

Facility: <u>PEACH BOTTOM UNITS 2 & 3</u>		Date of Examination: <u>2/5-12/01</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)	
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	gjh
-120	3. Facility contact briefed on security & other requirements (C.2.c)	gjh
-120	4. Corporate notification letter sent (C.2.d)	gjh
[-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)	gjh
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	gjh
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	gjh
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	gjh
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	gjh
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	gjh
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	gjh
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	gjh
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	gjh
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	gjh
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	gjh

Facility: <u>PEACH BOTTOM UNITS 2 & 3</u>		Date of Examination: <u>WEEK OF 5 FEB 2000</u>		
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.	PH	RB	PHW
	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.	PH	RB	PHW
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	PH	RB	PHW
	d. Assess whether the repetition from previous examination outlines is excessive.	PH	RB	PHW
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.	PH	RB	PHW
	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.	PH	RB	PHW
	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.	PH	RB	PHW
W / 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.	PH	RB	PHW
	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.	PH	RB	PHW
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	PH	RB	PHW
	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.	PH	RB	PHW
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.	PH	RB	PHW
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	PH	RB	PHW
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	PH	RB	PHW
	d. Check for duplication and overlap among exam sections.	PH	RB	PHW
	e. Check the entire exam for balance of coverage.	PH	RB	PHW
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	PH	RB	PHW
a. Author <u>Philip E. Nielson / [Signature]</u> b. Facility Reviewer(*) <u>Robert G. Birley / [Signature]</u> c. Chief Examiner <u>John Williams / [Signature]</u> d. NRC Supervisor <u>Richard W. Carter / [Signature]</u>		Printed Name / Signature Date <u>20 Nov 2000</u> <u>NOV. 20, 2000</u> <u>NOV 22, 2000</u> <u>11/22/00</u>		

(*) Not applicable for NRC-developed examinations.

Facility: <u>POUGHKEEPSA UNIT 2 & 3</u>		Date of Examination: <u>5 FEB 2001</u>		Operating Test Number: <u>1</u>	
1. GENERAL CRITERIA			Initials		
			a	b	c
a.	The operating test conforms with the previously approved outline; changes are consistent with sampling requirements (e.g., 10 CFR 55.45, operational importance, safety function distribution).	<u>PM</u>	<u>RB</u>	<u>GHW</u>	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	<u>PM</u>	<u>RB</u>	<u>GHW</u>	
c.	The operating test shall not duplicate items from the applicants' audit test(s) (see Section D.1.a).	<u>PM</u>	<u>RB</u>	<u>GHW</u>	
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	<u>PM</u>	<u>RB</u>	<u>GHW</u>	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	<u>PM</u>	<u>RB</u>	<u>GHW</u>	
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 	<u>PM</u>	<u>RB</u>	<u>GHW</u>	
b.	The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	<u>N/A</u> <u>PM</u>	<u>N/A</u> <u>RB</u>	<u>N/A</u> <u>GHW</u>	
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.	<u>PM</u>	<u>RB</u>	<u>GHW</u>	
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	<u>PM</u>	<u>RB</u>	<u>GHW</u>	
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.	<u>PM</u>	<u>RB</u>	<u>GHW</u>	
Printed Name / Signature			Date		
a. Author	<u>PHILIP E. NEWSON</u>	<u>Philip E. Newson</u>	<u>20 DEC 2000</u>		
b. Facility Reviewer(*)	<u>ROBERT G. BIRNEY</u>	<u>Robert G. Birney</u>	<u>12/20/2000</u>		
c. NRC Chief Examiner (*)	<u>Julian H. Williams</u>	<u>Julian H. Williams</u>	<u>1/4/01</u>		
d. NRC Supervisor (*)	<u>Richard J. Connel</u>	<u>Richard J. Connel</u>	<u>2/12/01</u>		
(*) The facility signature is not applicable for NRC-developed tests; two independent NRC reviews are required.					

Facility: <u>PEACH BOTTOM 243</u> Date of Exam: <u>5 FEB 2001</u> Scenario Numbers: <u>1/2/3/4</u> Operating Test No.: <u>1</u>				
QUALITATIVE ATTRIBUTES		Initials		
		a	b	c
1.	The initial conditions are realistic, in that some equipment and/or instrumentation may be out of service, but it does not cue the operators into expected events.	PM	RS	QHW
2.	The scenarios consist mostly of related events.	PM	RS	QHW
3.	Each event description consists of • the point in the scenario when it is to be initiated • the malfunction(s) that are entered to initiate the event • the symptoms/cues that will be visible to the crew • the expected operator actions (by shift position) • the event termination point (if applicable)	PM	RS	QHW
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.	PM	RS	QHW
5.	The events are valid with regard to physics and thermodynamics.	PM	RS	QHW
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	PM	RS	QHW
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.	PM	RS	QHW
8.	The simulator modeling is not altered.	PM	RS	QHW
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.	PM	RS	QHW
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.	PM	RS	QHW
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	PM	RS	QHW
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).	PM	RS	QHW
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	PM	RS	QHW
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)		Actual Attributes		
1.	Total malfunctions (5-8)	6	6	6
2.	Malfunctions after EOP entry (1-2)	2	1	1
3.	Abnormal events (2-4)	2	2	1
4.	Major transients (1-2)	2	1	2
5.	EOPs entered/requiring substantive actions (1-2)	2	1	2
6.	EOP contingencies requiring substantive actions (0-2)	2	1	1
7.	Critical tasks (2-3)	3	1	3

* For scenario #4, 2 of the malfunctions after EOP entry occur simultaneously with the major transient. The other two occur later, does not cause overloading of candidate responsibilities.

OPERATING TEST NO.: RO-1

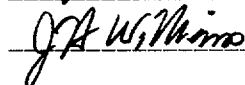
Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			PRO 1	URS 2	3	4
RO	Reactivity	1	—	4		
	Normal	1	1	1		
	Instrument / Component	2 24	3,4,7,8	2,3,8		
	Major	1	5,6	5,6		
As RO	Reactivity	1				
	Normal	0			N/A	
	Instrument / Component	1 42				
	Major	1				
SRO-I	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	Major	1				
As SRO	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	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:

 / Philip E. Nixon

Chief Examiner:

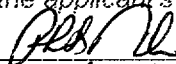


OPERATING TEST NO.: RO-2

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1	-	4		
	Normal	1	1	1		
	Instrument / Component	2 24	3,4,7,8	2,3,8		
	Major	1	5,6	5,6		
As RO	Reactivity	1				
	Normal	0			N/A	
	Instrument / Component	1 42				
	Major	1				
SRO-I	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	Major	1				
As SRO	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	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:

 / PHILIP E. NIELSEN

Chief Examiner:



OPERATING TEST NO.: RO-3

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1	—	4		
	Normal	1	1	1		
	Instrument / Component	2 24	3,4,7,8	2,3,8		
	Major	1	5,6	5,6		
As RO	Reactivity	1				
	Normal	0			N/A	
	Instrument / Component	4 42				
	Major	1				
SRO-I	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	4 42				
	Major	1				
As SRO	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	4 42				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	4 42				
	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:

Philip E. Nieuwen

Chief Examiner:

JAW Mapp

OPERATING TEST NO.: SRO-I - 1

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			SRO 1	SRO 2	SRO 3	4
RO	Reactivity	1				
	Normal	1			N/A	
	Instrument / Component	2 24				
	Major	1				
As RO	Reactivity	1	2	N/A	N/A	
	Normal	0	N/A	N/A	N/A	
	Instrument / Component	1 42	3, 4, 7, 8	N/A	N/A	
	Major	1	5, 6	N/A	N/A	
SRO-I						
As SRO	Reactivity	0	N/A	N/A	N/A	
	Normal	1	N/A	1	1	
	Instrument / Component	1 42	N/A	2, 3, 7, 8	2, 3, 5, 8	
	Major	1	N/A	5, 6	6, 7	
SRO-U	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	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:

Philip E. Niewen

Chief Examiner:

J. H. Williams

OPERATING TEST NO.: SRO-I - Z

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			UAD 1	SAD 2	PSE 3	4
RO	Reactivity	1				
	Normal	1			N/A	
	Instrument / Component	2 24				
	Major	1				
As RO	Reactivity	1	2	N/A	—	
	Normal	0	N/A	N/A	N/A	
	Instrument / Component	1 42	3,4,7,8	N/A	2,3,5,8	
	Major	1	5,6	N/A	6,7	
SRO-I						
As SRO	Reactivity	0	N/A	N/A	N/A	
	Normal	1	N/A	1	N/A	
	Instrument / Component	1 42	N/A	2,3,7,8	N/A	
	Major	1	N/A	5,6	N/A	
SRO-U	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	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:

Philip E. Nielsen

Chief Examiner:

J.R. Williams

OPERATING TEST NO.: SRO-3-3

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			UAD 1	SRO 2	UAD 3	4
RO	Reactivity	1				
	Normal	1			N/A	
	Instrument / Component	2 24				
	Major	1				
As RO	Reactivity	1	2	N/A	4	
	Normal	0	N/A	N/A	N/A	
	Instrument / Component	1 42	3, 4, 7, 8	N/A	2, 3, 5, 6	
	Major	1	5, 6	N/A	6, 7	
SRO-I						
As SRO	Reactivity	0	N/A	N/A	N/A	
	Normal	1	N/A	1	N/A	
	Instrument / Component	1 42	N/A	2, 3, 7, 8	N/A	
	Major	1	N/A	5, 6	N/A	
SRO-U	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	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:

Philip E. Newer

Chief Examiner:


JFW

OPERATING TEST NO.: SRO-J-4

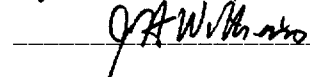
Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			SRO 1	UPO 2	PRO 3	4
RO	Reactivity	1	↖			
	Normal	1			N/A	
	Instrument / Component	2 24				
	Major	1				↘
As RO	Reactivity	1	N/A	4	—	
	Normal	0	N/A	N/A	N/A	
	Instrument / Component	1 42	N/A	2,3,6	2,3,5,8	
	Major	1	N/A	5,6	6,7	
SRO-I						
As SRO	Reactivity	0	N/A	N/A	N/A	
	Normal	1	1	N/A	N/A	
	Instrument / Component	1 42	3,4,7,8	N/A	N/A	
	Major	1	5,6	N/A	N/A	
SRO-U	Reactivity	0	↖			
	Normal	1			N/A	
	Instrument / Component	1 42				
	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:

 PHILIPPE E. NICEW.

Chief Examiner:



OPERATING TEST NO.: SRO-I-5

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

P. E. Niles

Chief Examiner:

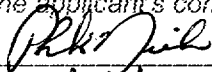
J. W. Niles

OPERATING TEST NO.: SRO-I-6

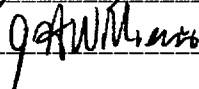
Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1				
	Normal	1			N/A	
	Instrument / Component	2 24				
	Major	1				
As RO	Reactivity	1	2	—	N/A	
	Normal	0	N/A	N/A	N/A	
	Instrument / Component	1 42	3,4,7,8	2,3,7,8	N/A	
	Major	1	5,6	5,6	N/A	
SRO-I						
As SRO	Reactivity	0	N/A	N/A	N/A	
	Normal	1	N/A	N/A	1	
	Instrument / Component	1 42	N/A	N/A	2,3,5,8	
	Major	1	N/A	N/A	6,7	
SRO-U	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	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:

 / PHILIP E. NIELSEN

Chief Examiner:



OPERATING TEST NO.: SRO-U-1

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			SRO 1	BO 2	3	4
RO	Reactivity	1				
	Normal	1			N/A	
	Instrument / Component	2 24				
	Major	1				
As RO	Reactivity	1				
	Normal	0			N/A	
	Instrument / Component	1 42				
	Major	1				
SRO-I	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	Major	1				
As SRO	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1				
	Instrument / Component	1 42	3, 4, 7, 8	2, 2 7, 8		
	Major	1	5, 6	5, 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.
- (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:

Philip E. Nierse / PHILIP E. NIERSE

Chief Examiner:

JAW/Naire


*will be evaluated in RO position
but "evolution type" not needed*

OPERATING TEST NO.: SRO-U-2

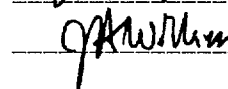
Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			SRO 1	BOP 2	3	4
RO	Reactivity	1				
	Normal	1			N/A	
	Instrument / Component	2 24				
	Major	1				
As RO	Reactivity	1				
	Normal	0			N/A	
	Instrument / Component	1 42				
	Major	1				
SRO-I	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	Major	1				
As SRO	Reactivity	0				
	Normal	1			N/A	
	Instrument / Component	1 42				
	Major	1				
SRO-U	Reactivity	0	-			
	Normal	1	1	1		
	Instrument / Component	1 42	3,4,7,8	2,3 7,8		
	Major	1	5,6	5,6		

- 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.
- (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:

 / Philip E. Nixson

Chief Examiner:

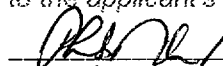


OPERATING TEST NO.: SRO-U-3

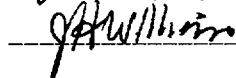
Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			SRO 1	DO 2	3	4
RO	Reactivity	1				
	Normal	1				
	Instrument / Component	$\frac{2}{24}$				
	Major	1				
As RO	Reactivity	1				
	Normal	0				
	Instrument / Component	$\frac{1}{42}$				
	Major	1				
SRO-I	Reactivity	0				
	Normal	1				
	Instrument / Component	$\frac{1}{42}$				
	Major	1				
As SRO	Reactivity	0				
	Normal	1				
	Instrument / Component	$\frac{1}{42}$				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1				
	Instrument / Component	$\frac{1}{42}$	3,4,7,8	2,3 7,8		
	Major	1	5,6	5,6		

- 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.
- (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:

 / PHILIP E. NIELSEN

Chief Examiner:



Will be evaluated in RO position
but "evolution type" not needed.

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

Notes:

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

Instructions:

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

Author:

Chief Examiner:

Philip E. Nicks / PHILIP E. NICKS
Julian A. Williams / Julian A. Williams

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

Instructions:

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

Author:

Chief Examiner:

Philip E. Nixson
Julian H. Williams / Julian H. Williams

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

Notes:

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

Instructions:

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

Author:

Chief Examiner:

Philip E. Nielsen / *Philip E. Nielsen*
Julian H. Williams / *Julian H. Williams*

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

Philip E. Niassary
Julian A. Williams / Julian A. Williams

Facility: <u>PEACH BOTTOM UNIT 283</u>		Date of Exam: <u>5 FEB 2001</u>		Exam Level: <u>RO/SRO</u>		
Item Description				Initial		
				a	b*	c*
1. Questions and answers technically accurate and applicable to facility				<u>M</u>	<u>RGB</u>	<u>gHW</u>
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available				<u>M</u>	<u>RGB</u>	<u>gHW</u>
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401				<u>M</u>	<u>RGB</u>	<u>gHW</u>
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						
				-NRG	Other	
				<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
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: <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 checked="" type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> the license exam was prepared by the NRC.				<u>M</u>	<u>RGB</u>	<u>gHW</u>
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
				<u>15</u>	<u>0</u>	<u>85</u>
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	
				<u>44</u>	<u>56</u>	
7. References/handouts provided do not give away answers				<u>M</u>	<u>RGB</u>	<u>gHW</u>
8. Question content conforms with specific K/A statements in the distribution meets previously approved examination outline; deviations are justified				<u>M</u>	<u>RGB</u>	<u>gHW</u>
9. Question psychometric quality and format meet ES, Appendix B, guidelines				<u>M</u>	<u>RGB</u>	<u>gHW</u>
10. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet				<u>M</u>	<u>RGB</u>	<u>gHW</u>
Printed Name / Signature				Date		
a. Author <u>Philip E. Nielsen / P.E. Nielsen</u>				<u>20 DEC 2000</u>		
b. Facility Reviewer(*) <u>Robert G. Birley / R.G. Birley</u>				<u>12/20/00</u>		
c. NRC Chief Examiner(*) <u>Julian H. Williams / Julian H. Williams</u>				<u>1/4/01</u>		
d. NRC Regional Supervisor(*) <u>Richard J. Conter / R.J. Conter</u>				<u>1/17/01</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.						

Facility: <u>Denon Boston Unit 2 & 3</u>		Date of Exam: <u>5 FEB 2001</u>		Exam Level: <u>RO/SRO</u>		
Item Description				Initial		
				a	b*	c*
1. Questions and answers technically accurate and applicable to facility				<u>M</u>	<u>RGB</u>	<u>gHW</u>
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available				<u>M</u>	<u>RGB</u>	<u>gHW</u>
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401				<u>M</u>	<u>RGB</u>	<u>gHW</u>
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	
				<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
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 the audit exam was completed before the license exam was started; or <input checked="" type="checkbox"/> the licensee certifies that there is no duplication; or the license exam was prepared by the NRC.				<u>M</u>	<u>RGB</u>	<u>gHW</u>
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
				<u>11</u>	<u>0</u>	<u>89</u>
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	
				<u>46</u>	<u>54</u>	
7. References/handouts provided do not give away answers				<u>M</u>	<u>RGB</u>	<u>gHW</u>
8. Question content conforms with specific K/A statements in the distribution meets previously approved examination outline; deviations are justified				<u>M</u>	<u>RGB</u>	<u>gHW</u>
9. Question psychometric quality and format meet ES, Appendix B, guidelines				<u>M</u>	<u>RGB</u>	<u>gHW</u>
10. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet				<u>M</u>	<u>RGB</u>	<u>gHW</u>
Printed Name / Signature				Date		
a. Author <u>Philip E. Nielsen / P.E. Nielsen</u>				<u>20 DEC 2000</u>		
b. Facility Reviewer(*) <u>Robert G. Birley / Robert G. Birley</u>				<u>12/20/00</u>		
c. NRC Chief Examiner(*) <u>Julian H. Williams / Julian H. Williams</u>				<u>1/4/01</u>		
d. NRC Regional Supervisor(*) <u>Richard J. Connel / Richard J. Connel</u>				<u>1/2/01</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 6. [] The items in brackets do not apply to NRC-prepared examinations.						

Facility: <u>PEACH BOTTOM UNIT 2#3</u> Date of Exam: <u>12 FEB 2001</u> Exam Level: RO <u>(SRO)</u>			
Item Description	Initials		
	a	b	c
1. Clean answer sheets copied before grading	<u>PN</u>	<u>RGB</u>	<u>gjm</u>
2. Answer key changes and question deletions justified and documented	<u>PN</u>	<u>RGB</u>	<u>gjm</u>
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<u>PN</u>	<u>RGB</u>	<u>gjm</u>
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	<u>PN</u>	<u>RGB</u>	<u>gjm</u>
5. All other failing examinations checked to ensure that grades are justified	<u>PN</u>	<u>RGB</u>	<u>gjm</u>
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	<u>PN</u>	<u>RGB</u>	<u>gjm</u>
Printed Name / Signature		Date	
a. Grader	<u>Philip E. Nieves / <i>PN</i></u>	<u>22 FEB 2001</u>	
b. Facility Reviewer(*)	<u>ROBERT G. BIRLEY / <i>RGB</i></u>	<u>2/22/01</u>	
c. NRC Chief Examiner (*)	<u>Julian H. Williams / <i>JHW</i></u>	<u>2/26/01</u>	
d. NRC Supervisor (*)	<u>Richard D. Condit / <i>RC</i></u>	<u>3/2/01</u>	
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.			

Facility: <u>PEACH Bottom Unit 2 & 3</u> Date of Exam: <u>12 FEB 2001</u> Exam Level: <u>RO/SRO</u>			
Item Description	Initials		
	a	b	c
1. Clean answer sheets copied before grading	<u>PM</u>	<u>RGB</u>	<u>gkm</u>
2. Answer key changes and question deletions justified and documented	<u>PM</u>	<u>RGB</u>	<u>gkm</u>
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<u>PM</u>	<u>RGB</u>	<u>gkm</u>
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	<u>PM</u>	<u>RGB</u>	<u>gkm</u>
5. All other failing examinations checked to ensure that grades are justified	<u>PM</u>	<u>RGB</u>	<u>gkm</u>
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	<u>PM</u>	<u>RGB</u>	<u>gkm</u>
Printed Name / Signature		Date	
a. Grader	<u>Philip E. Nielsen / [Signature]</u>	<u>22 FEB 2001</u>	
b. Facility Reviewer(*)	<u>Robert G. Birley / [Signature]</u>	<u>3/22/01</u>	
c. NRC Chief Examiner (*)	<u>Julian H. Williams / [Signature]</u>	<u>3/26/01</u>	
d. NRC Supervisor (*)	<u>Richard J. Cantle / [Signature]</u>	<u>3/2/01</u>	
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.			