Facility: Oconee 1, 2 & 3 Date of Examination: June 9 2014

Examinations Developed by: (Facility) / Written / Operating Test NRC Written / Operating Test

Target Date*	Task Description (Reference)	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a and b)	RSB
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	RSB
-120	3. Facility contact briefed on security and other requirements (C.2.c)	RSB
-120	4. Corporate notification letter sent (C.2.d)	RSB
[-90]	[5. Reference material due (C.1.e; C.3.c; Attachment 2)]	RSB
{-75}	6. Integrated examination outline(s) due, including Forms ES-201-2, ES-201-3, ES-301-1, ES-301-2, ES-301-5, ES-D-1's, ES-401-1/2, ES-401-3, and ES-401-4, as applicable (C.1.e and f; C.3.d)	RSB 3/24
{-70}	{7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)}	RSB
{-45}	8. Proposed examinations (including written, walk-through JPMs, and scenarios, as applicable), supporting documentation (including Forms ES-301-3, ES-301-4, ES-301-5, ES-301-6, and ES-401-6), and reference materials due (C.1.e, f, g and h; C.3.d)	RSB
-30	9. Preliminary license applications (NRC Form 398's) due (C.1.l; C.2.g; ES-202)	RSB
-14	10. Final license applications due and Form ES-201-4 prepared (C.1.l; C.2.i; ES-202)	RSB
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	RSB
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f and h; C.3.g)	RSB
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	RSB
-7	14. Final applications reviewed; 1 or 2 (if >10) applications audited to confirm qualifications / eligibility; and examination approval and waiver letters sent (C.2.i; Attachment 4; ES-202, C.2.e; ES-204)	RSB
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee (C.3.k)	RSB
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	RSB

* Target dates are generally based on facility-prepared examinations and are keyed to the examination date identified in the corporate notification letter. They are for planning purposes and may be adjusted on a case-by-case basis in coordination with the facility licensee.
[Applies only] {Does not apply} to examinations prepared by the NRC.

Facility: **Oconee** Date of Examination: **June 9, 2014**

Item	Task Description	Initials a	Initials b*	Initials c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	CPW	Wpowell	[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.	CPW	Wpowell	[illegible]
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	CPW	Wpowell	[illegible]
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	CPW	Wpowell	[illegible]
2. SIMULATOR	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	CPW	Wpowell	[illegible]
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity, and ensure that each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s), and that scenarios will not be repeated on subsequent days.	CPW	Wpowell	[illegible]
	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.	CPW	Wpowell	[illegible]
3. W/T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.	CPW	Wpowell	[illegible]
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations	CPW	Wpowell	[illegible]
	c. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.	CPW	Wpowell	[illegible]
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	CPW	Wpowell	[illegible]
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	CPW	Wpowell	[illegible]
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	CPW	Wpowell	[illegible]
	d. Check for duplication and overlap among exam sections.	CPW	Wpowell	[illegible]
	e. Check the entire exam for balance of coverage.	CPW	Wpowell	[illegible]
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	CPW	Wpowell	[illegible]

	Printed Name/Signature	Date
a. Author	Clifford P. Witherspoon / Clifford P. Witherspoon	5/22/14
b. Facility Reviewer (*)	Louis Nowell / Louis Nowell	5/22/14
c. NRC Chief Examiner (#)	Richard S Baldwin / Richard S Baldwin	5/29/2014
d. NRC Supervisor	Eugene F Guthrie / Eugene F Guthrie	6/2/14

Note: # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.
* Not applicable for NRC-prepared examination outlines

ILT 45

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

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of **06/09/2014** as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of **06/09/2014**. 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.	Clifford P. Witherspoon	Exam Author		11-20-13		6/18/14	
2.	Louis Nowell	Exam Development Supervisor		11/20/13		6/18/14	
3.	Gabriel Washburn	Exam Author		12-8-13		6/18/14	
4.	Teresa D Bowen	Admin		1/6/14		6/23/14	
5.	Teresa L. Merck	Admin		1/6/14		6/28/14	
6.	KEITH P WELCHEL	Sim. Supv. Engineer		1/7/14		6/18/14	
7.	JAMES M. BYKO	Sim. Support		1/7/14		6/18/14	
8.		Sim Support		1/7/14		6/20/14	
9.	Joey Woolbright	Sim Support		1/8/14		6/23/14	
10.	Tam V. Vo	Sim Support		1/8/14		6/18/14	
11.	Rick Robinson	ONS OPS		1/18/14		7/2/14	
12.	William C Rostron	Sim Support		1/22/14		6/23/14	
13.	Eric Doyle	Instructor		2/3/14		6/23/14	
14.	William Dickerson	Xerox		2/3/14		7-1-14	
15.	Bryan Gilbert	SRO validation		3-7-14		6/23/14	

+ via phone

ILT 45

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	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1.	Luis Oliva	RO		3/7/14		6/20/14	
2.	J.V. Purser	RO		3/7/14		6/24/14	
3.	Joshua Arnett	RO		3/8/14	*Joshua Arnett	7/10/14	
4.	Darrell Hensley	Fleet Reviewer		3/13/14	*Darrell Hensley	7/7/14	
5.	Derick Durham	SRO		3/13/14		6/29/14	
6.	Judy Smith	TechSpec		3/19/14		6-19-14	
7.	Curtis Norden	SRO		3-19-14		7-1-14	
8.	Matt Adair	SRO		3-19-14		6/24/14	
9.	Chris Lack	RO		3/19/14		7-1-14	
10.	John Youmans	I/T		3/20/14	*John Youmans	7-7-14	
30249 11.	WADE JENNINGS	SITE SERVICES		3/24/14		6-23-14	
12.	Mike Thompson	SITE SERVICES		3/24/14		6-23-14	
13.	Clark Fletcher	MNS NRC Exam Team		3/26/14	*Clark Fletcher	7-1-14	
14.	Steven Mosteller	MNS NRC Exam Team		3/26/14	*Steve Mosteller	7-1-14	
15.	Drew Holmes	RO		4/1/14		6-19-14	

* by phone by [illegible]

ILT45

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

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	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE NOTE
1.	Thomas B McCall	SRO		4-1-14		6-25-14
2.	Archie Newberry	SRO		4-1-14		6-24-14
3.	David C Haile	Lic. Engr. / Reg. Affairs		4-2-14	* David C. Haile	6-19-14
4.	Karen N Bryant	Sr IT Business Consultant		4-10-14	* Karen Bryant	7-1-14
5.	Gregory W Johnson	RO		4-11-14		6-24-14
6.	Steven R. Owens	RO		4-11-14		7-7-14
7.	Jose L. Duarte	RO		4/24/14		7/3/14
8.	John R Stanley	TM		4/25/14		7/7/14
9.	Toby Lawson	AO Supervisor		5/7/14		6-20-14
10.	Bud Henderson	RO		5/7/14		6-20-14
11.	Daniel E. Welton	SRO		5/7/14		7-1-14
12.	Joseph S. Appignani	SRO		5/7/14		6-23-14
13.	Nicholas A. Sutton	RO		5-7-14		7-1-14
14.	David J. Desrosiers	RO		5-12-14		7-2-14
15.	Bob Mannisto	SRO		5-12-14		6-26-14

* by phone by Phil W

ILT 45

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	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE NOTE
1.	Richard Hendrickson	RO		5-12-14		6-24-14
2.	CHRISTOPHER ROF	OTM		5/14/14		6/24/14
3.	James F. Looper	AOM OWPG		5-14-14	*James Looper	7-2-14
4.	JASON MORRIS	AO		6-2-14		6-19-14
5.	JOHN R ADAMS	AO		6-2-14		6-20-14
6.	Scott Bowen	Instructor / Exam Admin		6-8-14		6-19-14
7.	THEODORE A. COE	INSTRUCTOR		6-8-14		6/20/14
8.	PAUL V. FISK	OPS MANAGER		6/5/14		7/1/14
9.	FLINT BALDWIN	AOM - TRAINING		6-9-14		6-19-14
10.	RONALD A. DOSS	ILT SUPERVISOR		6/9/14		6/19/14
11.	SANDRA SLOCKBOWER	SHIFT MANAGER		06/10/14		06/26/14
12.						
13.						
14.						
15.						

* via phone by [illegible]

Facility: **Oconee**		Date of Examination: **6/9/14**
Examination Level: RO [X] SRO [ ]		Operating Test Number: **1**
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations G2.1.23 (4.3/4.4) (20 min)	M,R	**Admin-120, Unit 3 SFP Boron And Volume Change Calculation** (Both)
Conduct of Operations G2.1.4 (3.3/3.8) (15 min)	D,R	**Admin-124 Determine if RO License requirements met** (RO Only)
Equipment Control G2.2.12 (3.7/4.1) (14 min)	M,R	**Admin-242 Perform NI Surveillance and Determine Any Required Actions** (Both)
Radiological Control G2.3.7 (3.5/3.6) (13 min)	M,R	**Admin-311 Stay Time Calculation** (RO Only)
Emergency Plan		**N/A**
NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when all 5 are required.		
* Type Codes & Criteria:	(C)ontrol room, (S)imulator, or Class(R)oom (D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes) (N)ew or (M)odified from bank (≥ 1) (P)revious 2 exams (≤ 1; randomly selected)	

Facility: **Oconee**		Date of Examination: **6/9/14**
Examination Level: RO ☐ SRO ☒		Operating Test Number: **1**
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations G2.1.23 (4.3/4.4) (20 min)	M,R	**Admin-120, Unit 3 SFP Boron And Volume Change Calculation** (Both)
Conduct of Operations G2.1.13 (2.5/3.2) (21 min)	N,R	**Admin-142, Evaluate Items for Entry Into Containment** (SRO Only)
Equipment Control G2.2.12 (3.7/4.1) (14 min)	M, R	**Admin-242 Perform NI Surveillance and Determine Any Required Actions** (Both)
Radiological Control G2.3.13 (3.4/3.8) (14 min)	N,R	**ADMIN-310, Select Individuals for Planned Emergency Exposure** (SRO Only)
Emergency Plan G2.4.38 (2.4/4.4) (25 min)	D,R	**ADMIN-430, Determine Emergency Classification and Protective Action Recommendations** (SRO Only)
NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when all 5 are required.		
* Type Codes & Criteria:	(C)ontrol room, (S)imulator, or Class(R)oom (D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes) (N)ew or (M)odified from bank (≥ 1) (P)revious 2 exams (≤ 1; randomly selected)	

Facility: **Oconee**	Date of Examination: **06/09/14**
Exam Level: **RO** [X] SRO-I [ ] SRO-U [ ]	Operating Test No.: **1**

Control Room Systems@ (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)

System / JPM Title	Type Code*	Safety Function
a. **CRO-111 Withdrawal of Safety Rod Group 1 to 50%** OP/1/A/1105/019 Encl. 4.3 (Withdrawal of Safety Rod Group 1 to 50%) [KA: 001 G2.2.2 (4.6/4.1)] (10 min)	D, A, S. L	**1**
b. **CRO-225 Align letdown with 1HP-14 failed to "Bleed"** AP/1/A/170/002 (Excessive RCS Leakage) [KA: 002 A2.01 (4.3/4.4)] (18min)	N, E, S	**2**
c. **CRO-310 Perform Actions for a Failed LPI Train** EOP Enclosure 5.1 (ES Actuation) [KA: EPE 011 EA1.04 (4.4/4.4)] (10 min)	M, A, S, E, L, EN	**3**
d. **CRO-407 Establish EFDW Flow Through Startup Valves** EOP, Encl. 5.27 (Alternate Methods for Controlling EFDW Flow) [KA: APE-054 AA2.04 (4.2/4.3)] (15 min)	D, A, S, E, L	**4S**
e. **CRO-408a Start fourth Reactor Coolant Pump** OP/1/A/1103/006 Encl. 4.4 (Starting 1B2 RCP) [KA:003 A4.06 (2.9*/2.9)] (18 min)	D, A, L, S	**4P**
f. **CRO-508 Pump the Quench Tank** OP/1/A/1104/017 Encl. 4.1 (Pumping QT) [KA: 007 A1.01 (2.9/3.1)] (15 min)	M, L, S	**5**
g. **CRO-602 Live Bus Transfer of MFB Power From CT-4 To CT-1** (15 min) OP/0/A/1106/019, Enclosure 4.11 (Live Bus Transfer Of MFB Power From CT4 To CT1) [KA: 062 A4.01 (3.3/3.1)] (15 min)	D, S, L	**6**
h. **CRO-801a Align Intake Canal for Recirc on Dam Failure** (Both) (15 min) AP/1/A/1700/13 (Dam Failure) [KA: 075 A2.01 (3.0*/3.2)] (15 min)	D, A, L, S	**8**

In-Plant Systems[@] (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
i. **AO-427 Reset an Emergency Feedwater Pump Turbine** EOP Encl 5.26 (Manual Start of TDEFWP) [KA: 061 A2.04 (3.4/3.8)] (10 min)	D,E	**4S**
j. **AO-710 Place RB Hydrogen Analyzers in Service** EOP Encl 5.2 (Placing RB Hydrogen Analyzers In Service) [KA: 028 A4.03 (3.1/3.3)] (10 min)	D, R, E	**5**
k. **CRO-805 OATC Actions for Control Room Evacuation** AP/3/A/1700/050 Encl. 5.5 (OATC Actions for Control Room Evacuation) [KA: BW/A06 AA1.3 (3.8/4.0)] (16 min)	N	**8**

@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.

* Type Codes	Criteria for RO / SRO-I / SRO-U
(A)lternate path	4-6 / 4-6 / 2-3
(C)ontrol room	
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1
(EN)gineered safety feature	- / - / ≥1 (control room system)
(L)ow-Power / Shutdown	≥ 1 / ≥ 1 / ≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)
(R)CA	≥ 1 / ≥ 1 / ≥ 1
(S)imulator	

Facility: **Oconee**	Date of Examination: **06/09/14**
Exam Level: **RO** ☐ SRO-I ☐ SRO-U ☒	Operating Test No.: **1**

Control Room Systems@ (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)		
System / JPM Title	Type Code*	Safety Function
a. **N/A**		
b. **N/A**		
c. **CRO-310 Perform Actions for a Failed LPI Train** EOP Enclosure 5.1 (ES Actuation) [KA: EPE 011 EA1.04 (4.4/4.4)] (10 min)	M, A, S, E, L, EN	**3**
d. **CRO-407 Establish EFDW Flow Through Startup Valves** EOP, Encl. 5.27 (Alternate Methods for Controlling EFDW Flow) [KA: APE-054 AA2.04 (4.2/4.3)] (15 min)	D, A, S, E, L	**4S**
e. **N/A**		
f. **N/A**		
g. **CRO-602 Live Bus Transfer of MFB Power From CT-4 To CT-1** (15 min) OP/0/A/1106/019, Enclosure 4.11 (Live Bus Transfer Of MFB Power From CT4 To CT1) [KA: 062 A4.01 (3.3/3.1)] (15 min)	D, S, L	**6**
h. **N/A**		

In-Plant Systems[@] (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
i. **N/A**		
j. **AO-710 Place RB Hydrogen Analyzers in Service** EOP Encl 5.2 (Placing RB Hydrogen Analyzers In Service) [KA: 028 A4.03 (3.1/3.3)] (10 min)	D, R, E	**5**
k. **CRO-805 OATC Actions for Control Room Evacuation** AP/3/A/1700/050 Encl. 5.5 (OATC Actions for Control Room Evacuation) [KA: BW/A06 AA1.3 (3.8/4.0)] (16 min)	N	**8**
@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.		

* Type Codes	Criteria for RO / SRO-I / SRO-U
(A)lternate path	4-6 / 4-6 / 2-3
(C)ontrol room	
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1
(EN)gineered safety feature	- / - / ≥1 (control room system)
(L)ow-Power / Shutdown	≥ 1 / ≥ 1 / ≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)
(R)CA	≥ 1 / ≥ 1 / ≥ 1
(S)imulator	

Facility: **Oconee** Date of Examination: **June 9, 2014** Operating Test Number: **1**

	1. General Criteria	Initials a	Initials b*	Initials c#
a.	The operating test conforms with the previously approved outline; changes are consistent with sampling requirements (e.g., 10 CFR 55.45, operational importance, safety function distribution).	CPW	Lowell	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	CPW	Lowell	
c.	The operating test shall not duplicate items from the applicants' audit test(s). (see Section D.1.a.)	CPW	Lowell	
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	CPW	Lowell	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	CPW	Lowell	
	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 • operationally important 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	CPW	Lowell	
b.	Ensure that any changes from the previously approved systems and administrative walk-through outlines (Forms ES-301-1 and 2) have not caused the test to deviate from any of the acceptance criteria (e.g., item distribution, bank use, repetition from the last 2 NRC examinations) specified on those forms and Form ES-201-2.	CPW	Lowell	
	3. Simulator Criteria	--	--	--
The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.		CPW	Lowell	

	Printed Name / Signature	Date
a. Author	Clifford P. Witherspoon / CPW P. Wit	5/22/14
b. Facility Reviewer(*)	Louis Nowell / Louis Nowell	5/22/14
c. NRC Chief Examiner (#)	Richard S Baldwin /	5/29/2014
d. NRC Supervisor	Eugene F. Guthrie /	6/2/14

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: **6/09/14** 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.	CPL		
2. The scenarios consist mostly of related events.	CPL		
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)	CPL		
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.	CPL		
5. The events are valid with regard to physics and thermodynamics.	CPL		
6. Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	CPL		
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.	CPL		
8. The simulator modeling is not altered.	CPL		
9. The scenarios have been validated. Pursuant to 10 CFR 55.46(d), any open simulator performance deficiencies or deviations from the referenced plant have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.	CPL		
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.	CPL		
11. All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	CPL		
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).	CPL		
13. The level of difficulty is appropriate to support licensing decisions for each crew position.	CPL		

	Target Quantitative Attributes (Per Scenario; See Section D.5.d)	Actual Attributes				--	--	--
1.	Total malfunctions (5–8)	7	6	7		CPL		
2.	Malfunctions after EOP entry (1–2)	2	1	2		CPL		
3.	Abnormal events (2–4)	4	4	3		CPL		
4.	Major transients (1–2)	1	1	1		CPL		
5.	EOPs entered/requiring substantive actions (1–2)	2	1	1		CPL		
6.	EOP contingencies requiring substantive actions (0–2)	1	1	1		CPL		
7.	Critical tasks (2–3)	6	4	4		CPL		

Facility: **Oconee** Date of Exam: **6/09/14** Operating Test No.: **1**

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

Instructions:

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

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

3. Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirements specified for the applicant's license level in the right-hand columns.

Facility: **Oconee** Date of Examination: **6/09/14** Operating Test No.: **1**

Competencies	APPLICANTS															
	RO X SRO-I ☐ SRO-U ☐				RO X SRO-I ☐ SRO-U ☐				RO ☐ SRO-I ☐ SRO-U X				RO ☐ SRO-I ☐ SRO-U ☐			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	2,3, 4,5, 6,7	1,2, 3,4, 6	1,2, 3,4, 5,6, 7		1,2, 3,4, 7	1,2, 3,5, 6	1,2, 4,5, 6,7		1,2, 3,4, 5,6, 7	1,2, 3,4, 5,6	1,2, 3,4, 5,6, 7					
Comply With and Use Procedures (1)	4,5, 6,7	1,2, 3,4, 6	1,3, 5,6, 7		1,2, 3,7	2,3, 5,6	1,2, 4,5, 6,7		1,2, 3,4, 5,6, 7	1,2, 3,4, 5,6	1,2, 3,4, 5,6, 7					
Operate Control Boards (2)	4,5, 6,7	2,3, 4,6	1,3. 4,5, 6,7		1,2, 3,4, 7	2,3, 5,6	1,2, 4,5, 67									
Communicate and Interact	1,2, 4,5, 6,7	1,2, 3,4, 5,6	1,2, 3,4, 5,6, 7		1,2, 3,4, 5,6, 7	1,2, 3,4, 5,6	1,2, 4,5, 6,7		1,2, 3,4, 5,6, 7	1,2, 3,4, 5,6	1,2, 3,4, 5,6, 7					
Demonstrate Supervisory Ability (3)									1,2, 3,4, 5,6, 7	1,2, 3,4, 5,6	1,2, 3,4, 5,6, 7					
Comply With and Use Tech. Specs. (3)									2,5	1,2	2,4					

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

Instructions:

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

Facility: OCONEE Date of Exam: JUNE 2014

Tier	Group	RO K/A Category Points											SRO-Only Points		
		K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G *	Total	A2	G*	Total
1. Emergency & Abnormal Plant Evolutions	1	3	3	3	N/A			3	3	N/A		3	18	3	3	6
	2	2	1	2				2	1			1	9	2	2	4
	Tier Totals	5	4	5				5	4			4	27	5	5	10
2. Plant Systems	1	3	2	2	3	3	2	3	2	3	3	2	28	3	2	5
	2	1	1	1	1	1	1	0	1	1	1	1	10	0 1	2	3
	Tier Totals	4	3	3	4	4	3	3	3	4	4	3	38	4	4	8
3. Generic Knowledge and Abilities Categories		1			2			3			4		10	1 2 3 4				7
		3			3			2			2			2 2 1 2				

Note:

1. Ensure that at least two topics from every applicable K/A category are sampled within each tier of the RO and SRO-only outlines (i.e., except for one category in Tier 3 of the SRO-only outline, the "Tier Totals" in each K/A category shall not be less than two).
2. The point total for each group and tier in the proposed outline must match that specified in the table. The final point total for each group and tier may deviate by ±1 from that specified in the table based on NRC revisions. The final RO exam must total 75 points and the SRO-only exam must total 25 points.
3. Systems/evolutions within each group are identified on the associated outline; systems or evolutions that do not apply at the facility should be deleted and justified; operationally important, site-specific systems/evolutions that are not included on the outline should be added. Refer to Section D.1.b of ES-401 for guidance regarding the elimination of inappropriate K/A statements.
4. Select topics from as many systems and evolutions as possible; sample every system or evolution in the group before selecting a second topic for any system or evolution.
5. Absent a plant-specific priority, only those K/As having an importance rating (IR) of 2.5 or higher shall be selected. Use the RO and SRO ratings for the RO and SRO-only portions, respectively.
6. Select SRO topics for Tiers 1 and 2 from the shaded systems and K/A categories.
7.* The generic (G) K/As in Tiers 1 and 2 shall be selected from Section 2 of the K/A Catalog, but the topics must be relevant to the applicable evolution or system. Refer to Section D.1.b of ES-401 for the applicable K/As.
8. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings (IRs) for the applicable license level, and the point totals (#) for each system and category. Enter the group and tier totals for each category in the table above; if fuel handling equipment is sampled in other than Category A2 or G* on the SRO-only exam, enter it on the left side of Column A2 for Tier 2, Group 2 (Note #1 does not apply). Use duplicate pages for RO and SRO-only exams.
9. For Tier 3, select topics from Section 2 of the K/A catalog, and enter the K/A numbers, descriptions, IRs, and point totals (#) on Form ES-401-3. Limit SRO selections to K/As that are linked to 10 CFR 55.43.

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
008AK2.03	Pressurizer Vapor Space Accident / 3	2.5	2.4	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	Controllers and positioners
009EA1.18	Small Break LOCA / 3	3.4	3.2	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	Balancing of HPI loop flows
011EG2.4.50	Large Break LOCA / 3	4.2	4.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to verify system alarm setpoints and operate controls identified in the alarm response manual.
015AK2.08	RCP Malfunctions / 4	2.6	2.6	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	CCWS
022AK1.02	Loss of Rx Coolant Makeup / 2	2.7	3.1	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Relationship of charging flow to pressure differential between charging and RCS
025AK2.01	Loss of RHR System / 4	2.9	2.9	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	RHR heat exchangers
026AA1.07	Loss of Component Cooling Water / 8	2.9	3	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	Flow rates to the components and systems that are serviced by the CCWS; interactions among the components
027AA2.05	Pressurizer Pressure Control System Malfunction / 3	3.2	3.3	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	PZR heater setpoints
029EG2.4.20	ATWS / 1	3.8	4.3	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of operational implications of EOP warnings, cautions and notes.
038EA2.03	Steam Gen. Tube Rupture / 3	4.4	4.6	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Which S/G is ruptured
054AA1.04	Loss of Main Feedwater / 4	4.4	4.5	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	HPI, under total feedwater loss conditions

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
055EG2.1.23	Station Blackout / 6	4.3	4.4	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to perform specific system and integrated plant procedures during all modes of plant operation.
056AK3.01	Loss of Off-site Power / 6	3.5	3.9	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	Order and time to initiation of power for the load sequencer
057AA2.12	Loss of Vital AC Inst. Bus / 6	3.5	3.7	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	PZR level controller, instrumentation and heater indications
058AK1.01	Loss of DC Power / 6	2.8	3.1	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Battery charger equipment and instrumentation
062AK3.03	Loss of Nuclear Svc Water / 4	4	4.2	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	Guidance actions contained in EOP for Loss of nuclear service water
065AK3.03	Loss of Instrument Air / 8	2.9	3.4	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	Knowing effects on plant operation of isolating certain equipment from instrument air
BE04EK1.2	Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4	4	4.2	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Normal, abnormal and emergency operating procedures associated with (Inadequate Heat Transfer).

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
024AK1.02	Emergency Boration / 1	3.6	3.9	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Relationship between boron addition and reactor power
059AA1.03	Accidental Liquid RadWaste Rel. / 9	3	2.9	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	Flow rate controller
060AK3.02	Accidental Gaseous Radwaste Rel. / 9	3.3	3.5	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	Isolation of the auxiliary building ventilation
068 - AK302 → 067AK302															
067AA1.09	Plant Fire On-site / 8	3	3.3	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	Plant fire zone panel (including detector location)
068AK2.03	Control Room Evac. / 8	2.9	3.1	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	Controllers and positioners
~~074EA2.05~~ 037AA206	Inad. Core Cooling / 4 S/G Tube Leak	3.4	4.2	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Trends in water levels of PZR and makeup storage tank caused by various sized leaks in the RCS
BA04AK1.2	Turbine Trip / 4	3.2	3.8	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Normal, abnormal and emergency operating procedures associated with (Turbine Trip).
BA07AK3.2	Flooding / 8	3.2	3.4	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	Normal, abnormal and emergency operating procedures associated with (Flooding).
BE08EG2.1.30	LOCA Cooldown - Depress. / 4	4.4	4.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to locate and operate components, including local controls.

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
003A3.05	Reactor Coolant Pump	2.7	2.6	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	RCP lube oil and bearing lift pumps
004A3.05	Chemical and Volume Control	3.9	3.9	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	RCS pressure and temperature
004K1.10	Chemical and Volume Control	2.7	2.9	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Pneumatic valves and RHRS
005A4.03	Residual Heat Removal	2.8	2.7	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	RHR temperature, PZR heaters and flow and nitrogen
006K4.21	Emergency Core Cooling	4.1	4.3	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	Bypassing/blocking ESF channels
006K~~5.01~~ IC 5.08	Emergency Core Cooling	2.8	3.3	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	Effects of temperatures on water level indications
007G2.2.~~22~~ SG 2.2.44	Pressurizer Relief/Quench Tank	4.0	4.7	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of limiting conditions for operations and safety limits.
008K4.09	Component Cooling Water	2.7	2.9	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	The "standby" feature for the CCW pumps
010A1.08	Pressurizer Pressure Control	3.2	3.3	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	Spray nozzle DT
010K6.03	Pressurizer Pressure Control	3.2	3.6	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	PZR sprays and heaters
012K2.01	Reactor Protection	3.3	3.7	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	RPS channels, components and interconnections

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
012K6.04 ~~K6.04~~ K6.03 (39)	Reactor Protection	3.3	3.6	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	Bypass-block circuits
013K1.06	Engineered Safety Features Actuation	4.2	4.4	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	ECCS
013K5.01	Engineered Safety Features Actuation	2.8	3.2	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	Definitions of safety train and ESF channel
022K2.02	Containment Cooling	2.5	2.4	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	Chillers
026K1.02	Containment Spray	4.1	4.1	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Cooling water
039A2.05	Main and Reheat Steam	3.3	3.6	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Increasing steam demand, its relationship to increases in reactor power
059A3.03	Main Feedwater	2.5	2.6	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	Feedwater pump suction flow pressure
061A1.04	Auxiliary/Emergency Feedwater	3.9	3.9	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	AFW source tank level
062K3.03	AC Electrical Distribution	3.7	3.9	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	DC system
062K4.07	AC Electrical Distribution	2.7	3.1	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	One-line diagram of 4kV to 480V distribution, including sources of normal and alternative power
063A1.01	DC Electrical Distribution	2.5	3.3	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	Battery capacity as it is affected by discharge rate

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
064K3.01	Emergency Diesel Generator	3.8	4.1	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	Systems controlled by automatic loader
073K5.02 5.01	Process Radiation Monitoring	2.5 3.0	3.1	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	Radiation intensity changes with source distance
076A4.01	Service Water	2.9	2.9	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	SWS pumps
076G2.2.3	Service Water	3.8	3.9	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	(multi-unit license) Knowledge of the design, procedural and operational differences between units.
078A4.01	Instrument Air	3.1	3.1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	Pressure gauges
103A2.05 2.03	Containment	2.9	3.9	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Emergency containment entry

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
002K6.04	Reactor Coolant	2.5	2.9	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	CS vent valves
015A2.05	Nuclear Instrumentation	3.3	3.8	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Core void formation
~~028~~ 029 (SB) K2.01	Hydrogen Recombiner and Purge Control	2.5	2.8	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	Hydrogen recombiners
029K3.02	Containment Purge	2.9	3.5	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	Containment entry
033A3.02	Spent Fuel Pool Cooling	2.9	3.1	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	Spent fuel leak or rupture
041A4.01	Steam Dump/Turbine Bypass Control	2.9	3.1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	ICS voltage inverter
056K1.03	Condensate	2.6	2.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	MFW
~~068~~ 014 G2.2.44	Liquid Radwaste	4.2	4.4	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to interpret control room indications to verify the status and operation of a system, and understand how operator actions and directives affect plant and system conditions
072K5.01	Area Radiation Monitoring	2.7	3.0	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	Radiation theory, including sources, types, units and effects
075K4.01	Circulating Water	2.5	2.8	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	Heat sink

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
009EA2.06	Small Break LOCA / 3	3.8	4.3	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Whether PZR water inventory loss is imminent
015AG2.4.34	RCP Malfunctions / 4	4.2	4.1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of RO tasks performed outside the main control room during an emergency and the resultant operational effects
040AG2.4.50	Steam Line Rupture - Excessive Heat Transfer / 4	4.2	4.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to verify system alarm setpoints and operate controls identified in the alarm response manual.
062AA2.04	Loss of Nuclear Svc Water / 4	2.5	2.9	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	The normal values and upper limits for the temperatures of the components cooled by SWS
BE02EG2.4.2	Vital System Status Verification	4.0	4.6	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of the parameters and logic used to assess the status of safety functions
BE04EA2.1	Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4	3.2	4.4	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Facility conditions and selection of appropriate procedures during abnormal and emergency operations.

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
005AG2.2.4	Inoperable/Stuck Control Rod / 1	3.6	3.6	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	(multi-unit) Ability to explain the variations in control board layouts, systems, instrumentation and procedural actions between units at a facility.
024AG2.4.41	Emergency Boration / 1	2.9	4.6	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of the emergency action level thresholds and classifications.
051AA2.01	Loss of Condenser Vacuum / 4	2.4	2.7	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Cause for low vacuum condition
BA05AA2.1	Emergency Diesel Actuation / 6	3.5	4.2	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Facility conditions and selection of appropriate procedures during abnormal and emergency operations.

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
013A2.03	Engineered Safety Features Actuation	4.4	4.7	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Rapid depressurization
022A2.04	Containment Cooling	2.9	3.2	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Loss of service water
026A2.09	Containment Spray	2.5	2.9	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Radiation hazard potential of BWST
059G2.4.31	Main Feedwater	4.2	4.1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of annunciators alarms, indications or response procedures
103G2.2.25	Containment	3.2	4.2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of the bases in Technical Specifications for limiting conditions for operations and safety limits.

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
001G2.2.22	Control Rod Drive	4.0	4.7	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of limiting conditions for operations and safety limits.
016G2.1.7	Non-nuclear Instrumentation	4.4	4.7	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior and instrument interpretation.
035A2.05	Steam Generator	3.2	3.4	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Unbalanced flows to the 5/Gs

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
005AG2.2.4	Inoperable/Stuck Control Rod / 1	3.6	3.6	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	(multi-unit) Ability to explain the variations in control board layouts, systems, instrumentation and procedural actions between units at a facility.
024AG2.4.41	Emergency Boration / 1	2.9	4.6	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of the emergency action level thresholds and classifications.
051AA2.01	Loss of Condenser Vacuum / 4	2.4	2.7	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Cause for low vacuum condition
BA05AA2.1	Emergency Diesel Actuation / 6	3.5	4.2	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Facility conditions and selection of appropriate procedures during abnormal and emergency operations.

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
013A2.03	Engineered Safety Features Actuation	4.4	4.7	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Rapid depressurization
022A2.04	Containment Cooling	2.9	3.2	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Loss of service water
026A2.09	Containment Spray	2.5	2.9	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Radiation hazard potential of BWST
059G2.4.31	Main Feedwater	4.2	4.1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of annunciators alarms, indications or response procedures
103G2.2.25	Containment	3.2	4.2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of the bases in Technical Specifications for limiting conditions for operations and safety limits.

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
001G2.2.22	Control Rod Drive	4.0	4.7	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of limiting conditions for operations and safety limits.
016G2.1.7	Non-nuclear Instrumentation	4.4	4.7	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior and instrument interpretation.
035A2.05	Steam Generator	3.2	3.4	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	Unbalanced flows to the 5/Gs

KA	NAME / SAFETY FUNCTION:	IR RO	IR SRO	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
G2.1.2	Conduct of operations	4.1	4.4	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of operator responsibilities during all modes of plant operation.
G2.1.25	Conduct of operations	3.9	4.2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to interpret reference materials such as graphs, monographs and tables which contain performance data.
G2.1.34	Conduct of operations	2.7	3.5	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of primary and secondary chemistry limits
G2.2.35	Equipment Control	3.6	4.5	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to determine Technical Specification Mode of Operation
G2.2.39	Equipment Control	3.9	4.5	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of less than one hour technical specification action statements for systems.
G2.2.42	Equipment Control	3.9	4.6	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to recognize system parameters that are entry-level conditions for Technical Specifications
G2.3.11	Radiation Control	3.8	4.3	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to control radiation releases.
G2.3.7	Radiation Control	3.5	3.6	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Ability to comply with radiation work permit requirements during normal or abnormal conditions
G2.4.17	Emergency Procedures/Plans	3.9	4.3	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of EOP terms and definitions.
G2.4.42	Emergency Procedures/Plans	2.6	3.8	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	Knowledge of emergency response facilities.

Tier / Group	Randomly Selected KA	Reason for Rejection
1 / 1	EPE029 2.4.20	Q(9) No notes or caution in this section of procedure. Chief Examiner picked new KA: 2.4.14 - 2/10/14
1 / 1	APE056 AK3.01	Q(13) Oconee does not have a load sequencer. Chief Examiner picked new KA: AK3.02 - 02/10/14
1 / 2	APE059 AA1.03	Q(20) At Oconee Operations does not perfrom LWRs. Chief Examiner picked new KA: AA1.02 - 02/10/14
1 / 2	APE060 AK3.02	Q(21) Oconne does not have AB ventilation isolation. Chief Examiner picked new KA: APE068 AK3.02 - 02/10/14
1 / 2	APE068 AK3.02	Q(21) Could not write a valid question on this KA. Chief Examiner selected a new KA: 067 AK3.02 - 02/10/14
1 / 2	EPE074 EA2.05	Q(24) Could not write a valid question. Chief Examiner selected a new KA: 037 AA2.06 - 2/24/2014
2 / 1	SYS006 K5.01	Q(33) Could not write a valid question on this KA. Chief Examiner selected a new KA: 006 K5.08 - 2/24/2014
2 / 1	SYS007 2.2.22	Q(34) There are no LCOs or safety limits on the QT system. Chief Examiner selected a new KA: 007 G2.2.44 - 2/24/2014
2 / 1	SYS012 K6.04	Q(39) Could not write a valid question on this KA. Chief Examiner selected a new KA: 012 K6.03 - 2/24/2014
2 / 1	SYS022 K2.02	Q(42) Oconee does not have containment chillers. Chief Examiner picked new KA: K2.01 - 02/10/14
2 / 1	SYS064 K3.01	Q(50) Oconee does not have an Auto loader. Chief Examiner picked new KA: K3.02 - 02/10/14
2 / 1	SYS073 K5.02	Q(51) Could not write a valid question on this KA. Chief Examiner selected a new KA: 073 K5.01 - 2/24/2014
2 / 1	SYS103 A2.05	Q(55) Could not write a valid question on this KA. Chief Examiner selected a new KA: 103 A2.03 - 2/24/2014
2 / 2	SYS028 K2.01	Q(58) Oconee no longer has Hydrogen Recombiners or Purge. Chief Examiner picked new KA: SYS079 K2.01 - 02/10/14
2 / 2	SYS029 K3.02	Q(59) Purge has no affect on containment entry. Chief Examiner picked new KA: K3.01 - 02/10/14
2 / 2	SYS068 2.2.44	Q(63) Operation does not operate the LRS. Chief Examiner selected a new KA: 014 G2.2.44 - 2/24/2014

Tier / Group	Randomly Selected KA	Reason for Rejection
1 / 1	APE015/017 2.4.34	Q(77) Could not write SRO question on RO task. Chief Examiner picked new KA: G2.4.6 - 02/10/14
1 / 1	BWE02 2.4.2	Q(80) Could not write SRO level question. Chief Examiner picked new KA: G2.4.18 - 02/10/14
1 / 2	APE005 2.2.4	Q(82) No Unit differences for Inoperable/Stuck Control Rod. Chief Examiner picked new KA: G 2.2.21 - 02/10/14
1 / 2	APE051 AA2.01	Q(84) Could not write and SRO question on this KA. Chief Examiner picked new KA: AA2.02 - 02/10/14
2 / 1	SYS026 A2.09	Q(88) Could not relate radiation hazard in the BWST to the CSS. Chief Examiner picked new KA: A2.09 - 02/10/14

ES-401 **Written Examination Quality Checklist** **Form ES-401-6**

Facility: **Oconee Nuclear Station** Date of Exam: **6/9/2014** Exam Level: RO ☑ SRO ☑

	Item Description	Initial a	Initial b*	Initial c*
1.	Questions and answers are technically accurate and applicable to the facility.			
2.	a. NRC K/As are referenced for all questions. b. Facility learning objectives are referenced as available.			
3.	SRO questions are appropriate in accordance with Section D.2.d of ES-401			
4.	The sampling process was random and systematic (If more than 4 RO or 2 SRO questions were repeated from the last 2 NRC licensing exams, consult the NRR OL program office).			
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: __ 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)			
6.	Bank use meets limits (no more than 75 percent from the bank, at least 10 percent new, and the rest new or modified); enter the actual RO / SRO-only question distribution(s) at right.			
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.			
8.	References/handouts provided do not give away answers or aid in the elimination of distractors.			
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.			
10.	Question psychometric quality and format meet the guidelines in ES Appendix B.			
11.	The exam contains the required number of one-point, multiple choice items; the total is correct and agrees with the value on the cover sheet.			

Item 6	Bank	Modified	New
	43% 24% 32 / 6	5% 0% 4 / 0	52% 76% 39 / 19

Item 7	Memory	C/A
	33 / 9 44% 36%	42 / 16 56% 64%

	Printed Name / Signature	Date
a. Author	Gabriel WASHBURN / Gabriel Washburn	5-15-14
b. Facility Reviewer (*)	Louis Nowell / Louis Nowell	5/15/14
c. NRC Chief Examiner (#)	RICHARD S. BALDWIN / Richard S. Baldwin	5/14/2014
d. NRC Regional Supervisor	EUGENE F. GUTHRIE / Eugene F. Guthrie	5/30/14

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.

3

OCONEE IN OFFICE REVIEW
APRIL 29-30, 2014

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.
   - $ The distractors are not credible; single implausible distractors should be repaired, more than one is unacceptable.
   - $ 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)nsatisfactory (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 (F/H)	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

Generic Issues with Early Draft 10 question review

1. Licensee did not provide any procedures with this submittal which made the review harder because of having to research the material from the previous submittals.
2. No reference material was provided in the analysis, this made the review of the questions more difficult. Especially since I have not been to Oconee for more than 6 years.
3. Use of periods, commas, underlining, bolding, caps, etc. I do not care how we use these or other generic sentence structure or ways to identify specifics we don't want the applicants to miss as long as they are used consistently throughout the exam. See question # 23.
4. References provided with highlighted text needs to have the EXACT page so the examiner does not have to page through each document to see where this information comes from. This takes too much time paging to see what was highlighted. For future exams add the page numbers that were highlighted.
5. There a an inordinate number of UNIT 1 questions. Some of these should be changed to the other units.

GENERIC COMMENTS

1. It appears that questions with time lines that they regularly start at 0400. Is there a reason for this happening?
2. Reviewing questions 1 – 20 it turns out that 18 of the 20 questions concern themselves

1	H	2-3												S	APE006K2.03, New, Comprehension. 1. KA appears to match. 2. What assures us that the VLP (Variable low pressure), in this case, will cause the trip before the Low pressure? 3. Otherwise appears to be ok?

Q#	1. LOK (F/H)	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
2	H	3												E/U	EPE009EA1.18, Bank, Comprehension. 1. KA appears to match. 2. Is it necessary to under time 1701 to state Reactor trip due to SBLOCA? Can we just say the Rx has tripped and let the applicants analyze based on the conditions present what happened? If so remove that part. Ask licensee. 3. Is it necessary to have in the stem the identification to the rule for this instance Rule 2, "Loss of Subcooling?" 4. Can we ask just the valve and the flow rate limit? It looks like you can get the same answer from rule 4, HPI forced cooling? Ask licensee if it is necessary to identify a specific rule. If not necessary take that part out. 5. Ensure that the Operations representative agrees this is required knowledge or an RO by memory. 6. Is there at any time the procedures uses 1HP-410. It appears to me that if it is not I am not sure the validity of the question. Ask licensee concerning this comment. Otherwise appears to be ok. 04/29/2014 1. Changed 1 as requested. 2. Removed rule 2. Ok as changed.
3	H	3				X								U	EPE011 G2.4.50, New, Comprehension. 1. KA appears to match 2. I do not understand the reason for using in the stem "the HIGHER pressure?" Have licensee explain why Higher was used vice lower? 3. The second part is pretty obvious in that STEP 1 of ES Actuation requires the RO to know the actuation setpoint and what channels actuate during that setpoint. Since there is no reactor building pressure the applicants will only have to recall above. 4. I am not convinced that placing Diverse LPI in override is a

Q#	1. LOK (F/H)	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		
														S	viable answer. Discuss with licensee to understand why they believe it is. 5. What in the stem would make me believe to go to override? This is only done if you cannot place the Diverse LIP in BYPASS. 6. Should the word OVERRIDE be in all capitals as it is in the procedure? 04/29/2014 1. Ok with Higher. 2. Changed the second part from DLP to ES 3 through 6. 3. Ok as changed. Ok as new.
4	H	2-3												U	APE015/017 AK2.08, Bank, Comprehension. 1. KA appears to match 2. Is it necessary in the first question to identify what 2HP-21 is by noun name? 3. For distractors A and B, for the second part, how would it be if we added trip the reactor. Or this could be added in the stem since it would apply to all distractors. IF that was done the second part of distractors A and B would still be incorrect. Correct? 4. Can the valve that is identified in A and B be removed and just state, "re-establish RCP seal injection flow? In fact this valve should not be in there any way because of "by directing." This does not make sense. Who is directing? 5. Based on question # 5 distractors A and B second parts do not make sense. The information provided in distractors B and D second part to this A and B in this question and determines that they are not correct.
														S	Review and change distractors for A and B second part. 04/29/2014 1. If the valve is in AOP or EOP. 2. Changed as requested, 3. See changed question on exam. OK as changed.

Q#	1. LOK (F/H)	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
5	H	2-3												U	APE022 AK1.01, NEW, Comprehension. 1. KA appears to match. 2. In the initial conditions, 1HP-31, noun name needs to be added. Is it the same valve as in question # 4, previous question? Add (RCP Seal Flow Control valve). 3. Distractors A and B first part use thermal barrier as the distractor, I am not sure that this is plausible. Does this component have a thermal stress temperature associated with it? If not then not plausible. Is there another component that may be a better distractor for A and B. 4. Discuss. With licensee.
														S	04/29/2014 1. Ok as changed, see exam.
6	H	2-3												E	APE025 AK2.01, NEW, Comprehension. 1. KA appears to match 2. Is it necessary to put the noun name for 1LP-12? What is this valve name? Ask licensee to add to question. 3. Distractors B and D need to add CFT after the "B" on the exam. This way it will have the same meaning as distractors A and C. 4. Otherwise appears to be ok.
														S	04/29/2014 1. Changed as requested Ok as changed.
7	H	2-3												S	APE026, AA1.07, NEW, Comprehension. 1. KA appears to match. 2. Appears to be ok.
8	F	2-3												S	APE027 AA2.05, NEW, Memory. 1. KA appears to match 2. Appears to be ok.
9	H	3s												S	EPE028 G 2.4.14, NEW, comprehension. 1. KA appears to match. 2. 1TA lockout is what? 04/29/2014 ok the way it is written. 3. Appears to be ok.

Q#	1. LOK (F/H)	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
10	H	2												E	EPE 38 EA 2.03, bank, comprehension 1. KA appears to match. 2. Is it necessary to add the noun name to 1FDW-316? Ask licensee if this is necessary. 3. Does the answer come from Table 3 of Rule 7? Have licensee explain how the 600 gpm is the correct answer. 4. Rule 7 is not going to be given to the applicants is it? If it is then the question is a direct look up (DCL) and is not allowed. 5. The question states it is comprehension, agree 6. Explain what the 1FDW – 316, information provided in the question. Discuss with licensee. Otherwise appears to be ok. Will determine after discussion with licensee. Discussion 3/18/2014 1. No noun names for the AOPs or EOPs. So we do not need them here. 2. Answer does come from rule 7, 1000 gpm per hdr limit. If only MDAFW is limited to 600 gpm. 3. Understand. 4. 316 for plausibility fails open but has N2 instrument air. Could be plausible. Reviewed again to ensure all is ok with question: 4/8.2014 1. OK as changed.
														S	
11	F	3												E	APE054 AA1.04, New, Memory 1. KA appears to match. 2. Explain why "ONLY" was not used in the first part of distractors C and D, while it was used in distractors A and B? Should distractors C and D also have ONLY in front of the two in the first part of the distractor? 3. Since the distractor analysis describes that the LOHT tab can we add to the initial conditions that LOHT has been entered. It is correct that the team would due the loss of feed water, is this correct? If this is correct would there be a problem to Add to the initial conditions?

Q#	1. LOK (F/H)	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
														S	Question appears to be ok with the requested change. 04/29/2014 1. Added changes as requested 2. Ok as changed.
12	F	2-3												E	EPE055 G 2.1.23, Bank, Memory 1. KA appears to match. 2. What is 1CC-8? Is the noun name necessary? Ask licensee. 3. The answer to this is in Step 57, is this something that Operations expects the RO to have memory knowledge of? I want to ensure this is ok to ask. I need the operations representative to certify that this is something the plant expects the RO operators to have knowledge of. Have Ops rep certify this is the case. The procedure has 60 steps. Required system knowledge? 4. Distractor A analysis second part states that this is correct, loss of IA, this is NOT correct. Please correct this. This may be a correct statement for IA but it is not correct for loss of DC power.
														S	Otherwise appears to be ok. 04/29/2014 1. OK with change. 2. OPS is ok with the knowledge requirement.

Q#	1. LOK (F/H)	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
13	H	3												U	APE056AK3.02, New, Comprehension, 1. KA appears to match. 2. Why would anyone select SK2 for the second part? You ONLY provide the reference for CT4, AP/11, Enclosure 5.1A. Why would anyone have to memorize the SK2 limits. An old revision of AP/11, Enclosure 5.1 A, Revision 48 from 2012 examinations, I don't have the new entire new procedure provides steps that make you calculate the CT4 as well as the SK2 mw limits. If the procedure was the same it would make more sense, however, the way it is now I believe the applicants would only select CT4 for the second part. Discuss with licensee. 3. Allowed the use of AP's vice what the KA statement states or EOPs. This is consistent with what has been done in the past. Allowed AOP or EOP for acceptance of these questions. 4. Discuss plausibility for SK2 limits. And the handout. Does not seem plausible. 5. Also discuss the use of HIGHER in the stem, I do not understand why it is written this way.
														S	04/29/2014 1. Question has been replaced. 2. New question appears to be ok. OK as changed,
14	H	2-3												E	APE057AA2.12, New, Comprehension 1. KA appears to match. 2. HP-120, does it need a noun name? 3. Pzr is that the way it is on the board or is PZR more appropriate? 4. What does SASS in MANUAL do? Prevent swapping of the PZR level to 3? Cannot find how you do this.
														S	04/29/2014 1. Added noun name, 2. PZR is on the label, Pzr is in the procedure. Both are correct. 3. Yes to answer 4. OK as changed.
15	H	2-3												S	APE058 AK1.01, Bank, Comprehension 1. KA appears to match

Q#	1. LOK (F/H)	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
															2. Question does not provide any reference that is useful. Will have to review this when the new DVD arrives. 3. Appears to be ok.
16	F	2-3												S	APE062AK3.03, NEW, Memory 1. KA appears to match. 2. The word "Foractions" is used in the basis for this question. What did the author mean with this word or did they mean to use a different word? 3. The procedural NOTE states the valves in part 1 of the question close to isolate RB LPSW loads. Where did the information concerning water hammer come from? Is that a deduction from what the note states? 4. Does the Ops representative expect the RO applicants to have the pressure at which the LPSW isolates? Ask to insure we get this correct. 5. Otherwise appears to be ok. 04/29/2014 Ops expects them to know this question.
17	F	2												S	APPE065 AK3.03, NEW, Memory 1. KA appears to match. 2. 1HP-5, is what valve? Letdown Isolation Valve 3. In the Current condtions: AIA is used, in the procedure (Loss of Instrument Air) Aux IA is used. Does this matter? Which way should it be written in the question? 4. Otherwise it appears to be ok. 04/29/2014 1. Changed to Aux IA. OK

Q#	1. LOK (F/H)	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
18	H	3												E	BWE04 EK1.2, Bank, Comprehension 1. KA appears to match 2. Cosmetically, one too many spaces in distractor A 2 in front of RCS. 3. Shorten the distractor answers. And put the RCP in the STEM. For example, "actions required by the LOHT tab for RCP's" and "the reason for the RCP actions." SO each distractor can remove RCP and state, "reduce to one pump per loop," or "reduce to ONLY ONE RCP." The second part can be "to reduce heat input to the RCS," and the other one "to reduce inventory loss from RCS." The "from the RCS leak is not necessary." 4. Otherwise it appears ok. 04/29/2014 1. Changed as requested. Ok as changed.
														S	
19	F	2-3												E	APE020 AK1.02, NEW, Memory 1. KA appears to match 2. Can these statements for the each of the distractors be changed so that they are NOT direct copies of the information the way it is listed or identified in the RULE? 3. The first question really does not ask what the question is asking. Distractor A and B first part is a true statement however without HP-409. HP-409 information is not provided so I guess you have to assume it is closed. Type this as "throttle total HPI flow ≤ 950 gpm (including seal injection) 4. Change first part of Distractors C and D 04/29/2014 1. Ok as changed. 2. See test for changes
														S	

Q#	1. LOK (F/H)	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
20	C	2-3												U/S S	APE059 AA1.02, Bank, Comprehension. 1. KA appears to match 2. How many individuals get this question incorrect? 3. Is there any other system that normally is not aligned to CTP # 3 but can be aligned that way? 4. The question asks the cause. All the distractors provide an answer and the reason for the answer. Remove all the reasons. 5. Distractors A and B identify that there is an increase in CTP # 3. That is exactly what is being stated in the plant conditions. 6. The question as written in UNSAT. If the reasons are removed the question will be Sat. 04/29/2014 1. Change as requested. 2. Needed to change the stem because the way it was indicated that the RIA was causing the increase. It is representative of the leak but not the source of the leak. 3. OK as changed.
21						X								U	APE067, AK3.02, New, Memory, 1. KA appears to match. 2. Distractors A and B first part, the word "closed" should be "close." Please look at and change if necessary. 3. Distractors C and D, states 96%, that comes from AP/10. The number in AP/10 is 95%. Why would anyone think that this procedure is in force now? 4. There is no reason for the plant to be in AP/50 other than stating it. At least put some reasons for being there in the initial conditions. This needs to be strengthened. 5. I do not believe that Distractors C and D are plausible. This does not make sense, in that, when do you initiate flow to the SGs and then walk away. It does not state establish 95% level. 6. Has OPS ok'ed this knowledge requirement? Do they expect the RO applicants to know from memory what Section 4G Covers? Need to insure that OPS agrees with this

Q#	1. LOK (F/H)	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
														S	expectation. 04/29/2014 1. Validated with 1RO and 1 SRO. Both got it wrong. 2. Oked by Ops to know. Question appears to be ok. Going to be hard. But it is something the ROs should be able to deduce.
22	F	2	X											E	APE 067 AA 1.09, New, Memory 1. KA appears to match 2. Agree with memory classification. 3. Is it necessary to identify in the question 2, if another LOOP is received with the example 1SA3/B6 given? It seems that there is an element of cuing in this statement. Can you just state that 1SA3/B6 in alarm and then provide another loop alarm via the designator and then ask the same thing? Discuss with licensee. 4. The statement that the BOP goes to the Fire Alarm Control panel would be better if we stated the BOP reviews the alarms that are in at the Fire Alarm Control Panel. 5. How would the control room identify if another loop was in service with the use of a separate loop. Have licensee look at this further.
														S	Otherwise it appears to be ok. 3/18/2014 1. Will make changes. Review the changes when resubmitted. 4/10/2014 1. Changes made as requested. Appears to be ok.
23	H	3	X											E	APE068 AK2.03, Bank, Comprehension. REPEAT OCONEE 2009A 1. KA appears to match 2. ASDP is a universally recognized acronym? YES 3. Should the conditions state that the crew has entered AP/8? ADDED 4. Cosmetics, Distractor D needs a period at the end to match the other distractors. Generic Comment # 3.

Q#	1. LOK (F/H)	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
														S	5. Somehow identify non-fire in conditions so the applicants do not miss this. 6. I am not so sure that C is completely incorrect. Discuss with licensee. The stem does not provide urgency that action has to be taken immediately. If we put that stipulation in the stem that may make it better. 7. Did the reactor trip? 8. What was the performance on this question? Otherwise it appears to be ok. 04/29/2014 1. Ok as changed. See question. 2.
24	H	2-3	X											E	APE037 AA2.06 , Modified, Comprehension 1. KA appears to match. 2. RIA-40, noun name, what is this detector? Entry for AP/31? Main condenser off gas. 3. AP/31 step 4.1 states: **IAAT** primary to secondary leak rate is ε 25 gpm (ε 36,000 gpd),**THEN GO TO** Unit 1 EOP Based on this statement you could be in this procedure to begin with. The stem needs to insure that we get the correct answer. Therefore, D could possibly be an additional correct answer. Licensee discuss. 4. Previous question was not submitted, cannot verify if the question meets the modified requirements. Need to provide the previous question in order to determine if it was modified. 5. Change the order of information provided. Put in this order. a. Letdown - 78 b. Seal inlet flow - 32 c. RC make up flow - 85 d. Total Seal return flow – 8.5. Do you have to add all 4 together? If so provide separate values for each RCP.

Q#	1. LOK (F/H)	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
														S	Provide previous question. 04/29/2014 1. Question meets the modified criteria. 2. Not one gauge have to add to get total seal flow. Lots of changes, see question for the way it was changed.
25	H	3												E/S	BWA04 AK1.2, Bank, Comprehension. REPEAT OCONEE 2009A 1. KA appears to match. 2. Change the wording of distractors A and B part one. Use the following: "Using _____to direct plant".... Then for distractors A and B part 1 can be written for A1. a. UNPP tab, Then for C and D part A.1 a. Unit Runback, (AP/1) 3. Look at # 2, if this will not be any better than what is there, keep what is originally there. Otherwise appears to be ok. 04/29/2014 1. No its better the way it was. Ok
														S	
26	H	3												E/S	BWA07 AK3.2, Bank, Comprehension, ONS ILT40 Q15, Bank 1. KA appears to match 2. Add to the conditions the TBF abbreviation to the Turbine Building Flood Tab. This was not identified there to begin with prior to using the abbreviation. 3. Change in the second part, "The above heat removal..." to "This heat removal ..." This makes it a little easier reading. 4. Why could the second parts in A and B not be used distractors C and D? Can they? Discuss with licensee. 5. If not ok Otherwise appears to be ok. 04/29/2014 1. Made above changes. 2. Reworded as requested. 3. Cannot use the same wording, that makes no sense. OK as initially written.
														S	

Q#	1. LOK (F/H)	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
27	F	2-3												S	BEW08 G2.1.30, NEW, Memory. 1. KA appears to match. 2. Appears to be ok.
28	F	2	X									X		U XX	003 A3.05, NEW, Memory 1. KA speaks about monitor AUTOMATIC operations of the RCPs, including lube oil and bearing lift pumps however this is only used to eliminate part of an incorrect answer. Do not believe this matches, will ask other examiners to get their opinion. 2. Is it really an AUTOMATIC prevention? I do not believe the working of the question is good, can it be written without AUTOMATICALLY. There is NO automatic starting of the RCP correct. It just prevents the RCP from manually starting if it does not meet that criteria as in the answer. 3. In the Stem add the procedure that the plant would be in when doing this evolution. Including the noun name of the procedure. Use the correct nomenclature for the pump to be started, 1A RCP or something like that. 4. What GOP would they be in at this time. 5. Add to stem the word parameter would prevent the RCP from being started manually. 6. Does the operations management expect the applicants to know the setpoints for these parameters from memory? Ask site Ops rep assigned to exam. 7. Distractor A is RCS temperature, the analysis talks about Tc, can the distractor be changed to Tc? Not sure I understand the 230 deg F and the 470 deg F. The analysis states that this is true for the 4th RCP. Is this correct? 3/18/2014 1. DO not have any auto ops of OIL system. When RCP is Running the SYSTEM is NOT running. 2. Will select a NEW KA. This is Tier 2 Group 1. 3. Change KA to A3.02, Automatic Ops of RCP monitoring the Motor Current. 4/15/2104 Replacement Question: 003A3.02, Bank, Comprehension. 1. KA appears to match. 2. What was the statistics of the evaluation of this question? Did anyone get it wrong? I am not sure anyone would get this incorrect.
	F	1-2												S	

Q#	1. LOK (F/H)	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
															Appears to be ok, but very simple. I will see how many of these are in the examination. If there are not to many this can stay.
29	F	2												E	004A3.05, NEW, Memory, 1. KA appears to be 2. Should the word "highest" in the stem be bolded or capitalized or something to ensure that the applicant s do not miss what we are trying to ask them to recognize? Highest level, lowest level. Not sure why Highest is used. Discuss.
														S	Otherwise appears to be ok. 1. Changed.
30	H	2-3												E	004K1.10, New, Comprehension. 1. KA appear to be stretch on the match. Not very close. 2. What instrument is LT-5? Pressurizer instrument? Add noun name. if necessary. 3. The misconception identified in analysis for Distractor A may not be valid. That is if the requirement was that way for the SRO upgrade applicants. When was this a misconception? Have licensee identify if this is true for the SRO-U's. 4. Is the 50 inch requirement something that an operator is expected to know from memory? Has operations agreed that this is required knowledge?
														S	Otherwise appears to be ok. 04/29/2014 1. Did not validate well. The limit is something they do not necessarily know it. One person missed with 2 validating. 2. Changing the first part because of it not being operationally valid. Changed this to asking. Does or does not use pneumatic valves. 3. Removed the LT-5 requirement. And changed mode to Mode 5.
31	H	2-3												E	005A4.03, New, Comprehension 1. KA appears to match.

Q#	1. LOK (F/H)	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
														S	2. There are numerous UNIT 1 questions up until this point. In fact this looks like a good question to change to Unit 3. Since the answer is B and not A. 3. Not necessarily comprehension, more of a memory question. Low level Comprehension. Appears to be ok with above suggested changes. 04/29/2014 1. Accepted the above comments. 2. Ok as changed.
32	F	2-3												E	006K4.21, New, Memory, 1. KA appears to 2. In the stem for question (1) after the line "psig" needs to be added. There are NO units for the number for pressure. Add this to the stem. 3. Is this a Maximum or Minimum? The way you have been writing this has sort of confused me. Setpoint is 1715 psig however the reset point is 1740 PSIG. Otherwise appears to be ok. 04/29/2014 1. Changed, as requested. 2. Ok as changed.
														S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws: Stem Focus	Cues	T/F	Cred. Dist.	Partial	4. Job Content Flaws: Job-Link	Minutia	#/ units	Back-ward	5. Other: Q= K/A	SRO Only	6. U/E/S	7. Explanation
33	F	2												E	006K5.08, New, Memory 1. KA appears to match however would like the licensee to explain how this matches two pump operation. 2. The EOP name has to be added to the stem of the question. Add "ES Actuation," to the stem of question. 3. It looks from the Enclosure 5.1, Step 76, that if there is two pumps running AND any header was NOT intentionally HPI flow diagram that it looks like this pump would be in the Region to the right of flow of 475 gpm. 4. The question does not indicate intentionally throttling so does this have to be throttled or not. 520 plus the 32 gpm. 5. Analysis is not as detailed as it could be to explain the reason for the distractors to be discredited from looking at the information provided. 6. This is more than fundamental or memory level question. Discuss with licensee why this is not a comprehension level question. Appears to be satisfactory however just need some B&W refresher.
	H	3												S	3/18/2014 1. Do not have two pump, A and B only HPI pump in same header. A and B down A header and only C in the B header. 2. Are you required to throttle flow, if you have one pump in header less than 475. If two pumps in hdr can be greater than 475, no requirement for throttling. ONLY C in the B header so less than 475 and does not need to be throttled. 3. Seal injection in A header not B. 4. IT is comprehension and changed this. 5. Pump run out is required from Memory. 475. 4/15/2014 Appears to be ok as changed.
34	F	3												E	007 G 2.2.44, Bank, Memory, ONS 2009A RO Exam 1. KA appears to match. 2. Repeat from 2009A exam. 3. Is this information that RO applicants are expected to know from memory? Have Operations look and determine if this is what they are expected to know. 4. If Ops Rep is ok with the question it is ok Otherwise, Appears to be ok. 04/29/2014 1. OPS states YES.
														S	

Q#	1. LOK (F/H)	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
35	F	1-2												E	008 K4.09, Bank, Memory 1. KA appears to match. 2. Distractor C does not appear to be plausible. The way this is written, Pump pressure, what system if any trips on pump pressure, maybe system pressure but not pump pressure. Think about changing this to system pressure. 3. How does the system work for Distractor D to work? If one de-energized for 25 seconds then the other subsequently de-energized for 18 seconds would that cause the pumps to start? Is there a way to make this more plausible?
														S	Makes changes to 1 above suggested. 04/29/2014 1. Main feeder buses are tied together and there is NO way to have they sequentially as in 3 above. OK as the licensee has it. 2. Ok as changed.
36	H	3												U	010 A1.08, Bank, Comprehension. Oconee 2008 Test 1. KA appears to match 2. What mode is the plant in now? 3. How much extra heat is necessary BWST at 85 degrees? What are you actually speaking about in terms of requirements for the heating of the BWST? The second part of C and D does not make sense to me. In that, those heaters in the PZR are in the KW of heat. Explain further why this is plausible.
														S	04/29/2014 1. Ok as changed, with having the new change as PZR level limit.
37	F	2-3												E	010K6.03, New, Memory, 1. KA appears to match 2. What is RC-3 and RC -1? I am guessing they are the PZR spray valves? Are the applicants expected to know that from memory? 3. In distractors C and D, there is a caveat for the system to work. I do not believe this is necessary for this question. Remove the Reason of maintaining above the reactor trip setpoint. This should make it equivalent to A and B.
														S	Otherwise appears to be ok. 04/29/2014 1. They know these valve names do not need to add 2. Changes, made as suggested, ok as changed.

Q#	1. LOK (F/H)	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
38	F	3												S	012K2.01, Bank, Memory, ONS 2009A Q 38, 1. KA appears to match 2. Appears to be ok.
39	H	2-3												S	012K6.03, Bank, Comprehension, ONS 2011B Q 38, 1. KA appears to match 2. Appears to be ok.
40	H	3												S	013K1.06, NEW, Comprehension. 1. Appears to be 2. Appears to be ok.
41	F	2-3												S	013K5.01, Modified, Memory, ONS 2009 Q 37, UNIT 3 1. KA appears to match. 2. Appears to be ok.
42	F	3												S	022K2.01, Bank, ONS 2009 Q 38, 1. KA appears to match. 2. Appears to be ok.
43	H	3												E S	026K1.02, Bank, Comprehension, ONS ILT Q 68, 1. KA appears to 2. The procedure states to place in "FAIL OPEN," not Failed Open. This needs to be corrected. 3. Otherwise appears to be ok. 04/29/2014 1. Changed as requested.

Q#	1. LOK (F/H)	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
44	H	2-3												U	039A2.05, Comprehension, NEW 1. KA appears to match 2. The way this question has been developed it makes the first part trivial determination. I was able to eliminate the way reactor power would track immediately. This needs to be made into a higher cognitive question. Use a part of the system and make the operator determine how power will react with a part of the system failing high or low. This will then at least require knowledge of how the system will respond rather than the simple way this was initially developed. 3. The use of the "toggle" makes this part trivial. Beef up this 4. Has this been validated as yet? I doubt ANY one would select distractors C and D. 5. It may be better if the second part of the question is asked first, that way it will link the procedure requirement for the situation being posed. Discuss with licensee. 3/18/2014 1. Will come back to this. 4/17/2014 1. KA appears to match 2. Change distractors A and C second part from "a higher level," to "a higher power slightly above pre-transient value." I believe this will make this more plausible. 04/29/2014 Ok as changed.
														E	
														S	
45	H	2-3												S	059A3.03, New Comprehension, Unit 3 1. KA appears to match 2. When using and, you have done it different ways. In this question it is underlined like "and," in other questions the "and" is capitalized like this "AND." I don't care which one, just be consistent. 3. Otherwise appears to be ok. 04/29/2014 1. Ok as recommended. Made the and this way, AND.
46	F	2-3												S	061A1.04, NEW, Memory, 1. KA appears to match. 2. Appears to be ok.

Q#	1. LOK (F/H)	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
47	H	3												S	062K3.03, Bank, Comprehension, ONS ILT40 Q 48, this question is from NRC EXAM if you look at the question provided it is there you see is was from an NRC exam, 1. KA appears to match 2. Appears to be ok.
48	F	2-3												S	062K4.07, NEW, Memory 1. KA appears to match. 2. In order to find the highlighted area in the procedure, had to page down 100 pages of the 133 page document to find where the information was for this question. The method for delivery of this submittal took me much longer to review because of this. 3. Question appears to be ok.
49	F	3												E	063A1.01, Bank, Memory, ONS 2009, Q 48, 1. KA appears to 2. Use of periods at the end of each distractor is different than other questions, be consistent. 3. The answer in distractor is a little different from the material provided. The distractor states "are de-energized to extend available battery life." The lesson plan text states, "*extend the life of available batteries." Can we change the distractor to be more correct as it is in the yellow highlight.* 4. Otherwise appears to be ok
														S	04/29/2014 1. Changed as requested. 2. Removed the from the stem. Prior to EOP. 3. OK as changed.
50	H	2-3												S	064K3.02, NEW, Comprehension. 1. KA appears to match 2. Is SL1 and SL2 breakers expected to be known? Ask ops rep to make sure. 3. Explain what is meant by switchyard isolation. I do not

Q#	1. LOK (F/H)	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
															remember. 4. In answer distractor B, analysis. Concurrent is misspelled. 5. Appears to be ok. 04/29/2014 1. Yes they know SL-1 2. Red and yellow bus, monitor voltage. Isolate switchyard 3. Realign the yellow bus through the Keowee overhead.
51	H	2-3												E	073K5.01, Bank, Comprehension, ONS 2009 A Q51, 1. KA appears to match. 2. Why are the distractors in the past, increased, remained? Should they be increase and remain the same? 3. In the distractors that use and, please capitalize AND for those. A and C should be the distractors. 4. Otherwise appears to be ok.
														S	04/29/2014 1. Changed as discussed above. 2. Capitalized AND in A and C.
52	H	3												S	076A4.01, BANK, Comprehension, ONS 2007 Retest, Q 53, 1. KA appears to match. 2. Appears to be ok.
53	F	3												E	076 G 2.2.3, New, Comprehension. 1. KA appears to match. 2. Is it clear enough what unit the B LPSW is being asked in part 2 of the question? Do we need to add unit 1 there like in part 1 3. Should we add to question one "how many ____ LPSW pumps..." 4. Otherwise appears to be ok.
														S	04/29/2014 1. A, B and C LPSW are shared on U1 and 2 and not identified as such. However, Unit 3 has its own LPSW.
54	H	2-3												S	078A4.01, Bank, Comprehension, ONS 2009A, Q 53, 1. KA appears to match 2. Add to the Turbine build air pressure per gauge below ":" 3. Otherwise appears to be ok. 4.

Q#	1. LOK (F/H)	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
55	H	3												S	103A2.03, New, Comprehension, 1. KA appears to match. 2. 1LPSW-15, is this the return from the Reactor Coolant pump motor and bearing coolers? Are they expected to know what valve this is from memory? Ask ops rep to insure this is expected knowledge. 3. Otherwise appears to be ok.
56	H	3												E/U	002K6.04, NEW, Comprehension, 1. KA appears to match. 2. Add to time 0400 the Forced Cooldown (FCD) Tab. Add abbreviation. 3. Have licensee show me where the < 50 deg F Cooldown comes from in the FCD tab. I see it on step 2.126. Is this where it comes from? 4. Does the ≤ 50 deg F in ½ hour come from this procedure or does it come from another procedure? Ask licensee to explain. 5. The question does not identify what is happening to 1RC-160 does that valve open? If it does would this be sufficient to allow removal of head voids? Can the applicant assume that this valve did open? This would change the answer to B. Not sure if B could also be an answer if you assume that the 160 valve does open in step 2.120 when it was supposed to be opened? Two possible answers.
														S	04/29/2014 1. No two possible answers, it is in series. Therefore you do not have to know what the position it is in. 2. Ok as changed.
57	F	2-3												S	015A2.05, New, Memory, 1. KA appears to match. 2. Appears to be ok
58	F	2-3												S	041K2.01, Bank, Memory, ONS ILT 1. KA appears to match. 2. Appears to be ok

Q#	1. LOK (F/H)	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
59	H	3												E S	029K3.01, New, Comprehension, 1. KA appears to match 2. In each of the answers instead of the dash we need to change that to "through." The way it is now I was not sure if it meant inclusive. 3. Otherwise appears to be ok 04/29/2014 1. Changed to through. For the dash.
60	F	2-3												E S	033A3.02, Bank, Memory, ONS2009A, Q 59 1. KA appears to match. 2. Add an "s" to alarm in the 4th bullet in the current conditions. And remove the "s" from actuates. 3. Otherwise appears to be ok. 04/29/2014 1. Changed above as requested. 2. Ok as changed.
61	F	3												S	041A4.01, New, Memory, 1. KA appears to match. 2. What is 1HP-120? Noun name, is it needed? RC volume control 3. Otherwise appears to be ok. Added the noun name as requested, 04/29/2014
62	H	2-3				X								E	056K1.03, Bank, Comprehension, ONS ILT 40 Q 62 1. KA appears to match 2. Identify where I can read about the 15% runback. I would think that the 25% runback associated with the FWP trip would be a better distractor. There is no 15% runback in this section provided for reference. 3. Think about changing A and B to 25%. 4. What actual EOP would the Procedure Director direct? I am not sure what you mean by EOP. I think there should be a number associated with this EOP. 5. Currently evaluated as an Enhancement, however, need to discuss what the basis is for 15%.

Q#	1. LOK (F/H)	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
														S	04/29/2014 1. Changed, to 25% as requested. 2. EOP is just the EOP and does not have to be named 3. OK as changed.
63	H	2-3												U/E	014G2.2.44, NEW, Comprehension. 1. KA appears to match *ONLY* the first statement and *does not* match the part "understand how operator actions and directives affect plant and system conditions." 2. In each of the distractors change from words to numerals. I think this would be easier to relate to rather than words. Use 7 and 9. 3. The second part of the question does not meet the KA. 4. The second part of the question seems pretty easy to answer. Had anyone answered this question incorrectly based on the second part of the question? Ask licensee to produce statistics for this question. Second part of question does not match KA, makes this a U need to evaluate if this is a correct statement.
														S	04/29/2014 1. Hi miss rate. 2. Changes made are ok Question is better now and now matches the KA
64	H	2-3		X										E	072K5.01, NEW, Comprehension. 1. KA appears to match. 2. Swap bullets around so we know why power is being decreased. IT makes more sense that way. 3. There is another question that has readouts of the RIA-16s or 59s in GPM. This was a question I asked about that question. I am not sure if is SRO only. In either case this would answer the first part of this question. Something needs to be changed. 4. The question is SRO 98. Discuss changes. 5. Determine which question will be changed. 6. If this one is not changed, then appears to be ok.
														S	04/29/2014 1. Changed this with power and reason 2. Changed #98 and this one was ok as it states above. 3.

Q#	1. LOK (F/H)	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
65	H	2-3												E	075K4.01, UNIT 2, BANK, Comprehension, ONS 2009 NRC exam Q65, 1. KA appears to match. 2. The answer provided in the 2009 question appears to be different than the answer for this question. The questions are the same. The 2009 questions states that distractor C is the answer. 3. Other than that discrepancy the questions appears to be ok.
														S	04/29/2014 1. Material for the NRC exam was a problem. 2. A is the correct answer. 3. Material was changed and it was made clear. OK as changed.
66	H	2												E	G 2.1.2, Bank, Memory, ONS ADMIN 45251, 1. KA appears to match 2. Distractor C and D first part does not make any sense. ANY SRO. I would like to change that to a higher SRO than the Control Room SRO. IS there a Unit SRO. I do not remember what the names at Oconee are. This is not plausible the way it is. 3. ALSO the answer states the Control Room SRO. Can it be the Control room SRO on another unit? Should this be more specific? 4. This is more like memory than comprehension.
														S	04/29/2014 1. There does not seem to be anything better than this so will leave it the same.

Q#	1. LOK (F/H)	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
67	H	2-3												E	G 2.1.25, New, Comprehension 1. KA appears to match. 2. With the curve provided. How can anyone even remotely determine that distractor D is plausible? Why would you assume that anyone would go to the initial conditions and use those values. 3. What is the required accuracy when reading a graph such as this one? Are there any conventions that the operators are provided so that they can be consistent with their determination? 4. What power factor does the plant normally run at? 5. I would rather have a ending pressure that is not a given value 35 psig and have to have them estimate where the curve should be. Just a suggestion.
														S	Need to change distractor D to something plausible. 04/29/2014 1. Could not make plausible 4th distractor so changed the question to a 2 by 2 and added the voltage adjuster (auto). 2. Ok as changed.
68	F	2												S	G 2.1.24, Bank, Memory, ONS ILT44 Q 56, last years exam 1. KA appears to match. 2. Appears to be ok.
69	F	2-3												S	G 2.2.35, NEW, Memory, 1. KA appears to match. 2. Should the words be changed to Roman Numerals so it is easier to read? 3. Otherwise appears to be ok. 04/29/2014 Changed , ok as changed.
70	F	2-3												S	G 2.2.39, Bank, Memory, ONS ILT41 Q 70, NRC exam 1. KA appears to match 2. Appears to be ok.
71	F	3												E	G 2.2.42, Modified, Memory, ONS 2009A, Q 70 1. KA appears to match. 2. Meets the modified requirements. 3. From the original question, the answer is A. Which is UST = 5.6 feet. The new question was the same parameter but a

Q#	1. LOK (F/H)	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
														S	higher value of 7.6 feet. I do not understand why this is not an additional answer? Have licensee explain why this is not correct. 4. PT1/A/0600/001 SR 3.7.6.1 requires a level of > 6 ft. The analysis states that 7.6 is plausible because of the OAC low level alarm is 8 feet. 5. IS this expected memory level requirements from the RO applicants? Does operations Rep agree with this determination? Need to ask to make sure. 6. Otherwise appears to be ok. 04/29/2014 1. OK as is, ops states its ok.
72	F	3												E/S	G 2.3.11, Modified, Memory, ONS 2009A, Q 71, NRC exam, 1. KA appears to match. 2. Meets the modified requirements. 3. Rather than using ES Channel 5 inadvertent actuation could we use a system parameter in that same ES Channel that does the same thing, inadvertent actuation. Ask licensee if possible. 4. Ok as changed.
														S	04/29/2014 1. This cannot be done. Due to the digital systems.
73	F	2-3												S	G 2.3.7, Bank, Memory, CNS 2009 NRC Q 73, 1. KA appears to match. 2. Appears to be ok.
74	H													E	G 2.4.17, NEW, Comprehension, 1. KA appears to **NOT MATCH**. There was a misunderstanding with the KA. This is for Emergency Plan and Not EOP terminology. This question has to be replaced. 2. CTPB what does that mean? Core Thermal Power Best, from EAP-EOP document. 3. Question is ok but does not match KA. 4. Need to ask another examiner if my interpretation is correct. 5. Until further notice evaluated as a U.
														S	04/29/2014 1. Misunderstanding the KA does match. I didn't have the KA catalog to review, this question is ok as is. I incorrectly evaluated this initially as a U,. Should have been an S.

Q#	1. LOK (F/H)	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
75	F	2-3												S	G 2.4.42, Bank, Memory, ONS ILT 42, Q 75, NRC exam 1. KA appears to 2. Appears to be ok.
SRO ONLY Questions															
76	H	3	x											E	EPE009EA2.06, Comprehension, NEW 1. KA appears to match 2. Should the word "SMALLEST" in the stem be identified with underline or caps or something so that the applicants do not miss reading this pertinent information? Discuss with licensee. Stem Focus. 3. In the second part, should WORST be also identified as in # 2 above? Stem focus. Appears to be ok with the above being fixed. 3/18/2014 1. Will look at and change. 04/16/2014 1. Changes made are acceptable Question appears to be ok.
77	H	2-3												E	APE015/017, Bank, Comprehension 1. KA appears to match 2. The question asks if the RCP is required to be secured. The answer is yes. 3. Then the question asks if the RCP is required to be secured what do you do trip the reactor or trip the RCP first. 4. I don't care for the fact that both are concerned with the tripping of the pump and that they do in fact cover the same issue. How about changing the radial bearing temperature to 223 and stable

Q#	1. LOK (F/H)	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
														S	which would change the answer to NOT trip the pump but leave the second question as is. 5. This would make the answer C. 6. I really think that this information is RO knowledge in both cases, I did not have time to find the info in the lesson plan I would imagine that the ROs are required to know when, at what power level, the sequence of tripping the reactor or the pump should occur. IS there a lesson objective to this? 7. I disagree with knowing the mitigative strategy criteria. I think an RO has to know this information. Discuss. Discuss with licensee. KA was changed. G.2.4.18, This was done during the National Examiner Conference. 04/29/2014 Replacement question meets the New KA and is evaluated as a satisfactory question.
78	H	3												E	APE040 G G.4.50, NEW, comprehension, 1. KA appears to match. 2. Distractors A and C cover 10CFR 100 Limits, what in the stem would indicate that radiation associated with accident conditions would be exceeded at the site boundary? Add some radioactive component to the conditions in order to have someone think the limits would be exceeded. 3. How did the evaluators do on this question? Take a look at this and discuss requested changes. 04/29/2014 1. Changed the second question to ask for the AFIS bases and this makes it more concise. OK as changed
														S	

Q#	1. LOK (F/H)	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
79	H	3												S	APE062 AA2.04, NEW, Comprehension 1. KA appears to match. 2. In plant conditions it states B and C LPSW pumps failed, what does that actually mean? Did they stop pumping completely? 3. The immediate trip criteria for RCP from table 5.1, is this RO required memorization knowledge? Ask licensee. 4. In the first question, the AP/16 is missing the closed parenthesis. ( ) 5. The rest of the question appears to be ok. Appears to be ok. 04/29/2014 1. Breakers failed open. Added to the initial conditions. 2. Fixed closed parenthesis. 3. RO is required to know this information.
80	F	3				X								E	BWE02G 2.4.18, New, Memory, 1. KA appears to 2. Do the initial conditions represent the actual physical conditions? With one MRSV not reseated would steam pressure be stable? 3. The actual title of the procedure is Immediate Manual Subsequent Actions. Should this be changed in the stem? 4. Not convinced that an open MSRV is the same as a MSLB and that the PTS concern is a misunderstanding. The MSRV in this case is not even causing the pressure to decrease thus the temperature is not changing. 5. The action to reduce pressure to reseat the valve is the reason for the temperature decrease not the valve being stuck open itself. I do not believe this is plausible. Two distractors that are non-plausible is considered a U. However this will be considered an E because one change can fix both distractors.
														S	04/29/2014 1. Yes bypass would accommodate. This so it is something would see. 2. Ok as is. 3. Changed PTS to AFIS actuation. See Exam for changes.
81	H	3												S	BWE04 EA2.1, NEW, COMPREHENSION. 1. KA appears to match. 2. Appears to be ok

Q#	1. LOK (F/H)	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
82	H	3										X	X	U S	APE 005 G 2.2.21, Comprehension, BANK, 1. KA does not appear to match. Knowledge of both pre and post maintenance. This has nothing to do with maintenance. Discuss with licensee. 2. Why is this SRO only, does not an RO also have to knowledge in this area with the rod positions and have to make recommendations based on the conditions of the plant. Need to discuss with licensee \ 3/18/2014 1. States if a tripped ROD is Operable or Not. States that first part is SRO. There is enough info to determine it is NOT misaligned. 2. Need to add to C and D to Misaligned and inoperable. Changed this to have both issues. 3. If you have a dropped rod and or misaligned. 4. 9 inches is equal to 6.5 %. 4/16/2014 1. OK as changed.
83	F	2-3												E S	APE024 G 2.4.41, New, Memory 1. KA appears to match 2. While the question meets all criteria I am not sure that evacuation of non-essential personnel is plausible based on the conditions presented in the question. 3. Is there a way to add information that would provide the applicants to think it is necessary for evacuation? 4. Is it possible to be in the SAE under these conditions? Have licensee actually classify the EAL with procedures to see if this is correct and add the EAL classification SAE ____. 5. If this is not an SAE change the question to make sure the EAL is correct. If this is the correct EAL then it is ok Discuss with licensee. 04/29/2014 1. Ensured that the SAE was the correct classification. 2. Underlined required in the second part. To ensure that the applicants don't miss that. 3. Ok as changed.

Q#	1. LOK (F/H)	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
84	F	2				X							X	U	APE 051 AA 2.02, Memory, NEW 1. KA appears to match. 2. If the low vacuum trip is 19.75 inches vacuum, how is the answer 21.75? Something is wrong with the question. Ask licensee to identify why there is a discrepancy. I found out that 21.75 is the correct answer. Need to change the analysis to this number vice 19.75. 3. Disagree as SRO ONLY. This is the methodology of where to perform this action. The question does not identify that a procedure is being used. If it did identify the procedure and it was specific then you could potentially link it to the SRO but in this case it is not identified in the stem. 4. Not sure that the Auxiliary Shutdown Panel is plausible. The analysis talks about the bypass of the TBV low pressure feature at the ASP is this ever used during this accident? Discuss with licensee. Not sure this is that plausible.
														S	3/18/2014 1. A step on SA states that: IAAT tubine bypass valves cannot control, in this case below the set point at 7 inches. 2. ASP, would use the turbine there on loss of the Control Room. Would use in AP-08. Control Room Evacuation. 3. NEED to look at the Set point. 4/16/2014 1. Ok as changed.
85	H	3												E	BWA05 AA2.1, NEW, Comprehension 1. KA appears to match 2. In the current conditions re-arrange the order of system status with that of the procedures being used. Put the KHU-1 first then 1TC, 1TD, and 1TE next. Then the Blackout tab then enclosure 5.38. This would allow the applicant to see what the plant electric line up is before you tell them what procedure they are in. 3. For enclosure 5.38 add the noun name, "Restoration of Power." Just in case they do not know what that enclosure is. 4. I did not have drawings of the electric plant and could not figure out with the procedures provided how KHU is powering and not CT-5. I need someone to show me how this works. 5. Other than me understanding the question it appears to be ok. Appears to be ok with minor comments.

Q#	1. LOK (F/H)	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
														S	04/29/2014 1. ACB-3 makes Keowee is through the underground. 2. 5.38 states, MFB power, NO, Keowee not emergency locked out. Keowee 2 to the MFBs. 3. Go back to subsequent actions. Stay in black out tab. Ok as changed.
86	H	2-3												S	013 A2.03, NEW, Comprehension 1. KA appears to match 2. Appears to be ok
87	H	3												S	022A2.04, Bank, Comprehension, 2010A NRC SRO EXAM, UNIT3 1. KA appears to match. 2. Distractors A and B concern themselves with LSPW. Distractors C and D do not. 3. LCO 3.0.3 is a 1 hour TS. Does that make it off guard from the RO exam? Need to get clarification based on actually being in a greater than 7 day TS to begin with. 4. Does the lesson plan identify the RO knowledge requirements concerning the time to begin power reduction or to actually initiate the power reduction? I need the licensee to explain the difference. Otherwise appears to be ok. 04/29/2014 1. 3.0.3 explained in SRO manager procedure. 2. Underline the word immediate in part 1. 3. 3 of 5 SROs missed this. 4. Removed the word actually. 5. Rearranged the wording of the stem. Ok as changed.
88	H	3												E	026 A2.04, New, Comprehension, 1. KA appears to match 2. What is the "Worst Case" LBLOCA, is that a DBA? Not sure if this terminology is correct for use in the question. Ask licensee to evaluate. 3. The previous question was about RBCU's is this too close? There is a basic underlying understanding of the 2 sprays and 3 RBCU TS requirement.

Q#	1. LOK (F/H)	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
														S	4. The question really is asking in the second part what can be done if the pump needs to be re-tried for starting. This can apply to any electrical motor not just containment spray. 04/29/2014 1. WORST case is Designed based LOCA. 04/30/2014 1. SRO only is ok. Understand the basis for SRO only knowledge.
89	H	2-3				X								U	059 G2.4.31, New, Comprehension, 1. KA appears to match. 2. In the given conditions the 1A SG level is 80% OR increasing. Is this what was wanted or should it be AND? Not sure what this is trying to say. OR is operating range. 3. Do not believe that this is SRO only knowledge. The lesson plan was provided and it shows the Objective of R 17 being met, in chapter 4. However, the objectives are not provided to show who is responsible to knowing this information. 4. In the first part the word MINIMUM is used, should this be the MAXIMUM? This seems misleading to ask it this way. Licensee explain. 5. I am not sure why distractor C is not an additional answer. Have the licensee explain. Potential 2 correct answers. 04/29/2014 1. OR is operating range. 2.
														S	

Q#	1. LOK (F/H)	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
90	H	2-3												U	103 G2.2.25, NEW, Comprehension. 1. KA appears to match. 2. What is 1PR-1, noun name? Could not find in material provided. 3. This note is above the line in TS 3.6.3, Penetration flow paths except for 48 inch purge valve penetration flow paths may be unisolated intermittently under administrative controls. Why is this not RO required knowledge? 4. While the argument that this is in the basis of TS. It should be common knowledge that only one containment air lock is required to be closed to maintain containment operable. I would maintain that all ROs as well as AUOs know that one door needs to be operable to maintain containment operable. 5. Discuss with licensee that this is not SRO only knowledge. 04/29/2014 1. Added noun name. 2. Had to rewrite 3. Since the word cannot so change to may NOT and may. OK as changed
														S	
91	H	2-3												E	001 G2.2.22, NEW, Comprehension. 1. KA appears to match. 2. Objective 21 from Control Rod Instrumentation, IC-CRI, states that given a Copy of TS and Bases, analyze situations. 3. Is the RO applicant required to know TS 3.3.6, LCO B? Discuss with licensee to understand RO expectations. 4. Recommend to change first part to ask about the Shunt Trip coil then the answer would be B. Discuss with licensee RO required knowledge. 04/29/2014 1. Changed as in # 4 above. 2. OK with changes, see the exam.
														S	
92	H	3												S	016 G2.1.7, Bank, Comprehension, 2011B Oconee NRC exam Q91 1. KA appears to match 2. If the time frame of 7 days has elapsed and then the evaluation done would that change the answer to D? Discuss with

Q#	1. LOK (F/H)	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
															licensee. Is there a way to do this such that D would be the answer? 3. The question is ok as is. 04/30/2014 1. Suggestion was not done because this is more complicated than I wanted to have on the exam. Both would have to be out of service greater than 30 days. Not a normal situation. Question is ok as written.
93	H	2-3												S	035 A2.05, NEW, Comprehension 1. KA appears to match. 2. Not sure what the S/G flows are, are they Steam or Feed flow? Does it matter? 3. Is the Delta Tc causing the feed mismatch? Appears to be ok. Not very difficult. 04/30/2014 OK as is.
94	F	1-2												S S	Generic G 2.1.36, Bank, Memory, ILT41 Q82 1. KA appears to match. 2. LOWEST level is better than the MINIMUM level. 3. Who handles the rods during refueling? Who is in the main control room during refueling? I do not agree this is SRO only level. Discuss with additional examiner. 04/30/2014 1. Refueling SRO has an RO as an assistant. There are NO tasks for the RO to know this information. 2. I was incorrect in stating this was NOT SRO only. It is and realize this was not evaluated correctly to begin with.

Q#	1. LOK (F/H)	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
95	F	2-3												E	G 2.1.41, Bank, Memory, ONS 2011B Q95 1. KA appears to match 2. WOW this question is the same question number as the 2011B Exam. Coincidence? 3. FTC is the fuel transfer canal? Is this a normal abbreviation used? 4. ROs are required to know TS info above the line, additionally they are required to know less than 1 hour. The NOTE above the line contains the information necessary to answer this question. 5. I would believe that most everyone knows there is less than 1 hour allowance. Saying this, distractors C and D are NOT plausible in that NOT stopping is not a plausible answer not even close. I suggest that we use a variation of Distractors A and B. Discuss with Licensee.
														S	04/30/2014 1. FTC is ok 2. Changed the question see the question, major changes to this question. 3. MAJOR modifications see the question. Actually it is more format changes than modification of the question. Question is good as is.
96	F	2-3												S	G 2.2.18, New, Memory, 1. KA appears to match. 2. Is this something the SRO is expected to know from memory? Ask Ops rep if this is fair game. 3. Otherwise appears to be ok.
97	F	2-3											X	E	G 2.2.20, NEW, Memory 1. KA appears to match. 2. What is 1LP-15, is this the LPI cross connect to HPI? Add noun name to the conditions. 3. The analysis states that this information is SRO knowledge. Does ROs or AUOs ever get involved with the OORT or MORT tags? How does the shift function with these? IF the RO come upon a valve that is tagged with a MORT tag can that RO operate that valve? Have licensee explain. If they can or cannot does not the RO have to have knowledge of what that means operationally?

Q#	1. LOK (F/H)	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
														S	Not sure if this is SRO only knowledge. Discuss with licensee. 04/30/2014 1. Question was rewritten. 2. WOTA (work order task assignment). MORT, maintenance operational release tag. OORT, operations operational release tag. 3. OK changed, see exam for the changes. OK as changed. Question was in appropriately classified as an unsatisfactory. This was ok as SRO only level.
98	F	3				X								U	G 2.3.5, Bank, Memory, ILT 42 Q 48, 1. KA appears to match. 2. 1RIA 59 and 60 provide read out in gpm. Is this the only RIA's that do this? Are these the S/G's radiation monitors? Do they also provide radiation levels or only gpm? I would imagine only gpm. 3. Does the RO have a knowledge requirement for what is pressure boundary leakage? I would think this part is also RO knowledge. Is this correct? Ask licensee. 4. The basis for the initial EAL classification is due to SG tube leak greater than 25 gpm? Is this determined from enclosure 4.2? 5. Now there is additionally a MSLB, 6. In the analysis for distractor A, second part, it states that an upgrade is plausible because it would be correct if the S/G leak is greater than 160 gpm. From the information provided HOW would anyone come up with this mistake? This does not make sense and is NOT plausible. 7. Does this make sense that the faulted SG is being used for the Cooldown? How does the operators control this with a MSLB occurring on the same SG? Licensee explain. 8. Have licensee explain the comments about 10 gpm in answer D.

Q#	1. LOK (F/H)	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
															Question distractors are not plausible. 04/30/2014 1. Removed the overlap of this question and the other one with removing the RIA 59 and 60. Used RIA 40 instead. 2. Using the procedure Enclosure 4.1. 3. Look at changes OK as changed.
99	H	2-3	X			X								U	G 2.4.19, Comprehension, NEW, 1. KA appears to match. 2. The way the RCS leak is described is inadequate in that "Various alarms …. With an RCS leak occur," does not describe the way this is evaluated in the main control room (MCR). 3. A small break LOCA is going on. 4. Are abbreviations LOSM, SCM, RBNS and SA expected to be known by the applicants? At least SA should be put in parenthesis behind Subsequent Actions in the Stem. 5. Since the conditions presents loop A SCM is 0°F, could this cause infer that this is an IMMEDIATE transfer as seen in distractor C? 6. How could distractors be considered plausible since there is NO indication in the stem that core SCM is greater than or equal to 0° F Subcooling? 7. Additionally, distractor C could not be plausible because loop A already has a SCM of 0. The distractor states when ANY SCM equal 0. Needs to be looked at by licensee. 3/18/2014 1. Will add more alarms 2. Abbreviations are ok. 3. Could have a 0 in A with 18 in B is plausible. 4. OPS has looked and states its only one answer.
														E	

Q#	1. LOK (F/H)	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
														S	5. D change once to when. 4/17/2014 1. The last bullet that has "B" loop and core SCM, should be two separate entries. When I read that I did not read the core SCM as a separate entry. I read it three times and finally recognized that the core SCM was also included. Please make this two bullets. 2. Since in part 1 of the question "based on a Parallel Actions page transfer" is in each distractor put that statement in the stem to avoid having to read all those words 4 times. 3. Part 1 of the question, change "will go to" to "will direct transition to." Appears to be ok.
100	F	2-3												S	G 2.4.5, New, Memory 1. KA appears to 2. Appears to be ok

ES-401, Rev. 9 2 Form ES-401-9

ES-403, Rev. 9 **Written Examination Grading Quality Checklist** **Form ES-403-1**

Facility: Oconee Nuclear Station	Date of Exam: 6/18/2014	Exam Level: RO/SRO

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

	Printed Name/Signature	Date
a. Grader	Michael Donithan /	6/26/14
b. Facility Reviewer(*)	NA	
c. NRC Chief Examiner (*)	David Lanyi /	6/26/14
d. NRC Supervisor (*)	Eugene Guthrie /	7/15/14

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