

April 18, 2006

NOTE TO: Steve Garchow
Chief Examiner, Operations Branch

FROM: Anthony T. Gody, Chief
Operations Branch
Division of Reactor Safety

SUBJECT: EXAMINATION ASSIGNMENT

You have been assigned as Chief of the Columbia Generating Station examination. The operating test has been scheduled to be completed by December 1, 2006. Thank you for contacting the Columbia Generating Station facility to finalize the details of the examination. You are reminded that the RPS/IP system must be maintained to ensure that the examiners and numbers of candidates are accurate. In addition, you are reminded that only qualified examiners are permitted to conduct any part of the examination.



Anthony T. Gody, Chief
Operations Branch
Division of Reactor Safety

CHIEF:	Steve Garchow	FACILITY:	Columbia Generating Station	DATE of OPERATING EXAM:	11/27/2006
Due Date	Description	Date Complete	Initials	Notes	
5/31/06	Exam Administration Date Confirmed (C.1.a; C.2.a & b)	4/12/06	SMB		
7/30/06	NRC Staff & Facility Contact Assigned (C.1.d; C.2.e)	1/1/06	SMB		
7/30/06	Facility Contact Briefed on Security & Other Req's (C.2.c)	1/12/06	SMB		
7/30/06	Corporate Notification Letter (ES-201 Att-3) Sent (C.2.d)	5/4/06	SMB	produced by Chief Examiner	
8/29/06	Reference Material Due (if NRC authored) (C.1.e; C.3.c)	1/30/06	SMB		
9/13/06	Integrated Exam Outlines Due (C.1.e & f; C.3.d)	9/6/06	SMB		
9/18/06	Outlines Review & NRC Feedback Provided (c.2.h; C.3.e)	9/8/06	SMB		
10/13/06	Draft Exams w/References Due (C.1.e,f,g,h; C.3.d)	10/11/06	SMB		
10/28/06	*Peer Reviewer Completes Review of Exam on ES-401-9	10/19/06	SMB	Gage	
10/28/06	*NRC BC Approves Feedback to Facility (C.2.h; C.3.f)	10/19/06	SMB		
10/28/06	*Exams Reviewed w/ Fac. (C.1.h;C.2.f & h; C.3.g)	10/17/06	SMB		
10/28/06	Preliminary Applications Due (C.1.i;C.2.g; ES-202)	10/3/06	SMB		
11/2/06	Preliminary Applications Reviewed (C.1.i;C.2.g)	11/6/06	SMB		
11/13/06	Final Applications Due (C.1.i;C.2.i;ES-202)	11/13/06	SMB		
11/13/06	On-Site Preparatory Week to Validate Operating Exam	10/2/06	SMB		
11/13/06	On-Site Audit (10%) of License App's (ES-202 C.2.e)	11/13/06 11/29	SMB		
11/20/06	Final Appl. OK'ed & Waiver Letters Sent (ES-204; C.2.e)	11/14/06	SMB		
11/20/06	NRC Supervisor Approved Final Exams (C.2.i;C.3.h)	11/22	SMB		
11/20/06	Exam Approval Letter (ES-201 Att-4) and List of Applicants (ES-201-4) Prepared (C.2.i)	11/14/06	SMB	produced by OLA	
11/20/06	Proctor Rules Review w/Fac. & Written Authorized (C.3.k)	11/22/06	SMB		
11/20/06	Exam Material to Exam Team (C.3.i)	11/13/06	SMB		
11/27/06	Administer Operating Exam On-Site	11/27	SMB		
12/9/06	Facility Graded Exam & Comments Received	12/6	SMB		
12/12/06	NRC Written Exam Grading Completed	12/12	SMB		
12/12/06	Examiners Document Exam Grades on ES Forms	12/11	SMB		
12/22/06	NRC Chief Examiner Grading Review Completed	12/11	SMB		
12/23/06	NRC BC Review Completed	12/13	SMB		
12/27/06	License/Denials Signed & Report Issued	12/13	SMB		
12/27/06	RPS/IP Number of Examinees Updated	1/15	SMB	print Report-21	
1/11/07	Examination Report Issued	12/27	SMB	produced by Chief Examiner	
1/18/07	Package Closed Out	2/20	SMB		
1/18/07	Chief QA of ADAMS and SISP review complete	2/20	SMB		

* Indicates the due dates are more conservative than the ES-201-1 requires.

Facility:		Date of Examination: 11/27/07		
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, in accordance with ES-401.	NRH	NBA	JMG
	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.	NRH	NBA	JMG
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	NRH	NBA	JMG
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	NRH	NBA	JMG
2. S I M U L A T O R	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.	NRH	NBA	JMG
	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.	NRH	NBA	JMG
	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.	NRH	NBA	JMG
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 distributed among the safety functions as specified on the form (2) 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 the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.	NRH	NBA	JMG
	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	NRH	NBA	JMG
	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.	NRH	NBA	JMG
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 sections.	NRH	NBA	JMG
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	NRH	NBA	JMG
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	NRH	NBA	JMG
	d. Check for duplication and overlap among exam sections.	NRH	NBA	JMG
	e. Check the entire exam for balance of coverage.	NRH	NBA	JMG
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	NRH	NBA	JMG

a. Author Ron Hayden / Ron Hayden Printed Name/Signature Date 1-4-07

b. Facility Reviewer (*) GARY HENDRICKS / Gary B. Hendricks 1-4-07

c. NRC Chief Examiner (#) [Signature] 1-11-07

d. NRC Supervisor [Signature] 1-31-07

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

* Original form lost. This is a replacement for the original.

Facility: <u>Columbia</u>		Date of Exam: <u>11/27/06</u>			Exam Level: RO/SRO		
Item Description					Initial		
					a	b*	c*
1.	Questions and answers are technically accurate and applicable to the facility.			<u>met</u>	<u>NBA</u>	<u>Q</u>	
2.	a. NRC K/As are referenced for all questions. b. Facility learning objectives are referenced as available.			<u>met</u>	<u>NBA</u>	<u>Q</u>	
3.	SRO questions are appropriate in accordance with Section D.2.d of ES-401			<u>met</u>	<u>NBA</u>	<u>Q</u>	
4.	If more than four RO and two SRO questions are repeated from the last two NRC licensing exams, the facility licensee's sampling process was random and systematic.						
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: <input checked="" type="checkbox"/> the audit exam was systematically and randomly developed <input type="checkbox"/> the audit exam was completed before the license exam was started <input type="checkbox"/> the examinations were developed independently <input checked="" type="checkbox"/> the licensee certifies that there is no duplication <input type="checkbox"/> other (explain)			<u>met</u>	<u>NBA</u>	<u>Q</u>	
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	Modified	New	<u>met</u>	<u>NBA</u>	<u>Q</u>
		<u>1514</u>	<u>1</u>	<u>60121</u>			
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		C/A	<u>met</u>	<u>NBA</u>	<u>Q</u>
		<u>3415</u>		<u>41120</u>			
8.	References/handouts provided do not give away answers or aid in the elimination of distractors.			<u>met</u>	<u>NBA</u>	<u>Q</u>	
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.			<u>met</u>	<u>NBA</u>	<u>Q</u>	
10.	Question psychometric quality and format meet the guidelines in ES Appendix B.			<u>met</u>	<u>NBA</u>	<u>Q</u>	
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.			<u>met</u>	<u>NBA</u>	<u>Q</u>	
Printed Name / Signature					Date		
a. Author	<u>Ron Hayden</u>			<u>9/25/06</u>			
b. Facility Reviewer (*)	<u>GARY HENDRICK</u>			<u>9/28/06</u>			
c. NRC Chief Examiner (#)	<u>Stephen GARCHOW</u>			<u>11/14/2006</u>			
d. NRC Regional Supervisor	<u>ALBERTA MORA / Rebecca Nease</u>			<u>11/21/06</u>			
Note: * The facility reviewer's initials/signature are not applicable for NRC-developed examinations. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.							

Facility:	<u>Columbia</u>	Date of Examination:	<u>11/27/06</u>	Operating Test Number:	
1. General Criteria				Initials	
				a	b*
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).	RW	JBA	JOM	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	RW	JBA	JOM	
c.	The operating test shall not duplicate items from the applicants' audit test(s). (see Section D.1.a.)	RW	JBA	JOM	
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	RW	JBA	JOM	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	RW	JBA	JOM	
2. Walk-Through Criteria				--	--
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> • initial conditions • initiating cues • references and tools, including associated procedures • reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time-critical by the facility licensee • operationally important 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 	RW	JBA	JOM	
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.	RW	JBA	JOM	
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.		RW	JBA	JOM	
Printed Name / Signature				Date	
a.	Author	<u>RW Hayden</u>		<u>9/26/06</u>	
b.	Facility Reviewer(*)	<u>GARY HENDRICK Gary Bld 2</u>		<u>9/29/06</u>	
c.	NRC Chief Examiner (#)	<u>Stephen Garchow Jm [Signature] JOM</u>		<u>11/20/06</u>	
d.	NRC Supervisor	<u>Rebecca Nease / [Signature] JMO</u>		<u>11/21/06</u>	
NOTE: * The facility signature is not applicable for NRC-developed tests.					
# Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.					

Facility: <u>Columbia</u>		Date of Exam: <u>1/27/08</u>		Scenario Numbers: <u>1 2 3</u>		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.	<u>AWH</u>	<u>ABA</u>	<u>DM</u>				
2.	The scenarios consist mostly of related events.	<u>AWH</u>	<u>ABA</u>	<u>DM</u>				
3.	Each event description consists of <ul style="list-style-type: none"> the point in the scenario when it is to be initiated the malfunction(s) that are entered to initiate the event the symptoms/cues that will be visible to the crew the expected operator actions (by shift position) the event termination point (if applicable) 	<u>AWH</u>	<u>ABA</u>	<u>DM</u>				
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.	<u>AWH</u>	<u>ABA</u>	<u>DM</u>				
5.	The events are valid with regard to physics and thermodynamics.	<u>AWH</u>	<u>ABA</u>	<u>DM</u>				
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	<u>AWH</u>	<u>ABA</u>	<u>DM</u>				
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.	<u>AWH</u>	<u>ABA</u>	<u>DM</u>				
8.	The simulator modeling is not altered.	<u>AWH</u>	<u>ABA</u>	<u>DM</u>				
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.	<u>AWH</u>	<u>ABA</u>	<u>DM</u>				
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.	<u>AWH</u>	<u>ABA</u>	<u>DM</u>				
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	<u>AWH</u>	<u>ABA</u>	<u>DM</u>				
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).	<u>AWH</u>	<u>ABA</u>	<u>DM</u>				
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	<u>AWH</u>	<u>ABA</u>	<u>DM</u>				
Target Quantitative Attributes (Per Scenario; See Section D.5.d)		Actual Attributes		--	--	--	--	
1.	Total malfunctions (5-8)	<u>8</u>	<u>17</u>	<u>11</u>	<u>AWH</u>	<u>ABA</u>	<u>DM</u>	
2.	Malfunctions after EOP entry (1-2)	<u>2</u>	<u>13</u>	<u>4</u>	<u>AWH</u>	<u>ABA</u>	<u>DM</u>	
3.	Abnormal events (2-4)	<u>3</u>	<u>12</u>	<u>2</u>	<u>AWH</u>	<u>ABA</u>	<u>DM</u>	
4.	Major transients (1-2)	<u>1</u>	<u>11</u>	<u>1</u>	<u>AWH</u>	<u>ABA</u>	<u>DM</u>	
5.	EOPs entered/requiring substantive actions (1-2)	<u>3</u>	<u>12</u>	<u>1</u>	<u>AWH</u>	<u>ABA</u>	<u>DM</u>	
6.	EOP contingencies requiring substantive actions (0-2)	<u>1</u>	<u>14</u>	<u>0</u>	<u>AWH</u>	<u>ABA</u>	<u>DM</u>	
7.	Critical tasks (2-3)	<u>2</u>	<u>12</u>	<u>2</u>	<u>AWH</u>	<u>ABA</u>	<u>DM</u>	

1 of 2

Facility: Columbia Generating Station Date of Exam: NOVEMBER 2006 Operating Test Number:

A P P L I C A N T	E V E N T T Y P E	Scenarios												T O T A L	M I N I M U M
		1			2			3			4				
		Crew Position			Crew Position			Crew Position			Crew Position				
		S R O	A T C	B O P											
RO	RX														1*
	NOR														1*
SRO-I	I/C	2			2									5	4*
	MAJ	1			1									2	2
SRO-U 1, 2	TS	2			2									4	2
RO	RX					2								2	1*
	NOR														1*
SRO-I 1	I/C	2				2		2						6	4*
	MAJ	1				1		1						3	2
SRO-U	TS	2						2						4	2
RO	RX								1					1	1*
	NOR			1										1	1*
SRO-I 2	I/C			2	2				2					6	4*
	MAJ			1	1				1					3	2
SRO-U	TS				2									2	2
RO	RX					2								2	1*
	NOR														1*
SRO-I 3	I/C	2				3								5	4*
	MAJ	1				1								2	2
SRO-U	TS	2												2	2

Instructions:

1. Circle the applicant level and enter the operation 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.
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.

2 of 2

Facility: Columbia Generating Station Date of Exam: NOVEMBER 2006 Operating Test Number:

A P P L I C A N T	E V E N T T Y P E	Scenarios												T O T A L	M I N I M U M
		1			2			3			4				
		Crew Position			Crew Position			Crew Position			Crew Position				
		S R O	A T C	B O P											
RO 1, 3, 5	RX		1											1	1*
	NOR													1	1*
	SRO-I	I/C	2											4	4*
	SRO-U	MAJ	1											2	2
RO 2, 4	RX					2								2	1*
	NOR			1										1	1*
	SRO-I	I/C		2		2								4	4*
	SRO-U	MAJ		1		1								2	2
RO 6	RX		1											1	1*
	NOR										1			2	1*
	SRO-I	I/C	2			2					2			6	4*
	SRO-U	MAJ	1			1					1			3	2
RO	RX														1*
	NOR														1*
	SRO-I	I/C													4*
	SRO-U	MAJ													2
RO	RX														1*
	NOR														1*
	SRO-I	I/C													4*
	SRO-U	MAJ													2
RO	RX														1*
	NOR														1*
	SRO-I	I/C													4*
	SRO-U	MAJ													2

Instructions:

- Circle the applicant level and enter the operation 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.
- 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.
- 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.

1082

Facility: <u>Columbia</u>		Date of Examination: <u>11/27/06</u>								Operating Test No.:							
Competencies	U1, U2 I1, I2 APPLICANTS I2 RO-1, 3, 5, 6																
	RO/SRO-I/SRO-U				RO/SRO-I I/SRO-U				RO/SRO-I I/SRO-U				RO/SRO-I/SRO-U				
	SCENARIO				SCENARIO				SCENARIO				SCENARIO				
	SRO	SRO	3	4	SRO	ATC	3	4	SRO	SRO	ATC	4	ATC	SRO	3	4	
1	2			1	2			1	2	3	4	1	2				
Interpret/Diagnose Events and Conditions	5, 10	2, 3, 5			5, 10	2, 3, 5, 7			5, 8, 9	2, 3, 5	3, 4			4, 2, 3, 5	4, 16		
Comply With and Use Procedures (1)	5, 6, 7, 10	3, 4, 5, 7, 8			5, 6, 7, 10	2, 3, 5, 7			5, 6, 7, 10	3, 4, 5, 7, 8	4, 3			3, 4, 7	1		
Operate Control Boards (2)	-	-				3, 5, 7			6, 8	-	1, 3, 4			3, 4	4, 6		
Communicate and Interact	4, 5, 10	3, 4, 5, 8			4, 5, 10	2, 3, 5			5, 7, 8, 10	3, 4, 5, 8	3, 4, 6			4, 7	4, 5, 6		
Demonstrate Supervisory Ability (3)	3, 4, 5, 6	3, 4, 5			3, 4, 5, 6	-			-	3, 4, 5	-			-	-		
Comply With and Use Tech. Specs. (3)	2, 5	2, 3			2, 5	-			-	2, 3	-			-	-		

Notes:

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

Instructions:

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

Author: Dev Hayden

NRC Reviewer: NA per Rev 9

2082

Facility: Columbia Date of Examination: 11/27/06 Operating Test No.:

Competencies	APPLICANTS															
	RO2,4				RO6											
	RO/SRO-I/SRO-U				RO/SRO-I/SRO-U				RO/SRO-I/SRO-U				RO/SRO-I/SRO-U			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	<u>BOF</u>	<u>ATL</u>			<u>ATL</u>	<u>BOF</u>	<u>BOF</u>									
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	5,8 9	4,3 5,7			1,2 3,5	4, 6	5,6									
Comply With and Use Procedures (1)	5,6	2,3 5,7			2,4 7	1	2,5 8									
Operate Control Boards (2)	6,8	3, 5,7			3,4	1,6	2,5 7,8									
Communicate and Interact	5,7 9,10	4,3 5			4, 7	4,5 6	5,6 7,8									
Demonstrate Supervisory Ability (3)	-	-			-	-	-									
Comply With and Use Tech. Specs. (3)	-	-			-	-	-									

Notes:

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

Instructions:

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

Author: De Hayden

NRC Reviewer: NA per Rev 9

Facility: Columbia Date of Exam: 11/27/06 Exam Level: RO/SRO

Item Description	Initials		
	a	b	c
1. Clean answer sheets copied before grading	<u>RWH</u>	<u>NBA</u>	<u>Q</u>
2. Answer key changes and question deletions justified and documented	<u>RWH</u>	<u>NBA</u>	<u>Q</u>
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<u>RWH</u>	<u>NBA</u>	<u>Q</u>
4. Grading for all borderline cases (80 \pm 2% overall and 70 or 80, as applicable, \pm 4% on the SRO-only) reviewed in detail	<u>RWH</u>	<u>NBA</u>	<u>Q</u>
5. All other failing examinations checked to ensure that grades are justified	<u>RWH</u>	<u>NBA</u>	<u>Q</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>RWH</u>	<u>NBA</u>	<u>Q</u>

	Printed Name/Signature	Date
a. Grader	<u>Ron Hayden / RWH</u>	<u>12/5/06</u>
b. Facility Reviewer(*)	<u>GARY HENDRICK / Gary Hendrick</u>	<u>12/5/06</u>
c. NRC Chief Examiner (*)	<u>SM GARD</u>	<u>12/13/06</u>
d. NRC Supervisor (*)	<u>RJ Nease</u>	<u>12/13/06</u>

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

Facility: <u>Columbia</u>		Date of Exam: <u>11/27/06</u>		Exam Level: RO/SRO	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading	<u>RSW</u>	<u>MSA</u>	<u>Q</u>		
2. Answer key changes and question deletions justified and documented	<u>RSW</u>	<u>MSA</u>	<u>Q</u>		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<u>RSW</u>	<u>MSA</u>	<u>Q</u>		
4. Grading for all borderline cases (80 \pm 2% overall and 70 or 80, as applicable, \pm 4% on the SRO-only) reviewed in detail	<u>RSW</u>	<u>MSA</u>	<u>Q</u>		
5. All other failing examinations checked to ensure that grades are justified	<u>RSW</u>	<u>MSA</u>	<u>Q</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>RSW</u>	<u>MSA</u>	<u>Q</u>		
Printed Name/Signature		Date			
a. Grader	<u>Ron Hayden / <i>RSW</i></u>	<u>12/5/06</u>			
b. Facility Reviewer(*)	<u>GARY HENDERICK / <i>MSA</i></u>	<u>12/5/06</u>			
c. NRC Chief Examiner (*)	<u><i>SM</i></u>	<u>12/13/06</u>			
d. NRC Supervisor (*)	<u><i>RSW</i></u>	<u>12/13/06</u>			
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					

Operator Licensing Exam Schedule

From 11/01/2006 To 12/15/2007

12:23:45

11/15/2006

Report 21

Region: 4 Phase Code: 5 Operational

Exam Week	Site/Docket No./Insp Rpt #	# Candidates	Type	Exam Author	Chief Examiner	Examiners Assigned
10/30/2006	Columbia Generating Station / 05000397 / 200630 TAC #: X02296		Prep	FFF	GARCHOW, STEPHEN M.	GARCHOW, STEPHEN M.
11/27/2006	Columbia Generating Station / 05000397 / 200630 TAC #: X02296	RO - 6 SROU - 2	Admin	FFF	GARCHOW, STEPHEN M.	GAGE, PAUL C. GARCHOW, STEPHEN M. MCKERNON, THOMAS O. SANCHEZ, ALFRED
12/10/2006	Columbia Generating Station / 05000397 / 200630 TAC #: X02296		Doc	FFF	GARCHOW, STEPHEN M.	GAGE, PAUL C. GARCHOW, STEPHEN M. MCKERNON, THOMAS O. SANCHEZ, ALFRED

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of Nov 27 + Dec 4 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 11/27 + 12/4. 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. Mark Westergren	Training Specialist	<i>[Signature]</i>	11-30-06	<i>[Signature]</i>	12-11-06
2. Bruce R Hugo	Senior Reactor Operator	<i>[Signature]</i>	30 Nov 06	<i>[Signature]</i>	5 Dec 06
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1. Pre-Examination

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	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1.	<u>John Torrey</u>	<u>Control Room Operator</u>		<u>8/15/06</u>		<u>12/5/06</u>	
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1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of Nov 27 + Dec 4 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 11/27 + 12/4. 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. <u>MARK B. BAKER</u>	<u>Ops Support Specialist</u>	<u>[Signature]</u>	<u>6/26/06</u>	<u>[Signature]</u>	<u>12/5/06</u>	
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1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of Nov 27 + Dec 4 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 11/27 + 12/4. 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. Phillip S. Mar	Reactor Operator	<i>[Signature]</i>	8/29/06	<i>[Signature]</i>	12/6/06	054
2. GARY HENDRICK	Ops CREW MANAGER	<i>[Signature]</i>	8/29/06	<i>[Signature]</i>	12/5/06	
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NOTES: #4 Per phone conversation 01330 12/6/06 (509-585-6183)

1. Pre-Examination

Nov 27 + Dec 4
7/12/06

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 7/12/06 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 11/27/04. 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. <u>Rial Steichen</u>	<u>Reactor Operator</u>		<u>7-12-06</u>		<u>12-5-06</u>
2. <u>Kevin Huber</u>	<u>Reactor Operator</u>		<u>7-12-06</u>		<u>12-6-06</u>
3. <u>MIKE FEAR</u>	<u>SRO</u>		<u>7/12/06</u>		<u>12-6-06</u>
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NOTES:

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of Nov 27 + Dec 4 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 11/27 - 12/5/06. 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
<u>Ron Newden</u>	<u>Training Specialist</u>	<u>Ron Newden</u>	<u>8/1/06</u>	<u>Ron Newden</u>	<u>12/5/06</u>	
<u>Randy Gurbis</u>	<u>Ops Tech Spec</u>	<u>Randy Gurbis</u>	<u>8/1/06</u>	<u>Randy Gurbis</u>	<u>12/5/06</u>	
<u>John A. Sims</u>	<u>Training Specialist</u>	<u>John A. Sims</u>	<u>8/3/06</u>	<u>John A. Sims</u>	<u>12/5/06</u>	
<u>Steve H. Johnson</u>	<u>Training Specialist</u>	<u>Steve H. Johnson</u>	<u>8/21/06</u>	<u>Steve H. Johnson</u>	<u>12/5/06</u>	
<u>Mark Painter</u>	<u>Systems Analyst - PWS</u>	<u>Mark Painter</u>	<u>5-22-06</u>	<u>Mark Painter</u>	<u>12-5-06</u>	
<u>JIM REDKLINE</u>	<u>SIM SUPERVISOR</u>	<u>JIM REDKLINE</u>	<u>5/24/06</u>	<u>JIM REDKLINE</u>	<u>12/5/06</u>	
<u>Michael A. Avery</u>	<u>Mock Sim operator</u>	<u>Michael A. Avery</u>	<u>8-29-06</u>	<u>Michael A. Avery</u>	<u>12/5/06</u>	
<u>JAMES E. VALDEZ</u>	<u>I & C TECH.</u>	<u>JAMES E. VALDEZ</u>	<u>8-29-06</u>	<u>JAMES E. VALDEZ</u>	<u>12-5-06</u>	
<u>Dustin Greenwood</u>	<u>OPS</u>	<u>Dustin Greenwood</u>	<u>9/5/06</u>	<u>Dustin Greenwood</u>	<u>12/5/06</u>	
<u>William R. Green</u>	<u>OPS</u>	<u>William R. Green</u>	<u>9/5/06</u>	<u>William R. Green</u>	<u>12/5/06</u>	
<u>RMeyers</u>	<u>OPS</u>	<u>RMeyers</u>	<u>9/5/06</u>	<u>RMeyers</u>	<u>12/5/06</u>	
<u>ERWIN CARREARD</u>	<u>OPS</u>	<u>ERWIN CARREARD</u>	<u>9/6/06</u>	<u>ERWIN CARREARD</u>	<u>12/5/06</u>	
<u>MICHAEL OLSON</u>	<u>TRAINING SPECIALIST</u>	<u>MICHAEL OLSON</u>	<u>9/6/06</u>	<u>MICHAEL OLSON</u>	<u>12/5/06</u>	
<u>MICHAEL K. CANTWELL</u>	<u>MANAGER OPS TRAINING</u>	<u>MICHAEL K. CANTWELL</u>	<u>9/28/06</u>	<u>MICHAEL K. CANTWELL</u>	<u>12/5/06</u>	
<u>Patrick Bagan</u>	<u>Train Spec</u>	<u>Patrick Bagan</u>	<u>11/29/06</u>	<u>Patrick Bagan</u>	<u>12/5/06</u>	

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