

Facility Name: PALISADES		Date of Exam: 09/19/2014															
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 & Abnormal Plant Evolutions	1	4	2	3	N/A			4	4	N/A			1	18	4	2	6
	2	1	2	2	N/A			1	2	N/A			1	9	3	1	4
	Tier Totals	5	4	5	N/A			5	6	N/A			2	27	7	3	10
2. Plant Systems	1	2	3	4	4	1	1	3	3	2	3	2	28	3	2	5	
	2	1	0	1	1	1	2	1	1	0	1	1	10	0	1	2	3
	Tier Totals	3	3	5	5	2	3	4	4	2	4	3	38	4	4	8	
3. Generic Knowledge and Categories		Abilities		1	2	3	4	10		1	2	3	4	7			
				2	3	3	2			2	1	2	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 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.

ES-401		PWR Examination Outline							Form ES-401-2	
Emergency and Abnormal Plant Evolutions - Tier 1/Group 1 (RO)										
E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	IR	#	
000007 Reactor Trip / 1									0	
CE/E02 Reactor Trip Recovery / 1										
000008 Pressurizer Vapor Space Accident / 3	0 1						AK1.01-Knowledge of the operational implications of the following concepts as they apply to a Pressurizer Vapor Space Accident: Thermodynamics and flow characteristics of open or leaking valves	3.2	1	
000009 Small Break LOCA / 3		0 3					EK2.03-Knowledge of the interrelations between the small break LOCA and the following: S/Gs	3.0	1	
000011 Large Break LOCA / 3			1 0				EK3.10-Knowledge of the reasons for the following responses as they apply to the Large Break LOCA: PTS limits on RCS pressure and temperature	3.7	1	
000015 RCP Malfunctions / 4 000017 RCP Malfunctions (Loss of RC Flow) / 4				1 4			AA1.14-Ability to operate and / or monitor the following as they apply to the Reactor Coolant Pump Malfunctions (Loss of RC Flow): Power range remote flux meter	2.9	1	
000022 Loss of Rx Coolant Makeup / 2					0 4		AA2.04-Ability to determine and interpret the following as they apply to the Loss of Reactor Coolant Makeup: How long PZR level can be maintained within limits	2.9	1	
000025 Loss of RHR System / 4	0 1						AK1.01-Knowledge of the operational implications of the following concepts as they apply to Loss of Residual Heat Removal System: Loss of RHRS during all modes of operation	3.9	1	
000026 Loss of Component Cooling Water / 8					0 1		AA2.01-Ability to determine and interpret the following as they apply to the Loss of Component Cooling Water: Location of a leak in the CCWS	2.9	1	
000027 Pressurizer Pressure Control System Malfunction / 3				0 4			AA1.04-Ability to operate and / or monitor the following as they apply to the Pressurizer Pressure Control Malfunctions: Pressure recovery, using emergency-only heaters	3.9	1	
000029 ATWS / 1			0 9				EK3.09-Knowledge of the reasons for the following responses as they apply to the ATWS: Opening centrifugal charging pump suction valves from RWST	3.7	1	
000038 Steam Gen. Tube Rupture / 3	0 3						EK1.03-Knowledge of the operational implications of the following concepts as they apply to the SGTR: Natural circulation	3.9	1	
000040 Steam Line Rupture / 4									1	
CE/E05 Excessive Steam Demand / 4	0 3						EK1.3-Knowledge of the operational implications of the following concepts as they apply to the (Excess Steam Demand): Annunciators and conditions indicating signals, and remedial actions associated with the (Excess Steam Demand).	3.4		
000054 Loss of Main Feedwater / 4									1	
CE/E06 Loss of Feedwater / 4		0 2					EK2.2-Knowledge of the interrelations between the (Loss of Feedwater) and the following: 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.	3.5		
000055 Station Blackout / 6			0 2				EK3.02-Knowledge of the reasons for the following responses as they apply to the Station Blackout: Actions contained in EOP for loss of offsite and onsite power	4.3	1	
000056 Loss of Off-site Power / 6				0 7			AA1.07-Ability to operate and / or monitor the following as they apply to the Loss of Offsite Power: Service water pump	3.2	1	
000057 Loss of Vital AC Inst. Bus / 6					0 8		AA2.08-Ability to determine and interpret the following as they apply to the Loss of Vital AC Instrument Bus: Reactor power digital display and remote flux meter	3.4	1	
000058 Loss of DC Power / 6						04. 03	2.4.3-Ability to identify post-accident instrumentation.	3.7	1	
000062 Loss of Nuclear Svc Water / 4									0	
000065 Loss of Instrument Air / 8					0 1		AA2.01-Ability to determine and interpret the following as they apply to the Loss of Instrument Air: Cause and effect of low-pressure instrument air alarm	2.9	1	
000077 Generator Voltage and Electric Grid Disturbances / 6				0 3			AA1.03-Ability to operate and/or monitor the following as they apply to Generator Voltage and Electric Grid Disturbances: Voltage regulator controls	3.8	1	
K/A Category Totals:	4	2	3	4	4	1	Group Point Total:		18	

ES-401		PWR Examination Outline							Form ES-401-2	
Emergency and Abnormal Plant Evolutions - Tier 1/Group 2 (RO)										
E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	IR	#	
000001 Continuous Rod Withdrawal / 1									0	
000003 Dropped Control Rod / 1									0	
000005 Inoperable/Stuck Control Rod / 1					03		AA2.03-Ability to determine and interpret the following as they apply to the Inoperable / Stuck Control Rod: Required actions if more than one rod is stuck or inoperable	3.5	1	
000024 Emergency Boration / 1									0	
000028 Pressurizer Level Malfunction / 2						04.45	2.4.45-Ability to prioritize and interpret the significance of each annunciator or alarm.	4.1	1	
000032 Loss of Source Range NI / 7			01				AK3.01-Knowledge of the reasons for the following responses as they apply to the Loss of Source Range Nuclear Instrumentation: Startup termination on source-range loss	3.2	1	
000033 Loss of Intermediate Range NI / 7									0	
000036 Fuel Handling Accident / 8		02					AK2.02-Knowledge of the interrelations between the Fuel Handling Incidents and the following: Radiation monitoring equipment (portable and installed)	3.4	1	
000037 Steam Generator Tube Leak / 3									0	
000051 Loss of Condenser Vacuum / 4									0	
000059 Accidental Liquid RadWaste Rel. / 9	05						AK1.05-Knowledge of the operational implications of the following concepts as they apply to Accidental Liquid Radwaste Release: The calculation of offsite doses due to a release from the power plant	2.6	1	
000060 Accidental Gaseous Radwaste Rel. / 9									0	
000061 ARM System Alarms / 7		01					AK2.01-Knowledge of the interrelations between the Area Radiation Monitoring (ARM) System Alarms and the following: Detectors at each ARM system location	2.5	1	
000067 Plant Fire On-site / 9 8									0	
000068 Control Room Evac. / 8									0	
000069 Loss of CTMT Integrity / 5									0	
000074 Inad. Core Cooling / 4			11				EK3.11-Knowledge of the reasons for the following responses as they apply to the Inadequate Core Cooling: Guidance contained in EOP for Inadequate Core Cooling	4.0	1	
000076 High Reactor Coolant Activity / 9									0	
CE/A13 Natural Circ. / 4									0	
CE/A11 RCS Overcooling / 4									0	
CE/A16 Excess RCS Leakage / 2				02			AA1.2-Ability to operate and / or monitor the following as they apply to the (Excess RCS Leakage): Operating behavior characteristics of the facility.	3.0	1	
CE/E09 Functional Recovery					02		EA2.2-Ability to determine and interpret the following as they apply to the (Functional Recovery): Adherence to appropriate procedures and operation within the limitations in the Facility's license and amendments.	3.5	1	
									0	
									0	
									0	
									0	
									0	
									0	
									0	
									0	
									0	
									0	
									0	
									0	
									0	
									0	
									0	
									0	
									0	
K/A Category Totals:	1	2	2	1	2	1	Group Point Total:		9	

ES-401	PWR Examination Outline											Form ES-401-2		
Plant Systems - Tier 2/Group 1 (RO)														
System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G	K/A Topic(s)	IR	#
003 Reactor Coolant Pump					05							K5.05-Knowledge of the operational implications of the following concepts as they apply to the RCPS: The dependency of RCS flow rates upon the number of operating RCPS	2.8	1
004 Chemical and Volume Control		03				09						K2.03-Knowledge of bus power supplies to the following: Charging pumps K6.09-Knowledge of the effect of a loss or malfunction on the following CVCS components: Purpose of VCT divert valve	3.3 2.8	2
005 Residual Heat Removal							01					A1.01-Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the RHRS controls including: Heatup/cool-down rates 2.4.35-Knowledge of local auxiliary operator tasks during an emergency and the resultant operational effects.	3.5 3.8	2
006 Emergency Core Cooling								08				A2.08-Ability to (a) predict the impacts of the following malfunctions or operations on the ECCS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Effect of electric power loss on valve position	3.0	1
007 Pressurizer Relief/Quench Tank				01					01			K4.01-Knowledge of PRTS design feature(s) and/or interlock(s) which provide for the following: Quench tank cooling A3.01-Ability to monitor automatic operation of the PRTS, including: Components which discharge to the PRT	2.6 2.7	2
008 Component Cooling Water								01		03		A2.01-Ability to (a) predict the impacts of the following malfunctions or operations on the CCWS, and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Loss of CCW pump A4.03-Ability to manually operate and/or monitor in the control room: Throttling of the CCW pump discharge valve	3.3 2.7	2
010 Pressurizer Pressure Control		03									04.50	K2.03-Knowledge of bus power supplies to the following: Indicator for PORV position 2.4.50-Ability to verify system alarm setpoints and operate controls identified in the alarm response manual.	2.8 4.2	2
012 Reactor Protection										06		A4.06-Ability to manually operate and/or monitor in the control room: Reactor trip breakers	4.3	1
013 Engineered Safety Features Actuation									01			A3.01-Ability to monitor automatic operation of the ESFAS, including: Input channels and logic	3.7	1
022 Containment Cooling								04				A2.04-Ability to (a) predict the impacts of the following malfunctions or operations on the CCS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Loss of service water	2.9	1
025 Ice Condenser														0
026 Containment Spray							04					A1.04-Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the CSS controls including: Containment humidity	3.1	1
039 Main and Reheat Steam				02								K4.02-Knowledge of MRSS design feature(s) and/or interlock(s) which provide for the following: Utilization of T-ave. program control when steam dumping through atmospheric relief/dump valves, including T-ave. limits	3.1	1
059 Main Feedwater			02							08		K3.02-Knowledge of the effect that a loss or malfunction of the MFW will have on the following: AFW System A4.08-Ability to manually operate and monitor in the control room: Feed regulating valve controller	3.6 3	2
061 Auxiliary/Emergency Feedwater				01			05					K4.01-Knowledge of AFW design feature(s) and/or interlock(s) which provide for the following: Water sources and priority of use A1.05-Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the AFW controls including: AFW flow/motor amps	4.1 3.6	2
062 AC Electrical Distribution			02									K3.02-Knowledge of the effect that a loss or malfunction of the ac distribution system will have on the following: ED/G	4.1	1
063 DC Electrical Distribution		01										K2.01-Knowledge of bus power supplies to the following: Major DC loads	2.9	1
064 Emergency Diesel Generator	02											K1.02-Knowledge of the physical connections and/or cause-effect relationships between the ED/G system and the following systems: ED/G cooling water system	3.1	1
073 Process Radiation Monitoring			01									K3.01-Knowledge of the effect that a loss or malfunction of the PRM system will have on the following: Radioactive effluent releases	3.6	1
076 Service Water			01									K3.01-Knowledge of the effect that a loss or malfunction of the SWS will have on the following: Closed cooling water	3.4	1
078 Instrument Air				01								K4.01-Knowledge of IAS design feature(s) and/or interlock(s) which provide for the following: Manual/automatic transfers of control	2.7	1
103 Containment	03											K1.03-Knowledge of the physical connections and/or cause-effect relationships between the containment system and the following systems: Shield building vent system	3.1	1
														0
K/A Category Totals:	2	3	4	4	1	1	3	3	2	3	2	Group Point Total:		28

ES-401	PWR Examination Outline											Form ES-401-2		
Plant Systems - Tier 2/Group 2 (RO)														
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	IR	#
001 Control Rod Drive	02											K1.02-Knowledge of the physical connections and/or cause-effect relationships between the CRDS and the following systems: CVCS	3.6	1
002 Reactor Coolant						04						K6.04-Knowledge of the effect of a loss or malfunction on the following RCS components: RCS vent valves	2.5	1
011 Pressurizer Level Control			01									K3.01-Knowledge of the effect that a loss or malfunction of the PZR LCS will have on the following: CVCS	3.2	1
014 Rod Position Indication				01								K4.01-Knowledge of RPIS design feature(s) and/or interlock(s) which provide for the following: Upper electrical limit	2.5	1
015 Nuclear Instrumentation											04.06	2.4.6-Knowledge of EOP mitigation strategies.	3.7	1
016 Non-nuclear Instrumentation					01							K5.01-Knowledge of the operational implication of the following concepts as they apply to the NNIS: Separation of control and protection circuits	2.7	1
017 In-core Temperature Monitor						01						K6.01-Knowledge of the effect of a loss or malfunction of the following ITM system components: Sensors and detectors	2.7	1
027 Containment Iodine Removal														0
028 Hydrogen Recombiner and Purge Control														0
029 Containment Purge														0
033 Spent Fuel Pool Cooling							01					A1.01-Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with Spent Fuel Pool Cooling System operating the controls including: Spent fuel pool water level	2.7	1
034 Fuel Handling Equipment														0
035 Steam Generator														0
041 Steam Dump/Turbine Bypass Control														0
045 Main Turbine Generator														0
055 Condenser Air Removal														0
056 Condensate														0
068 Liquid Radwaste														0
071 Waste Gas Disposal								09				A2.09-Ability to (a) predict the impacts of the following malfunctions or operations on the Waste Gas Disposal System ; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Stuck-open relief valve	3.0	1
072 Area Radiation Monitoring														0
075 Circulating Water														0
079 Station Air										01		A4.01-Ability to manually operate and/or monitor in the control room: Cross-tie valves with IAS	2.7	1
086 Fire Protection														0
K/A Category Totals:	1	0	1	1	1	2	1	1	0	1	1	Group Point Total:		10

ES-401	PWR Examination Outline							Form ES-401-2	
Emergency and Abnormal Plant Evolutions - Tier 1/Group 1 (SRO)									
E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	IR	#
000007 Reactor Trip / 1									0
CE/E02 Reactor Trip Recovery / 1									
000008 Pressurizer Vapor Space Accident / 3									0
000009 Small Break LOCA / 3									0
000011 Large Break LOCA / 3									0
000015 RCP Malfunctions / 4 000017 RCP Malfunctions (Loss of RC Flow) / 4					0 2		AA2.02-Ability to determine and interpret the following as they apply to the Reactor Coolant Pump Malfunctions (Loss of RC Flow): Abnormalities in RCP air vent flow paths and/or oil cooling system	3.0	1
000022 Loss of Rx Coolant Makeup / 2									0
000025 Loss of RHR System / 4					0 6		AA2.06-Ability to determine and interpret the following as they apply to the Loss of Residual Heat Removal System: Existence of proper RHR overpressure protection	3.4	1
000026 Loss of Component Cooling Water / 8									0
000027 Pressurizer Pressure Control System Malfunction / 3						02. 38	2.2.38-Knowledge of conditions and limitations in the facility license.	4.5	1
000029 ATWS / 1									0
000038 Steam Gen. Tube Rupture / 3					1 5		EA2.15-Ability to determine or interpret the following as they apply to a SGTR: Pressure at which to maintain RCS during S/G cooldown	4.4	1
000040 Steam Line Rupture / 4									1
CE/E05 Excessive Steam Demand / 4					0 2		EA2.2-Ability to determine and interpret the following as they apply to the (Excess Steam Demand): Adherence to appropriate procedures and operation within the limitations in the Facility's license and amendments.	4.2	
000054 Loss of Main Feedwater / 4									0
CE/E06 Loss of Feedwater / 4									
000055 Station Blackout / 6									0
000056 Loss of Off-site Power / 6									0
000057 Loss of Vital AC Inst. Bus / 6									0
000058 Loss of DC Power / 6						04. 08	2.4.8-Knowledge of how abnormal operating procedures are used in conjunction with EOPs.	4.5	1
000062 Loss of Nuclear Svc Water / 4									0
000065 Loss of Instrument Air / 8									0
000077 Generator Voltage and Electric Grid Disturbances / 6									0
K/A Category Totals:	0	0	0	0	4	2	Group Point Total:		6

ES-401	PWR Examination Outline							Form ES-401-2		
Emergency and Abnormal Plant Evolutions - Tier 1/Group 2 (SRO)										
E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	IR	#	
000001 Continuous Rod Withdrawal / 1										0
000003 Dropped Control Rod / 1										0
000005 Inoperable/Stuck Control Rod / 1										0
000024 Emergency Boration / 1						01. 32	2.1.32-Ability to explain and apply system limits and precautions.	4.0		1
000028 Pressurizer Level Malfunction / 2										0
000032 Loss of Source Range NI / 7										0
000033 Loss of Intermediate Range NI / 7										0
000036 Fuel Handling Accident / 8										0
000037 Steam Generator Tube Leak / 3										0
000051 Loss of Condenser Vacuum / 4										0
000059 Accidental Liquid RadWaste Rel. / 9										0
000060 Accidental Gaseous Radwaste Rel. / 9										0
000061 ARM System Alarms / 7										0
000067 Plant Fire On-site / 9 8					08		AA2.08-Ability to determine and interpret the following as they apply to the Plant Fire on Site: Limits of affected area	3.6		1
000068 Control Room Evac. / 8										0
000069 Loss of CTMT Integrity / 5										0
000074 Inad. Core Cooling / 4										0
000076 High Reactor Coolant Activity / 9					06		AA2.06-Ability to determine and interpret the following as they apply to the High Reactor Coolant Activity: Response of PZR LCS to changes in the letdown flow rate	2.5		1
CE/A13 Natural Circ. / 4					02		AA2.2-Ability to determine and interpret the following as they apply to the (Natural Circulation Operations): Adherence to appropriate procedures and operation within the limitations in the Facility's license and amendments.	3.8		1
CE/A11 RCS Overcooling / 4										0
CE/A16 Excess RCS Leakage / 2										0
CE/E09 Functional Recovery										0
										0
										0
										0
										0
										0
										0
										0
										0
										0
										0
										0
										0
K/A Category Totals:	0	0	0	0	3	1	Group Point Total:			4

ES-401	PWR Examination Outline											Form ES-401-2		
Plant Systems - Tier 2/Group 1 (SRO)														
System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G	K/A Topic(s)	IR	#
003 Reactor Coolant Pump														0
004 Chemical and Volume Control														0
005 Residual Heat Removal														0
006 Emergency Core Cooling											04.21	2.4.21-Knowledge of the parameters and logic used to assess the status of safety functions, such as reactivity control, core cooling and heat removal, reactor coolant system integrity, containment conditions, radioactivity release control, etc.	4.6	1
007 Pressurizer Relief/Quench Tank														0
008 Component Cooling Water														0
010 Pressurizer Pressure Control														0
012 Reactor Protection								06				A2.06-Ability to (a) predict the impacts of the following malfunctions or operations on the RPS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Failure of RPS signal to trip the reactor	4.7	1
013 Engineered Safety Features Actuation														0
022 Containment Cooling											02.39	2.2.39-Knowledge of less than or equal to one hour Technical Specification action statements for systems.	4.5	1
025 Ice Condenser														0
026 Containment Spray														0
039 Main and Reheat Steam														0
059 Main Feedwater														0
061 Auxiliary/Emergency Feedwater														0
062 AC Electrical Distribution														0
063 DC Electrical Distribution								01				A2.01-Ability to (a) predict the impacts of the following malfunctions or operations 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: Grounds	3.2	1
064 Emergency Diesel Generator														0
073 Process Radiation Monitoring								02				A2.02-Ability to (a) predict the impacts of the following malfunctions or operations on the PRM system; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Detector failure	3.2	1
076 Service Water														0
078 Instrument Air														0
103 Containment														0
														0
K/A Category Totals:	0	0	0	0	0	0	0	3	0	0	2	Group Point Total:		5



ES-401	PWR Examination Outline											Form ES-401-2		
Plant Systems - Tier 2/Group 2 (SRO)														
System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G	K/A Topic(s)	IR	#
001 Control Rod Drive														0
002 Reactor Coolant														0
011 Pressurizer Level Control														0
014 Rod Position Indication														0
015 Nuclear Instrumentation														0
016 Non-nuclear Instrumentation														0
017 In-core Temperature Monitor														0
027 Containment Iodine Removal														0
028 Hydrogen Recombiner and Purge Control														0
029 Containment Purge														0
033 Spent Fuel Pool Cooling														0
034 Fuel Handling Equipment														0
035 Steam Generator								0 4				A2.04-Ability to (a) predict the impacts of the following malfunctions or operations on the GS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Steam flow/feed mismatch	3.8	1
041 Steam Dump/Turbine Bypass Control											04. 30	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.	4.1	1
045 Main Turbine Generator											04. 04	2.4.4-Ability to recognize abnormal indications for system operating parameters that are entry-level conditions for emergency and abnormal operating procedures.	4.7	1
055 Condenser Air Removal														0
056 Condensate														0
068 Liquid Radwaste														0
071 Waste Gas Disposal														0
072 Area Radiation Monitoring														0
075 Circulating Water														0
079 Station Air														0
086 Fire Protection														0
K/A Category Totals:	0	0	0	0	0	0	0	0	1	0	0	2	Group Point Total:	3

Facility Name: PALISADES Date of Exam: 09/19/2014						
Category	K/A #	Topic	RO		SRO-Only	
			IR	#	IR	#
1. Conduct of Operations	2.1. 20	2.1.20-Ability to interpret and execute procedure steps.	4.6	1	4.6	
	2.1. 44	2.1.44-Knowledge of RO duties in the control room during fuel handling such as responding to alarms from the fuel handling area, communication with the fuel storage facility, systems operated from the control room in support of fueling operations, and supporting instrumentation.	3.9	1	3.8	
	2.1. 23	2.1.23-Ability to perform specific system and integrated plant procedures during all modes of plant operation.	4.3		4.4	1
	2.1. 42	2.1.42-Knowledge of new and spent fuel movement procedures.	2.5		3.4	1
	2.1.					
	2.1.					
	Subtotal				2	
2. Equipment Control	2.2. 12	2.2.12-Knowledge of surveillance procedures.	3.7	1	4.1	
	2.2. 13	2.2.13-Knowledge of tagging and clearance procedures.	4.1	1	4.3	
	2.2. 25	2.2.25-Knowledge of the bases in Technical Specifications for limiting conditions for operations and safety limits.	3.2	1	4.2	
	2.2. 19	2.2.19-Knowledge of maintenance work order requirements.	2.3		3.4	1
	2.2.					
	2.2.					
	Subtotal				3	
3. Radiation Control	2.3.					
	2.3. 07	2.3.7-Ability to comply with radiation work permit requirements during normal or abnormal conditions.	3.5	1	3.6	
	2.3. 13	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.	3.4	1	3.8	
	2.3. 05	2.3.5-Ability to use radiation monitoring systems, such as fixed radiation monitors and alarms, portable survey instruments, personnel monitoring equipment, etc.	2.9	1	2.9	
	2.3. 04	2.3.4-Knowledge of radiation exposure limits under normal or emergency conditions.	3.2		3.7	1
	2.3. 06	2.3.6-Ability to approve release permits.	2.0		3.8	1
	Subtotal				3	
4. Emergency Procedures / Plan	2.4. 09	2.4.9-Knowledge of low power/shutdown implications in accident (e.g., loss of coolant accident or loss of residual heat removal) mitigation strategies.	3.8	1	4.2	
	2.4. 34	2.4.34-Knowledge of RO tasks performed outside the main control room during an emergency and the resultant operational effects.	4.2	1	4.1	
	2.4. 05	2.4.5-Knowledge of the organization of the operating procedures network for normal, abnormal, and emergency evolutions.	3.7		4.3	1
	2.4. 47	2.4.47-Ability to diagnose and recognize trends in an accurate and timely manner utilizing the appropriate control room reference material.	4.2		4.2	1
	2.4.					
	2.4.					
	Subtotal				2	
Tier 3 Point Total				10		7