leus</i>	11/14/00
15. Doug Perry	OPS/CRS	<i>Doug Perry</i>	9/14/00	<i>Doug Perry</i>	11/16/00
16. Jane Scaccia	TA	<i>Jane Scaccia</i>	9/15/00	<i>Jane Scaccia</i>	11/9/00

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 11/3 to 11/10/00 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 11/3 to 11/10/00. 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. SKIP WOLSIETTER	COMP TECH	<i>Carl Woliff</i>	9/18/00	<i>Carl Woliff</i>	11/16/00
2. RICHARD SIBLEY	GRAPHIC ARTIST	<i>Richard Sibley</i>	9-18-00	<i>Richard Sibley</i>	11-19-00
3. MIKE MCDONNELL	CRS	<i>Mike McDonnell</i>	9-20-00	<i>Mike McDonnell</i>	11-16-00
4. KEN WALZ	CRS	<i>Ken Walz</i>	9-21-00	<i>Ken Walz</i>	11-20-00
5. BOB COLIDON	CRS	<i>Bob Colidon</i>	9-21-00	<i>Bob Colidon</i>	11-20-00
6. <i>Frank</i>	CRS	<i>Frank</i>	9-21-00	<i>Frank</i>	11-14-00
7. MR. CORDOZA	Sim Tech	<i>Mr. Cordoza</i>	10/11/00	<i>Mr. Cordoza</i>	11/9
8. Brian Sullivan	CRS LOSS	<i>Brian Sullivan</i>	10/13/00	<i>Brian Sullivan</i>	11/15/00
9. John Horvath	OPS TRNG SUPERVISOR	<i>John Horvath</i>	11/06/00	<i>John Horvath</i>	11/15/00
10. Mark Santiago	OPS TRNG SUPERINTENDENT	<i>Mark Santiago</i>	11/6/00	<i>Mark Santiago</i>	11/19/00
11. Kevin Kennedy	Training Instructor	<i>Kevin Kennedy</i>	11-6-00	<i>Kevin Kennedy</i>	11-14-00
12. VINCENT FALLACARA	Ops Mgr	<i>Vincent Fallacara</i>	11/6/00	<i>Vincent Fallacara</i>	11/20/00
13. T.S. MCDONNELL	DIRECTOR TRNG	<i>T.S. McDonnell</i>	11/6/00	<i>T.S. McDonnell</i>	10 NOV 2000
14. E. O'NEIL	Ops Sup	<i>Eric O'Neil</i>	11/7/00	<i>Eric O'Neil</i>	11/16/00
15.					

NOTES: