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Administrative Topics Outline - RO DRAFT

Form ES-301-1

Facility: <u>PLANT E. I. HAT</u> Exam Level: <u>RO ⊠</u> SF								
Administrative Topic (see Note)	Type Code*	Describe activity to be performed						
Conduct of Operations Admin 1	M, R	Heat Stress Stay Time Determination G2.1.26 (3.4/3.6) ALL						
Conduct of Operations Admin 2	N, R	Determine if section 7.4 of the Control Room Surveillance checks, 34SV-SUV-019-2, requires Torus Cooling to be placed in service. <b>G2.1.07</b> (4.4/4.7) <b>ALL</b>						
Emergency Procedures/Plan Admin 4	M, R	Determine the Evacuation Route During an Emergency <b>G2.4.39</b> (3.9/3.8) <b>RO ONLY</b>						
Radiation Control Admin 5	M, R	Evaluate a Radiation Work Permit (RWP) and Survey Map <b>G2.3.7</b> (3.5/3.6) <b>ALL</b>						
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.								
<ul> <li>* Type Codes &amp; Criteria: (C)ontrol room, (S)imulator, or Class(R)oom (D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs &amp; RO retakes) (N)ew or (M)odified from bank (≥ 1) (P)revious 2 exams (≤ 1; randomly selected)</li> </ul>								

ES-301

## Administrative Topics Outline – SRO-I DRAFT

Form ES-301-1

Facility:PLANT E. I. HATCH ILT-8Date of Examination: 09/03/2013Exam Level:ROSRO-ISRO-UOperating Test No.: 2013-301								
Administrative Topic (see Note)	Type Code*	Describe activity to be performed						
Conduct of Operations Admin 1	M, R	Heat Stress Stay Time Determination G2.1.26 (3.4/3.6) ALL						
Conduct of Operations Admin 2	N, R	Determine if section 7.4 of the Control Room Surveillance checks, 34SV-SUV-019-2, requires Torus Cooling to be placed in service. <b>G2.1.07</b> (4.4/4.7) <b>ALL</b>						
Equipment Control Admin 3	N, R	Review a Required Action Sheet (RAS) for an inoperable Tech Spec component G2.2.23 (4.6) SRO ONLY						
Radiation Control Admin 5	M, R	Evaluate a Radiation Work Permit (RWP) and Survey Map <b>G2.3.7</b> (3.5/3.6) <b>ALL</b>						
Emergency Procedures/Plan Admin 6	D, R	Determine a Protective Action Recommendation (PAR) <b>G2.4.9</b> (4.0) <b>SRO Only</b>						
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:	(D)irect fro retakes) (N)ew or (	room, (S)imulator, or Class(R)oom om bank (≤ 3 for ROs; ≤ 4 for SROs & RO M)odified from bank (≥ 1) s 2 exams (≤ 1; randomly selected)						

ES-301

## Administrative Topics Outline – SRO-U DRAFT

Form ES-301-1

Facility: <u>PLANT E. I. HAT</u> Exam Level: <u>RO □</u> SF		Date of Examination: <u>09/03/2013</u> <b>SRO-U ☑</b> Operating Test No.: <u>2013-301</u>						
Administrative Topic (see Note)	Type Code*	Describe activity to be performed						
Conduct of Operations Admin 1	M, R	Heat Stress Stay Time Determination G2.1.26 (3.4/3.6) ALL						
Conduct of Operations Admin 2	N, R	Determine if section 7.4 of the Control Room Surveillance checks, 34SV-SUV-019-2, requires Torus Cooling to be placed in service. <b>G2.1.07</b> (4.4/4.7) <b>ALL</b>						
Equipment Control Admin 3	N, R	Review a Required Action Sheet (RAS) for an inoperable Tech Spec component G2.2.23 (4.6) SRO ONLY						
Radiation Control Admin 5	M, R	Evaluate a Radiation Work Permit (RWP) and Survey Map <b>G2.3.7</b> (3.5/3.6) <b>ALL</b>						
Emergency Procedures/Plan Admin 6	D, R	Determine a Protective Action Recommendation (PAR) <b>G2.4.9</b> (4.0) <b>SRO Only</b>						
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.								
<ul> <li>* Type Codes &amp; Criteria: (C)ontrol room, (S)imulator, or Class(R)oom (D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs &amp; RO retakes) (N)ew or (M)odified from bank (≥ 1) (P)revious 2 exams (≤ 1; randomly selected)</li> </ul>								

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Facility: <u>PLANT E. I. HATCH ILT 8</u> Exam Level: <u>RO Ø</u> <u>SRO-I Ø</u> SF		e of Examination: <u>09/02/2013</u> perating Test No.: <u>2013-301</u>
Control Room Systems <sup>@</sup> (8 for RO); (7 for SRO	-I); (2 or 3 for SRO	-U, including 1 ESF)
System / JPM Title	Type Code*	Safety Function
CR/SIM 1 – Normal Start of Recirc ASD	D, L, S	SF-1 Reactivity Control 202001K6.02 (3.1/3.2) <b>RO ONLY</b>
<b>CR/SIM 2 –</b> Perform a Manual S/U of the Core Spray With 1st Injection valve failure	A, EN, L, M, S	SF-2 Reactor Water Inventory Control 209001A4.05 (3.8/3.6) ALL
<b>CR/SIM 3 –</b> ED Using Head Vents	D, S	SF-3 Reactor Pressure Control 295025A1.01 (2.9/3.0) <b>RO &amp; SRO-I</b>
<b>CR/SIM 4 –</b> Perform A Manual Initiation of LPCI From Shutdown Cooling	A, L, M, S	SF-4 Heat Removal From the Core 206000A4.06 (4.3/4.3) <b>RO &amp; SRO-I</b>
<b>CR/SIM 5 –</b> Verify An Automatic Isolation Of PCIS Group II	A, D, E, EN, S	SF-5 Containment Integrity 223002A3.02 (3.5/3.5) ALL
<b>CR/SIM 6 –</b> Perform a D/G Manual Start Surveillance (Trip Failure)	A, D, S	SF-6 Electrical 364000A4.04 (3.7/3.7) <b>RO &amp; SRO-I</b>
<b>CR/SIM 7 –</b> Loss of Air Actions for Rx Bldg Ventilation	A, D, S	SF-8 Plant Service Systems 295019 K2.08 (2.8/2.9) <b>RO &amp; SRO-I</b>
<b>CR/SIM 8</b> – Place Control Room HVAC Systems in the Isolation Mode (1 <sup>st</sup> C012 fan fails)	A, C, M	SF-9 Radiation Release 290003A4.01 (3.2/3.2) ALL
In-Plant Systems $^{ ilde{e}}$ (3 for RO); (3 for SRO-I); (3 $ ilde{e}$	or 2 for SRO-U)	
<b>PLANT 1 –</b> Vent the Scram Air Header on Unit 1	D, E, L, R	SF-1 Reactivity Control 212000A4.17 (4.1/4.1) ALL
<b>PLANT 2 –</b> From the Unit 2 Remote Shutdown Panel, Start RHR in Torus Cooling	D, E, R	SF-5 Contain ment Integrity 295013 AA1.01 (3.9/3.9) <b>RO &amp; SRO-I</b>
<b>PLANT 3 –</b> Crosstie Unit 2 Instrument Bus "B" to Instrument Bus "A"	D, E,	SF-6 Electrical 262001A2.07 (3.0/3.2) ALL

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.

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* Type Codes	Criteria for RO / SRO-I / SRO-U
<ul> <li>(A)Iternate path</li> <li>(C)ontrol room</li> <li>(D)irect from bank</li> <li>(E)mergency or abnormal in-plant</li> <li>(EN)gineered safety feature</li> <li>(L)ow-Power / Shutdown</li> <li>(N)ew or (M)odified from bank including 1(A)</li> <li>(P)revious 2 exams</li> <li>(R)CA</li> <li>(S)imulator</li> </ul>	$4-6/4-6/2-3$ $\leq 9/\leq 8/\leq 4$ $\geq 1/\geq 1/\geq 1$ $-/-/\geq 1 \text{ (control room system)}$ $\geq 1/\geq 1/\geq 1$ $\geq 2/\geq 2/\geq 1$ $\leq 3/\leq 3/\leq 2 \text{ (randomly selected)}$ $\geq 1/\geq 1/\geq 1$

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Facility H	latch			Dat	e of	Exa	m:		201	3								
Tier	Group				R	O K	/A C	ateg	ory I	Poin	ts				SR	0-On	ly Poir	its
		К 1	К 2	К 3	К 4	К 5	К 6	A 1	A 2	A 3	A 4	G *	Total		A2	1	G*	Tota
1.	1	4	3	3				3	4			3	20		4		3	7
Emergency & Abnormal Plant	2	1	1	1		N/A		2	1	N	Δ	1	7		2		1	3
Evolutions	Tier Totals	5	4	4				5	5		~	4	27		6		4	10
	1	3	2	3	1	3	2	2	3	2	3	2	26		3		2	5
2. Plant	2	1	1	1	2	1	1	1	1	1	1	1	12	0	2		1	3
Systems	Tier Totals	4	3	4	3	4	3	3	4	3	4	3	38		5		3	8
	nowledge and	l Abi	litie	5	1	1	:	2	3	3	2	4	10	1	2	3	4	7
C	Categories				;	3	;	3	2	2	2	2		2	2	1	2	1
2.	Ensure that at and SRO-only of in each K/A car The point total The final point based on NRC	outlir tegoi for e total	ies (i ry sh ach : for e	.e., e all no grou each	excep ot be p and grou	ot for less d tier p and	one than in th d tier	cate two) le pro may	gory ). opos / devi	in Ti ed ou iate t	er 3 d Itline by ±1	of the mus	s SRO-onl t match t that spe	y outl hat sp cified	ine, the pecified in the	e "Tier I in the table	Totals table.	Ħ
	and SRO-only of in each K/A cat The point total The final point based on NRC Systems/evolut not apply at the not included of	outlir tegoi for e total revis tions e faci n the	ies (i ry sh ach for e ions with lity s outil	i.e., e all no grou sach . Tho in ea shoul ne sl	excep ot be p and grou e fina ich g ich g d be nould	ot for less d tier p and al RO roup dele dele	one than in th d tier exar are ted a adde	cate two) e pro may m mu ident ident ident d. Re	gory ). oposo / devi ist toi ist toi iified ustifie efer t	in Ti ed ou iate k tal 7 on th ed; op	er 3 d Itline by ±1 5 poil 1e as berat	of the mus fron nts a socia	SRO-onl t match t t hat spe nd the SR ated outli lly import	y outi hat sp cified O-oni ne; sy ant, s	ine, the pecified in the y exam stems ite-spe	e "Tier I in the table I must or evo cífic s	Totals table. total 2 lutions vstems	" 5 points. that do
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3. 4. 5. 6. 7. 8.	and SRO-only of in each K/A car The point total The final point based on NRC Systems/evolur not apply at the not included of the elimination Select topics fr in the group be Absent a plant- selected. Use Select SRO top	outlin tegon for e total revis tions facions for for the F spec the F spec the F spec the F spec the F spec the F spec the F spec the F spec the total spec the f spec the f spe	es (i y sh ach ; for e ions with ility s outil appr as ma selections appr as a selections appr as a selections appr as a selections appr as a selections a selections a s a s a s a s a s a s a s a s a s a	i.e., e all no grou sach . The shoul ne sl copris opriori ad SF ers 1 Tier applie cabl for e on th	xcep p and grou e fina ach g d be mould ate K yster a se ity, oi S 1 au cable r the le ticc ach (e e SR)	ot for less d tier p and al RO roup dele i be a k/A st ms a cond tings 2 fro nd 2 : 3 evo K/A i ense cate 0-on	one than in th d ties exa a are ted a a are a adde a terr no ev i top ose i for th shall lution lution umb leve gory ly ex	cate two) ie pro- may m mu identi identi idents voluti ic for K/As the R k sha be s n or s oers, I, and in th am, o	gory , oposs , devi ist tol ist tol iffied ustific efer t , dons a efer t , dons a any to an aded elect syste a bri d the e tab enter	in Til ed ou iate t tal 75 on th ed; of ta 25 as poo syste as poo syste ad SR syste ted fir m. lef de poin le ab	er 3 ( attine by ±1 5 point at as berat -401, 	of the a mus   fron nts a ssociationa tiona a sociationa itiona a sociationa a sociationa a sociationa b sociationa a sociationa a sociationa b sociationa a sociationa a sociationa b sociationa a sociationa b sociationa a sociationa a sociationa b sociationa a sociationa sociationa sociationa sociationa sociationa sociationa sociationa sociationa sociationa sociationa sociationa sociationa sociationa soci	e SRO-onl at match t a that spe nd the SR ated outlin ly import ichment 2 imple eve lution. nce rating ortions, re K/A catego on 2 of the of each t ) for each el handling ide of Col	y outi hat sp cified (O-oni ne; sy ant, s 2, for g speci ories. 9 (IR) ispeci ories. 9 K/A opic, i syste g equi	ine, the pecifiec in the y exam stems of ite-spe guidand stem or of 2.5 of tively. Catalog the top em and ipment	a "Tier d in the table n must or evo cific s ce reg evolu or high g, but ics' im categ is san	Totals total 2 total 2 lutions ystems arding tion her sha the top portar ory. E	5 points. that do that are ll be ics ics ice nter n other

ES-401, REV 9		T	1G1 BWR EXAMINATION OUTLINE	FORM ES-401	
KA	NAME / SAFETY FUNCTION:	IR	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:	
		RO S	RO		
295001AK2.06	Partial or Complete Loss of Forced Core Flow Circulation / 1 & 4	3.8 3.		Reactor power	
295003AK1.02	Partial or Complete Loss of AC / 6	3.1 3.	4 🗹 🗆 🗆 🗆 🗆 🗆 🗆 🗆	Load shedding	
295004G2.1.7	Partial or Total Loss of DC Pwr / 6	4.4 4.	7 000000000000000000000000000000000000	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior and instrument interpretation.	
295005AK3.02	Main Turbine Generator Trip / 3	3.4 3.	5	Recirculation pump downshift/trip: Plant-Specific	
295006AA1.01	SCRAM / 1	4.2 4.	2	RPS	
295016AA2.07	Control Room Abandonment / 7	3.2 3.	4	Suppression chamber pressure	
295018AK3.06	Partial or Total Loss of CCW / 8	3.3 3.	3	Increasing cooling water flow to heat exchangers	
295019AA2.02	Partial or Total Loss of Inst. Air / 8	3.6 3.		Status of safety-related instrument air system loads (see AK2.1 - AK2.19)	
295021G2.2.40	Loss of Shutdown Cooling / 4	3.4 4.		Ability to apply technical specifications for a system.	
295023AA2.03	Refueling Acc Cooling Mode / 8	3.3 3.4		Airborne contamination levels	
295024EA2.06	High Drywell Pressure / 5	4.1 4.1		Suppression pool temperature	

ES-401, REV 9			T10	<b>1 BWR EXAMINATION OUTLINE</b>	FORM ES-401	
KA	NAME / SAFETY FUNCTION:		IR	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:	
		RO	SRC			
295025G2.1.27	High Reactor Pressure / 3	3.9	4		Knowledge of system purpose and or function.	
295026EK3.04	Suppression Pool High Water Temp. / 5	3.7	4.1		SBLC injection	
295028EA1.03	High Drywell Temperature / 5	3.9	3.9		Drywell cooling system	
295030EK1.02	Low Suppression Pool Wtr Lvi / 5	3.5	3.8		Pump NPSH	
295031EA1.04	Reactor Low Water Level / 2	4.3	4.2		High pressure core spray: Plant-Specific	
295037EK2.12	SCRAM Condition Present and Power Above APRM Downscale or Unknown / 1	3.6	3.8		Rod control and information system: Plant-Specific	
295038EK1.01	High Off-site Release Rate / 9	2.5	3.1		Biological effects of radioisotope ingestion	
600000AK1.01	Plant Fire On Site / 8	2.5	2.8		Fire Classifications by type	
700000AK2.03	Generator Voltage and Electric Grid Distrurbancecs	3.0	3.1		Sensors, detectors, indicators	

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ES-401, REV 9			T1G	<b>32 BWR EXAMINATION OUTLINE</b>	FORM ES-401	
KA	NAME / SAFETY FUNCTION:		IR	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:	
		RO	SRO	)		
295009AK1.02	Low Reactor Water Level / 2	3.0	3.1		Recirculation pump net positive suction head: Plant- Specific	
295010AA2.06	High Drywell Pressure / 5	3.6	3.6		Dryweli temperature	
295012AK3.01	High Drywell Temperature / 5	3.5	3.6		Increased drywell cooling	
295013G2.4.18	High Suppression Pool Temp. / 5	3.3	4.0		Knowledge of the specific bases for EOPs.	
295017AA1.05	High Off-site Release Rate / 9	2.7	3.2		SPDS/ERIS/CRIDS/GDS: Plant-Specific	
295035EA1.01	Secondary Containment High Differential Pressure / 5	3.6	3.6		Secondary containment ventilation system	
500000EK2.07	High CTMT Hydrogen Conc. / 5	3.2	3.7		Drywell vent system	

ES-401, REV 9			T20	G1 BWR EXAMINATION OUTLINE	FORM ES-401-1
KA	NAME / SAFETY FUNCTION:	1	IR	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:
		RO	SRC	0	
203000K6.02	RHR/LPCI: Injection Mode	2.8	3.0		D.C. electrical power
205000K5.02	Shutdown Cooling	2.8	2.9		Valve operation
205000K5.03	Shutdown Cooling	2.8	3.1		Heat removal mechanisms
206000A1.08	HPCI	4.1	4		System lineup: BWR-2,3,4
209001K3.01	LPCS	3.8	3.9		Reactor water level
209001K3.03	LPCS	2.9	3.0		Emergency generators
211000K2.02	SLC	3.1	3.2		Explosive valves
212000A3.02	RPS	3.2	3.5		Individual system relay status: Plant-Specific
212000A4.15	RPS	3.9	3.8		Recirculation pump trip/EOC RPT
215003K4.05	IRM	2.9	3.0		Changing detector position
215004K1.05	Source Range Monitor	2.8	3.0		Display control system: Plant-Specific

ES-401, REV 9			T20	G1 BWR EXAMINATION OUTLINE	FORM ES-401		
KA	NAME / SAFETY FUNCTION:		IR	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:		
		RO	SRC	0			
215005A4.06	APRM / LPRM	3.6	3.8		Verification of proper functioning/ operability		
217000K5.06	RCIC	2.7	2.7		Turbine operation		
218000K3.01	ADS	4.4	4.4		Restoration of reactor water level after a break that does not depressurize the reactor when required		
223002A2.11	PCIS/Nuclear Steam Supply Shutoff	3.8	3.9		Standby liquid initiation		
239002K2.01	SRVs	2.8	3.2		SRV solenoids		
259002A4.08	Reactor Water Level Control	4.5	4.5		Manually initiate FWCI: FWCI		
261000A2.07	SGTS	2.7	2.8		A.C. electrical failure		
261000K1.03	SGTS	2.9	3.1		Suppression pool		
262001K6.03	AC Electrical Distribution	3.5	3.7		Generator trip		
262002G2.4.4	UPS (AC/DC)	4.5	4.7		Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures.		
263000A3.01	DC Electrical Distribution	3.2	3.3		Meters, dials, recorders, alarms and indicating lights		

ES-401, REV 9			T2G	<b>1 BWR EXAMINATION OUTLINE</b>	FORM ES-401-1
KA	NAME / SAFETY FUNCTION:		IR	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:
		RO	SRO		
264000G2.2.42	EDGs	3.9	4.6		Ability to recognize system parameters that are entry- level conditions for Technical Specifications
300000A2.01	Instrument Air	2.9	2.8		Air dryer and filter malfunctions
300000K1.03	Instrument Air	2.8	2.9		Containment air
400000A1.01	Component Cooling Water	2.8	2.8		CCW flow rate

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ES-401, REV 9			T20	G2 BWR EXAMINATION OUTLINE	FORM ES-401-
КА	NAME / SAFETY FUNCTION:	[	IR	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:
		RO	SRC	0	
201003A2.09	Control Rod and Drive Mechanism	3.2	3.4		Low reactor pressure
204000K1.15	RWCU	3.1	3.2		Leak detection: Plant-Specific
215001A4.03	Traversing In-core Probe	3.0	3.1		Isolation valves: Mark-I&II(Not-BWR1)
215002G2.4.4	RBM	4.5	4.7		Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures.
223001A3.05	Primary CTMT and Aux.	4.3	4.3		Drywell pressure
226001K6.04	RHR/LPCI: CTMT Spray Mode	2.7	2.7		Keep fill system
233000K4.08	Fuel Pool Cooling/Cleanup	2.6	2.8		Pool cooling during loss of coolant accident: BWR-6
239001K5.05	Main and Reheat Steam	2.8	2.8		Flow indication
241000K3.03	Reactor/Turbine Pressure Regulator	3.7	3.8		Reactor water level
245000K4.10	Main Turbine Gen. / Aux.	2.6	2.7		Extraction steam
268000A1.02	Radwaste	2.6	3.6		Off-site release

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ES-401, REV 9			T20	2 BWR EXAMINATION OUTLINE		FORM ES-401-1
KA	NAME / SAFETY FUNCTION:		IR	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:	
		RO	SRC			
286000K2.02	Fire Protection	2.9	3.1		Pumps	

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ES-401, REV 9			ТЗ	BWR EXAMINATION OUTLINE	FORM ES-401-1	
КА	NAME / SAFETY FUNCTION:		IR	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:	
		RO	SRC	)		
G2.1.1	Conduct of operations	3.8	4.2		Knowledge of conduct of operations requirements.	
G2.1.20	Conduct of operations	4.6	4.6		Ability to execute procedure steps.	
G2.1.8	Conduct of operations	3.4	4.1		Ability to coordinate personnel activities outside the control room.	
G2.2.21	Equipment Control	2.9	4.1		Knowledge of pre- and post-maintenance operability requirements.	
G2.2.22	Equipment Control	4.0	4.7		Knowledge of limiting conditions for operations and safety limits.	
G2.2.36	Equipment Control	3.1	4.2		Ability to analyze the effect of maintenance activities, such as degraded power sources, on the status of limiting conditions of operations	
G2.3.11	Radiation Control	3.8	4.3		Ability to control radiation releases.	
G2.3.13	Radiation Control	3.4	3.8		Knowledge of radiological safety procedures pertaining to licensed operator duties	
G2.4.16	Emergency Procedures/Plans	3.5	4.4		Knowledge of EOP implementation hierarchy and coordination with other support procedures or guidelines.	
G2.4.5	Emergency Procedures/Plans	3.7	4.3		Knowledge of the organization of the operating procedures network for normal, abnormal and emergency evolutions.	

ES-401, REV 9		S	RO T	1G1 BWR EXAMINATION OUTLINE	FORM ES-401-
KA	NAME / SAFETY FUNCTION:		IR	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:
		RO	SRC	)	
295004AA2.02	Partial or Total Loss of DC Pwr / 6	3.5	3.9		Extent of partial or complete loss of D.C. power
295016G2.2.37	Control Room Abandonment / 7	3.6	4.6		Ability to determine operability and/or availability of safety related equipment
295019G2.1.28	Partial or Total Loss of Inst. Air / 8	4.1	4.1		Knowledge of the purpose and function of major system components and controls.
295023AA2.02	Refueling Acc Cooling Mode / 8	3.4	3.7		Fuel pool level
295024EA2.02	High Drywell Pressure / 5	3.9	4.0		Drywell temperature
295037G2.4.49	SCRAM Condition Present and Power	4.6	4.4		Ability to perform without reference to procedures those
	Above APRM Downscale or Unknown / 1				actions that require immediate operation of system components and controls.
700000AA2.07	Generator Voltage and Electric Grid Distrurbancecs	3.6	4.0		Operational status of engineered safety features

ES-401, REV 9			RO T	1G2 BWR EXAMINATION OUTLINE	FORM ES-401-1	
KA	NAME / SAFETY FUNCTION:		IR	IR	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G T	OPIC:
		RO	SRO			
295007AA2.01	High Reactor Pressure / 3	4.1	4.1		leactor pressure	
295012G2.4.11	High Drywell Temperature / 5	4.0	4.2	COCCOCCC Kr	nowledge of abnormal condition procedures.	
295032EA2.03	High Secondary Containment Area Temperature / 5	3.8	4.0		Cause of high area temperature	

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ES-401, REV 9			T2G1 BWR EXAMINATION OUTLINE	FORM ES-401-1	
KA	NAME / SAFETY FUNCTION:	IR	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:	
		RO SR	80		
209001G2.4.49	LPCS	4.6 4.4		Ability to perform without reference to procedures those actions that require immediate operation of system components and controls.	
215003A2.05	IRM	3.3 3.5		Faulty or erratic operation of detectors/system	
218000A2.05	ADS	3.4 3.6		Loss of A.C. or D.C. power to ADS valves	
261000A2.08	SGTS	2.4 2.7		D.C. electrical failure	
263000G2.4.8	DC Electrical Distribution	3.8 4.5		Knowledge of how abnormal operating procedures are used in conjunction with EOPs.	

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ES-401, REV 9		S	RO 1	2G2 BWR EXAMINATION OUTLINE	FORM ES-401-
KA	NAME / SAFETY FUNCTION:		IR	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:
		RO	SRC	)	
201006A2.06	RWM	2.9	3.3		Loss of reactor water level control input: P- Spec(Not- BWR6)
290001A2.02	Secondary CTMT	3.5	3.7		Excessive outleakage
290003G2.4.4	Control Room HVAC	4.5	4.7		Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures.

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ES-401,	ES-401, REV 9		SRO	T3 BWR EXAMINATION OUTLINE	FORM ES-401-1	
КА	NAME / SAFETY FUNCTION:	RO	IR SRC	K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G	TOPIC:	
G2.1.3	Conduct of operations	3.7	3.9		Knowledge of shift or short term relief turnover practices.	
G2.1.36	Conduct of operations	3.0	4.1		Knowledge of procedures and limitations involved in core alterations	
G2.2.18	Equipment Control	2.6	3.8		Knowledge of the process for managing maintenance activities during shutdown operations.	
G2.2.39	Equipment Control	3.9	4.5		Knowledge of less than one hour technical specification action statements for systems.	
G2.3.4	Radiation Control	3.2	3.7		Knowledge of radiation exposure limits under normal and emergency conditions	
G2.4.38	Emergency Procedures/Plans	2.4	4.4		Ability to take actions called for in the facility emergency plan, including supporting or acting as emergency coordinator.	
G2.4.4	Emergency Procedures/Plans	4.5	4.7		Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures.	

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