

Facility:		Date of Examination:		
Item	Task Description	Initials		
		a	b*	c#
1. W R I T T E N	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	CB	N/A	OK
	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.	CB		OK
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	CB		OK
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	CB		OK
2. S I M U L A T O R	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	N/A		N/A
	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.			
	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.			
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.			
	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			
	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.			
4. G E N E R A L	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	CB		OK
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	CB		OK
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	CB		OK
	d. Check for duplication and overlap among exam sections.	CB		OK
	e. Check the entire exam for balance of coverage.	CB		OK
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	CB		OK
a. Author	Daniel A. Bacon / <i>[Signature]</i>		Date	12/2/2014
b. Facility Reviewer (*)	N/A			N/A
c. NRC Chief Examiner (#)	David R. Long / <i>[Signature]</i>			12/2/2014
d. NRC Supervisor	Gerald J. McCoy / <i>[Signature]</i>			12/2/2014
Note:	# Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required. * Not applicable for NRC-prepared examination outlines			

Facility: Oconee		Date of Exam: June, 2015																
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	N/A			2	1	N/A			1	9	2	2	4	
	Tier Totals	5	4	5	N/A			5	4	N/A			4	27	5	5	10	
2. Plant Systems	1	3	3	3	3	3	2	3	2	3	1	2	28	3	2	5		
	2	1	1	1	1	1	1	1	1	1	1	0	10	-	2	1	3	
	Tier Totals	4	4	4	4	4	3	4	3	4	2	2	38	5	3	8		
3. Generic Knowledge and Abilities Categories				1		2		3		4		10		1	2	3	4	7
				3		2		2		3				2	2	1	2	

- Note:
- 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).
 - 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.
 - 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.
 - 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.
 - 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.
 - Select SRO topics for Tiers 1 and 2 from the shaded systems and K/A categories.
 - * 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.
 - 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.
 - 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.

ES-401		PWR Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 1 (RO / SRO)						Form ES-401-2	
E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A2	G	K/A Topic(s)	IR	#
000007 (BW/E02&E10; CE/E02) Reactor Trip - Stabilization - Recovery / 1	X						007EK1.04; Knowledge of the operational implications of the decrease in reactor power following reactor trip (prompt drop and subsequent decay) as it applies to the reactor trip.	3.6	
000008 Pressurizer Vapor Space Accident / 3						X	008AG2.4.31; Knowledge of annunciator alarms, indications, or response procedures.	4.2	
000009 Small Break LOCA / 3		X			X		009EK2.03; Knowledge of the interrelations between the small break LOCA and S/Gs. 009EA2.11; Ability to determine or interpret containment temperature, pressure, and humidity as they apply to a small break LOCA.	3.0 4.1	
000011 Large Break LOCA / 3		X					011EK2.02; Knowledge of the interrelations between pumps and a Large Break LOCA.	2.6	
000015/17 RCP Malfunctions / 4		X					015AK2.07; Knowledge of the interrelations between the Reactor Coolant Pump Malfunctions (Loss of RC Flow) and the RCP seals.	2.9	
000022 Loss of Rx Coolant Makeup / 2	X						022AK1.02; Knowledge of the operational implications of the relationship of charging flow to pressure differential between charging and RCS as they apply to Loss of Reactor Coolant Makeup	2.7	
000025 Loss of RHR System / 4						X	025G2.2.44; 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.	4.4	
000026 Loss of Component Cooling Water / 8					X		026AA2.06; Ability to determine and interpret the length of time after the loss of CCW flow to a component before that component may be damaged as it applies to the Loss of Component Cooling Water.	2.8	
000027 Pressurizer Pressure Control System Malfunction / 3						X	027AG2.2.25; Knowledge of the bases in Technical Specifications for limiting conditions for operations and safety limits.	4.2	
000029 ATWS / 1						X	029EG2.4.18; Knowledge of the specific bases for EOPs.	3.3	
000038 Steam Gen. Tube Rupture / 3			X				038EK3.01; Knowledge of the reasons for equalizing pressure on primary and secondary sides of ruptured S/G as it applies to a SGTR.	4.1	
000040 (BW/E05; CE/E05; W/E12) Steam Line Rupture - Excessive Heat Transfer / 4				X			040AA1.18; Ability to operate and / or monitor the control rod position indicators as they apply to the Steam Line Rupture.	4.2	
000054 (CE/E06) Loss of Main Feedwater / 4					X		054AA2.08; Ability to determine and interpret the Steam flow-feed trend recorder as it applies to the Loss of Main Feedwater (MFW).	2.9	
000055 Station Blackout / 6						X	055AG2.2.44; 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.	4.4	
000056 Loss of Off-site Power / 6				X			056AA1.05; Ability to operate and / or monitor the Initiation (manual) of safety injection process as it applies to the Loss of Offsite Power.	3.8	
000057 Loss of Vital AC Inst. Bus / 6			X				057AK3.01; Knowledge of the reasons for the Actions contained in EOP for loss of vital ac electrical instrument bus as they apply to the Loss of Vital AC Instrument Bus.	4.1	

000058 Loss of DC Power / 6				X			058AA1.03; Ability to operate and / or monitor vital and battery bus components as they apply to the Loss of DC Power.	3.1	
					X		058AA2.01; Ability to determine and interpret that a loss of dc power has occurred; verification that substitute power sources have come on line as they apply to the Loss of DC Power.	4.1	
000062 Loss of Nuclear Svc Water / 4					X		062AG2.2.42; Ability to recognize system parameters that are entry-level conditions for Technical Specifications.	3.9	
							062AA2.02; Ability to determine and interpret the cause of possible SWS loss as it applies to the Loss of Nuclear Service Water.	3.6	
000065 Loss of Instrument Air / 8					X		065AA2.05; Ability to determine and interpret when to commence plant shutdown if instrument air pressure is decreasing as it applies to the Loss of Instrument Air.	3.4	
W/E04 LOCA Outside Containment / 3									
W/E11 Loss of Emergency Coolant Recirc. / 4									
BW/E04; W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4	X						BE04EK1.2; Knowledge of the operational implications of normal, abnormal and emergency operating procedures associated with (Inadequate Heat Transfer) as they apply to the (Inadequate Heat Transfer).	4.0	
000077 Generator Voltage and Electric Grid Disturbances / 6				X			077AK3.01; Knowledge of the reasons for the reactor and turbine trip criteria as they apply to Generator Voltage and Electric Grid Disturbances.	3.9	
K/A Category Totals:	3	3	3	3	3/3	3/3	Group Point Total:		18/6

W/E16 High Containment Radiation / 9										
BW/A01 Plant Runback / 1			X						BA01AK3.3; Knowledge of the reasons for the manipulation of controls required to obtain desired operating results during abnormal, and emergency situations as they apply to the (Plant Runback).	3.6
BW/A02&A03 Loss of NNI-X/Y / 7										
BW/A04 Turbine Trip / 4			X						BA04AK2.2; Knowledge of the interrelations between the (Turbine Trip) and the Facility*s heat removal systems, including primary coolant, emergency coolant, the decay heat removal systems, and relations between the proper operation of these systems to the operation of the facility.	3.3
BW/A05 Emergency Diesel Actuation / 6										
BW/A07 Flooding / 8										
BW/E03 Inadequate Subcooling Margin / 4										
BW/E08; W/E03 LOCA Cooldown - Depress. / 4					X				BE08EA2.2; Ability to determine and interpret the adherence to appropriate procedures and operation within the limitations in the facility*s license and amendments as they apply to the (LOCA Cooldown).	3.3
BW/E09; CE/A13; W/E09&E10 Natural Circ. / 4							X		BE09AG2.2.4; (multi-unit license) Ability to explain the variations in control board/control room layouts, systems, instrumentation, and procedural actions between units at a facility.	3.6
BW/E13&E14 EOP Rules and Enclosures							X		BE14EG2.4.50; Ability to verify system alarm setpoints and operate controls identified in the alarm response manual.	4.2
CE/A11; W/E08 RCS Overcooling - PTS / 4										
CE/A16 Excess RCS Leakage / 2										
CE/E09 Functional Recovery										
K/A Category Point Totals:	2	1	2	2	1/2	1/2			Group Point Total:	9/4

ES-401		PWR Examination Outline Plant Systems - Tier 2/Group 1 (RO / SRO)										Form ES-401-2		
System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A2	A 3	A 4	G	K/A Topic(s)	IR	#
003 Reactor Coolant Pump	X											003K1.08; Knowledge of the physical connections and/or cause-effect relationships between the RCPS and containment isolation.	2.7	
						X						003K6.04; Knowledge of the effect of a loss or malfunction on the starting requirements will have on the RCPS.	2.6	
004 Chemical and Volume Control								X				004A2.15; Ability to (a) predict the impacts of High or low PZR level on the CVCS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions.	3.5	
005 Residual Heat Removal				X								005K4.08; Knowledge of RHRS design feature(s) and/or interlock(s) which provide for the lineup for "piggy-back" mode with high-pressure injection.	3.1	
											X	005G2.1.30; Lineup for "piggy-back" mode with high-pressure injection.	4.0	
006 Emergency Core Cooling		X										006K2.04; Knowledge of bus power supplies to the ESFAS-operated valves.	3.6	
007 Pressurizer Relief/Quench Tank			X									007K3.01; Knowledge of the effect that a loss or malfunction of the PRTS will have on the containment.	3.3	
					X							007K5.02; Knowledge of the Method of forming a steam bubble in the PZR of the following concepts as they apply to PRTS.	3.1	
008 Component Cooling Water							X					008A1.01; Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the CCWS controls including CCW flow rate.	2.8	
010 Pressurizer Pressure Control					X							010K5.01; Knowledge of the operational implications of the Determination of condition of fluid in PZR, using steam tables as they apply to the PZR PCS.	3.5	
									X			010A3.01; Ability to monitor automatic operation of the PZR PCS, including PRT temperature and pressure during PORV testing.	3.0	

012 Reactor Protection								X			012A3.05; Ability to monitor automatic operation of the RPS, including single and multiple channel trip indicators.	3.6	
								X			012A2.05; Ability to (a) predict the impacts of faulty or erratic operation of detectors and function generators on the RPS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations.	3.2	
013 Engineered Safety Features Actuation								X			013G2.2.39; Knowledge of less than or equal to one hour Technical Specification action statements for systems.	3.9	
								X			013A2.02; Ability to (a) predict the impacts of excess steam demand on the ESFAS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations.	4.5	
022 Containment Cooling	X										022K1.01; Knowledge of the physical connections and/or cause-effect relationships between the CCS and the SWS/cooling system.	3.5	
		X									022K2.02; Knowledge of power supplies to the chillers.	2.5	
025 Ice Condenser													
026 Containment Spray		X									026K2.02; Knowledge of bus power supplies to the MOVs.	3.4	
								X			026A2.08; Ability to (a) predict the impacts of safe securing of containment spray when it can be done) on the CSS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations.	3.7	
039 Main and Reheat Steam							X				039A1.10; Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the MRSS controls including Air ejector PRM.	2.9	
					X						039K5.01; Knowledge of the operational implications of the Definition and causes of steam/water hammer as they apply to the MRSS.	2.9	
059 Main Feedwater	X										059K1.07; Knowledge of the physical connections and/or cause-effect relationships between the MFW and the ICS.	3.2	
			X								059K3.03; Knowledge of the effect that a loss or malfunction of the MFW will have on the S/Gs.	3.5	

061 Auxiliary/Emergency Feedwater								X							061K6.02; Knowledge of the effect of a loss or malfunction of the pumps will have on the AFW components.	2.6		
062 AC Electrical Distribution														X	062A4.01; Ability to manually operate and/or monitor in the control room All breakers (including available switchyard).	3.3		
063 DC Electrical Distribution									X						063A2.01; Ability to (a) predict the impacts of grounds on the DC electrical systems; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations.	2.5		
064 Emergency Diesel Generator													X		064A3.13; Ability to monitor automatic operation of the ED/G system, including Rpm controller/megawatt load control (breaker-open/breaker-closed effects).	3.0		
073 Process Radiation Monitoring									X						073A1.01; Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the PRM system controls including radiation levels.	3.2		
													X		073K4.02; Knowledge of PRM system design feature(s) and/or interlock(s) which provide for the Letdown isolation on high-RCS activity.	3.3		
076 Service Water														X	076K4.03; Knowledge of SWS design feature(s) and/or interlock(s) which provide for the automatic opening features associated with SWS isolation valves to CCW heat exchangers.	2.9		
078 Instrument Air														X	078G2.4.2; Knowledge of system set points, interlocks and automatic actions associated with EOP entry conditions.	4.5		
103 Containment															103K3.03; Knowledge of the effect that a loss or malfunction of the containment system will have on the Loss of containment integrity under refueling operations.	3.7		
														X	103G2.2.38; Knowledge of conditions and limitations in the facility license.	4.5		
K/A Category Point Totals:	3	3	3	3	3	2	3	2/3	3	1	2/2	Group Point Total:		28/5				

071 Waste Gas Disposal											X			071A3.03; Ability to monitor automatic operation of the Waste Gas Disposal System Including: Radiation monitoring system alarm and actuating signals.	3.6		
072 Area Radiation Monitoring												X		072A4.03; Ability to manually operate and/or monitor in the control room: Check source for operability demonstration.	3.1		
075 Circulating Water																	
079 Station Air				X										079K.4.01; Knowledge of SAS design feature(s) and/or interlock(s) which provide for cross-connect with IAS.	2.9		
086 Fire Protection								X						086A1.03; Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with Fire Protection System operating the controls including: Fire doors.	2.7		
K/A Category Point Totals:	1	1	1	1	1	1	1	1	1/2	1	1	0/1	Group Point Total:		10/3		

Facility:		Date of Exam:				
Category	K/A #	Topic	RO		SRO-Only	
			IR	#	IR	#
1. Conduct of Operations	2.1.15	Knowledge of administrative requirements for temporary management directives, such as standing orders, night orders, Operations memos, etc.	2.7			
	2.1.25	Ability to interpret reference materials, such as graphs, curves, tables, etc.	3.9			
	2.1.28	Knowledge of the purpose and function of major system components and controls.	4.1			
	2.1.13	Knowledge of facility requirements for controlling vital/controlled access.			3.2	
	2.1.4	Knowledge of individual licensed operator responsibilities related to shift staffing, such as medical requirements, "no-solo" operation, maintenance of active license status, 10CFR55, etc.			3.8	
	Subtotal				3	
2. Equipment Control	2.2.3	(multi-unit license) Knowledge of the design, procedural, and operational differences between units.	3.8			
	2.2.17	Knowledge of the process for managing maintenance activities during power operations, such as risk assessments, work prioritization, and coordination with the transmission system operator.	2.6			
	2.2.11	Knowledge of the process for controlling temporary design changes.			3.3	
	2.2.23	Ability to track Technical Specification limiting conditions for operations.			4.6	
	2.2.					
	2.2.					
	Subtotal				2	
3. Radiation Control	2.3.7	Ability to comply with radiation work permit requirements during normal or abnormal conditions.	3.5			
	2.3.11	Ability to control radiation releases.	3.8			
	2.3.14	Knowledge of radiation or contamination hazards that may arise during normal, abnormal, or emergency conditions or activities.			3.8	
	2.3.					
	2.3.					
	Subtotal				2	
4. Emergency Procedures / Plan	2.4.1	Knowledge of EOP entry conditions and immediate action steps.	4.6			
	2.4.26	Knowledge of facility protection requirements, including fire brigade and portable fire-fighting equipment usage.	3.1			
	2.4.29	Knowledge of the emergency plan.	3.1			
	2.4.19	Knowledge of EOP layout, symbols, and icons.			4.1	
	2.4.43	Knowledge of emergency communications systems and techniques.			3.8	
	2.4.					
	Subtotal				3	
Tier 3 Point Total				10		7

Facility: Oconee		Date of Examination: 6/08/15
Examination Level: RO <input checked="" type="checkbox"/> SRO <input type="checkbox"/>		Operating Test Number: 1
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations G2.1.25 (3.9/4.2)	M,R	ADM-101a, Manually Calculate Core Tilt due to Loss of the OAC (RO Only) (27 min)
Conduct of Operations G2.1.37 (4.3/4.6)	M,R	ADM-102, Calculate Requirements to Makeup to the BWST (BOTH) (15 min)
Equipment Control G2.2.42 (3.9/4.6)	D,R	ADM-201, Determine SSF RCMUP Operability (RO Only) (10 min)
Radiation Control G2.3.12 (3.2/3.7)	M,R	ADM-301a, Determine Posting and Access requirements of LPI Room based on Plan View (BOTH) (10 min)
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: 6/08/15
Exam Level: RO <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>		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. RO-101a, Align Emergency Boration During an ATWS Unit 1 EOP Rule 1 KA: BW/E13 EA1.1 (3.4/3.2) (10 min)	A, M, S	1
b. RO-301a, Align Post LOCA Boron Dilution Flowpath Unit 1 EOP LOCA CD tab KA: EPE011 EA1.11 (4.2/4.2) (15 min)	A, D, L, S	3
c. RO-501, ES Channels 5 and 6 Recovery Unit 1 EOP Encl. 5.41 (ES Recovery) KA: 103 A4.04 (3.5*/3.5*) (10 min)	D, EN, L, S	5
d. RO-201a, Respond to a Leak on the RCP Seal Injection Header AP/1/A/1700/014 (Loss of Normal HPI Makeup and/or RCP Seal Injection) KA: APE 022 AA1.09 (3.2/3.3) (15 min)	A, N, S	2
e. RO-S401, Alignment of Condensate Recirc Unit 1 EOP Encl. 5.23 (Alignment of Condensate Recirc) KA: APE 054 G2.1.20 (4.6/4.6) (10 min)	A, D, L, S	4S
f. RO-601a, Energize Main Feeder Buses from CT-5 Unit 1 EOP Encl. 5.38 (Restoration of Power) KA: EPE 055 EA2.03 (3.9/4.7) (15 min)	A, D, L, S	6
g. RO-701, Adjust RIA-40 setpoints AP/1/A/1700/031 (Primary To Secondary Leakage) Encl. 5.8 (Resetting 1RIA-40 and OAC Setpoints) KA: APE 061 AA2.03 (3.0/3.3) (10 min)	D, S	7
h. RO-801, OATC Actions for Control Room Evacuation Following a Fire AP/1/A/1700/050 (Challenging Plant Fire) KA: APE068 AA1.02 (4.3/4.5) (10 min)	N, L, S	8

In-Plant Systems [@] (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
i. AO-601, Makeup to Unit 1 CBAST from Unit 1 & 2 BAMT During a Unit 2 Blackout Unit 2 EOP Encl. 5.39 (Makeup to the BWST During Blackout) KA: B/WE14 EA1.1 (3.8/3.6) (12 min)	D, E, R	6
j. AO-S401, Align Main Vacuum Pumps AP/1/A/1700/027 Encl. 5.1 (Main Vacuum Pump Alignment) KA: APE 051 G2.1.23 (4.3/4.4) (15 min)	D, E	4S
k. AO-801, Start Diesel Air Compressors and Align to Service Air Header AP/2/A/1700/022 (Loss of Instrument Air) Encl. 5.4 (Emergency Start of the Diesel Air Compressor) and 5.7 (Manual Start of Diesel Air Compressors) KA: APE 065 AA1.04 (3.5*/3.4*) (20 min)	D, E	8
<p>@ 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.</p>		
* Type Codes	Criteria for RO / SRO-I / SRO-U	
(A)lternate path (C)ontrol room (D)irect from bank (E)mergency or abnormal in-plant (EN)gineered safety feature (L)ow-Power / Shutdown (N)ew or (M)odified from bank including 1(A) (P)revious 2 exams (R)CA (S)imulator	4-6 / 4-6 / 2-3 $\leq 9 / \leq 8 / \leq 4$ $\geq 1 / \geq 1 / \geq 1$ - / - / ≥ 1 (control room system) $\geq 1 / \geq 1 / \geq 1$ $\geq 2 / \geq 2 / \geq 1$ $\leq 3 / \leq 3 / \leq 2$ (randomly selected) $\geq 1 / \geq 1 / \geq 1$	

Facility: Oconee		Date of Examination: 6/08/15
Examination Level: RO <input type="checkbox"/> SRO <input checked="" type="checkbox"/>		Operating Test Number: 1
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations G2.1.25 (3.9/4.2)	M,R	ADM-S101a, Manually Calculate Core Tilt due to Loss of the OAC and Determine any Required Actions and Completion Times (SRO Only) (35 min)
Conduct of Operations G2.1.37 (4.3/4.6)	M,R	ADM-102, Calculate Requirements to Makeup to the BWST (BOTH) (15 min)
Equipment Control G2.2.40 (3.4/4.7)	D,R	ADM-S201, Determine Tech Spec Requirements for Inoperable PZR Heaters (SRO Only) (15 min)
Radiation Control G2.3.12 (3.2/3.7)	M,R	ADM-301a, Determine Posting and Access Requirements of LPI Room based on Plan View (BOTH) (10 min)
Emergency Plan G2.4.38 (2.4/4.4)	D,R	ADM-S401, Determine Emergency Classification (SRO Only) (15 min)
NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when 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: 6/08/15
Exam Level: RO <input type="checkbox"/> SRO-I <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/>		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. RO-101a, Align Emergency Boration During an ATWS Unit 1 EOP Rule 1 KA: BW/E13 EA1.1 (3.4/3.2) (10 min)	A, M, S	1
b. RO-301a, Align Post LOCA Boron Dilution Flowpath Unit 1 EOP LOCA CD tab KA: EPE011 EA1.11 (4.2/4.2) (15 min)	A, D, L, S	3
c. RO-501, ES Channels 5 and 6 Recovery Unit 1 EOP Encl. 5.41 (ES Recovery) KA: 103 A4.04 (3.5*/3.5*) (10 min)	D, EN, L, S	5
d. RO-201a, Respond to a Leak on the RCP Seal Injection Header AP/1/A/1700/014 (Loss of Normal HPI Makeup and/or RCP Seal Injection) KA: APE 022 AA1.09 (3.2/3.3) (15 min)	A, N, S	2
e. RO-S401, Alignment of Condensate Recirc Unit 1 EOP Encl. 5.23 (Alignment of Condensate Recirc) KA: APE 054 G2.1.20 (4.6/4.6) (10 min)	A, D, L, S	4S
f. RO-601a, Energize Main Feeder Buses from CT-5 Unit 1 EOP Encl. 5.38 (Restoration of Power) KA: EPE 055 EA2.03 (3.9/4.7) (15 min)	A, D, L, S	6
g. N/A		
h. RO-801, OATC Actions for Control Room Evacuation Following a Fire AP/1/A/1700/050 (Challenging Plant Fire) KA: APE068 AA1.02 (4.3/4.5) (10 min)	N, L, S	8

In-Plant Systems [@] (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
i. AO-601, Makeup to Unit 1 CBAST from Unit 1 & 2 BAMT During a Unit 2 Blackout Unit 2 EOP Encl. 5.39 (Makeup to the BWST During Blackout) KA: B/WE14 EA1.1 (3.8/3.6) (12 min)	D, E, R	6
j. AO-S401, Align Main Vacuum Pumps AP/1/A/1700/027 Encl. 5.1 (Main Vacuum Pump Alignment) KA: APE 051 G2.1.23 (4.3/4.4) (15 min)	D, E	4S
k. AO-801, Start Diesel Air Compressors and Align to Service Air Header AP/2/A/1700/022 (Loss of Instrument Air) Encl. 5.4 (Emergency Start of the Diesel Air Compressor) and 5.7 (Manual Start of Diesel Air Compressors) KA: APE 065 AA1.04 (3.5*/3.4*) (20 min)	D, E	8
<p>@ 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.</p>		
* Type Codes	Criteria for RO / SRO-I / SRO-U	
(A)lternate path (C)ontrol room (D)irect from bank (E)mergency or abnormal in-plant (EN)gineered safety feature (L)ow-Power / Shutdown (N)ew or (M)odified from bank including 1(A) (P)revious 2 exams (R)CA (S)imulator	<p>4-6 / 4-6 / 2-3</p> <p>≤ 9 / ≤ 8 / ≤ 4</p> <p>≥ 1 / ≥ 1 / ≥ 1</p> <p>- / - / ≥ 1 (control room system)</p> <p>≥ 1 / ≥ 1 / ≥ 1</p> <p>≥ 2 / ≥ 2 / ≥ 1</p> <p>≤ 3 / ≤ 3 / ≤ 2 (randomly selected)</p> <p>≥ 1 / ≥ 1 / ≥ 1</p>	

Facility: Oconee		Date of Examination: 6/08/15	
Exam Level: RO <input type="checkbox"/>		SRO-I <input type="checkbox"/>	
		SRO-U <input checked="" type="checkbox"/>	
		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. RO-101a, Align Emergency Boration During an ATWS Unit 1 EOP Rule 1 KA: BW/E13 EA1.1 (3.4/3.2) (10 min)	A, M, S	1	
b. RO-301a, Align Post LOCA Boron Dilution Flowpath Unit 1 EOP LOCA CD tab KA: EPE011 EA1.11 (4.2/4.2) (15 min)	A, D, L, S	3	
c. RO-501, ES Channels 5 and 6 Recovery Unit 1 EOP Encl. 5.41 (ES Recovery) KA: 103 A4.04 (3.5*/3.5*) (10 min)	D, EN, L, S	5	
d. N/A			
e. N/A			
f. N/A			
g. N/A			
h. N/A			

In-Plant Systems [@] (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
i. AO-601, Makeup to Unit 1 CBAST from Unit 1 & 2 BAST During a Unit 2 Blackout Unit 2 EOP Encl. 5.39 (Makeup to the BWST During Blackout) KA: B/WE14 EA1.1 (3.8/3.6) (12 min)	D, E, R	6
j. AO-S401, Align Main Vacuum Pumps AP/1/A/1700/027 Encl. 5.1 (Main Vacuum Pump Alignment) KA: APE 051 G2.1.23 (4.3/4.4) (15 min)	D, E	4S
k. N/A		
<p>@ 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.</p>		
* Type Codes	Criteria for RO / SRO-I / SRO-U	
(A)lternate path (C)ontrol room (D)irect from bank (E)mergency or abnormal in-plant (EN)gineered safety feature (L)ow-Power / Shutdown (N)ew or (M)odified from bank including 1(A) (P)revious 2 exams (R)CA (S)imulator	4-6 / 4-6 / 2-3 ≤ 9 / ≤ 8 / ≤ 4 ≥ 1 / ≥ 1 / ≥ 1 - / - / - ≥ 1 (control room system) ≥ 1 / ≥ 1 / ≥ 1 ≥ 2 / ≥ 2 / ≥ 1 ≤ 3 / ≤ 3 / ≤ 2 (randomly selected) ≥ 1 / ≥ 1 / ≥ 1	