Facility: Seabrook Date of Examination: 7/6-12/07

Developed by: Written - Facility ☒ NRC ☐ // Operating - Facility ☒ NRC ☐

Target Date*	Task Description (Reference)	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a and b)	JM
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	JM
-120	3. Facility contact briefed on security and other requirements (C.2.c)	JM
-120	4. Corporate notification letter sent (C.2.d)	JM
[-90]	[5. Reference material due (C.1.e; C.3.c; Attachment 2)]	JM
{-75}	6. Integrated examination outline(s) due, including Forms ES-201-2, ES-201-3, ES-301-1, ES-301-2, ES-301-5, ES-D-1's, ES-401-1/2, ES-401-3, and ES-401-4, as applicable (C.1.e and f; C.3.d)	JM
{-70}	{7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)}	JM
{-45}	8. Proposed examinations (including written, walk-through JPMs, and scenarios, as applicable), supporting documentation (including Forms ES-301-3, ES-301-4, ES-301-5, ES-301-6, and ES-401-6, and any Form ES-201-3 updates), and reference materials due (C.1.e, f, g and h; C.3.d)	JM
-30	9. Preliminary license applications (NRC Form 398's) due (C.1.l; C.2.g; ES-202)	JM
-14	10. Final license applications due and Form ES-201-4 prepared (C.1.l; C.2.i; ES-202)	JM
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	JM
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f and h; C.3.g)	JM
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	JM
-7	14. Final applications reviewed; 1 or 2 (if >10) applications audited to confirm qualifications / eligibility; and examination approval and waiver letters sent (C.2.i; Attachment 4; ES-202, C.2.e; ES-204)	JM
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee (C.3.k)	JM
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	JM

* Target dates are generally based on facility-prepared examinations and 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] {Does not apply} to examinations prepared by the NRC.

Seabrook Station 2007 NRC Exam

Facility: Date of Examination:

Item	Task Description	Initials a	Initials b*	Initials c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	SMM	JCC	JM
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	SMM	JCC	JM
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	SMM	JCC	JM
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	SMM	JCC	JM
2. SIMULATOR	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	DA	JCC	JM
	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, and ensure that 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 that scenarios will not be repeated on subsequent days.	DA	JCC	JM
	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.	DA	JCC	JM
3. W/T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks (2) distributed among the safety functions as specified on the form (3) task repetition from the last two NRC examinations is within the limits specified on the form. (3) no tasks are duplicated from the applicants audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on (5) the number of alternate path, low-power, emergency, and RCA tasks meet the (6) criteria on the form.	SMM	JCC	JM
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations	SMM	JCC	JM

W / T (cont.)	c. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.	SMN	TCL	[illegible]
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	SMN	TCL	[illegible]
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	SMN	TCL	[illegible]
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	SMN	TCL	[illegible]
	d. Check for duplication and overlap among exam sections.	SMN	TCL	[illegible]
	e. Check the entire exam for balance of coverage.	SMN	TCL	[illegible]
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	SMN	TCL	[illegible]

Printed Name/Signature LEONARD S. HUBBARD [signature] 4/10/07 Date

a. Author [signature] [signature]

b. Facility Reviewer (*) [signature] 4/10/07

c. NRC Chief Examiner (#) JOHN CANUSO [signature] 4/18/07

d. NRC Supervisor MARVIN D. SYKES / [signature] 4/19/07

Note: # Independent NRC reviewer initial items in Column Ac@; chief examiner concurrence required.

ATTACHMENT 3

Form ES-210-3, Examination Security Agreement

SEABROOK

ES-201	Examination Security Agreement	Form ES-201-3

1. **Pre-Examination**

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of July 7-14, 2007 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 (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). 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 July 7-14, 2007. 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.	Sean M. Riley	Exam Author	[signature]	2/12/7	[signature]	7/17/7
2.	Timothy Cassidy	Training Support Supv	[signature]	7/2/07	[signature]	7/13/07
3.	Leonard Hubbard	Sim Support TRS.	[signature]	2/20/07	[signature]	7/17/07
4.	James L. Kennish	Exam Peer Check	[signature]	7/12/07	[signature]	7/17/07
5.	Jye-Yuh Lee	Engineer	[signature]	4/10/07	[signature]	7/17/07
6.	Ken Purington	Control Room Operator	[signature]	5/7/07	PSM Telcon	7/17/07
7.	Mike Taylor	VS	[signature]	5-7-07	PSM Telcon	7/17/07
8.	Joe Eldridge	Control Room Operator	[signature]	5-7-07	PSM Telcon	7/17/07
9.	Rich Furmanick	TECH	[signature]	5-8-07	[signature]	7/17/07
10.	Kenneth Tarnanik	AOM	[signature]	5/8/07	[signature]	[illegible]
11.	Kerry Wright	Training Manager	[signature]	6/1/07	[signature]	7/17/07
12.	Mike Kiley	Plant Mgr	[signature]	6/8/07	PSM Telcon	7/17/07
13.	[illegible]	OPS Training Supervisor	[signature]	7/5/07	[signature]	7/17/07
14.	Mike Breault	OPS Training Instructor	[signature]	7/9/07	[signature]	7/17/07
15.	Pat Leary	OPS Training Instructor	[signature]	7-9-07	[signature]	7-17-07

NOTES:

E.T. Metcalf — OPS Mgr. — [signature] — 7-10-07 — PSM Telcon — 7/17/07

Facility: SEABROOK Date of Examination: 7/9/07 Operating Test Number:

1. General Criteria	Initials a	Initials b*	Initials 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).	SMR	TC	JL
b. There is no day-to-day repetition between this and other operating tests to be administered during this examination.	SMR	TC	JL
c. The operating test shall not duplicate items from the applicants= audit test(s). (see Section D.1.a.)	SMR	TC	JL
d. Overlap with the written examination and between different parts of the operating test is within acceptable limits.	SMR	TC	JL
e. It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	SMR	TC	JL
2. Walk-Through Criteria	--	--	--
a. Each JPM includes the following, as applicable:			
$. initial conditions			
$. initiating cues		TC	
$. 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			JL
$. operationally important specific performance criteria that include:	SMR		
B. detailed expected actions with exact criteria and nomenclature			
B. system response and other examiner cues			
B. statements describing important observations to be made by the applicant			
B. criteria for successful completion of the task			
B. identification of critical steps and their associated performance standards			
B. restrictions on the sequence of steps, if applicable			
b. Ensure that any changes from the previously approved systems and administrative walk-through outlines (Forms ES-301-1 and 2) have not caused the test to deviate from any of the acceptance criteria (e.g., item distribution, bank use, repetition from the last 2 NRC examinations) specified on those forms and Form ES-201-2.	SMR	TC	JL
3. Simulator Criteria	--	--	--
The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	SMR	TC	JL

	Printed Name / Signature	Date
a. Author	Sean M. Riley	6/22/07
b. Facility Reviewer(*)	Timothy C Cassidy	6/22/07
c. NRC Chief Examiner (#)	John Carusso	7/3/07
d. NRC Supervisor	Marvin Sykes	7/3/07

NOTE: * The facility signature is not applicable for NRC-developed tests.

NOTE: No Surrogates planned for this Exam

1/2/3 scenario redesigned JM

Facility: SEABROOK Date of Exam: Scenario Numbers: A/B/D Operating Test No.:

QUALITATIVE ATTRIBUTES	Initials a	Initials b*	Initials 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.	SMR	TC	JM
2. The scenarios consist mostly of related events.	SMR	TC	JM
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)	SMR	TC	JM
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.	SMR	TC	JM
5. The events are valid with regard to physics and thermodynamics.	SMR	TC	JM
6. Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	SMR	TC	JM
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.	N/A	N/A	
8. The simulator modeling is not altered.	SMR	TC	JM
9. The scenarios have been validated. Pursuant to 10 CFR 55.46(d), any open simulator performance deficiencies or deviations from the referenced plant have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.	SMR	TC	JM
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.5 of ES-301.	SMR	TC	JM
11. All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	SMR	TC	JM
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).	SMR	TC	JM
13. The level of difficulty is appropriate to support licensing decisions for each crew position.	SMR	TC	JM

Target Quantitative Attributes (Per Scenario; See Section D.5.d)	Actual Attributes	--	--	--
1. Total malfunctions (5B8)	6/6/6	SMR	TC	JM
2. Malfunctions after EOP entry (1B2)	2/3/2	SMR	TC	JM
3. Abnormal events (2B4)	2/2/2	SMR	TC	JM
4. Major transients (1B2)	2/3/2	SMR	TC	JM
5. EOPs entered/requiring substantive actions (1B2)	3/4/4	SMR	TC	JM
6. EOP contingencies requiring substantive actions (0B2)	0/2/0	SMR	TC	JM
7. Critical tasks (2B3)	2/2/2	SMR	TC	JM

Standby

Facility:	Date of Exam:	Scenario Numbers: / C /	Operating Test No.:

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.	SMM	TC	JM
2. The scenarios consist mostly of related events.	SMM	TC	JM
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)	SMM	TC	JM
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.	SMM	TC	JM
5. The events are valid with regard to physics and thermodynamics.	SMM	TC	JM
6. Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	SMM	TC	JM
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.	SMM	N/A	
8. The simulator modeling is not altered.	SMM	TC	JM
9. The scenarios have been validated. Pursuant to 10 CFR 55.46(d), any open simulator performance deficiencies or deviations from the referenced plant have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.	SMM	TC	JM
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.5 of ES-301.	SMM	TC	JM
11. All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	SMM	TC	JM
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).	SMM	TC	JM
13. The level of difficulty is appropriate to support licensing decisions for each crew position.	SMM	TC	JM

Target Quantitative Attributes (Per Scenario; See Section D.5.d)	Actual Attributes	--	--	--
1. Total malfunctions (5B8)	6 / /	SMM	TC	JM
2. Malfunctions after EOP entry (1B2)	2 / /	SMM	TC	JM
3. Abnormal events (2B4)	2 / /	SMM	TC	JM
4. Major transients (1B2)	1 / /	SMM	TC	JM
5. EOPs entered/requiring substantive actions (1B2)	3 / /	SMM	TC	JM
6. EOP contingencies requiring substantive actions (0B2)	0 / /	SMM	TC	JM
7. Critical tasks (2B3)	3 / /	SMM	TC	JM

SRO-I1 Andrew Caramihalis

Facility: Seabrook Date of Exam: 7/9-7/12/07 Operating Test No.:

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		1 Scenario 1 (A)			2 Scenario 2 (B)			3 Scenario 4 (D)			4						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		SRO	**ATC**	BOP	**SRO**	ATC	BOP	SRO	ATC	**BOP**	SRO	ATC	BOP		R	I	U
RO **SRO-I** SRO-U	RX		3 Ev#1 Ev#4 Ev#5		2 Ev#1 Ev#5					1 Ev#1				6	1	1	0
	NOR		1 Ev#1		1 Ev#1					1 Ev#1				3	1	1	1
	I/C		3 Ev#3 Ev#4		4 Ev#2 Ev#3 Ev#4 Ev#6					4 Ev#2 Ev#3 Ev#4 Ev#5				11	4	4	2
	MAJ		1 Ev#5		2 Ev#5 Ev#7					1 Ev#5				4	2	2	1
	TS		0		2 Ev#2 Ev#3					0				2	0	2	2

RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.

2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.

1. 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 requirements specified for the applicant's license level in the right-hand columns.

SRO-I2 Edward Lyons

Facility: Seabrook Date of Exam: 7/9-7/12/07 Operating Test No.:

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		1 Scenario 1 (A)			2 Scenario 4 (D)			3 Scenario 2 (B)			4						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		SRO	ATC	BOP	SRO	**ATC**	BOP	SRO	ATC	**BOP**	SRO	ATC	BOP		R	I	U
RO **SRO-I** SRO-U	RX	3 Ev#1 Ev#4 Ev#5				2 Ev#1 Ev#2				2 Ev#1 Ev#5				7	1	1	0
	NOR	2 Ev#1 Ev#4				1 Ev#1				1 Ev#1				4	1	1	1
	I/C	5 Ev#2 Ev#3 Ev#4				4 Ev#2 Ev#3 Ev#4 Ev#5				1 Ev#4				9	4	4	2
	MAJ	1 Ev#5				1 Ev#5				1 Ev#7				3	2	2	1
	TS	3				0				0				3	0	2	2

		Ev#2 Ev#3 Ev#4															
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.

2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.

1. 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 requirements specified for the applicant's license level in the right-hand columns.

SRO-I3 Ed Pigott

Facility: Seabrook Date of Exam: 7/9-7/12/07 Operating Test No.:

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		1 Scenario 1 (A)			2 Scenario 2 (B)			3 Scenario 4 (D)			4						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		SRO	**ATC**	BOP	SRO	ATC	**BOP**	**SRO**	ATC	BOP	SRO	ATC	BOP		R		U
RO **SRO-I** SRO-U	RX		3 Ev#1 Ev#4 Ev#5				2 Ev#1 Ev#5	2 Ev#1 Ev#2						7	1	1	0
	NOR		1 Ev#1				1 Ev#1	1 Ev#1						3	1	1	1
	I/C		3 Ev#3 Ev#4				1 Ev#4	4 Ev#2 Ev#3 Ev#4 Ev#5						8	4	4	2
	MAJ		1 Ev#5				1 Ev#7	2 Ev #4 Ev#5						4	2	2	1
	TS		0				0	3 Ev#1 Ev#2						3	0	2	2

RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.

2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.

1. 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 requirements specified for the applicant's license level in the right-hand columns.

SRO-I4 Eric Mallett

Facility: Seabrook Date of Exam: 7/9-7/12/07 Operating Test No.:

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		1 Scenario 1 (A)			2 Scenario 4 (D)			3 Scenario 2 (B)			4						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		SRO	ATC	BOP	SRO	**ATC**	BOP	SRO	ATC	**BOP**	SRO	ATC	BOP		R	I	U
RO **SRO-I** SRO-U	RX	3 Ev#1 Ev#4 Ev#5				2 Ev#1 Ev#2				2 Ev#1 Ev#5				7	1	1	0
	NOR	2 Ev#1 Ev#4				1 Ev#1				1 Ev#1				4	1	1	1
	I/C	5 Ev#2 Ev#3 Ev#4				4 Ev#2 Ev#3 Ev#4 Ev#5				1 Ev#4				**10**	4	4	2
	MAJ	1 Ev#5				1 Ev#5				1 Ev#7				3	2	2	1
	TS	3				0				0				3	0	2	2

		Ev#2 Ev#3 Ev#4															
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.

2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.

1. 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 requirements specified for the applicant's license level in the right-hand columns.

SRO-I5 Bonnie Bryant

Facility: Seabrook Date of Exam: 7/9-7/12/07 Operating Test No.:

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		1 Scenario 1 (A)			2 Scenario 2 (B)			3 Scenario 4 (D)			4						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		SRO	ATC	**BOP**	SRO	**ATC**	BOP	**SRO**	ATC	BOP	SRO	ATC	BOP		R	I	U
RO **SRO-I** SRO-U	RX			2 Ev# 1 Ev# 4		2 Ev# 1 Ev# 5		2 Ev#1 Ev#2						6	1	1	0
	NOR			1 Ev# 1		1 Ev# 1		1 Ev#1						3	1	1	1
	I/C			2 Ev# 2		3 Ev# 2 Ev# 3		4 Ev#2 Ev#3 Ev#4 Ev#5						9	4	4	2
	MAJ			1 Ev# 5		2 Ev# 5 Ev# 7		2 Ev #4 Ev#5						5	2	2	1
	TS			0		0		3 Ev#1						3	0	2	2

								Ev#2									
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.

2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.

1. 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 requirements specified for the applicant's license level in the right-hand columns.

RO John Burnett

Facility: Seabrook Date of Exam: 7/9-7/12/07 Operating Test No.:

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		1 Scenario 1 (A)			2 Scenario 2 (B)			3 Scenario 4 (D)			4						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		SRO	ATC	**BOP**	SRO	**ATC**	BOP	SRO	ATC	**BOP**	SRO	ATC	BOP		R	I	U
RO SRO-I SRO-U	RX			2 Ev#1 Ev#4		2 Ev#1 Ev#5				1 Ev#1				5	1	1	0
	NOR			1 Ev#1		1 Ev#1				1 Ev#1				3	1	1	1
	I/C			2 Ev#2		3 Ev#2 Ev#3				4 Ev#2 Ev#3 Ev#4 Ev#5				9	4	4	2
	MAJ			1 Ev#5		2 Ev#5 Ev#7				1 Ev#5				4	2	2	1
	TS			0		0				0				0	0	2	2

RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.

2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.

1. 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 requirements specified for the applicant's license level in the right-hand columns.

SRO-U1 Shawn Miller

Facility: Seabrook Date of Exam: 7/9-7/12/07 Operating Test No.:

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		1 Scenario 1 (A)			2 Scenario 2 (B)			3			4						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		SRO	ATC	BOP	SRO	**ATC**	BOP	SRO	ATC	BOP	SRO	ATC	BOP		R	I	U
RO SRO-I **SRO-U**	RX	3 Ev#1 Ev#4 Ev#5				2 Ev#1 Ev#5								5	1	1	0
	NOR	2 Ev#1 Ev#4				1 Ev#1								3	1	1	1
	I/C	5 Ev#2 Ev#3 Ev#4				3 Ev#2 Ev#3								8	4	4	2
	MAJ	1 Ev#5				2 Ev#5 Ev#7								3	2	2	1
	TS	3 Ev#2 Ev#3				0								3	0	2	2

		Ev#4															
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.

2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.

1. 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 requirements specified for the applicant's license level in the right-hand columns.

SRO-U2 Sean Doody

Facility: Seabrook Date of Exam: 7/9-7/12/07 Operating Test No.:

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		1 Scenario 1 (A)			2 Scenario 2 (B)			3			4						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP		R	I	U
RO SRO-I **SRO-U**	RX		3 Ev#1 Ev#4 Ev#5		2 Ev#1 Ev#5									5	1	1	0
	NOR		1 Ev#1		1 Ev#1									2	1	1	1
	I/C		3 Ev#3 Ev#4		4 Ev#2 Ev#3 Ev#4 Ev#6									7	4	4	2
	MAJ		1 Ev#5		2 Ev#5 Ev#7									3	2	2	1
	TS		0		2 Ev#2 Ev#3									2	0	2	2

RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.

2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.

1. 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 requirements specified for the applicant's license level in the right-hand columns.

SRO-U3 Mark Hansen

Facility: Seabrook Date of Exam: 7/9-7/12/07 Operating Test No.:

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM(*)		
		1 Scenario 1 (A)			2 Scenario 2 (B)			3			4						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP		R	I	U
RO SRO-I **SRO-U**	RX			2 Ev# 1 Ev# 4	2 Ev#1 Ev#5									4	1	1	0
	NOR			1 Ev# 1	1 Ev#1									2	1	1	1
	I/C			2 Ev# 2	4 Ev#2 Ev#3 Ev#4 Ev#6									6	4	4	2
	MAJ			1 Ev# 5	2 Ev#5 Ev#7									3	2	2	1
	TS			0	2 Ev#2 Ev#3									2	0	2	2

RO SRO-I SRO-U	RX Event 1 Event 5														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO SRO-I SRO-U	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.

2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.

1. 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 requirements specified for the applicant's license level in the right-hand columns.

Facility: **Seabrook Station** Date of Examination: **7/10/7** Operating Test No.:

Competencies	APPLICANTS															
	John Burnett RO				**Andy Caramihalis** SRO-I				**Edward Lyons** SRO-I				**Edward Pigott** SRO-I			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	2	2,3		2,3, 4,5	3, 4	2,3, 4,6		2,3, 4,5	2, 3, 4, 5	4, 7		2, 3, 4, 5	3, 4	4,7		2, 3, 4, 5
Comply With and Use Procedures (1)	2,4, 5	2,3		2,3	3, 4	2,3, 4,5, 6		2,3	2, 3, 4, 5	4		2, 3	3, 4	4		2, 3, 4, 5
Operate Control Boards (2)	1,2	2,3		2,3	3	N/A		2,3	N/ A	1, 4		2, 3	3	1,4		N/ A
Communicate and Interact	1,2, 4,5	2,3, 5,7		2,3, 4,5	1, 3, 4, 5	1,2, 3,4, 5,6, 7		2,3, 4,5	2, 3, 4, 5	1, 4, 5, 7		2, 3, 4, 5	1, 3, 4, 5	1,4, 5,7		2, 3, 4, 5
Demonstrate Supervisory Ability (3)	N/A	N/A		N/A	N/ A	1,2, 3,4, 5,6, 7		N/A	2, 3, 4, 5	N/ A		N/ A	N/ A	N/A		2, 3, 4, 5
Comply With and Use Tech. Specs. (3)	N/A	N/A		N/A	N/ A	2,3		N/A	2, 3, 4	N/ A		N/ A	N/ A	N/A		1, 2

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

Instructions:

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

Facility: **Seabrook Station** Date of Examination: **7/10/7** Operating Test No.:

Competencies	APPLICANTS															
	Eric Mallett SRO-I				**Bonnie Bryant** SRO-I				**Shawn Miller** SRO-U				**Sean Doody** SRO-U			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	2,3, 4,5	4,7		2,3, 4,5	2	2,3		2,3, 4,5	2, 3, 4, 5	2, 3			3, 4	2,3, 4,6		
Comply With and Use Procedures (1)	2,3, 4,5	4		2,3	2, 4, 5	2,3		2,3, 4,5	2, 3, 4, 5	2, 3			3, 4	2,3, 4,5, 6		
Operate Control Boards (2)	N/A	1,4		2,3	1, 2	2,3		N/A	N/ A	2, 3			3	N/A		
Communicate and Interact	2,3, 4,5	1,4, 5,7		2,3, 4,5	1, 2, 4, 5	2,3, 5,7		2,3, 4,5	2, 3, 4, 5	2, 3, 5, 7			1, 3, 4, 5	1,2, 3,4, 5,6, 7		
Demonstrate Supervisory Ability (3)	2,3, 4,5	N/A		N/A	N/ A	N/A		2,3, 4,5	2, 3, 4, 5	N/ A			N/ A	1,2, 3,4, 5,6, 7		
Comply With and Use Tech. Specs. (3)	2,3, 4	N/A		N/A	N/ A	N/A		1,2	2, 3, 4	N/ A			N/ A	2,3		

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

Instructions:

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

Facility: **Seabrook Station** Date of Examination: **7/10/7** Operating Test No.:

Competencies	APPLICANTS															
	Mark Hansen SRO-U															
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	2	2,3, 4,6														
Comply With and Use Procedures (1)	2,4, 5	2,3, 4,5, 6														
Operate Control Boards (2)	1,2	N/A														
Communicate and Interact	1,2, 4,5	1,2, 3,4, 5,6, 7														
Demonstrate Supervisory Ability (3)	N/A	1,2, 3,4, 5,6, 7														
Comply With and Use Tech. Specs. (3)	N/A	2,3														

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

Instructions:

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

Facility:						
				Initial		
				a	b*	c#
1. Questions and answers are technically accurate and applicable to the facility.				SMR	TC	JM
2. a. NRC K/As are referenced for all questions. b. Facility learning objectives are referenced as available.				SMR	TC	JM
3. SRO questions are appropriate in accordance with Section D.2.d of ES-401				SMR	TC	JM
4. The sampling process was random and systematic (if more than 4 RO or 2 SRO questions were repeated from the last 2 NRC licensing exams, consult the NRR OL program office).						
5. Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: X the audit exam was systematically and randomly developed, or __ the audit exam was completed before the license exam was started, or __ the examinations were developed independently, or X the licensee certifies that there is no duplication, or __ other (explain)				SMR	TC	JM
6. Bank use meets limits (no more than 75 percent from the bank, at least 10 percent new, and the rest new or modified); enter the actual RO / SRO-only question distribution(s) at right.	Bank 55/24 /	Modified 9/8 /	New 36/68 /	SMR	TC	JM
7. Between 50 and 60 percent of the questions on the RO exam are written at the comprehension/ analysis level; the SRO exam may exceed 60 percent if the randomly selected K/As support the higher cognitive levels; enter the actual RO / SRO question distribution(s) at right.	Memory 8/0 /	C/A 92/100 /		SMR	TC	JM
8. References/handouts provided do not give away answers or aid in the elimination of distractors.				SMR	TC	JM
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.				SMR	TC	JM
10. Question psychometric quality and format meet the guidelines in ES Appendix B.				SMR	TC	JM
11. The exam contains the required number of one-point, multiple choice items; the total is correct and agrees with the value on the cover sheet.				SMR	TC	JM

	Printed Name / Signature	Date
a. Author	Sean M. Riley / [signature]	6/25/7
b. Facility Reviewer (*)	Timothy C. Hassing / [signature]	6/25/07
c. NRC Chief Examiner (#)	John Caruso / [signature]	7/3/07
d. NRC Regional Supervisor	MARVIN SYKES / [signature]	7/3/07

NOTE: No reference will be provided to the applicant for the written exam

Note:	*** The facility reviewer=s initials/signature are not applicable for NRC-developed examinations.** **# Independent NRC reviewer initial items in Column Ace; chief examiner concurrence required.**

Facility: Date of Exam: Exam Level: RO ☒ SRO ☒

	Item Description	Initials a	Initials b	Initials c
1.	Clean answer sheets copied before grading	SMR	TCC	JA
2.	Answer key changes and question deletions justified and documented	N/A	N/A	N/A
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	SMR	TCC	JA
4.	Grading for all borderline cases (80 ±2% overall and 70 or 80, as applicable, ±4% on the SRO-only) reviewed in detail	SMR	TCC	JA
5.	All other failing examinations checked to ensure that grades are justified	N/A	N/A	N/A
6	Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	SMR	TCC	JA

	Printed Name/Signature	Date
a. Grader	Sean M. Riley /	7/10/7
b. Facility Reviewer(*)	TIMOTHY C. CASSIDY /	7/10/07
c. NRC Chief Examiner (*)	JOHN CARUSO /	7/13/07
d. NRC Supervisor (*)	MARVIN D. SYKES /	7/17/07

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