Administrative Documents

OCONEE JUNE 2003 EXAM
50-269/2003-301

JUNE 16 - 27, 2003

Facility: Oconee Nuclear Station Date of Examination: June 16-26, 2003

Examinations Developed by: Facility: Operating Exam / NRC : Written

Target Date*	Task Description / Reference	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a & b)	rfa
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	rfa
-120	3. Facility contact briefed on security & other requirements (C.2.c)	rfa
-120	4. Corporate notification letter sent (C.2.d)	rfa
[-90]	[5. Reference material due (C.1.e; C.3.c)]	rfa
-75	6. Integrated examination outline(s) due (C.1.e & f; C.3.d)	rfa
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	rfa
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	rfa
-30	9. Preliminary license applications due (C.1.l; C.2.g; ES-202)	rfa
-14	10. Final license applications due and assignment sheet prepared (C.1.l; C.2.g; ES-202)	rfa
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	rfa
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	rfa
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	rfa
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	rfa
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	RA
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	RA

* 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.

INITIAL SUBMITTAL

ES-201 Examination Outline Quality Checklist Form ES-201-2

Facility: **Oconee** Date of Examination: **June 16, 2003**

Item	Task Description	Initials a	Initials b*	Initials c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	[illegible]		
	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.	[illegible]	N	
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics. (+)		A	
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate. (+)			
2. SIM	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, and major transients.	KCW	NSC	
	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 on subsequent days.	KCW	NSC	
	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.	KCW	NSC	
3. W/T	a. Verify that: (1) the outline(s) contain(s) the required number of control room and in-plant tasks, (2) no more than 30% of the test material is repeated from the last NRC examination, (3)* no tasks are duplicated from the applicants' audit test(s), and (4) no more than 80% of any operating test is taken directly from the licensee's exam banks.	KCW ++	NSC ++	++
	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) 4 - 6 (2-3 for SRO-U) 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.	KCW	NSC	
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	KCW	NSC	
	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 subsequent days.	KCW	NSC	
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	KCW +	NSC +	
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	KCW +	NSC +	
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	KCW +	NSC +	
	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).	KCW +	NSC +	

CHECK CAN WAIT FOR AUDIT CANDIDATE

	Printed Name / Signature	Date
a. Author	Larry Mellen / [signature] Gabriel WASHBURN / [signature]	3-14-2003 3-28-2003
b. Facility Reviewer (*)	Neil Constance / [signature]	3-28-2003
c. NRC Chief Examiner (#)	Ron Aiello / [signature] (++)	4/14/03 WR 05/19/03 OPT
d. NRC Supervisor	Mike Evans / [signature]	4/18/03

Note: * Not applicable for NRC-developed examinations.
Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.

+ For operating exam
++ Audit exam not yet developed
(+) WILL EVALUATE AFTER EXAM IS WRITTEN
(++) 3/14/03 SIG IS FOR WRITTEN ONLY. OPERATING TEST OUTLINE WILL BE SIGNED OFF WHEN AUDIT IS COMPLETE. AND APPLICABLE PARTS OF OPERATING EXAM

Facility: **Oconee** Date of Examination: **June 16, 2003**

Item	Task Description	Initials a	Initials b*	Initials c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	GCW	NSC	✓
	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.	GCW	NSC	✓
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	GCW	NSC	✓
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	GCW	NSC	✓
2. SIM	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, and major transients.	GCW	NSC	✓
	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 on subsequent days.	GCW	NSC	✓
	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.	GCW	NSC	✓
3. W/T	a. Verify that: (1) the outline(s) contain(s) the required number of control room and in-plant tasks, (2) no more than 30% of the test material is repeated from the last NRC examination, (3)* no tasks are duplicated from the applicants' audit test(s), and (4) no more than 80% of any operating test is taken directly from the licensee's exam banks.	GCW	NSC	✓
	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) 4 - 6 (2-3 for SRO-U) 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.	GCW	NSC	✓
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	GCW	NSC	✓
	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 subsequent days.	GCW	NSC	✓
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	GCW	NSC	✓
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	GCW	NSC	✓
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	GCW	NSC	✓
	d. Check for duplication and overlap among exam sections.	GCW	NSC	✓
	e. Check the entire exam for balance of coverage.	GCW	NSC	✓
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	GCW	NSC	✓

	Printed Name / Signature	Date
a. Author	Gabriel WASHBURN / Gabriel Washburn	6-5-2003
b. Facility Reviewer (*)	Neil Constance / Neil Constance	6-5-2003
c. NRC Chief Examiner (#)	Ron Aiello /	6/9/03
d. NRC Supervisor	George T. Hopper / George T. Hopper	6/9/03

Note: * Not applicable for NRC-developed examinations.
Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 6/16, 6/23-2003 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 6/16, 6/23-2003. 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. Gabriel WASHBURN	Exam Developer		2/10/03		6/27/03
2. Gailyn D. Housley	Admin. Specialist		2/12/03		6/30/03
3. Kathleen L. Saunders	Admin Specialist		2/12/03		6/27/03
4. Neil Constance	Manager - operator Training		2/24/03		6/27/03
5. KEITH WELCHEL	Sim Supv. Eng.		3/03/03		6/30/03
6. TAM V. VO	Simulator Support		3/5/03		6/27/03
7. Rick Robinson	OPS Mgr		3/13/03		6/30/03
8. John R Steely	Initial Training Supervisor		3/20/03		6-30-03
9. THOMAS RICE	SIMULATOR SUPPORT		4/1/03		7-7-03
10. David Gibbon	CRO		4/17/03		6/27/03
11. C. MICHAEL BAILES	CRO		4/17/03		6/27/03
12. TRACY LEMONS	SENIOR REACTOR OPERATOR		4-17-03		6-27-03
13. Jeff Pottmeyer	Simulator Support		5-5-03		06/30/03
14. Allen G. Collins	Simulator Support		5/5/03		6/30/03
15. Diane T. Burrell	Admin Spec.		5/8/03		7/1/03

NOTES:

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 6/16, 6/23-2003 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 6/16, 6/23-2003. 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.	Jean Miller	Nuclear Shift Supervisor		5-29-03		7-8-03
2.	SANDRA SLOSKOSKI	REACTOR OPERATOR		5-30-03		6-27-03
3.	MARK CARROLL	SRO		5-30-03		7-2-03
4.	PR AYERS II	NUCLEAR INSTRUCTOR		6-16-03		6-27-03
5.	REGIS T. REPKO	Superintendent of Operations		6-17-03		6-30-03
6.	T. PRESTON GILLESPIE	SHIFT OPERATIONS MANAGER		6-17-03		6-30-03
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						

NOTES:

Finial Submittal

Facility: **Oconee**	Date of Examination: **June 16, 2003**
Examination Level (circle one): **RO** / SRO	Operating Test Number: _____

Administrative Topic	Describe activity to be performed
Conduct of Operations GEN 2.1.23 (3.9/4.0)	**CRO-203, Calculate Final SFP Boron Concentration** OP/1&2/A/1104/006 C (SFP Makeup), Enclosure 4.9 (SFP Makeup With DW) (group activity) (**new**) (10 min)
Conduct of Operations GEN 2.1.7 (3.7/4.4)	**CRO-043, Perform Manual RCS Leakage Calculation;** PT/0600/010 (RO Only) (group activity) (18 min)
Equipment Control GEN 2.2.12 (3.0/3.4)	**CRO-204, Perform weekly surveillance test to determine RIA-40 setpoint** PT/230/001 Encl. 13.10 (Operation of RIA-40) (**new**) (20 min)
Radiation Control GEN 2.3.4 (2.5/3.1)	***CRO – 205, Calculate the Maximum Permissible Stay Time Within Emergency Dose Limits*** (group activity) (**new**) (20 min)

Note: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when 5 are required.

Finial Submittal

Facility: **Oconee**	Date of Examination: **June 16, 2003**
Examination Level (circle one): RO / **SRO**	Operating Test Number: _____

Administrative Topic	Describe activity to be performed
Conduct of Operations GEN 2.1.23 (3.9/4.0)	**CRO-203, Calculate Final SFP Boron Concentration** OP/1&2/A/1104/006 C (SFP Makeup), Enclosure 4.9 (SFP Makeup With DW) (group activity) (**new**) (10 min)
Conduct of Operations GEN 2.1.3 (3.0/3.4)	**JPM-003, Evaluate Overtime Eligibility** OMP 2-01 Attachment "C", NSD 200 (SRO only) (25 min)
Equipment Control GEN 2.2.12 (3.0/3.4)	**CRO-204, Perform weekly surveillance test to determine RIA-40 setpoint** PT/230/001 Encl. 13.10 (Operation of RIA-40) (**new**) (20 min)
Radiation Control GEN 2.3.4 (2.5/3.1)	**CRO – 205, Calculate the Maximum Permissible Stay Time Within Emergency Dose Limits (new)** (20 min)
Emergency Plan GEN 2.4.38 (2.2/4.0)	**SR0-206, Determine Emergency Classification and Protective Action Recommendations** (SRO only) (group activity) (**new**) (20 min)

Note: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when 5 are required.

Facility: **Oconee** Date of Examination: _____

Exam Level (circle one): **RO** / SRO(I) / SRO(U) Operating Test No.: _____

Control Room Systems (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)

System / JPM Title	Type Code*	Safety Function
(a) **CRO-200, Makeup to the LDST** OP/1103/004 (Soluble Poison Control) [KA: 004 A4.13 (3.3/2.9)] (**new**) (15 min)	N, S	1
(b.) **CRO- 083, Re-establish RCS letdown flow** AP/32 (Loss of Letdown) [KA: 004 A2.07 (3.4/3.7)] (10 min)	M, A, S	2
(c.) **CRO- 066, Perform Required Actions for RCS Pressure ≤ 550 psig** EOP Encl. 5.1 (ES Actuation) [KA: EPE011 EA1.13 (4.1/4.2)] (15 min)	D, A, S	3
(d.) **CRO-013, Align MDEFDWP Suction to the Hotwell and Feed the SGs** EOP Encl. 5.9 [KA: APE054 AA1.01 (4.5/4.4)] (10 min)	D, L, S ~~C~~ R	4S
(e.) **CRO-201, Restart RCP** EOP, Encl. 5.6 [KA: 003 A4.06 (2.9*/2.9)] (**new**) (20 min)	N, S	4P
(f.) **CRO-009, Following a Keowee Emergency Start Transfer from CT-4 to CT-5** OP/0/A/1106/019 Encl. 4.12 [KA: 062 A4.01 (3.3/3.1)] (10 min)	D, L, S	6
(g.) **CRO-202, Reset RIA-40 setpoints and enter the OAC Pri to Sec Admin Limit** PT/230/001 Encl. 13.10 (Operation of RIA-40) [KA: 073 A4.02 (3.7/3.7)] (**new**) (10 min)	N, S	7
(h.) **CRO-11A, Align Intake Canal For Recirc On Dam Failure** AP/13 (Dam Failure), [KA: 075 A2.01 (3.0/3.2)] (15 min)	D, L, A, S	8
In-Plant Systems (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)		
(i.) **NLO-022, Station ASW Pump Alignment** EOP Encl. 5.10 [KA: APE054 AA1.01 (4.5/4.4)] (**last exam**) (12 min)	D, R, L	4S
(j.) **CRO-47, Emergency start SSF Diesel Generator and supply power to the SSF ASW and SSF RCMU pumps** AP/25, [KA: 062 A2.11 (3.7/4.1)] (10 min)	M, A, L	6
(k.) **NLO-007, Start Diesel Air Compressor And Align To Service Air Header** AP/32, Encl. "Emergency Start of the Diesel Air Compressor", [KA: APE-065 AA1.04 (3.5*/3.4*)] (10 min)	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: **Oconee** Date of Examination: _____

Exam Level (circle one): RO / **SRO(I)** / SRO(U) Operating Test No.: _____

Control Room Systems (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)

System / JPM Title	Type Code*	Safety Function
a. **CRO-200, Makeup to the LDST** OP/1103/004 (Soluble Poison Control) [KA: 004 A4.13 (3.3/2.9)] **(new)**	N, S	1
b. **CRO- 083, Re-establish RCS letdown flow** AP/32 (Loss of Letdown) [KA: 004 A2.07 (3.4/3.7)]	M, A, S	2
c. **CRO- 066, Perform Required Actions for RCS Pressure ≤ 550 psig** EOP Encl. 5.1 (ES Actuation) [KA: EPE011 EA1.13 (4.1/4.2)]	D, A, S	3
d. **CRO-013, Align MDEFDWP Suction to the Hotwell and Feed the SGs** EOP Encl. 5.9 [KA: APE054 AA1.01 (4.5/4.4)]	D, L, S CR	4S
e. **CRO-201, Restart RCP** EOP, Encl. 5.6 [KA: 003 A4.06 (2.9*/2.9)] **(new)**	N, S	4P
f. **CRO-202, Reset RIA-40 setpoints and enter the OAC Pri to Sec Admin Limit** PT/230/001 Encl. 13.10 (Operation of RIA-40) [KA: 073 A4.02 (3.7/3.7)] **(new)**	N, S	7
g. **CRO-11A, Align Intake Canal For Recirc On Dam Failure** AP/13 (Dam Failure), [KA: 075 A2.01 (3.0/3.2)]	D, L, A, S	8
In-Plant Systems (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)		
h. **NLO-022, Station ASW Pump Alignment** EOP Encl. 5.10 [KA: APE054 AA1.01 (4.5/4.4)] **(last exam)**	D, R, L	4S
i. **CRO-47, Emergency start SSF Diesel Generator and supply power to the SSF ASW and SSF RCMU pumps** AP/25, [KA: 062 A2.11 (3.7/4.1)]	M, A, L	6
j. **NLO-007, Start Diesel Air Compressor And Align To Service Air Header** AP/32, Encl. "Emergency Start of the Diesel Air Compressor", [KA: APE-065 AA1.04 (3.5*/3.4*)]	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: ***Oconee***	Date of Examination: _____
Exam Level (circle one): RO / SRO(I) / **SRO(U)**	Operating Test No.: _____

Control Room Systems (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)		
System / JPM Title	Type Code*	Safety Function
(a.) **CRO- 083, Re-establish RCS letdown flow** AP/32 (Loss of Letdown) [KA: 004 A2.07 (3.4/3.7)]	M, A, S	2
(b.) **CRO- 066, Perform Required Actions for RCS Pressure ≤ 550 psig** EOP Encl. 5.1 (ES Actuation) [KA: EPE011 EA1.13 (4.1/4.2)]	D, A, S	3
(c.) **CRO-202, Reset RIA-40 setpoints and enter the OAC Pri to Sec Admin Limit** PT/230/001 Encl. 13.10 (Operation of RIA-40) [KA: 073 A4.02 (3.7/3.7)] **(new)**	N, S	7
In-Plant Systems (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)		
(d.) **NLO-022, Station ASW Pump Alignment** EOP Encl. 5.10 [KA: APE054 AA1.01 (4.5/4.4)] **(last exam)**	D, R, L	4S
(e.) **NLO-007, Start Diesel Air Compressor And Align To Service Air Header** AP/32, Encl. "Emergency Start of the Diesel Air Compressor", [KA: APE-065 AA1.04 (3.5*/3.4*)]	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: **Oconee** Date of Examination: **June 16, 2003** 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).			
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.			
c.	The operating test shall not duplicate items from the applicants' audit test(s)(see Section D.1.a).			
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.			
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.			
	2. WALK-THROUGH CRITERIA	--	--	--
a.	*Each JPM includes the following, as applicable:* · 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 · specific performance criteria that include: - 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			
b.	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.			
c.	At least 20 percent of the JPMs on each test are new or significantly modified.			
	3. SIMULATOR CRITERIA	--	--	--
a.	*The associated simulator operating tests (scenario sets) have been reviewed in accordance with* Form ES-301-4 and a copy is attached.			

	Printed Name / Signature	Date
a. Author	Gabriel WASHBURN /	5-5-2003
b. Facility Reviewer(*)	Neil Constance /	5-6-2003
c. NRC Chief Examiner (#)	Ron Aiello /	5/19/03
d. NRC Supervisor	George T. Hopper /	6/9/03

NOTE: * The facility signature is not applicable for NRC-developed tests.
Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.

Final Submittal

Facility: **Oconee** Date of Examination: **June 16, 2003** 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).	[illegible]	NLC	0
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	[illegible]	NLC	0
c.	The operating test shall not duplicate items from the applicants' audit test(s)(see Section D.1.a).	[illegible]	NLC	0
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	[illegible]	NLC	1
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	[illegible]	NLC	0
	2. WALK-THROUGH CRITERIA	--	--	--
a.	Each JPM includes the following, as applicable: · 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 · specific performance criteria that include: - 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	[illegible]	NLC	0
b.	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.	[illegible]	NLC	0
c.	At least 20 percent of the JPMs on each test are new or significantly modified.	[illegible]	NLC	0
	3. SIMULATOR CRITERIA	--	--	--
a.	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	[illegible]	NLC	0

	Printed Name / Signature	Date
a. Author	Gabriel WASHBURN / [signature]	6-5-2003
b. Facility Reviewer(*)	Neil Constance / [signature]	6-5-2003
c. NRC Chief Examiner (#)	Ron ARLLO / [signature]	6/9/03
d. NRC Supervisor	George T. Hopper / [signature]	6/9/03

NOTE: * The facility signature is not applicable for NRC-developed tests.
Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.

Facility: **Oconee** Date of Exam: **June 16, 2003** Scenario Numbers: **1 / 2 / 3** Operating Test No.: **1**

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

TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.5.d)		Actual Attributes	--	--	--
1.	Total malfunctions (5-8)	**7 / 7 / 7**			
2.	Malfunctions after EOP entry (1-2)	**2 / 2 / 2**			
3.	Abnormal events (2-4)	**2 / 2 / 2**			
4.	Major transients (1-2)	**2 / 1 / 2**			
5.	EOPs entered/requiring substantive actions (1-2)	**2 / 2 / 2**			
6.	EOP contingencies requiring substantive actions (0-2)	**2 / 2 / 2**			
7.	*Critical tasks* (2-3)	**2 / 4 / 3**			

Final Submittal

Facility: **Oconee** Date of Exam: **June 16, 2003** Scenario Numbers: **1 / 2 / 3** Operating Test No.: **1**

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

	TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.5.d)	Actual Attributes	--	--	--
1.	Total malfunctions (5-8)	**7 / 7 / 7**			
2.	Malfunctions after EOP entry (1-2)	**2 / 2 / 2**			
3.	Abnormal events (2-4)	**2 / 2 / 2**			
4.	Major transients (1-2)	**2 / 1 / 2**			
5.	EOPs entered/requiring substantive actions (1-2)	**2 / 2 / 2**			
6.	EOP contingencies requiring substantive actions (0-2)	**2 / 2 / 2**			
7.	Critical tasks (2-3)	**2 / 4 / 3**			

OPERATING TEST NO.: **1** INITIAL SUB

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

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.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 one-for-one 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.

Author: Gabriel Wardzinski

NRC Reviewer: _____

OPERATING TEST NO.: 1

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

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.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 one-for-one 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.

Author: _____

NRC Reviewer: _____

INITIAL SUBMITTAL

	SRO			RO			BOP		
Competencies	SCENARIO			SCENARIO			SCENARIO		
	1	2	3	1	2	3	1	2	3
Interpret / Diagnose Events and Conditions	2, 3 4, 5 6, 7 8	1b, 2 3, 4, 5 6, 8	2, 3 4, 5 6, 7	3, 5 6, 7 8	2, 3 5, 6 8	2, 3 5, 6 7	2, 4 7, 8	1b, 4 5, 6, 8	1, 4 6, 7
Comply With and Use Procedures (1)	3, 4 5, 6 7, 8	2, 3 4, 5 6, 8	2, 4 5, 6 7	3, 5 6, 7 8	2, 3 5, 6 7, 8	2, 3 5, 6 7	1, 2 4, 7 8	1a, 1b 4, 5 6, 8	1, 4 5, 6 7
Operate Control Boards (2)				3, 5 6, 7 8	2, 3 5, 6 7, 8	2, 3 5, 6 7	1, 2 4, 7 8	1a, 1b 4, 5 6, 8	1, 3 4, 5 6, 7 8
Communicate and Interact	1, 2 3, 4 5, 6 7, 8	1a, 1b 2, 3 4, 5 6, 7, 8	1, 2 3, 4 5, 6 7	3, 4 5, 6 7, 8	2, 3 4, 5 6, 7 8	2, 3 4, 5 6, 7	1, 2 3, 4 5, 6 7, 8	1a, 1b 2, 3 4, 5 6, 7 8	1, 3 4, 5 6, 7
Demonstrate Supervisory Ability (3)	1, 2 3, 4 5, 6 7, 8	1b, 2 3, 4 5, 6 7, 8	1, 2 3, 4 5, 6 7						
Comply With and Use Tech. Specs. (3)	3	5	2						

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

Instructions:

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

Author: Gabriel Washburn

NRC Reviewer: _____

	SRO			RO			BOP		
Competencies	SCENARIO			SCENARIO			SCENARIO		
	1	2	3	1	2	3	1	2	3
Interpret / Diagnose Events and Conditions	2, 3 4, 5 6, 7 8	1b, 2 3, 4, 5 6, 8	2, 3 4, 5 6, 7	3, 5 6, 7 8	2, 3 5, 6 8	2, 3 5, 6 7	2, 4 7, 8	1b, 4 5, 6, 8	1, 4 6, 7
Comply With and Use Procedures (1)	3, 4 5, 6 7, 8	2, 3 4, 5 6, 8	2, 4 5, 6 7	3, 5 6, 7 8	2, 3 5, 6 7, 8	2, 3 5, 6 7	1, 2 4, 7 8	1a, 1b 4, 5 6, 8	1, 4 5, 6 7
Operate Control Boards (2)				3, 5 6, 7 8	2, 3 5, 6 7, 8	2, 3 5, 6 7	1, 2 4, 7 8	1a, 1b 4, 5 6, 8	1, 3 4, 5 6, 7 8
Communicate and Interact	1, 2 3, 4 5, 6 7, 8	1a, 1b 2, 3 4, 5 6, 7, 8	1, 2 3, 4 5, 6 7	3, 4 5, 6 7, 8	2, 3 4, 5 6, 7 8	2, 3 4, 5 6, 7	1, 2 3, 4 5, 6 7, 8	1a, 1b 2, 3 4, 5 6, 7 8	1, 3 4, 5 6, 7
Demonstrate Supervisory Ability (3)	1, 2 3, 4 5, 6 7, 8	1b, 2 3, 4 5, 6 7, 8	1, 2 3, 4 5, 6 7						
Comply With and Use Tech. Specs. (3)	3	5	2						

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

Instructions:

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

Author: _____

NRC Reviewer: _____

Facility: Oconee Nuclear Station Date of Exam: 06/27/03 Exam Level: SRO

Item Description					Initial a	Initial c	Initial b
1.	Questions and answers technically accurate and applicable to facility				fsm	✓	
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available				fsm	✓	
3.	SRO questions are appropriate per Section D.2.d of ES-401				fsm	✓	
4.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process						
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: __ the audit exam was systematically and randomly developed; or __ the audit exam was completed before the license exam was started; or X_ the examinations were developed independently; or __ the licensee certifies that there is no duplication; or __ other (explain)				fsm	✓	N/A
6.	Bank use meets limits (no more than 75 percent from the bank at least 10 percent new, and the rest modified); enter the actual RO / SRO-only question distribution(s) at right	Bank	Modified	New	fsm	✓	
		9/25 (36%)	9/25 (36%)	7/25 (28%)			
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		fsm	✓	
		8/25 (32%)	17/25 (68%)				
8.	References/handouts provided do not give away answers				fsm	✓	
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				fsm	✓	
10.	Question psychometric quality and format meet ES, Appendix B, guidelines				fsm	✓	
11.	The exam contains, the required number of one-point, multiple choice items; the total is correct and agrees with value on cover sheet				fsm	✓	

	Printed Name / Signature	Date
a. Author	Larry S. Mellen / Larry S. Mellen	5/28/03
b. Facility Reviewer (*)	N/A	
c. NRC Chief Examiner (#)	Ronald F. Aiello /	5/28/03
d. NRC Regional Supervisor	Michael E. Ernstes / Michael E. Ernstes	5/30/03

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: Oconee Nuclear Station | Date of Exam: 06/27/03 | Exam Level: RO

Item Description					Initial a	Initial c	Initial b
1.	Questions and answers technically accurate and applicable to facility				fsm	✓	
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available				fsm	✓	
3.	SRO questions are appropriate per Section D.2.d of ES-401				N/A	N/A	
4.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process						
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: __ the audit exam was systematically and randomly developed; or __ the audit exam was completed before the license exam was started; or X_ the examinations were developed independently; or __ the licensee certifies that there is no duplication; or __ other (explain)				fsm	✓	N/A
6.	Bank use meets limits (no more than 75 percent from the bank at least 10 percent new, and the rest modified); enter the actual RO / SRO-only question distribution(s) at right	Bank	Modified	New	fsm	✓	
		24/75 (32%)	14/75 (19%)	37/75 (49%)			
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		fsm	✓	
		33/75 (44%)	42/75 (56%)				
8.	References/handouts provided do not give away answers				fsm	✓	
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				fsm	✓	
10.	Question psychometric quality and format meet ES, Appendix B, guidelines				fsm	✓	
11.	The exam contains, the required number of one-point, multiple choice items; the total is correct and agrees with value on cover sheet				fsm	✓	

	Printed Name / Signature	Date
a. Author	Larry S. Mellen / Larry S. Mellen	5/28/03
b. Facility Reviewer (*)	N/A	
c. NRC Chief Examiner (#)	Ronald F. Aiello / Ronald F. Aiello	5/28/03
d. NRC Regional Supervisor	Michael E. Ernstes / Michael E. Ernstes	6/12/03

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.

INITIAL SUBMITTAL

ES-401 | Written Examination Quality Checklist | Form ES-401-7

Facility: Oconee Nuclear Station | Date of Exam: 06/ 03 | Exam Level: SRO

	Item Description	Initial a	Initial b*	Initial c#
1.	Questions and answers technically accurate and applicable to facility	fsm		A
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	fsm		A
3.	SRO questions are appropriate per Section D.2.d of ES-401	fsm		A
4.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process			A
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: __ the audit exam was systematically and randomly developed; or __ the audit exam was completed before the license exam was started; or ✓ the examinations were developed independently; or __ the licensee certifies that there is no duplication; or __ other (explain)	fsm	N/A	A
6.	Bank use meets limits (no more than 75 percent from the bank at least 10 percent new, and the rest modified); enter the actual question distribution at right Bank: 8/25=32% 27/100=27% Modified: 9/25=36% 22/100=22% New: 8/25=32% 51/100=51%	fsm		A
7.	K1 Between 50 and 60 percent of the questions on the exam are written at the comprehension/analysis level; enter the actual question distribution at right Memory: 10/25=40% 47/100=47% C/A: 15/25=60% 53/100=53%	fsm		A
8.	References/handouts provided do not give away answers	fsm		A
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	fsm		A
10.	Question psychometric quality and format meet ES, Appendix B, guidelines	fsm		A
11.	K2 The exam contains 25, one-point, multiple choice items; the total is correct and agrees with value on cover sheet ,	fsm		A

	Printed Name / Signature	Date
a. Author	Larry S. Mellen — Larry S Mellen	5/7/13
b. Facility Reviewer (*)	N/A	
c. NRC Chief Examiner (#)	Ronald F. Aiello	5/7/13
d. NRC Regional Supervisor	Michael E. Ernstes — Michael E. Ernstes	5/8/13

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.

K1 SRO EXAM MAY EXCEED 60% C/A

K2 THE 100 POINT EXAM CONTAINS 100 ONE POINT MULTIPLE CHOICE ITEMS

INITIAL SUBMITTAL

ES-401 | Written Examination Quality Checklist | Form ES-401-7

Facility: Oconee Nuclear Station | Date of Exam: 06/ 03 | Exam Level: RO

	Item Description	Initial a	Initial b*	Initial c#
1.	Questions and answers technically accurate and applicable to facility	[illegible]		0
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	[illegible]		0
3.	SRO questions are appropriate per Section D.2.d of ES-401	[illegible]		0
4.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process			0
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: __ the audit exam was systematically and randomly developed; or __ the audit exam was completed before the license exam was started; or ✓ the examinations were developed independently; or __ the licensee certifies that there is no duplication; or __ other (explain)	[illegible]	N/A	0
6.	Bank use meets limits (no more than 75 percent from the bank at least 10 percent new, and the rest modified); enter the actual question distribution at right Bank: 19 / Modified: 13 / New: 43	[illegible]		0
7.	Between 50 and 60 percent of the questions on the exam are written at the comprehension/analysis level; enter the actual question distribution at right Memory: 37/75 = 49% / C/A: 38/75 = 51%	[illegible]		0
8.	References/handouts provided do not give away answers	[illegible]		0
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	[illegible]		0
10.	Question psychometric quality and format meet ES, Appendix B, guidelines	[illegible]		1
11.	The exam contains 75, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	[illegible]		0

	Printed Name / Signature	Date
a. Author	Larry S. Mellen — Larry S. Mellen	5/2/03
b. Facility Reviewer (*)		
c. NRC Chief Examiner (#)	Ronald F. Aiello	5/2/03
d. NRC Regional Supervisor	Michael E. Ernstes — Michael E. Ernstes	5/8/3

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.

W/ CE COMMENTS

ES-401 Written Examination Form ES-401-9 (R8, S1)

Review Worksheet for Oconee Nuclear Station (Initial)

Q#	1. LOK (C/M)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation

Instructions

[Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]

1. Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
2. Enter the level of difficulty (LOD) of each question using a 1 - 5 (easy - difficult) rating scale (questions in the 2 - 4 range are acceptable).
3. Check the appropriate box if a psychometric flaw is identified:
   - The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
   - The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).
   - The answer choices are a collection of unrelated true/false statements.
   - More than one distractor is not credible.
   - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).
4. Check the appropriate box if a job content error is identified:
   - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
   - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
   - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
   - The question requires reverse logic or application compared to the job requirements.
5. Check questions that are sampled for conformance with the approved K/A and those that are designated SRO-only (K/A and license level mismatches are unacceptable).
6. Based on the reviewer's judgment, is the question as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
7. At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).

Q#	1. LOK (C/M)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
RO/SRO COMBINED QUESTIONS															
1	M	3										Y	Y	E	[redacted]
2	C	4										Y	Y	E	[redacted]

Q#	1. LOK (C/M)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		
3	C	3										Y	N	E	[redacted]
4	C	4										Y	Y	E	
5	C	3										Y	N	E	
6	C	3										**N**	N	U	
7	C	3										**N**	N	U	
8	C	3										Y	N	S	000022AK1.03
9	C	3										N	N	U	[redacted]
10	C	3				X						Y	N	E	
11	C	3										Y	Y	E	
12	M	3										Y	N	E	
13	M	3										Y	Y	E	
14	C	3										Y	N	S	000028AK1.01

Q#	1. LOK (C/M)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		
15	C	3										N	Y	U	[redacted]
16	M	3				X						Y*	N	U	
17	M	3				X						Y*	N	U	
18	C	3										N	N	U	
19	C	3	X									Y*	N	U	
20	C	3				X						Y	Y	U	
21	M	2										Y	N	E	
22	C	3										N	Y	U	

Q#	1. LOK (C/M)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		
23	M	2										Y	N	E	[redacted]
24	C	3										N	Y	U	
25	M	2										Y	N	S	
26	C	3										N	Y	U	
27	M	2										N	N	U	
28	M	1										Y	N	U	
29	C	3	X			X						Y	N	U	
30	M	2										Y	Y	E	
31	M	2				X						Y	N	E	

Q#	1. LOK (C/M)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		
32	C	4				X						N	Y	U	[redacted]
33	M	3										N	N	U	
34	M	2										N	N	U	
35	C	3										N	y*	U	004G2.4.11 This question has nothing to do with knowledge of abnormal condition procedures. y* - This should be a no ***CE: Question fixed but need procedure number from facility***
36	M	2										Y	N	U	[redacted]
37	C	3										Y	N	E	
38	C	3										N	Y	U	
39	C	3				X						N	N	U	
40	M	2										Y	N	S	007K1.03

Q#	1. LOK (C/M)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
41						C						N	N	U	[redacted]
42	C	3										Y	N	E	
43	M	2										Y	N	S*	010K2.01 ***Facility check to see if the backup string is off of the vital 4160******
44	C	3				X						Y	N	U	[redacted]
45	M	2				X						Y	N	E	
46	C	3				X						Y	N	U	
47	C	3										Y	N	E	
48	C	3										Y	N	U	

Q#	1. LOK (C/M)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		
79	C	3										N	N	U	[redacted]
80	C	3										Y	N	E	
81	C	2										Y	N	U?	
82	C	3										Y	N	E	
83	M	2										Y	Y	S	BW/E13EA2.1
84	M	3										Y*	Y	S*	G2.1.11 Is this Q a < 1 hr TS? ***CE: Facility verify this Q is < 1 hr TS, otherwise G2.1.12.***
85	M	2				X						Y	Y	U	[redacted]
86	M	2				X						Y	Y	U	
87	C	3										Y	Y	S	G2.1.32
88	M	2										Y	Y	S	G2.1.6
89	C	3										Y	Y	E	[redacted]

Q#	1. LOK (C/M)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		
90	M	2										N	Y	U	
91	M	2										Y*	N	E	
92	C	3										Y	N	S	G2.3.2 G2.3.4 is also an acceptable K/A
93	C	3										Y	Y	E	
94	M	3										Y	N	S	G2.4.12
95	M	2										Y	N	S	G2.4.23
96	C	2				X						Y	Y	U	
97	M	2										Y	N	S*	
98	C	3										Y	Y	S*	
99	M	2										Y	Y	S*	
100	M	2										Y	N	S*	

Footnotes

37 Yellow: An enhancement is required or question needs dispositioned before ONS receives.

47 Red: Implausible question/distractors, K/A is wrong, Question has a technical issue.

16 Green: None to very minor enhancements.

[redacted]

Question requires Utility input

Q#	1. LOK (C/M)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		

Instructions

[Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]

1. Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.

2. Enter the level of difficulty (LOD) of each question using a 1 - 5 (easy - difficult) rating scale (questions in the 2 - 4 range are acceptable).

3. Check the appropriate box if a psychometric flaw is identified:
   - The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
   - The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).
   - The answer choices are a collection of unrelated true/false statements.
   - One or more distractors is not credible.
   - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).

4. Check the appropriate box if a job content error is identified:
   - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
   - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
   - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
   - The question requires reverse logic or application compared to the job requirements.

5. Check questions that are sampled for conformance with the approved K/A and those that are designated SRO-only (K/A and license level mismatches are unacceptable).

6. Based on the reviewer's judgment, is the question as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?

7. At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).

Q#	1. LOK (C/M)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		
RO/SRO COMBINED QUESTIONS															
1	F	2										√	X	S	000003G2.4.1 **No utility comments.**
2	F	3										√		U	000008AA2.22 **Changed correct answer to "C". Modified "C" and "B" to ensure only one correct answer. Verified response on simulator. Changed to RO question. CE concurred.**
3	H	2										√		S	000009G2.1.31 **No utility comments.**
4	H	4										√	X	E	000009EA2.15 **Attachment required: EOP Encl. 5.1 Page 5, Figure 1 (Required HPI Flow Per Header) CE concurred.**
5	H	3										√		U	000009EK1.01 **EOP has changed and ONS no longer bumps RCPs. Replaced with Bank question 164. CE concurred.**
6	H	3		X								?	X	U	000011EK1.01 **KA does not match. KA is for a LBLOCA. At ONS we have Boiler Condenser cooling instead of Reflux Boiling. 200 gpm leak will not saturate the plant. Added SBLOCA to stem. TA and TB Switchgear locked out added to stem to eliminate cue in stem that made "C" and "D" not plausible. Changed to SRO only. Changed to KA 00009EA2.39. CE concurred.**
7	H	3				X						√		E	000015/017AA2.10 **Changed CCW to CC to match ONS system designation. Changed "B" distractor to read "Loss of Seal Return and trip the reactor." to improve plausibility. CE concurred.**
8	H	3										√		S	000022AK1.03 **No utility comments.**

9	H	3										√	X	E	000025AK3.01 **Added SEE ATTACHMENT** **Attachment: Page 27 of 29 of EOP tab TBF. SRO only. CE concurred.**
10	H	3	X									√		E	000026G2.4.24 **Modified stem to remove reference to Immediate Manual Actions because entering an AP is not an Immediate Manual Action. Reworded distractors to improve readability. CE concurred.** *Added procedure titles to AP/20 and AP/25.*
11	H	4										√	X	E	000027G2.1.12 **Added "see attachment". Modified distractors and stem to improve plausibility. CE concurred.**
12	F	3										√		E	000027AK1.01 **Added "indication" to stem. Suggest cog level is C/A. CE concurred.** *Added "indication" to PZR Saturation Pressure.*
13	H	3					X					√	X	U	000028AA2.01 **Added "with SASS in auto" and "due to an internal power failure" to stem to clarify question and to insure "D" is the only correct answer. CE concurred.**
14	H	3	X									?		E	000028AK1.01 **Added "slowly increasing" to stem and "A" and "B" choices. Pressure would slowly increase if PZR level is increasing. Changed to KA 000028AK2.02 CE concurred.**
15	H	3	X									√		U	000029EA2.09 **EOP no longer has a limit on SG level during UNPP. Replaced modified bank question 199. CE concurred. Changed to RO.**
16	F	2										√		E	000029EK3.12 **Editorial changes to match current EOP designations. CE concurred.**
17	F	2										?		U	000033AA2.11 **ONS no longer has Intermediate Range detectors. KA no longer applicable to ONS. Suggest new KA 000036AA2.02. Replaced with new question. CE concurred.**

18	H	3										√		S	000038EA1.19 **No utility comments.** *Added "1A Main FDW pump operating" to stem to clarify plant status.*
19	H	4										√		E	000040AA2.1 **Removed refer to attachment. Attachment not required. Removed tab letter designations from distractors, not used at ONS. Changed "B" to "Loss of Subcooling Margin" to reflect ONS EOP tab. CE concurred.**
20	H	4										√	X	S	000051AA2.02 **No utility comments.**
21	F	3										√		U	000054AK3.03 **Replaced question because EFDW valve controllers have been replaced and no longer operate as the question assumes. NO longer an AP/19, information moved to EOP. Bank CF025004 CE concurred. CE concurred.**
22	H	3	X									?	X	U	000055EA2.01 **Question does not meet the KA. Question deals with cycling TBVs due to emergency CCW flow during a blackout. The KA specifies valve position during a loss of IA as a result of a blackout. Conditions stated in question are no longer addressed in current procedure. Replaced with a new question that matches KA. CE concurred.**
23	F	3										?		S	000056AA2.47 **ONS has hydro electric versus EDGs. Therefore, CE determined this KA acceptable because ONS load sheds up front vs sequencing loads. Intent of KA met.**
24	H	3	X									√	X	E	000057G.2.1.8 **Remove "RPS Channel testing is also due during your shift" from stem. Has no bearing on question. Attach reference OP/3/A/1107/004, Encl. 4.15 (System Drawing) CE concurred.**
25	F	2	X									√		U	000057AA1.06 **ICS has been upgraded and loss of KI no longer requires use of Aux Shutdown Panel. Replaced with bank question STG636. CE concurred.**

26	H	4										?	X	S	000058AA2.03 **Added ATTACHMENT SLC 16.8.5 (125v DC Vital I&C System Ground Locating Policy) CE determined KA acceptable because system is degraded due to ground.**
27	F	2										√		E	00059AK3.01 **Added (LPSW DISCH) to stem. CE concurred.**
28	F	2										√		S	000061K1.01 **No utility comments.**
29	H	3							X			?		U	000062AA1.07 **Operability determinations are performed by SROs. Replaced with modified bank question 605 that meets KA. CE concurred.**
30	F	3										√	X	E	000067G2.4.27 **Added "requiring activation of the SSF" to stem to ensure proper path in the AP. CE concurred.**
31	F	2										√		S	000067AK3.04 **No utility comments.**
32	H	3										√	X	U	001A2.13 **Two correct answers ("B" and "D"). Replaced with new question. CE concurred.**
33	F	3										√		E	003K5.04 **Added procedure title. Changed "returned to service" to "restarted" to clarify stem. Changed RHR to DHR. Made Units designations match in stem. CE concurred.**
34	H	4							X			√		U	003A3.02 **Instrumentation mentioned in question is not monitored by the operator. Replaced with bank 162. CE concurred.**
35	H	3											X	E	004G2.4.11 ***Need procedure number from facility*** **Reworded stem to improve readability. Added procedure number and title. CE concurred.**

36	F	2	X									√		U	004K2.02 ***Does each ACB have its own transfer switch? If so, should "switch" be "switches"? Should "is in AUTO" be "Are in AUTO"*** **The question concerned how aux power was supplied to the Keowee units. The KA concerned the power supply to the RCS Makeup pumps. Wrote a new question that matched the KA. CE concurred.**
37	H	3										√		S	005K3.07 **No utility comments.** *Removed the following bullets "LPI HDR 1A INJECTION FLOW" LO alarm (O1A1310) "LPI HDR 1B INJECTION FLOW" LO alarm (O1A1311) from stem. They will not alarm unless ES has actuated.*
38	H	3										√	X	S	006G2.1.7 **Reworded stem and answers to improve readability. CE concurred.**
39	H	2										√		S	006A4.05 **No utility comments.**
40	F	2										√		S	007K1.03 **No utility comments.**
41	H	3	X									√		U	008A201 **Corrected question by rewording stem, "C" and "D" choice. ONS does not have auto isolation of CC to individual RCPs. In "D" with CC-7/8 closed there would be no CC flow. CE concurred.**
42	H	2										√		S	008A4.01 **No utility comments.**
43	F	3										√		E	010K2.01 ***Facility check to see if the backup string is off of the vital 4160*** **Added "will not result in a loss of function" to "B" and "D" to complete the sentence. CE concurred.** *Added "(excluding those powered from the SSF)" to stem because the SSF supplied heaters are powered from a safety related power source.*

44	H	3										√		E	011K3.02 **The status of SASS is required to answer this question. Added "with SASS in manual" to stem. CE concurred.**
45	F	3										√		S	012K5.01 **No utility comments.**
46	H	3	X									√		U	012K6.04 **Question assumes only one S/D Bypass Key Switch. Each RPS Channel (4) has a S/D Bypass Key Switch. Question reworded, modified stem and rewrote all distractors. CE concurred.**
47	H	4										√		S	013A1.06 **No utility comments.**
48	H	3										√		S	013K3.03 **Reworded stem for clarification. CE concurred.**
49	F	3											X	S	015G2.1.32 **No utility comments.**
50	H	3	X									√		U	016A2.01 **Question concerned SASS operation with a failure of Thot. SASS no longer swaps Thot. Thot is now median selected. Wrote new question on failure of PZR temperature and SASS. CE concurred.**
51	F	2										?		S	022A1.04 **Original KA not applicable. Changed to KA 008K3.02. CE concurred.**
52	F	3										√		S	026G2.1.27 **No utility comments.**
53	H	3										√		S	026K3.01 **No utility comments.**
54	F	3										√		S	029K1.04 **No utility comments.**
55	F	3										√		E	034G2.1.27 **RO duties during refueling no longer include activities in the RB or SFP. Therefore the KA was changed to 034GEN2.2.27. Replaced with modified bank question 359. CE concurred.**

56	H	3										√		E	035A4.05 **Caps and bolded KEY. Added "with a subcooled RCS" to stem to clarify plant conditions. CE concurred.** *Added "to prevent overcooling" to stem to clarify question. This question is written based on an ONS plant event. This event concerned overcooling during a low decay heat natural circulation. During normal approach to natural circulation, "C" would be correct.*
57	F	3										√		S	039K1.02 **No utility comments.** *Changed the word "inoperative" to "inoperable" in the stem to match ONS terminology.*
58	F	3	X									√		E	039K5.01 **Modified stem to improve readability. CE concurred.**
59	F	2					X					√		E	055A3.03 **Reworded "C" to improve plausibility. CE concurred.**
60	H	3										√	X	S	056A2.04 **No utility comments.**
61	F	3										√		S	059A1.03 **No utility comments.**
62	H	3							X			?		U	061A3.01 **Question no longer correct due to plant mods. KA does not match. Replaced with bank question 43 to match KA. Requires memorization of procedure. CE concurred.**
63	H	4	X									√		U	061K6.01 **Original question had FDW-315/316 failing open. Question explanation discussed ARC valve failure. No correct answer. Wrote new question to address ARC valve failure with a correct answer. CE concurred.**

64	H	4	X									?		U	062A2.10 Does the gauge have power? If so, could "B" be correct? ***CE: Facility check to make sure distractor "B" not correct also.*** **Question setup not plausible. I&E working in an electrical cabinet would not affect the air supply to the MS gauge. Does not match KA. Replaced with bank question 735 that matches KA. CE concurred.**
65	F	3	X			X						√		U	062K4.02 **Incorrect logic for "C" LPI pump start. No auto start on "C" LPI pump. Rewrote stem and distractors to make correct. Changed cog level to C/A.** **CE concurred.**
66	H	3										√		S	063A4.01 **No utility comments.**
67	H	3	X									√		U	063K2.01 **In stem loss of power was to aux oil pump not the TDEFDW Pump. Tripping throttle valve would stop all steam flow to turbine. No correct answer. Rewrote answer choices to ensure a correct choice. Added Aux oil pump to stem to clarify what lost power. CE concurred.**
68	H	3										√		S	064K4.03 **No utility comments.**
69	F	2										√		E	071K4.01 **Capped and bolded NOT in the stem. Added "initially" to "D". CE concurred.**
70	F	2										√		S	075K1.01 **No utility comments**
71	F	3										√	X	U	076A2.01 **Not required for the operator to have this information memorized. This question would require 4 attachments. This information is in the OP L&P because of complexity of operability determination. If the OP is given it would be a direct lookup. Replaced with new question.** **AP/024 (Loss of LPSW) is the procedure used to mitigate the consequences of this malfunction. CE concurred.**

72	F	3										√		S	078K1.04 **Changed cog level to C/A. CE concurred.**
73	F	2										√		E	078K3.02 **Added (IA and AIA) to stem to clarify question. CE concurred.**
74	F	2	X									?		U	079A2.01 **At ONS IA does not backup SA. Original KA is not applicable. Changed KA to 014A1.02. Replaced with bank question 367. CE concurred.**
75	F	2							X			√		U	086K4.03 **This question requires the recall of knowledge that is too specific for the closed reference test mode. Wrote new question. CE concurred.**
76	F	3										√		E	BW/A01AA1.2 **Added delta to "A". Modified "C" to match "B". CE concurred.**
77	H	3										?		S	BW/A04AA2.2 **No utility comments.**
78	F	3										√		E	BW/A05AK2.1 **SSF Diesel Generator will not tie to the grid but can tie to Unit 2's MFB #2. Added "Unit 2's MFB #2" to stem to match our nomenclature. CE concurred.** *Underlined "emergency" to emphasize start method.*
79	H	4										√		S	BW/E02EK2.2 **No utility comments.**
80	H	3					X					√		U	BW/E04EK2.2 **Three correct answers. A, B, and C. Modified "A" and "B" to make incorrect. CE concurred.**
81	H	3										√		S	BW/E04EK3.3 **No utility comments.**
82	H	3	X									√		U	BW/E08G2.4.18 **Answer incorrect. Modified stem and distractors to improve readability and make "A" correct. Added ONS specfic nomenclature. CE concurred.** *Added "controller" to "D" to clarify location of manual control.*

83	F	3										√	X	S	BW/E13EA2.1 **No utility comments.** *Changed "C": to read "tab SA (Subsequent Actions)" to match current EOP nomenclature. Added "(HPI)" to D. This is the Rule 6 title.*
84	F	4										√	X	E	G2.1.11 ***Is this Q a < 1 hr TS?*** ***CE: Facility verify this Q is < 1 hr TS, otherwise G2.1.12.*** **Original question did not meet KA GEN 2.1.11. Selected bank question to meet KA GEN 2.1.11. CE concurred.**
85	F	2										√	X	E	G2.1.14 **Added (s) to notification to indicate one or more notifications. CE concurred.** *In the stem changed "RO supervising" to read "operator overseeing" because RO do not supervise.*
86	F	2										√		S	G2.1.27 **No utility comments.**
87	H	3										√		S	G2.1.32 **No utility comments.**
88	F	2										√	X	S	G2.1.6 **No utility comments.**
89	H	4										√		S	G2.2.12 **No utility comments.**
90	F	3										√	X	S	G2.2.17 **Removed "You are the Plant Supervisor." from stem not required to answer the question. Reworded stem to improve readability. CE concurred.**
91	F	4										√		E	G2.2.2 **Changed stem to "FDW Calibrating Integral" due to new ICS. Changed "Bailey" to "Master" in "D" to match current plant designations. CE concurred.**
92	H	5										√		E	G2.3.2 **Added "SEE ATTACHMENT" Alara Manual Appendix "C" Section 4.4 (General Dose Reduction Methods) CE concurred.**

93	H	2										√	X	S	G2.3.3 **No utility comments.**
94	F	4										√		S	G2.4.12 **No utility comments.**
95	F	2										√		S	G2.4.23 **No utility comments.**
96	H	2										√		S	G2.4.25 **Cog level change to memory. CE concurred.**
97	F	3										√		E	G2.4.3 **Redesigned the stem to improve readability. Added "ES" to the stem. Added "and 2 have actuated" to stem to make "C" correct and "D" plausible. CE concurred.**
98	H	4										√	X	E	G2.4.41 **Added "SEE ATTACHMENT" to stem. CE concurred.**
99	F	3							X			√		U	G2.4.6 **The question requires the recall of knowledge that is to specific for the closed reference test mode. Replaced with bank question 190. CE concurred.**
100	F	3										√	X	E	G2.4.7 **Added "RCP" to stem. Should be SRO question because it is asking for actions of the procedure director who is an SRO. Cog level should be C/A. CE concurred.**

Facility: Oconee Nuclear Station	Date of Exam: 06/ 03	Exam Level: RO

Item Description		Initials a	Initials b	Initials c
2.	Clean answer sheets copied before grading ***(LXRTest machine graded)***	N/A		
2.	Answer key changes and question deletions justified and documented ***(No changes or deletions were made)***	N/A		
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations) ***(LXRTest machine graded)***	N/A		
4.	Grading for all borderline cases (80% +/- 2%) reviewed in detail ***(No failures or borderline cases)***	N/A		
5.	All other failing examinations checked to ensure that grades are justified ***(No failures or borderline cases)***	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	rfa		

	Printed Name / Signature	Date
a. Grader	Ronald F. Aiello	07/02/03
b. NRC Reviewer(*)	Gerard W. Laska	07/08/03
c. NRC Chief Examiner (*)	Ronald F. Aiello	7/8/03
d. NRC Supervisor (*)		7/14/03

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

Facility: Oconee Nuclear Station	Date of Exam: 06/ 03	Exam Level: SRO

	Item Description	Initials a	b	c
1.	Clean answer sheets copied before grading ***(LXRTest machine graded)***	N/A		
2.	Answer key changes and question deletions justified and documented ***(No changes or deletions were made)***	N/A		
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations) ***(LXRTest machine graded)***	N/A		
4.	Grading for all borderline cases (80% +/- 2%) reviewed in detail ***(No failures or borderline cases)***	N/A		
5.	All other failing examinations checked to ensure that grades are justified ***(No failures or borderline cases)***	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	rfa		

	Printed Name / Signature	Date
a. Grader	Ronald F. Aiello	07/02/03
b. NRC Reviewer(*)	Gerard W. Laska	07/08/03
c. NRC Chief Examiner (*)	Ronald F. Aiello	7/8/03
d. NRC Supervisor (*)	Mike Ernstes	7/14/03

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

(Facility: Oconee Nuclear Station - Date of Exam: 06/16-24/03)

	Task Description	Date Complete
1.	Facility written exam comments or graded exams received and verified complete	07/01/03
2.	Facility written exam comments reviewed and incorporated and NRC grading completed, if necessary	N/A
3.	Operating tests graded by NRC examiners	07/09/03
4.	NRC Chief examiner review of written exam and operating test grading completed	07/09/03
5.	Responsible supervisor review completed	07/11/03
6.	Management (licensing official) review completed	N/A
7.	License and denial letters mailed	7/17/2003
8.	Facility notified of results	07/17/03
9.	Examination report issued (refer to NRC MC 0610)	8/11/2003
10.	Reference material returned after final resolution of any appeals	N/A (CD)