

Facility: Perry Nuclear Power Plant														Date of Exam: February 8 – 19, 2021				
Tier	Group	RO K/A Category Points												SRO-Only Points				
		K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G*	Total	A2	G*	Total		
1. Emergency and Abnormal Plant Evolutions	1	4	4	3	N/A			3	3	N/A			3	20	4	3	7	
	2	1	1	2	N/A			1	1	N/A			1	7	1	2	3	
	Tier Totals	5	5	5	N/A			4	4	N/A			4	27	5	5	10	
2. Plant Systems	1	3	3	3	3	2	2	2	2	2	2	2	26	2	3	5		
	2	1	1	1	1	1	1	1	2	1	1	1	12	1	2	3		
	Tier Totals	4	4	4	4	3	3	3	4	3	3	3	38	3	5	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: 1. Ensure that at least two topics from every applicable K/A category are sampled within each tier of the RO and SRO-only outline sections (i.e., except for one category in Tier 3 of the SRO-only section, the “Tier Totals” in each K/A category shall not be less than two). (One Tier 3 radiation control K/A is allowed if it is replaced by a K/A from another Tier 3 category.)
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 outline. Systems or evolutions that do not apply at the facility should be deleted with justification. 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. 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’ 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 a category 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.

G\* Generic K/As

- \* These systems/evolutions must be included as part of the sample (as applicable to the facility) when Revision 3 of the K/A catalog is used to develop the sample plan. They are not required to be included when using earlier revisions of the K/A catalog.
- \*\* These systems/evolutions may be eliminated from the sample (as applicable to the facility) when Revision 3 of the K/A catalog is used to develop the sample plan.

ES-401		BWR Examination Outline Emergency and Abnormal Plant Evolutions—Tier 1/Group 1 (RO)						Form ES-401-1	
E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G*	K/A Topic(s)	IR	#
295001 (APE 1) Partial or Complete Loss of Forced Core Flow Circulation / 1 & 4	01						AK1.01 - Knowledge of the operational implications of the following concepts as they apply to PARTIAL OR COMPLETE LOSS OF FORCED CORE FLOW CIRCULATION: Natural circulation (CFR: 41.8 to 41.10)	3.5	1 (1)
295003 (APE 3) Partial or Complete Loss of AC Power / 6		06					AK2.06 - Knowledge of the interrelations between PARTIAL OR COMPLETE LOSS OF A.C. POWER and the following: D.C. electrical loads (CFR: 41.7 / 45.8)	3.4	1 (2)
295004 (APE 4) Partial or Total Loss of DC Power / 6			02				AK3.02 - Knowledge of the reasons for the following responses as they apply to PARTIAL OR COMPLETE LOSS OF D.C. POWER: Ground isolation/fault determination (CFR: 41.5 / 45.6)	2.9	1 (3)
295005 (APE 5) Main Turbine Generator Trip / 3				05			AA1.05 - Ability to operate and/or monitor the following as they apply to MAIN TURBINE GENERATOR TRIP: Reactor/turbine pressure regulating system (CFR: 41.7 / 45.6)	3.6	1 (4)
295006 (APE 6) Scram / 1					02		AA2.02 - Ability to determine and/or interpret the following as they apply to SCRAM: Control rod position (CFR: 41.10 / 43.5 / 45.13)	4.3*	1 (5)
295016 (APE 16) Control Room Abandonment / 7						2.4.8	Generic K/A 2.4.8 - Knowledge of how abnormal operating procedures are used in conjunction with EOPs. (CFR: 41.10 / 43.5 / 45.13)	3.8	1 (6)
295018 (APE 18) Partial or Complete Loss of CCW / 8	01						AK1.01 - Knowledge of the operational implications of the following concepts as they apply to PARTIAL OR COMPLETE LOSS OF COMPONENT COOLING WATER: Effects on component/system operations (CFR: 41.8 to 41.10)	3.5	1 (7)
295019 (APE 19) Partial or Complete Loss of Instrument Air / 8		01					AK2.01 - Knowledge of the interrelations between PARTIAL OR COMPLETE LOSS OF INSTRUMENT AIR and the following: CRD hydraulics (CFR: 41.7 / 45.8)	3.8	1 (8)
295021 (APE 21) Loss of Shutdown Cooling / 4			05				AK3.05 - Knowledge of the reasons for the following responses as they apply to LOSS OF SHUTDOWN COOLING: Establishing alternate heat removal flow paths (CFR: 41.5 / 45.6)	3.6	1 (9)
295023 (APE 23) Refueling Accidents / 8				01			AA1.01 - Ability to operate and/or monitor the following as they apply to REFUELING ACCIDENTS: Secondary containment ventilation (CFR: 41.7 / 45.6)	3.3	1 (10)
295024 High Drywell Pressure / 5		14					EK2.14 - Knowledge of the interrelations between HIGH DRYWELL PRESSURE and the following: Containment pressure: Mark-III (CFR: 41.7 / 45.8)	3.9	1 (11)
295025 (EPE 2) High Reactor Pressure / 3					01		EA2.01 - Ability to determine and/or interpret the following as they apply to HIGH REACTOR PRESSURE: Reactor pressure (CFR: 41.10 / 43.5 / 45.13)	4.3*	1 (12)

295026 (EPE 3) Suppression Pool High Water Temperature / 5						2.2.42	Generic K/A 2.2.42 - Ability to recognize system parameters that are entry-level conditions for Technical Specifications. (CFR: 41.7 / 41.10 / 43.2 / 43.3 / 45.3)	3.9	1 (13)
295027 (EPE 4) High Containment Temperature (Mark III Containment Only) / 5	01						EK1.01 - Knowledge of the operational implications of the following concepts as they apply to HIGH CONTAINMENT TEMPERATURE (MARK III CONTAINMENT ONLY): Equipment environmental qualifications: Mark-III (CFR: 41.8 to 41.10)	2.5	1 (14)
295028 (EPE 5) High Drywell Temperature (Mark I and Mark II only) / 5									
295030 (EPE 7) Low Suppression Pool Water Level / 5			06				EK3.06 - Knowledge of the reasons for the following responses as they apply to LOW SUPPRESSION POOL WATER LEVEL: Reactor SCRAM (CFR: 41.5 / 45.6)	3.6	1 (15)
295031 (EPE 8) Reactor Low Water Level / 2				07			EA1.07 - Ability to operate and/or monitor the following as they apply to REACTOR LOW WATER LEVEL: Safety/relief valves (CFR: 41.7 / 45.6)	3.7*	1 (16)
295037 (EPE 14) Scram Condition Present and Reactor Power Above APRM Downscale or Unknown / 1					03		EA2.03 - Ability to determine and/or interpret the following as they apply to SCRAM CONDITION PRESENT AND REACTOR POWER ABOVE APRM DOWNSCALE OR UNKNOWN: SBLC tank level (CFR: 41.10 / 43.5 / 45.13)	4.3*	1 (17)
295038 (EPE 15) High Offsite Radioactivity Release Rate / 9						2.4.18	Generic K/A 2.4.18 - Knowledge of the specific bases for EOPs. (CFR: 41.10 / 43.1 / 45.13)	3.3	1 (18)
600000 (APE 24) Plant Fire On Site / 8	02						AK1.02 - Knowledge of the operation applications of the following concepts as they apply to Plant Fire On Site: Fire Fighting	2.9	1 (19)
700000 (APE 25) Generator Voltage and Electric Grid Disturbances / 6		01					AK2.01 - Knowledge of the interrelations between GENERATOR VOLTAGE AND ELECTRIC GRID DISTURBANCES and the following: Motors (CFR: 41.4, 41.5, 41.7, 41.10 / 45.8)	3.1	1 (20)
K/A Category Totals:	4	4	3	3	3	3	Group Point Total:		20



500000 (EPE 16) High Containment Hydrogen Concentration / 5			03					EK3.03 - Knowledge of the reasons for the following responses as they apply to HIGH PRIMARY CONTAINMENT HYDROGEN CONCENTRATIONS: Operation of hydrogen and oxygen recombiners (CFR: 41.5 / 45.6)	3.0	1 (27)
K/A Category Point Totals:	1	1	2	1	1	1	1	Group Point Total:		7

ES-401	BWR Examination Outline Plant Systems—Tier 2/Group 1 (RO)											Form ES-401-1		
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G*	K/A Topic(s)	IR	#
203000 (SF2, SF4 RHR/LPCI) RHR/LPCI: Injection Mode					02							K5.02 - Knowledge of the operational implications of the following concepts as they apply to RHR/LPCI: INJECTION MODE (PLANT SPECIFIC): †Core cooling methods (CFR: 41.5 / 45.3)	3.5	1 (28)
205000 (SF4 SCS) Shutdown Cooling						08						K6.08 - Knowledge of the effect that a loss or malfunction of the following will have on the SHUTDOWN COOLING SYSTEM (RHR SHUTDOWN COOLING MODE): RHR service water: Plant-Specific (CFR: 41.7 / 45.7)	3.5	1 (29)
206000 (SF2, SF4 HPCIS) High-Pressure Coolant Injection														
207000 (SF4 IC) Isolation (Emergency) Condenser														
209001 (SF2, SF4 LPCS) Low-Pressure Core Spray	02						07					K1.02 - Knowledge of the physical connections and/or cause effect relationships between LOW PRESSURE CORE SPRAY SYSTEM and the following: Torus/suppression pool (CFR: 41.2 to 41.9 / 45.7 to 45.8)	3.4	1 (30)
												A1.07 - Ability to predict and/or monitor changes in parameters associated with operating the LOW PRESSURE CORE SPRAY SYSTEM controls including: Emergency generator loading (CFR: 41.5 / 45.5)	3.0	1 (31)
209002 (SF2, SF4 HPCS) High-Pressure Core Spray		01						02				K2.01 - Knowledge of electrical power supplies to the following: Pump electrical power: BWR-5,6 (CFR: 41.7)	3.2	1 (32)
												A2.02 - Ability to (a) predict the impacts of the following on the HIGH PRESSURE CORE SPRAY SYSTEM (HPCS); and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Pump trips: BWR-5,6 (CFR: 41.5 / 45.6)	3.6	1 (33)
211000 (SF1 SLCS) Standby Liquid Control				06					08			A3.06 - Ability to monitor automatic operations of the STANDBY LIQUID CONTROL SYSTEM including: RWCU system isolation: Plant-Specific (CFR: 41.7 / 45.7)	4.0*	1 (34)
												K4.08 - Knowledge of STANDBY LIQUID CONTROL SYSTEM design feature(s) and/or interlocks which provide for the following: System initiation upon operation of SBLC control switch (CFR: 41.7)	4.2*	1 (35)

212000 (SF7 RPS) Reactor Protection			06						16		K3.06 - Knowledge of the effect that a loss or malfunction of the REACTOR PROTECTION SYSTEM will have on following: Scram air header solenoid operated valves (CFR: 41.7 / 45.4)	4.0	1 (36)
											A4.16 - Ability to manually operate and/or monitor in the control room: Manually activate anticipated transient without SCRAM circuitry/RRCS: Plant-Specific (CFR: 41.7 / 45.5 to 45.8)	4.4*	1 (37)
215003 (SF7 IRM) Intermediate-Range Monitor										2.1.31	Generic K/A 2.1.31 - Ability to locate control room switches, controls, and indications, and to determine that they correctly reflect the desired plant lineup. (CFR: 41.10 / 45.12)	4.6	1 (38)
215004 (SF7 SRMS) Source-Range Monitor	03										K1.03 - Knowledge of the physical connections and/or cause effect relationships between SOURCE RANGE MONITOR (SRM) SYSTEM and the following: Rod control and information system: Plant-Specific (CFR: 41.2 to 41.9 / 45.7 to 45.8)	3.0	1 (39)
215005 (SF7 PRMS) Average Power Range Monitor/Local Power Range Monitor		02									K2.02 - Knowledge of electrical power supplies to the following: APRM channels (CFR: 41.7)	2.6	1 (40)
217000 (SF2, SF4 RCIC) Reactor Core Isolation Cooling			04	07							K3.04 - Knowledge of the effect that a loss or malfunction of the REACTOR CORE ISOLATION COOLING SYSTEM (RCIC) will have on following: Adequate core cooling (CFR: 41.7 / 45.4)	3.6	1 (41)
											K4.07 - Knowledge of REACTOR CORE ISOLATION COOLING SYSTEM (RCIC) design feature(s) and/or interlocks which provide for the following: Alternate supplies of water (CFR: 41.7)	3.6	1 (42)
218000 (SF3 ADS) Automatic Depressurization					01						K5.01 - Knowledge of the operational implications of the following concepts as they apply to AUTOMATIC DEPRESSURIZATION SYSTEM: ADS logic operation (CFR: 41.5 / 45.3)	3.8	1 (43)
223002 (SF5 PCIS) Primary Containment Isolation/Nuclear Steam Supply Shutoff					08						K4.08 - Knowledge of PRIMARY CONTAINMENT ISOLATION SYSTEM/NUCLEAR STEAM SUPPLY SHUT-OFF design feature(s) and/or interlocks which provide for the following: †Manual defeating of selected isolations during specified emergency conditions (CFR: 41.7)	3.3	1 (44)
239002 (SF3 SRV) Safety Relief Valves						04					K6.04 - Knowledge of the effect that a loss or malfunction of the following will have on the RELIEF/SAFETY VALVES: D.C. power: Plant-Specific (CFR: 41.7 / 45.7)	3.0	1 (45)
259002 (SF2 RWLCS) Reactor Water Level Control							05				A1.05 - Ability to predict and/or monitor changes in parameters associated with operating the REACTOR WATER LEVEL CONTROL SYSTEM controls including: FWRV/startup level control position: Plant-Specific (CFR: 41.5 / 45.5)	2.9	1 (46)

261000 (SF9 SGTS) Standby Gas Treatment										07								A2.07 - Ability to (a) predict the impacts of the following on the STANDBY GAS TREATMENT SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: A.C. electrical failure (CFR: 41.5 / 45.6)	2.7*	1 (47)
262001 (SF6 AC) AC Electrical Distribution										04								A3.04 - Ability to monitor automatic operations of the A.C. ELECTRICAL DISTRIBUTION including: Load sequencing (CFR: 41.7 / 45.7)	3.4	1 (48)
262002 (SF6 UPS) Uninterruptable Power Supply (AC/DC)														2.1.20				Generic K/A 2.1.20 - Ability to interpret and execute procedure steps. (CFR: 41.10 / 43.5 / 45.12)	4.6	1 (49)
263000 (SF6 DC) DC Electrical Distribution	02																	K1.02 - Knowledge of the physical connections and/or cause effect relationships between D.C. ELECTRICAL DISTRIBUTION and the following: Battery charger and battery (CFR: 41.2 to 41.9 / 45.7 to 45.8)	3.2	1 (50)
264000 (SF6 EGE) Emergency Generators (Diesel/Jet) EDG											05							A4.05 - Ability to manually operate and/or monitor in the control room: Transfer of emergency generator (with load) to grid (CFR: 41.7 / 45.5 to 45.8)	3.6	1 (51)
300000 (SF8 IA) Instrument Air		01																K2.01 - Knowledge of electrical power supplies to the following: Instrument air compressor (CFR: 41.7)	2.8	1 (52)
400000 (SF8 CCS) Component Cooling Water			01															K3.01 - Knowledge of the effect that a loss or malfunction of the CCWS will have on the following: Loads cooled by CCWS (CFR: 41.7 / 45.6)	2.9	1 (53)
510000 (SF4 SWS*) Service Water (Normal and Emergency)																				
K/A Category Point Totals:	3	3	3	3	2	2	2	2	2	2	2							Group Point Total:		26



ES-401		BWR Examination Outline Plant Systems—Tier 2/Group 2 (RO)											Form ES-401-1	
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G*	K/A Topic(s)	IR	#
201001 (SF1 CRDH) CRD Hydraulic														
201002 (SF1 RMCS) Reactor Manual Control														
201003 (SF1 CRDM) Control Rod and Drive Mechanism														
201004 (SF7 RSCS) Rod Sequence Control														
201005 (SF1, SF7 RCIS) Rod Control and Information														
201006 (SF7 RWMS) Rod Worth Minimizer														
202001 (SF1, SF4 RS) Recirculation		01										K2.01 - Knowledge of electrical power supplies to the following: Recirculation pumps: Plant-Specific (CFR: 41.7)	3.2*	1 (54)
202002 (SF1 RSCTL) Recirculation Flow Control														
204000 (SF2 RWCU) Reactor Water Cleanup						07						K6.07 - Knowledge of the effect that a loss or malfunction of the following will have on the REACTOR WATER CLEANUP SYSTEM: PCIS/NSSSS (CFR: 41.7 / 45.7)	3.5	1 (55)
214000 (SF7 RPIS) Rod Position Information														
215001 (SF7 TIP) Traversing In-Core Probe							01					A1.01 - Ability to predict and/or monitor changes in parameters associated with operating the TRAVERSING IN-CORE PROBE controls including: Radiation levels: (Not-BWR1) (CFR: 41.5 / 45.5)	2.8	1 (56)
215002 (SF7 RBMS) Rod Block Monitor														
216000 (SF7 NBI) Nuclear Boiler Instrumentation								01				A2.01 - Ability to (a) predict the impacts of the following on the NUCLEAR BOILER INSTRUMENTATION; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Detector equalizing valve leaks (CFR: 41.5 / 45.6)	2.9	1 (57)
219000 (SF5 RHR SPC) RHR/LPCI: Torus/Suppression Pool Cooling Mode										07		A4.07 - Ability to manually operate and/or monitor in the control room: System flows (CFR: 41.7 / 45.5 to 45.8)	3.5	1 (58)
223001 (SF5 PCS) Primary Containment and Auxiliaries										01		A3.01 - Ability to monitor automatic operations of the PRIMARY CONTAINMENT SYSTEM AND AUXILIARIES including: Suppression pool level (CFR: 41.7 / 45.7)	3.4	1 (59)
226001 (SF5 RHR CSS) RHR/LPCI: Containment Spray Mode														
230000 (SF5 RHR SPS) RHR/LPCI: Torus/Suppression Pool Spray Mode														
233000 (SF9 FPCCU) Fuel Pool Cooling/Cleanup											2.4.1	Generic K/A 2.4.1 - Knowledge of EOP entry conditions and immediate action steps. (CFR: 41.10 / 43.5 / 45.13)	4.6	1 (60)





600000 (APE 24) Plant Fire On Site / 8					13		AA2.13 - Ability to determine and interpret the following as they apply to PLANT FIRE ON SITE: Need for emergency plant shutdown	3.8	1 (82)
700000 (APE 25) Generator Voltage and Electric Grid Disturbances / 6									
K/A Category Totals:					4	3	Group Point Total:		7



K/A Category Point Totals:													1	2	Group Point Total:		3	
ES-401													BWR Examination Outline			Form ES-401-1		
Plant Systems—Tier 2/Group 1 (SRO)																		
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G*	K/A Topic(s)	IR	#				
203000 (SF2, SF4 RHR/LPCI) RHR/LPCI: Injection Mode																		
205000 (SF4 SCS) Shutdown Cooling																		
206000 (SF2, SF4 HPCIS) High-Pressure Coolant Injection																		
207000 (SF4 IC) Isolation (Emergency) Condenser																		
209001 (SF2, SF4 LPCS) Low-Pressure Core Spray																		
209002 (SF2, SF4 HPCS) High-Pressure Core Spray											2.4.30	Generic K/A 2.4.30 - Knowledge of events related to system operation/status that must be reported to internal organizations or external agencies, such as the State, the NRC, or the transmission system operator. (CFR: 41.10 / 43.5 / 45.11)	4.1	1 (86)				
211000 (SF1 SLCS) Standby Liquid Control								05				A2.05 - Ability to (a) predict the impacts of the following on the STANDBY LIQUID CONTROL SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Loss of SBLC tank heaters (CFR: 41.5 / 45.6)	3.4	1 (87)				
212000 (SF7 RPS) Reactor Protection																		
215003 (SF7 IRM) Intermediate-Range Monitor																		
215004 (SF7 SRMS) Source-Range Monitor																		
215005 (SF7 PRMS) Average Power Range Monitor/Local Power Range Monitor																		
217000 (SF2, SF4 RCIC) Reactor Core Isolation Cooling																		
218000 (SF3 ADS) Automatic Depressurization																		
223002 (SF5 PCIS) Primary Containment Isolation/Nuclear Steam Supply Shutoff																		
239002 (SF3 SRV) Safety Relief Valves																		
259002 (SF2 RWLCS) Reactor Water Level Control											2.4.41	Generic K/A 2.4.41 - Knowledge of the emergency action level thresholds and classifications. (CFR: 41.10 / 43.5 / 45.11)	4.6	1 (88)				
261000 (SF9 SGTS) Standby Gas Treatment																		
262001 (SF6 AC) AC Electrical Distribution								10				A2.10 - Ability to (a) predict the impacts of the following on the A.C. ELECTRICAL DISTRIBUTION; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Exceeding current limitations (CFR: 41.5 / 45.6)	3.4	1 (89)				



ES-401	BWR Examination Outline Plant Systems—Tier 2/Group 2 (SRO)											Form ES-401-1		
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G*	K/A Topic(s)	IR	#
201001 (SF1 CRDH) CRD Hydraulic														
201002 (SF1 RMCS) Reactor Manual Control														
201003 (SF1 CRDM) Control Rod and Drive Mechanism														
201004 (SF7 RSCS) Rod Sequence Control														
201005 (SF1, SF7 RCIS) Rod Control and Information														
201006 (SF7 RWMS) Rod Worth Minimizer														
202001 (SF1, SF4 RS) Recirculation														
202002 (SF1 RSCTL) Recirculation Flow Control														
204000 (SF2 RWCU) Reactor Water Cleanup														
214000 (SF7 RPIS) Rod Position Information														
215001 (SF7 TIP) Traversing In-Core Probe														
215002 (SF7 RBMS) Rod Block Monitor														
216000 (SF7 NBI) Nuclear Boiler Instrumentation											2.2.25	Generic K/A 2.2.25 - Knowledge of the bases in Technical Specifications for limiting conditions for operations and safety limits. (CFR: 41.5 / 41.7 / 43.2)	4.2	1 (91)
219000 (SF5 RHR SPC) RHR/LPCI: Torus/Suppression Pool Cooling Mode														
223001 (SF5 PCS) Primary Containment and Auxiliaries														
226001 (SF5 RHR CSS) RHR/LPCI: Containment Spray Mode														
230000 (SF5 RHR SPS) RHR/LPCI: Torus/Suppression Pool Spray Mode														
233000 (SF9 FPCCU) Fuel Pool Cooling/Cleanup														
234000 (SF8 FH) Fuel-Handling Equipment														
239001 (SF3, SF4 MRSS) Main and Reheat Steam														
239003 (SF9 MSVLCS) Main Steam Isolation Valve Leakage Control														
241000 (SF3 RTPRS) Reactor/Turbine Pressure Regulating								16				A2.16 - Ability to (a) predict the impacts of the following on the REACTOR/TURBINE PRESSURE REGULATING SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Low turbine inlet pressure (loss of pressure signal) (CFR: 41.5 / 45.6)	3.4	1 (92)
245000 (SF4 MTGEN) Main Turbine Generator/Auxiliary														
256000 (SF2 CDS) Condensate											2.4.45	Generic K/A 2.4.45 - Ability to prioritize and interpret the significance of each annunciator or alarm. (CFR: 41.10 / 43.5 / 45.13)	4.1	1 (93)





Facility:		Date of Exam:				
Category	K/A #	Topic	RO		SRO-only	
			IR	#	IR	#
1. Conduct of Operations	2.1.17	Ability to make accurate, clear, and concise verbal reports.   (CFR: 41.10 / 45.12 / 45.13)	3.9	1 (66)		
	2.1.26	Knowledge of industrial safety procedures (such as rotating equipment, electrical, high temperature, high pressure, caustic, chlorine, oxygen and hydrogen). (CFR: 41.10 / 45.12)	3.4	1 (67)		
	2.1.40	Knowledge of refueling administrative requirements. (CFR: 41.10 / 43.5 / 45.13)	2.8	1 (68)		
	2.1.45	Ability to identify and interpret diverse indications to validate the response of another indication. (CFR: 41.7 / 43.5 / 45.4)			4.3	1 (94)
	2.1.32	Ability to explain and apply system limits and precautions. (CFR: 41.10 / 43.2 / 45.12)			4.0	1 (95)
	Subtotal			3		2
2. Equipment Control	2.2.35	Ability to determine Technical Specification Mode of Operation. (CFR: 41.7 / 41.10 / 43.2 / 45.13)	3.6	1 (69)		
	2.2.41	Ability to obtain and interpret station electrical and mechanical drawings. (CFR: 41.10 / 45.12 / 45.13)	3.5	1 (70)		
	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. (CFR: 41.10 / 43.5 / 45.13)			3.8	1 (96)
	2.2.38	Knowledge of conditions and limitations in the facility license. (CFR: 41.7 / 41.10 / 43.1 / 45.13)			4.5	1 (97)
	Subtotal			2		2
3. Radiation Control	2.3.11	Ability to control radiation releases. (CFR: 41.11 / 43.4 / 45.10)	3.8	1 (71)		
	2.3.13	Knowledge of radiological safety procedures pertaining to licensed operator duties, such as response to radiation monitor alarms, containment entry requirements, fuel handling responsibilities, access to locked high-radiation areas, aligning filters, etc. (CFR: 41.12 / 43.4 / 45.9 / 45.10)	3.4	1 (72)		
	2.3.14	Knowledge of radiation or contamination hazards that may arise during normal, abnormal, or emergency conditions or activities. (CFR: 41.12 / 43.4 / 45.10)			3.8	1 (98)
	Subtotal			2		1
4. Emergency Procedures/Plan	2.4.2	Knowledge of system set points, interlocks and automatic actions associated with EOP entry conditions. (CFR: 41.7 / 45.7 / 45.8)	4.5	1 (73)		
	2.4.20	Knowledge of the operational implications of EOP warnings, cautions, and notes. (CFR: 41.10 / 43.5 / 45.13)	3.8	1 (74)		
	2.4.22	Knowledge of the bases for prioritizing safety functions during abnormal/emergency operations. (CFR: 41.7 / 41.10 / 43.5 / 45.12)	3.6	1 (75)		
	2.4.38	Ability to take actions called for in the facility emergency plan, including supporting or acting as emergency coordinator if required. (CFR: 41.10 / 43.5 / 45.11)			4.4	1 (99)
	2.4.28	Knowledge of procedures relating to a security event (non-safeguards information). (CFR: 41.10 / 43.5 / 45.13)			4.1	1 (100)
	Subtotal			3		2
Tier 3 Point Total				10		7