

COVER SHEET

BRUNSWICK EXAM
50-325 & 50-324

JULY 27 - AUGUST 3, 2001

-- ADMINISTRATIVE DOCUMENTS -- ALL IN ONE ADAMS DOCUMENT

- [✓] ES-201-1 - Exam Preparation Checklist
- [✓] ES-201-2 - Exam Outline Quality Checklist
- [✓] ES-201-3 - Exam Security Agreements
- [✓] ES-301-1 - Admin Topics Outline
- [✓] ES-301-2 - Control Room Systems & Facility
Walk-through Test Outline
- [✓] ES-301-3 - Operating Test Quality Checklist
- [✓] ES-301-4 - Simulator Scenario Quality Checklist
- [✓] ES-301-5 - Transient & Event Checklist
- [✓] ES-301-6 - Competencies Checklist
- [✓] ES-401-7 - Written Exam Quality Checklist
- [N/A] ES-401-9 - Written Exam Review Worksheet
- [✓] ES-403-1 - Written Exam Grading Quality Checklist
- [✓] ES-501-1 - Post Exam Check Sheet

Facility: <u>Brunswick Nuclear Plant</u> Date of Exam: <u>July 30 - August 3, 2001</u>		
Examinations Developed by: Written: NRC Operating: NRC		
Target Date*	Task Description / Reference	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a & b)	<i>rfa</i>
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	<i>rfa</i>
-120	3. Facility contact briefed on security & other requirements (C.2.c)	<i>rfa</i>
-120	4. Corporate notification letter sent (C.2.d)	<i>rfa</i>
[-90]	[5. Reference material due (C.1.e; C.3.c)]	<i>rfa</i>
-75	6. Integrated examination outline(s) due (C.1.e & f; C.3.d)	<i>rfa</i>
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	<i>rfa</i>
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	<i>rfa</i>
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	<i>rfa</i>
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	<i>rfa</i>
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	<i>rfa</i>
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	<i>rfa</i>
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	<i>rfa</i>
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	<i>rfa</i>
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	<i>rfa</i>
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	<i>rfa</i>
* Target dates are keyed to the examination date identified in the corporate notification letter. They are for planning purposes and may be adjusted on a case-by-case basis in coordination with the facility licensee.		
[] Applies only to examinations prepared by the NRC.		

Facility: Brunswick		Date of Examination: July 30 - August 3		
Item	Task Description	Initials		
		a	b*	c
WRITTEN	1. a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	fm	ND	↓
	b. Assess whether the outline was systematically prepared and whether all knowledge and ability categories are appropriately sampled.	fm		↓
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	fm		↓
	d. Assess whether the repetition from previous examination outlines is excessive.	fm		↓
SIM	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.	↓		↓
	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.	↓		↓
	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.	↓		↓
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.	msm		0 BA*
	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.	msm		↓ BA#
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	msm		↓ BA*
	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.	msm		↓ BA#
GENERAL	4. a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	↓		↓
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	↓		↓
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	↓		↓
	d. Check for duplication and overlap among exam sections.	↓		↓
	e. Check the entire exam for balance of coverage.	↓		↓
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	↓		↓
a. Author <u>(GAM) MARK MILLER</u> Printed Name / Signature <u>Mark Miller</u> Date <u>7/19/01</u> b. Facility Reviewer(*) <u>(WRIT) CAREY S. MCELLEN</u> <u>(SIM) RONALD AIELLO</u> <u>N/A</u> Date <u>7/19/01</u> c. Chief Examiner <u>Ronald F. Aiello</u> Date <u>7/19/01</u> d. NRC Supervisor <u>Mike Ernstes</u> Date <u>7/26/01</u> BH* JPM NRC Review/Verification 7/26/01				
(*) Not applicable for NRC-developed examinations.				

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of _____ as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC. Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of _____. 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. GREGG W. LUALAM	LOCT SUPV. / CHIEF FAC. CONTOL		6/25/01		8/3/01	
2. Keith A Bowdon	Instructor / Facility Reviewer		6/29/01		8/3/01	
3. Charles W VanSlyke	Simulator Support		7/16/01		8/2/01	
4. Edward C. Hawkins	Simulator Support		7/16/01		8/12/01	
5. Michael S Williams	Managers - Shift OPS		7/16/01		8/3/01	
6. Joe I Garden	Reactor Operator		7-25-01		8-9-01	
7. STEVE GORSY	CRS		7/24/01		8/15/01	
8. Keith R. Hartung	Instructor		7/26/01		8/8/01	
9. Jenny W. Johnson	Tech Trng Supt.		7/26/01		8/6/01	
10. Philip A. DeFoggi	Tech Trng Instructor		7/26/01		8/8/01	
11. Joe King	Tech Trng Supt		7/26/01		8/2/01	
12. Berneta Johnson	Data Management Asst		7/26/01		8/2/01	
13. Tony Johnson	Supv. Initial Training		7/30/01		8/3/01	
14. Curtis Dunsmore	Control Room Supervisor		7/30/01		8/3/01	
15.						

NOTES:

Facility: BRUNSWICK Date of Examination: <u>7/30-8/3/01</u> Examination Level (circle one): <u>RO</u> / SRO Operating Test Number: <u>1</u>		
Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	GEN 2.1.3(3.0/3.4)	Evaluate Overtime Eligibility
	GEN 2.1.7 (3.7/4.4)	Evaluate Off-site Power Source Operability per the CO DSR
A.2	GEN 2.2.30 (3.5/3.3)	Evaluate SRM / IRM Overlap
A.3	GEN 2.3.4 (2.5/3.1)	Calculate Worker Stay Time
A.4	GEN 2.3.4 (3.0/3.5)	Determine Communication Methods for E-Plan Activation

Facility: BRUNSWICK Date of Examination: <u>7/30-8/3/01</u> Examination Level (circle one): RO / <u>SRO</u> Operating Test Number: <u>1</u>		
Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	GEN 2.1.3(3.0/3.4)	Evaluate Overtime Eligibility
	GEN 2.1.34 (2.3/2.9)	Evaluate Off-site Power Source Operability per the CO DSR
A.2	GEN 2.2.30 (3.5/3.3)	Evaluate SRM / IRM Overlap
A.3	272000/A4.05 (2.3 / 3.7)	Estimate Source Term for a Release from the Main Stack per PEP-03.6.1.
A.4	GEN 2.4.30 (2.2/3.6)	NRC Reporting Requirements - Large Break LOCA
		(Empty space for notes)

Facility: **BRUNSWICK**Date of Examination: **7/30-8/3/01**Exam Level (circle one): **RO / SRO(I) / SRO(U)**Operating Test No.: **1**

B.1 Control Room Systems

System / JPM Title	Type Code*	Safety Function
a. Transfer RPS Bus B From Normal to Alternate Power (SROU)	M,S,A	7
b. Place The Master Feedwater Controller In Service Per GP-02 (SROU)	M,S,A	2
c. Emergency Equalization Around MSIV's - Anticipate Emergency Depressurization (SROU)	D,C,L	3
d. Establish UAT Backfeed	D,S	6
e. HPCI Start Using the "Hard Card" - Steam Line Break With Auto Isolation Failure	D,S,A	4
f. Recirculation Pump Start - Recirculation Pump Speed Control Failure (pressure control)	D,S,A	1
g. Install Circuit Alterations For Drywell Cooling Per AOP-36.2	D,C	5

B.2 Facility Walk-Through

a. Control Room Evacuation - AOP-32 - Scram and MSIV Closure From Outside the Control Room (SROU)	D, R	1
b. Resetting a RCIC Mechanical Overspeed Trip (SROU)	D	4
c. Perform Actions Associated With Fires - Aligning the Fire Protection Alternate Water Supply	D	8

* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA

Facility: Brunswick		Date of Examination: Wk 07/30-08/3, 01		Operating Test Number: 1	
1. GENERAL CRITERIA		Initials			
		a	b	c	
a.	The operating test conforms with the previously approved outline; changes are consistent with sampling requirements (e.g., 10 CFR 55.45, operational importance, safety function distribution).	INSR	ASG	✓	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	INSR	ASG	✓	
c.	The operating test shall not duplicate items from the applicants' audit test(s)(see Section D.1.a).	INSR	ASG	✓	
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	INSR	ASG	✓	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	INSR	ASG	✓	
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 	INSR	ASG	✓	
b.	The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	INSR	N/A	✓	
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.	INSR	ASG	✓	
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	INSR	ASG	✓	
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.	INSR	ASG	✓	
Printed Name / Signature		Date			
a. Author	RFA (SIM) M S M (JPM)	7/9/01	7/9/01		
b1. Facility Reviewer(*)	N/A				
b2. NRC Reviewer	GTH (SIM) LRM (JPM)	7/9/01			
c. NRC Chief Examiner (*)	ASH (JPM) 7/2 01		7/9/01		
d. NRC Supervisor (*)	MEE		7/26/01		
(*) The facility signature is not applicable for NRC-developed tests; two independent NRC reviews are required.					

Facility:	Brunswick	Date of Exam:	07/230-08/3,01	Scenario Numbers:	1 / 2 /	Operating Test No.:	1	
QUALITATIVE ATTRIBUTES						Initials		
						2FA a	GT b	me 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.			0	ATK	MSM		
2.	The scenarios consist mostly of related events.			0	ATK	MSM		
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)			0	ATK	MSM		
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.			0	ATK	MSM		
5.	The events are valid with regard to physics and thermodynamics.			0	ATK	MSM		
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.			0	ATK	MSM		
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.			0	ATK	MSM		
8.	The simulator modeling is not altered.			0	ATK	MSM		
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.			0	ATK	MSM		
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.			0	ATK	MSM		
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).			0	ATK	MSM		
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).			0	ATK	MSM		
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.			0	ATK	MSM		
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)				Actual Attributes				
1.	Total malfunctions (5-8)	0	8 8 15 9 1	0	ATK	MSM		
2.	Malfunctions after EOP entry (1-2)	0	4 2 14 1	0	ATK	MSM		
3.	Abnormal events (2-4)	0	8 4 1 3 5 1	0	ATK	MSM		
4.	Major transients (1-2)	0	2 9 1 2 1	0	ATK	MSM		
5.	EOPs entered/requiring substantive actions (1-2)		2 12 1	0	ATK	MSM		
6.	EOP contingencies requiring substantive actions (0-2)		1 1 2 1	0	ATK	MSM		
7.	Critical tasks (2-3)	0	2 4 1 2 1	0	ATK	MSM		

OPERATING TEST NO.:

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

- 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) *EVENT 9 1A L4045 9-11*

Author/Chief Examiner: ~~Ronald E. Aiello~~

Reviewer : George Hopper



Position → Competencies	RO/BOP		SRO-I		SRO-U	
	SCENARIO		SCENARIO		SCENARIO	
	1	2	1	2	1	2
Understand and Interpret Annunciators and Alarms	2-6,9	2,3,5-7	2-6,9	2,3,5-7	2-6,9	2,3,5-7
Diagnose Events and Conditions	2-9	2-9	2-9	2-9	2-9	2-9
Understand Plant and System Response	2-9	1-9	2-9	1-9	2-9	1-9
Comply With and Use Procedures (1)	1-9	1-9	1-9	1-9	1-9	1-9
Operate Control Boards (2)	1-9	1-9	N/A	N/A	N/A	N/A
Communicate and Interact With the Crew	1-9	1-9	1-9	1-9	1-9	1-9
Demonstrate Supervisory Ability (3)	N/A	N/A	1-9	1-9	1-9	1-9
Comply With and Use Tech. Specs. (3)	N/A	N/A	1,3,6	2,3,8	1,3,6	2,3,8
Notes: <i>EVENT 9 INCLUDES 9-11</i> (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:

R. Aiello 

Chief Examiner:

G. Hopper 

Facility: <u>BSEP</u>		Date of Exam: <u>7-27-01</u>		Exam Level: <u>RO/SRO</u>		
Item Description	Initial					
	a	b*	c*			
1. Questions and answers technically accurate and applicable to facility	fsm	N/A	0			
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	fsm	0	0			
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	fsm	0	0			
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	fsm	0	0	
	0	0				
5. [No (Less than 5 percent) question duplication from the license screening/audit exam (if independently written)]	fsm	0	0			
6. 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	fsm	0	
	37	2	61			
7. Between 50 and 60 percent of the questions on the exam (including 10 new questions) are written at the comprehension/analysis level; enter the actual question distribution at right	Memory		CIA	fsm	0	
	41		59			
8. References/handouts provided do not give away answers	fsm	0	0			
9. Question distribution meets previously approved examination outline; deviations are justified	fsm	0	0			
10. Question psychometric quality and format meet ES, Appendix B, guidelines	fsm	0	0			
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	fsm	0	0			
Printed Name / Signature			Date			
a. Author	<u>LARRY S. MELLEN / Larry S. Mellen</u>			<u>5/22/01</u>		
b. Facility Reviewer(*)	<u>N/A</u>			<u>6/20/01</u>		
c. NRC Chief Examiner(*)	<u>RONALD L. FIRELLI / [Signature]</u>			<u>8/20/01</u>		
d. NRC Regional Supervisor(*)	<u>[Signature] for MEE</u>			<u>7/26/01</u>		
<p>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.</p>						

REV2 BSEP

Facility: <u>BSEP</u>		Date of Exam: <u>7-27-01</u>		Exam Level: <u>RO/SRO</u>		
Item Description				Initial		
				a	b*	c*
1.	Questions and answers technically accurate and applicable to facility			fm	n/a	0
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available			fm	0	0
3.	RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401			fm		0
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	fm		0
		0	0			
5.	[No (Less than 5 percent) question duplication from the license screening/audit exam (if independently written)]			fm		0
6.	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	fm		0
		30	4			
7.	Between 50 and 60 percent of the questions on the exam (including 10 new questions) are written at the comprehension/analysis level; enter the actual question distribution at right	Memory		fm		0
		44				
8.	References/handouts provided do not give away answers			fm		0
9.	Question distribution meets previously approved examination outline; deviations are justified			fm		0
10.	Question psychometric quality and format meet ES, Appendix B, guidelines			fm		0
11.	The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet			fm	↓	0
a. Author		Printed Name / Signature			Date	
		<u>LARRY S MELLEN / Larry S. Mellen</u>			<u>5/22/01</u>	
b. Facility Reviewer(*)		<u>N/A</u>				
c. NRC Chief Examiner(*)		<u>Renold G. Jr 11.01</u>			<u>6/20/01</u>	
d. NRC Regional Supervisor(*)		<u>Mark [Signature] for MGS</u>			<u>5/26/01</u>	
<p>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.</p>						

REU2 BSEP

Facility: <u>BRUNSWICK</u>		Date of Exam: <u>7/27/01</u>	Exam Level: <u>RO/SRO</u>	
Item Description	Initials			
	a	b	c	
1. Clean answer sheets copied before grading	<u>1UB</u>	<u>[initials]</u>	<u>[initials]</u>	
2. Answer key changes and question deletions justified and documented	<u>1UB</u>	<u>[initials]</u>	<u>[initials]</u>	
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<u>1UB</u>	<u>[initials]</u>	<u>[initials]</u>	
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	<u>1UB</u>	<u>[initials]</u>	<u>[initials]</u>	
5. All other failing examinations checked to ensure that grades are justified	<u>1UB</u>	<u>[initials]</u>	<u>[initials]</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>1UB</u>	<u>[initials]</u>	<u>[initials]</u>	
Printed Name / Signature		Date		
a. Grader	<u>Keith A Bowdon / Keith A Bowdon</u>	<u>7/29/01</u>		
b. Facility Reviewer(*)	<u>GREGG W. LUSLAM</u> <u>[signature]</u>	<u>7/29/01</u>		
	<u>NRC REVIEWER</u>	<u>8/7/01</u>		
c. NRC Chief Examiner (*)	<u>LARRY MELLEN</u> <u>[signature]</u>	<u>8/14/01</u>		
	<u>RENARILLO</u>			
d. NRC Supervisor (*)	<u>MICHAEL E. ERNSTES</u> <u>[signature]</u>	<u>8/17/01</u>		
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.				

Facility: <u>BRUNSWICK</u>		Date of Exam: <u>7/27/01</u>		Exam Level: <u>RO/SRO</u>	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading	1483	⊗	⊗		
2. Answer key changes and question deletions justified and documented	1483	⊗	⊗		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	1483	⊗	⊗		
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	1483	⊗	⊗		
5. All other failing examinations checked to ensure that grades are justified	1483	⊗	⊗		
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	1483	⊗	⊗		
Printed Name / Signature		Date			
a. Grader	<u>Keith A Bowdon / Keith A Bowdon</u>	<u>7/29/01</u>			
b. Facility Reviewer(*)	<u>GREGG W. LUSUM / [Signature]</u>	<u>7/29/01</u>			
c. NRC Chief Examiner (*)	<u>LARRY MULLIN / [Signature]</u> <u>REN ARHO / [Signature]</u>	<u>8/17/01</u> <u>8/18/01</u>			
d. NRC Supervisor (*)	<u>MICHAEL E. ERNSTES</u>	<u>8/17/01</u>			
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					

Analysis Data

R1 Arhelger -88%

R2 Beacham- 81%

R3 Faciane- 83%

R4 Glasgow- 86%

R5 O'Dell - 88%

R6 Pielli-83%

R7 Walker- 86%

RO Average – 85.0%

S1 Benyak- 96%

S2 Cotton- 88%

S3 Goldstein- 89%

S4 Grogan-90%

S5 Miller- 89%

S6 Stacy- 88%

SRO Average – 90.0%

Overall Average – 87.3%

Note: Shaded questions missed by $\geq 50\%$

	R1	R2	R3	R4	R5	R6	R7	S1	S2	S3	S4	S5	S6	%
C1														100
C2														100
C3							C							92
C4														100
C5				B					B				B	77
C6														100
C7														100
C8		A												92
C9		A							A					85
C10														100
C11		A	B	B	B	B	B	B				B	B	31
C12														100
C13														100
C14														100
C15	D	D			D				D					69
C16					A									92
C17			C							D				85
C18		B												92
C19						A								92
C20				A										92
C21														100
C22														100
C23											o			100
C24			C											92
C25	C					B								85
C26														100
C27														100
C28				D										92
C29		A			A									85
C30														100
C31			B											92
C32					D									92
C33		B		B		B						B		69
C34	B		A			B	A							69
C35														100
C36		D	D		D		D				D	D	D	46
C37														100
C38														100
C39			C								C			85
C40			D	B					B	D		A	D	54

Note: Shaded questions missed by $\geq 50\%$

	S1	S2	S3	S4	S5	S6	%
S76							100
S77			D				83
S78							100
S79							100
S80							100
S81					D	B	67
S82							100
S83							100
S84							100
S85				A			83
S86				A		D	67
S87							100
S88							100
S89						D	83
S90							100
S91	C				C		67
S92							100
S93	B	D	B	B	B	B	0
S94							100
S95				A		B	67
S96		C	C			C	50
S97	D	D		D	D	D	17
S98							100
S99							100
S100							100
Total	96	88	89	90	89	88	90.0

	R1	R2	R3	R4	R5	R6	R7	%
R76			C			C		71
R77								100
R78								100
R79								100
R80				B			B	71
R81								100
R82								100
R83								100
R84		C		C				71
R85		A						86
R86								100
R87								100
R88								100
R89								100
R90		D		A		D		57
R91					D			86
R92								100
R93							D	86
R94						B		86
R95			A			C		71
R96	C				A			71
R97								100
R98			A			A		71
R99								100
R100				D		D	C	57
Total	88	81	83	86	88	83	86	85.0

Brunswick Nuclear Plant	
Task Description	Date Complete
1. Facility written exam comments or graded exams received and verified complete	8/3/01
2. Facility written exam comments reviewed and incorporated and NRC grading completed, if necessary	N/A
3. Operating tests graded by NRC examiners	8/14/01
4. NRC Chief examiner review of written exam and operating test grading completed	8/16/01
5. Responsible supervisor review completed	8/17/01
6. Management (licensing official) review completed	8/17/01
7. License and denial letters mailed	8/21/01
8. Facility notified of results	8/17/01
9. Examination report issued (refer to NRC MC 0610)	8/29/01
10. Reference material returned after final resolution of any appeals	N/A