Facility: FENOC BVPS UNIT 2 Date of Exam: Exam Level: SRO

Tier	Group	K/A Category Points											Point Total
		K 1	K 2	K3	K 4	K 5	K 6	A 1	A2	A 3	A 4	G *	
1. Emergency & Abnormal Plant Evolutions	1	3	5	7				4	4			1	24
	2	2	3	4				2	4			1	16
	3	1	0	1				0	1			0	3
	Tier Totals	6	8	12				6	9			2	43
2. Plant Systems	1	4	1	2	1	2	2	1	2	2	2	0	19
	2	3	2	0	4	1	1	1	2	1	1	1	17
	3	0	0	0	1	0	0	1	1	0	1	0	4
	Tier Totals	7	3	2	6	3	3	3	5	3	4	1	40

3. Generic Knowledge and Abilities	Cat 1	Cat 2	Cat 3	Cat 4	17
	6	4	3	4	

Note:
1. Ensure that at least two topics from every K/A category are sampled within each tier (i.e., the "Tier Totals" in each K/A category shall not be less than two).
2. Actual point totals must match those specified in the table.
3. Select topics from many systems; avoid selecting more than two or three K/A topics from a given system unless they relate to plant-specific priorities.
4. Systems/evolutions within each group are identified on the associated outline.
5. The shaded areas are not applicable to the category/tier.
6.* The generic 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.
7. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings for the RO license level, and the point totals for each system and category. K/As below 2.5 should be justified on the basis of plant-specific priorities. Enter the tier totals for each category in the table above.

Blue - changes

E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points
000001 Continuous Rod Withdrawal / 1	**X**						**[K1.05 Knowledge of Cause/Effect with RPS]**	**[4.4]**	**[1]**
000003 Dropped Control Rod / 1				X			AA1.02 Control Rod Recovery	3.4	1
000005 Inoperable/Stuck Control Rod / 1									
000011 Large Break LOCA / 3			X	X			K3.01, EA1.03 Pressurizer High Level Effects, Securing of RCPs	3.4/4.0	2
W/E04 LOCA Outside Containment / 3	X						EK1.02 Interaction With EOP's	4.2	1
W/EO1 & E02 Rediagnosis & SAFETY INJECTION Termination / 3				X			A1.02 Facility Operating Characteristics	3.8	1
000015/17 RCP Malfunctions / 4			X	X			AK3.03, A1.03 Void Formation/NIS Power	4.0/3.7	2
BW/E09; CE/A13; W/E09&E10 Natural Circ. / 4			**X**		X		**EK3.3/EA2.01 Manipulation of Controls/EOP Procedures**	**3.6/3.8**	**2**
000024 Emergency Boration / 1		X **X**					K2.01/K2.04 Valves/Pumps	2.7/2.5	2
000026 Loss of Component Cooling Water / 8				**X**			**A1.02 Component Cooling Pump Configuration**	**[3.3]**	**[1]**
000029 Anticipated Transient w/o Scram / 1			X				K3.06 Verify Turbine Trip	4.3	1
000040 (BW/E05; CE/E05; W/E12) Steam Line Rupture - Excessive Heat Transfer / 4					X		AA2.01 Steam Line Rupture and LOCA	4.7	1
CE/A11; W/E08 RCS Overcooling - PTS / 4					X		EA2.02 Facility Operational Limits	4.1	1
000051 Loss of Condenser Vacuum / 4			X				K3.01 Steam Dump Capacity on Loss of Vacuum	3.1	1
000055 Station Blackout / 6	X						K1.02 Battery Discharge Rates	3.7	1
000057 Loss of Vital AC Elec. Inst. Bus / 6					X		AA2.19 Actions on Loss of Vital Bus	4.3	1
000059 Accidental Liquid RadWaste Rel. / 9					**X**		**[AA2.01 Radiation Monitor Operation]**	**[3.5]**	**[1]**
000062 Loss of Nuclear Service Water / 4						X	2.2.13 Service Water Flows	3.8	1
000067 Plant Fire On-site / 9	X		X				AK1.02, K3.02 Fire Fighting/Steps in Fire Manual	3.9/3.3	2
000068 (BW/A06) Control Room Evac. / 8		X					K2.01 Auxiliary Shutdown Panel Layout	4.0	1
000069 (W/E14) Loss of CTMT Integrity / 5		X					AK2.03 Containment Airlock	2.9	1
000074 (W/E06&E07) Inad. Core Cooling / 4			**X**				**EK3.10 EOP Bases to Isolate SI Accumulator**	**3.8**	**1**
000076 High Reactor Coolant Activity / 9		X					AK2.01 Process Radiation Monitors	3.0	1
K/A Category Totals:	**3**	**5**	**7**	**4**	**4**	**1**	Group Point Total:		24

Green - additions
Red - deletions

ES-401 PWR SRO Examination OutlineForm ES-401-3
Emergency and Abnormal Plant Evolutions - Tier 1/Group 2

E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points
000007 (BW/E02&E10; CE/E02) Reactor Trip - Stabilization - Recovery / 1		X					EK2.03 Knowledge of Reactor Trip Status Panel	3.6	1
BW/A04 Turbine Trip / 4									
000008 Pressurizer Vapor Space Accident / 3					X		AA2.06 PORV Logic	3.3	1
000009 Small Break LOCA / 3			X				K3.21 EOP Actions For a Small LOCA	4.5	1
BW/E08; W/E03 LOCA Cooldown - Depress. / 4			X		X		EK3.02, EA2.01 Procedure bases, Procedure selection	4.2/4.2	2
W/E11 Loss of Emergency Coolant Recirc. / 4	X						EK1.01 Components Inhibiting Emergency Recirculation	4.0	1
000022 Loss of Reactor Coolant Makeup / 2									
000025 Loss of RHR System / 4				X			AA1.02 Loss of RHR/RCS Inventory	3.9	1
000027 Pressurizer Pressure Control System Malfunction / 3		X					AK2.02 Sensors and Detectors	2.6	1
000032 Loss of Source Range NI / 7									
000033 Loss of Intermediate Range NI / 7				X	X		AA1.02, AA2.11 Level Trip Bypass/Voltage Change Effects	3.1/3.4	2
000037 Steam Generator Tube Leak / 3						X	2.1.7 Direct AOP Actions	4.4	1
000038 Steam Generator Tube Rupture / 3			X X				EK3.08, AK3.06 RCP Trip Criteria	4.2/4.5	2
000054 (CE/E06) Loss of Main Feedwater / 4	X						AK1.02 Effects of feeding a dry SG	4.2	1
BW/E04; W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4		X					EK2.01 Component Interrelations During a Loss of Heat Sink	3.9	1
000058 Loss of DC Power / 6									
000060 Accidental Gaseous Radwaste Rel. / 9									
000061 ARM System Alarms / 7	X						[AK1.02 Detector Functions]	[2.9]	[1]
W/E16 High Containment Radiation / 9					X		EA2.01 Procedure Selection	3.3	1
000065 Loss of Instrument Air / 8									
CE/E09 Functional Recovery									
K/A Category Point Totals:	2	3	4	2	4	1	Group Point Total:		16

ES-401 PWR SRO Examination OutlineForm ES-401-3
Emergency and Abnormal Plant Evolutions - Tier 1/Group 3

E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points
000028 Pressurizer Level Malfunction / 2					X		AA2.09 Pressurizer Level Malfunction	3.2	1
000036 (BW/A08) Fuel Handling Accident / 8									
000056 Loss of Off-site Power / 6			X				AK3.02 EOP Actions	4.7	1
BW/E13&E14 EOP Rules and Enclosures									
BW/A05 Emergency Diesel Actuation / 6									
BW/A07 Flooding / 8									
CE/A16 Excess RCS Leakage / 2									
W/E13 Steam Generator Over-pressure / 4	X						EK1.03 Steam Generator Overpressure	3.2	1
W/E15 Containment Flooding / 5									
K/A Category Point Totals:	1	0	1	0	1	0	Group Point Total:		3

ES-401 PWR SRO Examination OutlineForm ES-401-3
Plant Systems - Tier 2/Group 1

System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
001 Control Rod Drive		X				X						K2.02, K6.11 MG Sets/Annunciators	3.7/3.2	2
003 Reactor Coolant Pump					X					X		K5.02, A4.06 Coastdown/Oil Levels	3.2/2.9	2
004 Chemical and Volume Control			X									K3.06 Knowledge of CVCS Malf on RCS Temp	3.6	1
013 Engineered Safety Features Actuation						X	X					K3.01, A1.06 Detectors/RWST Level/Breakers	3.1/3.9	2
014 Rod Position Indication														
015 Nuclear Instrumentation				X								K4.07 Permissives	3.8	1
017 In-core Temperature Monitor					X					X		K5.03, A4.01 Calculate Superheat/Monitor CETs	4.1/4.1	2
022 Containment Cooling														
025 Ice Condenser														
026 Containment Spray														
056 Condensate	X							X				K1.03, A2.04 Effects on Condensate/Loss of Pump	2.6/2.8	2
059 Main Feedwater									X			A3.06 FWIS/Steam Generator Water Level	3.3	1
061 Auxiliary/Emergency Feedwater	X											K1.01 System Relationships	4.4	1
063 DC Electrical Distribution			X									K3.02 Loss of DC Component	3.7	1
068 Liquid Radwaste									X			A3.02 Automatic Isolation	4.2/3.6	1
071 Waste Gas Disposal								X				A2.03 Rupture Disk Failure	3.3	1
072 Area Radiation Monitoring	X X											K1.01, K1.04 Plant Ventilation Systems	3.5/3.5	2
K/A Category Point Totals:	4	1	2	1	2	2	1	2	2	2	0	Group Point Total:		19

ES-401 PWR SRO Examination OutlineForm ES-401-3
Plant Systems - Tier 2/Group 2

System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
002 Reactor Coolant							X					A1.06 Reactor Power	4.0	1
006 Emergency Core Cooling					X							K5.02 Accumulators	2.9	1
010 Pressurizer Pressure Control									X			A3.02 PORV's	3.5	1
011 Pressurizer Level Control	X											K1.04 Charging/Letdown	3.9	1
012 Reactor Protection														
016 Non-nuclear Instrumentation				X								K4.03 Select Controls	2.9	1
027 Containment Iodine Removal														
028 Hydrogen Recombiner and Purge Control		X										K2.01 H_2 Recombiners	2.8	1
029 Containment Purge				X								K4.02 Containment Pressure	3.1	1
033 Spent Fuel Pool Cooling				X								K4.01 SFP SDM Requirements	3.2	1
034 Fuel Handling Equipment														
035 Steam Generator						X						K6.01 MSIV's	3.6	1
039 Main and Reheat Steam	X											K1.06 Condenser Steam Dump	3.0	1
055 Condenser Air Removal	X											K1.06 Effluent Controls	2.6	1
062 AC Electrical Distribution				X								K4.07 4KV Emergency power sources	3.1	1
064 Emergency Diesel Generator		X										K2.02 FO Pump Power Supply	3.1	1
073 Process Radiation Monitoring								X				A2.02 Detector Failure	3.2	1
075 Circulating Water								X				A2.02 Loss of Circulating Water Pumps	2.7	1
079 Station Air										X		A4.01 Cross-Ties	2.7	1
086 Fire Protection														
103 Containment											X	2.1.33 TS Entry Conditions	4.0	1
K/A Category Point Totals:	3	2	0	4	1	1	1	2	1	1	1	Group Point Total:		17

ES-401 PWR SRO Examination OutlineForm ES-401-3
Plant Systems - Tier 2/Group 3

System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
005 Residual Heat Removal								X				A2.03 RHR Motor Malfunction	3.1	1
007 Pressurizer Relief/Quench Tank														
008 Component Cooling Water							X					A1.03 Surge Tank Level	2.9	1
041 Steam Dump/Turbine Bypass Control														
045 Main Turbine Generator				X								K4.11 Turbine/Generator Trip	3.9	1
076 Service Water										X		A4.01 Service Water Pumps	2.9	1
078 Instrument Air														
K/A Category Point Totals:	0	0	0	1	0	0	1	1	0	1	0	Group Point Total:		4

Plant-Specific Priorities

System / Topic	Recommended Replacement for...	Reason	Points

Plant-Specific Priority Total: (limit 10)

Facility: FENOC BVPS Unit 2	Date of Exam:		Exam Level: SRO	
Category	K/A #	Topic	Imp.	Points
Conduct of Operations	2.1.7	Evaluate plant performance and make judgements	4.4	1
	2.1.7	Evaluate plant performance and make judgements	4.4	1
	2.1.2	Knowledge of Operation's responsibilities	4.0	1
	2.1.31	Determine indications indicating correctly	4.2	1
	2.1.33	Recognize TS entry conditions	4.0	1
	2.1.4	Shift staffing	3.4	1
	Total			6
Equipment Control	2.2.12	Knowledge of Surveillance procedures	3.4	1
	2.2.11	Knowledge of process and control	3.4	1
	2.2.23	Track LCO's	3.8	1
	2.2.26	Refueling	3.7	1
	2.2.			
	2.2.			
	Total			4
Radiation Control	2.3.1	Knowledge of Radiation Control Requirements	3.0	1
	2.3.11	Control of gaseous release	3.2	1
	2.3.10	**[Radiation/personnel exposure]**	**[3.3]**	**[1]**
	2.3.6	**Requirements for approving release permits**	**3.1**	**1**
	2.3.			
	Total			3
Emergency Procedures/ Plan	2.4.4	Recognition of abnormal indications	4.3	1
	2.4.10	Annunciator response	3.1	1
	2.4.29	Knowledge of E-Plan	4.0	1
	2.4.18	Knowledge of EOP Bases	3.6	1
	2.4.			
	Total			4
Tier 3 Point Total (SRO)				17

Facility: FENOC BVPS UNIT 2 Date of Exam: Exam Level: RO

Tier	Group	K/A Category Points											Point Total
		K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G *	
1. Emergency & Abnormal Plant Evolutions	1	**2**	0	**5**				**4**	**4**			1	16
	2	4	2	3				4	4			0	17
	3	1	0	1				0	1			0	3
	Tier Totals	**7**	**2**	9				**8**	**9**			1	36
2. Plant Systems	1	6	2	1	1	2	3	1	2	3	2	0	23
	2	2	1	1	4	**2**	1	1	4	1	**2**	1	20
	3	0	1	0	**2**	0	0	1	2	1	1	**0**	8
	Tier Totals	8	4	2	**7**	**4**	4	3	8	5	**5**	**1**	51

3. Generic Knowledge and Abilities	Cat 1	Cat 2	Cat 3	Cat 4	13
	6	**2**	2	3	

Note:
1. Ensure that at least two topics from every K/A category are sampled within each tier (i.e., the "Tier Totals" in each K/A category shall not be less than two).
2. Actual point totals must match those specified in the table.
3. Select topics from many systems; avoid selecting more than two or three K/A topics from a given system unless they relate to plant-specific priorities.
4. Systems/evolutions within each group are identified on the associated outline.
5. The shaded areas are not applicable to the category/tier.
6.* The generic 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.
7. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings for the RO license level, and the point totals for each system and category. K/As below 2.5 should be justified on the basis of plant-specific priorities. Enter the tier totals for each category in the table above.

Blue - changes

ES-401 PWR RO Examination OutlineForm ES-401-4
Emergency and Abnormal Plant Evolutions - Tier 1/Group 1

E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points
000005 Inoperable/Stuck Control Rod / 1				X X			AA1.01, AA1.02 Operate CRDS/Rod Control	3.6/3.7	2
000015/17 RCP Malfunctions / 4	X		X	X			[K1.01], AK3.03, A1.03 Void Formation/NIS Power	4.4/3.7/3.7	2
BW/E09; CE/A13; W/E09&E10 Natural Circ. / 4									
000024 Emergency Boration / 1		X					[K2.04 Pumps]	2.6	1
000026 Loss of Component Cooling Water / 8			X	X			AK3.02, AA1.05 Pump Interlocks/Component Cooling Water Leak	3.6/3.1	2
000027 Pressurizer Pressure Control System Malfunction / 3					X		AA2.01 Identify steam space leak	3.4	1
000040 (BW/E05; CE/E05; W/E12) Steam Line Rupture - Excessive Heat Transfer / 4					X		AA2.01 Steam Line Rupture and LOCA	4.2	1
CE/A11; W/E08 RCS Overcooling - PTS / 4					X		EA2.02 Operational Limits	3.5	1
000051 Loss of Condenser Vacuum / 4			X				K3.01 Steam Dump Capacity on Loss of Vacuum	2.8	1
000055 Station Blackout / 6	X						K1.02 Battery Discharge Rates	3.3	1
000057 Loss of Vital AC Elec. Inst. Bus / 6					X		AA2.19 Actions on a Loss of Vital Bus	4.0	1
000062 Loss of Nuclear Service Water / 4						X	2.2.13 Service Water Flows	3.6	1
000067 Plant Fire On-site / 9	X		X				AK1.02, K3.02 Fire Fighting/ Steps in Fire Fighting Manual	3.1/2.5	2
000068 (BW/A06) Control Room Evac. / 8									
000069 (W/E14) Loss of CTMT Integrity / 5									
000074 (W/E06&E07) Inad. Core Cooling / 4			X				[EK3.10 RCP Trip]	3.5	1
000076 High Reactor Coolant Activity / 9			X				AK3.03 RCS Activity	2.9	1
BW/A02&A03 Loss of NNI-X/Y / 7									
K/A Category Totals:	2	0	5	4	4	1	Group Point Total:		16

Green - additions
Red - deletions

ES-401 PWR RO Examination OutlineForm ES-401-4
Emergency and Abnormal Plant Evolutions - Tier 1/Group 2

E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points
000001 Continuous Rod Withdrawal / 1									
000003 Dropped Control Rod / 1									
000007 (BW/E02&E10; CE/E02) Reactor Trip - Stabilization - Recovery / 1									
BW/A01 Plant Runback / 1									
BW/A04 Turbine Trip / 4									
000008 Pressurizer Vapor Space Accident / 3					X		**[AA2.26 PORV Logic]**	**[3.1]**	**[1]**
000009 Small Break LOCA / 3			X				EK3.23 EOP Actions for a Small LOCA	4.2	1
000011 Large Break LOCA / 3				X			EA1.03 Securing of RCPs	4.0	1
W/E04 LOCA Outside Containment / 3									
BW/E08; W/E03 LOCA Cooldown/Depress. / 4					XX		EA2.01, EA2.01 Procedure Selection	3.4/3.4	2
W/E11 Loss of Emergency Coolant Recirc. / 4		X					EK2.02 Recirculation Spray	3.9	1
W/EO1 & E02 Rediagnosis & SI Termination / 3									
000022 Loss of Reactor Coolant Makeup / 2			X				AK3.06 RCP Thermal Barrier Cooling	3.2	1
000025 Loss of RHR System / 4	X						AK1.01 Loss of RHR	3.9	1
000029 Anticipated Transient w/o Scram / 1									
000032 Loss of Source Range NI / 7									
000033 Loss of Intermediate Range NI / 7				X			AA1.02 Level Trip Bypass	3.0	1
000037 Steam Generator Tube Leak / 3									
000038 Steam Generator Tube Rupture / 3	X		X				EK1.02, EK3.03 Leak Rate vs. Pressure Drop/EOP Steps	3.2/4.2	2
000054 (CE/E06) Loss of Main Feedwater / 4	X						AK1.02 Effects of feeding dry SG	3.6	1
BW/E04; W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4	X						EK1.03 Annunciator and Remedial Actions	3.9	1
000058 Loss of DC Power / 6				X			AA1.03 Loss of DC Bus	3.1	1
000059 Accidental Liquid RadWaste Rel. / 9					X		**AA2.01 Radiation Monitor operation**	3.2	1
000060 Accidental Gaseous Radwaste Rel. / 9				X			AA1.02 Loss of Control Room Ventilation	2.9	1
000061 ARM System Alarms / 7		X					K2.01 Radiation Detectors	2.5	1
W/E16 High Containment Radiation / 9					X		EA2.01 Procedure Selection	2.9	1
CE/E09 Functional Recovery									
K/A Category Point Totals:	4	2	3	4	4	0	Group Point Total:		17

ES-401 PWR RO Examination OutlineForm ES-401-4
Emergency and Abnormal Plant Evolutions - Tier 1/Group 3

E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points
000028 Pressurizer Level Malfunction / 2					X		AA2.09 Pressurizer Malfunction	2.9	1
000036 (BW/A08) Fuel Handling Accident / 8									
000056 Loss of Off-site Power / 6			X				AK3.02 EOP Actions	4.4	1
000065 Loss of Instrument Air / 8									
BW/E13&E14 EOP Rules and Enclosures									
BW/A05 Emergency Diesel Actuation / 6									
BW/A07 Flooding / 8									
CE/A16 Excess RCS Leakage / 2									
W/E13 Steam Generator Over-pressure / 4	X						EK1.03 Steam Generator Overpressure	3.0	1
W/E15 Containment Flooding / 5									
K/A Category Point Totals:	1	0	1	0	1	0	Group Point Total:		3

ES-401 PWR RO Examination OutlineForm ES-401-4
Plant Systems - Tier 2/Group 1

System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
001 Control Rod Drive		X				X						K2.02, K6.11 MG Sets/Annunciators	3.6/2.9	2
003 Reactor Coolant Pump					X					X		K5.02, A4.06 Coastdown/Oil Levels	2.8/2.9	2
004 Chemical and Volume Control			X			X						K3.06, K6.13 CVCS effects on RCS Temperature/Emergency Boration	3.4/3.1	2
013 Engineered Safety Features Actuation						X	X					K6.01, A1.06 Sensors/RWST Level	2.7/3.6	2
015 Nuclear Instrumentation		X		X								K2.01, K4.07 Power Supplies/Permissives	3.3/3.7	2
017 In-core Temperature Monitor					X					X		K5.03, A4.01 Calculate Superheat/Monitor CETs	3.7/3.8	2
022 Containment Cooling														
025 Ice Condenser														
056 Condensate	X							X				K1.03, A2.04 Effects on Condensate/ Loss of Pump	2.6/2.6	2
059 Main Feedwater	X								X			K1.04, A3.06 FWIS/Steam Generator Water Level	3.4/3.2	2
061 Auxiliary/Emergency Feedwater	X X								X			K1.01, K1.01, A3.01 System Relationships/Monitor flows	4.1/4.1/4.1	3
068 Liquid Radwaste									X			A3.02 Automatic Isolation	3.6	1
071 Waste Gas Disposal								X				A2.03 Rupture Disc Failure	2.7	1
072 Area Radiation Monitoring	X X											K1.01, K1.04 Plant Ventilation Systems	3.3/3.1	2
K/A Category Point Totals:	6	2	1	1	2	3	1	2	3	2		Group Point Total:		23

ES-401 PWR RO Examination OutlineForm ES-401-4
Plant Systems - Tier 2/Group 2

System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
002 Reactor Coolant							X				X	A1.06, 2.4.20 Reactor Power	4.0/3.3	2
006 Emergency Core Cooling					X							K5.02 Accumulators	2.8	1
010 Pressurizer Pressure Control									X			A3.02 PORV's	3.6	1
011 Pressurizer Level Control	X											K1.04 Charging/Letdown	3.8	1
012 Reactor Protection														
014 Rod Position Indication								X X				A2.04 A2.03 RPI/Dropped Rod	3.4/3.6	2
016 Non-nuclear Instrumentation				X								K4.03 Select Controls	2.8	1
026 Containment Spray														
029 Containment Purge				X								K4.02 Containment Pressure	2.9	1
033 Spent Fuel Pool Cooling				X								K4.01 SFP Design Characteristics	2.9	1
035 Steam Generator						X						K6.01 MSIV's	3.2	1
039 Main and Reheat Steam					X							K5.08 Steam Generator Level	3.6	1
055 Condenser Air Removal	X											K1.06 SJAE Controls	2.6	1
062 AC Electrical Distribution				X	X					X		K4.07, [K5.03], A4.03 EDG Starts/ Paralleling Sources	2.7/2.8	2
063 DC Electrical Distribution			X									K3.02 Loss of DC Control Power	3.5	1
064 Emergency Diesel Generator		X										K2.02 FO Transfer Power Supply	2.8	1
073 Process Radiation Monitoring								X				A2.02 Detector Failure	2.7	1
075 Circulating Water								X				A2.02 Loss of Cooling Tower Pumps	2.5	1
079 Station Air										X		A4.01 Cross-Ties	2.7	1
086 Fire Protection														
K/A Category Point Totals:	2	1	1	4	2	1	1	4	1	2	1	Group Point Total:		20

ES-401 PWR RO Examination OutlineForm ES-401-4
Plant Systems - Tier 2/Group 3

System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
005 Residual Heat Removal								X				A2.04 RHR Valve Malfunction	2.9	1
007 Pressurizer Relief/Quench Tank								X				A2.01 Tank Rupture in Containment	3.9	1
008 Component Cooling Water							X		X			A1.03, A3.05 Surge Tank Level	2.7/3.0	2
027 Containment Iodine Removal														
028 Hydrogen Recombiner and Purge Control		X										K2.01 H_2 Recombiners	2.5	1
034 Fuel Handling Equipment														
041 Steam Dump/Turbine Bypass Control				X								**K4.14 Operation of loss of load bistable**	2.5	1
045 Main Turbine Generator				X								K4.11 Turbine/Generator Trip	3.6	1
076 Service Water										X		A4.01 Service Water Pumps	2.9	1
078 Instrument Air														
103 Containment											X	**[2.1.33 NAOH TS]**	**[3.4]**	[1]
K/A Category Point Totals:	0	1	0	2	0	0	1	2	1	1	0	Group Point Total:		8

Plant-Specific Priorities

System / Topic	Recommended Replacement for...	Reason	Points

Plant-Specific Priority Total: (limit 10)

Facility: FENOC BVPS UNIT2 Date of Exam: Exam Level: RO

Category	K/A #	Topic	Imp.	Points
Conduct of Operations	2.1.7	Evaluate plant performance & make judgement	3.7	1
	2.1.7	Evaluate plant performance & make judgement	3.7	1
	2.1.31	Determine indications indicating correctly	4.2	1
	2.1.2	Knowledge of operator responsibilities	3.0	1
	2.1.11	**Knowledge of < 1 Hr. TS action statements**	**3.0**	1
	2.1.28	**Knowledge of component malfunction**	**3.2**	**1**
	Total			**6**
Equipment Control	2.2.22	Knowledge of LCO's and Safety Limits	3.4	1
	[2.2.12]	**[Knowledge of surveillance procedures]**	**[3.0]**	**[1]**
	2.2.11	Knowledge of process and control	2.5	1
	2.2.			
	2.2.			
	2.2.			
	Total			**2**
Radiation Control	2.3.1	Knowledge of Radiation Control Requirements	2.6	1
	2.3.11	Control of gaseous release	2.7	1
	2.3.			
	2.3.			
	2.3.			
	Total			2
Emergency Procedures/ Plan	2.4.4	Recognition of abnormal indications	4.0	1
	2.4.10	Annunciator response	3.0	1
	2.4.18	Knowledge of EOP Bases	2.7	1
	2.4.			
	2.4.			
	Total			3
Tier 3 Point Total (RO)				13