

IP3 - MARCH 2001 - NRC SRO/RO WRITTEN EXAM COMPARISON

SRO ? #	RO ? #	SYS #	K/A #	TOPIC #	H/F	B/N
1		69	A2	AA2.01	F	B
2		GENERIC		2.4.16	F	N
3		27	GENERIC	2.1.34	F	B-m
4		E03	A2	EA2.10	H	B
5		5	A3	A3.04	H	B
6		3	GENERIC	2.3.10	H	N
7		E06	A2	EA2.1	H	B
8		5	GENERIC	2.4.35	H	B
9		4	GENERIC	2.4.47	H	B
10		61	A2	AA2.06	F	B
11		9	GENERIC	2.4.6	H	B
12		37	A2	AA2.10	H	B-m
13		GENERIC		2.2.17	F	B
14		55	A2	EA2.03	H	N
15		74	GENERIC	2.4.11	H	B
16		E07	GENERIC	2.4.22	F	B
17		38	GENERIC	2.4.48	H	N
18		GENERIC		2.1.12	F	N
19		73	GENERIC	2.4.38	H	B
20		63	GENERIC	2.4.11	H	B
21		13	K5	K5.02	F	N
22		56	GENERIC	2.2.23	F	B
23		28	A2	AA2.11	H	B
24		68	GENERIC	2.4.26	F	B
25		GENERIC		2.1.10	F	N
26		GENERIC		2.2.6	F	B
27		GENERIC		2.2.23	F	B
28		GENERIC		2.3.4	F	N
29	1	15	A1	AA1.03	H	B
30	2	24	K1	AK1.02	F	B
31	3	E05	A1	EA1.2	H	B
32	4	68	K3	AK3.17	F	B
33	5	69	K2	AK2.03	H	B
34	6	15	A3	A3.02	H	B-m
35	7	16	A2	A2.03	H	B
36	8	67	K1	AK1.01	F	B
37	9	63	A3	A3.01	H	B
38	10	59	A1	A1.03	H	B-m
39	11	79	K1	K1.01	H	B
40	12	15	K6	K6.02	F	B
41	13	27	K2	AK2.03	H	B
42	14	26	K3	AK3.03	H	B
43	15	74	K3	EK3.03	H	B
44	16	22	K3	AK3.03	F	B
45	17	25	K1	AK1.01	H	B-m
46	18	59	K2	AK2.01	F	B
47	19	7	A1	EA1.01	H	B
48	20	76	K3	AK3.05	H	B
49	21	36	K2	AK2.02	H	B
50	22	3	K4	K4.04	H	B-m

SRO ? #	RO ? #	SYS #	K/A #	TOPIC #	H/F	B/N
51	23	7	A1	A1.02	F	N
52	24	37	K3	AK3.10	F	B
53	25	GENERIC		2.4.49	F	B-m
54	26	GENERIC		2.4.21	F	N
55	27	GENERIC		2.4.5	H	N
56	28	GENERIC		2.2.27	F	N
57	29	E07	A1	EA1.2	H	B
58	30	E08	K1	EK1.1	H	B
59	31	35	A1	A1.02	F	B
60	32	28	A1	A1.01	H	N
61	33	28	K2	K2.01	F	N
62	34	8	K3	K3.03	F	B
63	35	5	K1	K1.01	H	B
64	36	86	A4	A4.02	F	B-m
65	37	64	A2	A2.16	H	B
66	38	64	A1	A1.08	H	N
67	39	26	A2	A2.07	H	B-m
68	40	14	K4	K4.06	F	N
69	41	12	K4	K4.01	F	B
70	42	6	K3	K3.01	H	B
71	43	E10	K2	EK2.2	H	N
72	44	E12	A1	EA1.2	H	B
73	45	24	K2	AK2.03	F	B
74	46	E01	K3	EK3.2	F	B
75	47	13	A2	A2.05	H	B
76	48	4	A1	A1.06	H	B
77	49	12	K2	K2.01	F	N
78	50	11	K5	K5.13	H	B
79	51	10	A3	A3.02	H	B
80	52	6	K4	K4.30	H	N
81	53	GENERIC		2.1.20	F	N
82	54	GENERIC		2.1.18	F	N
83	55	GENERIC		2.2.25	F	N
84	56	GENERIC		2.3.1	H	N
85	57	GENERIC		2.3.4	H	N
86	58	GENERIC		2.3.10	H	N
87	59	1	A2	A2.03	H	B
88	60	E03	K3	EK3.4	H	B
89	61	E03	K2	EK2.2	H	B
90	84	61	K6	K6.01	F	B
91	85	61	K1	K1.01	F	N
92	86	E05	K2	EK2.1	H	B
93	87	59	A4	A4.01	F	B
94	88	2	A1	A1.08	F	B
95	89	17	A4	A4.01	F	N
96	90	1	K6	K6.11	F	N
97	91	3	K2	K2.02	F	N
98	92	29	K3	K3.12	F	B
99	93	8	K1	AK1.01	F	N
100	94	E11	A1	EA1.3	H	N

SRO ? #	RO ? #	SYS #	K/A #	TOPIC #	H/F	B/N
	62	26	A2	AA2.03	F	B
	63	E12	A2	EA2.2	F	B
	64	4	A2	A2.08	H	B
	65	26	K3	K3.01	F	B
	66	33	A2	AA2.09	H	B
	67	E08	GENERIC	2.4.7	H	B
	68	3	A1	AA1.02	H	B
	69	E16	GENERIC	2.4.49	F	N
	70	E13	A1	EA1.3	H	B
	71	13	K1	K1.01	H	B
	72	22	A4	A4.01	H	N
	73	4	K5	K5.15	H	B
	74	71	A3	A3.02	H	N
	75	16	K3	K3.02	H	B
	76	62	A4	A4.01	H	N
	77	73	GENERIC	2.2.30	H	B
	78	76	K1	K1.19	F	N
	79	78	K4	K4.03	F	B
	80	103	K1	K1.02	F	B
	81	GENERIC		2.1.1	F	N
	82	GENERIC		2.2.13	F	N
	83	GENERIC		2.2.13	F	N
	95	56	K1	K1.03	H	B
	96	65	A2	AA2.08	H	N
	97	68	K1	K1.07	F	N
	98	22	GENERIC	2.1.28	H	B
	99	15	A2	A2.05	H	N
	100	72	GENERIC	2.1.7	F	B-m

TOTALS

SRO: NEW-31 (H=11) MOD-9

FUND-45 HIGHER-55

RO: NEW-34 (H=13) MOD-8

FUND-43 HIGHER-57

Facility:		Date of Exam:		Exam Level:									
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	4	4				2	3			1	16
	2	2	3	5				4	2			1	17
	3	-	1	-				1	1			-	3
	Tier Totals	4	8	9				7	6			2	36
2. Plant Systems	1	4	1	1	1	1	3	2	4	2	1	1	23
	2	1	1	3	4	1	-	3	3	2	1	1	20
	3	3	1	1	1	-	-	2	-	-	-	-	8
	Tier Totals	8	3	4	6	2	3	7	7	4	5	2	51
3. Generic Knowledge and Abilities						Cat 1	Cat 2	Cat 3	Cat 4				
						3	4	3	3	13			
<p>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).</p> <p>2. Actual point totals must match those specified in the table.</p> <p>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.</p> <p>4. Systems/evolutions within each group are identified on the associated outline.</p> <p>5. The shaded areas are not applicable to the category/tier.</p> <p>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.</p> <p>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.</p>													

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ES-401		PWR RO Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 1							Form ES-401-4	
E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points	
000005 Inoperable/Stuck Control Rod / 1								-		
000015/17 RCP Malfunctions / 4				1			AA1.03	3.7		
BW/E09; CE/A13; W/E09&E10 Natural Circ. / 4		43					EK2.2	3.6		
000024 Emergency Boration / 1	2	45					AK1.02-3.6, AK2.03-2.5	-		
000026 Loss of Component Cooling Water / 8			14		62		AK3.03-4.0, AA2.03-2.6	-		
000027 Pressurizer Pressure Control System Malfunction / 3		13					AK2.03	2.6		
000040 (BW/E05; CE/E05; W/E12) Steam Line Rupture - Excessive Heat Transfer / 4					63		EA2.2	3.4		
CE/A11; W/E08 RCS Overcooling - PTS / 4	30					67	EK1.1-3.5, 2.4.7-3.1	-		
000051 Loss of Condenser Vacuum / 4								-		
000055 Station Blackout / 6								-		
000057 Loss of Vital AC Elec. Inst. Bus / 6								-		
000062 Loss of Nuclear Service Water / 4								-		
000067 Plant Fire On-site / 9					8		AA2.03	3.3		
000068 (BW/A06) Control Room Evac. / 8			4				AK3.17	3.7		
000069 (W/E14) Loss of CTMT Integrity / 5		5					AK2.03	2.8		
000074 (W/E06&E07) Inad. Core Cooling / 4			15	29			EK3.03-3.4, EA1.2-3.2	-		
BW/E03 Inadequate Subcooling Margin / 4								-		
000076 High Reactor Coolant Activity / 9			20				AK3.05	2.9		
BW/A02&A03 Loss of NNI-X/Y / 7								-		
K/A Category Totals:							Group Point Total:		16	

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ES-401		PWR RO Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 2						Form ES-401-4	
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				68			AA1.02	3.4	
000007 (BW/E02&E10; CE/E02) Reactor Trip - Stabilization - Recovery / 1				19			EA1.01	3.7	
BW/A01 Plant Runback / 1								-	
BW/A04 Turbine Trip / 4								-	
000008 Pressurizer Vapor Space Accident / 3	93						AK1.01	3.2	
000009 Small Break LOCA / 3					44		EA2.02	3.5	
000011 Large Break LOCA / 3								-	
W/E04 LOCA Outside Containment / 3								-	
BW/E08; W/E03* LOCA Cooldown/Depress. / 4		61	60				EK2.2-3.7, EK3.4-3.5	-	
W/E11 Loss of Emergency Coolant Recirc. / 4				94			EA1.3	3.7	
W/E01 & E02 Rediagnosis & SI Termination / 3			46				EK3.2	4.4	
000022 Loss of Reactor Coolant Makeup / 2			16				AK3.03	3.1	
000025 Loss of RHR System / 4	17						AK1.01	3.9	
000029 Anticipated Transient w/o Scram / 1			92				EK3.12	4.4	
000032 Loss of Source Range NI / 7								-	
000033 Loss of Intermediate Range NI / 7					66		AA2.09	3.4	
000037 Steam Generator Tube Leak / 3			24				AK3.10	3.3	
000038 Steam Generator Tube Rupture / 3								-	
000054 (CE/E06) Loss of Main Feedwater / 4								-	
BW/E04; W/E05* Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4		86		3			EK2.1-3.7, EA1.2-3.7	-	
000058 Loss of DC Power / 6								-	
000059 Accidental Liquid RadWaste Rel. / 9		18					AK2.01	2.7	
000060 Accidental Gaseous Radwaste Rel. / 9									
000061 ARM System Alarms / 7									
W/E16 High Containment Radiation / 9						69	2.4.49	4.6	
CE/E09 Functional Recovery									
K/A Category Point Totals:							Group Point Total:		17

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ES-401		PWR RO Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 3						Form ES-401-4	
E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points
000028 Pressurizer Level Malfunction / 2									
000036 (BW/A08) Fuel Handling Accident / 8		21					AK2.02	3.4	
000056 Loss of Off-site Power / 6									
000065 Loss of Instrument Air / 8					96		AA2.08	2.9	
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				70			EA1.3	3.1	
W/E15 Containment Flooding / 5									
K/A Category Point Totals:							Group Point Total:		3

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ES-401		PWR RO Examination Outline Plant Systems - Tier 2/Group 1										Form ES-401-4		
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
001 Control Rod Drive						90		59				A2.03, ^{2.9} K6.11	3.5	
003 Reactor Coolant Pump		91		22								K4.04, ^{2.5} K2.02	2.8	
004 Chemical and Volume Control					73		48	64		100		A6.06, ^{3.0} A2.08, ^{2.3} K5.15, ^{3.8} A4.08	3.0	
013 Engineered Safety Features Actuation	71							47				A2.05, ^{4.2} K1.01	3.7	
015 Nuclear Instrumentation						12		99	6			A3.02, ^{3.7} K6.02, ^{2.6} A2.05	3.7	
017 In-core Temperature Monitor										89		A4.01	3.8	
022 Containment Cooling										72	98	A4.01, ^{3.2} 2.1.28	3.6	
025 Ice Condenser														
056 Condensate	95											K1.03	2.6	
059 Main Feedwater							10			87		A1.03, ^{3.1} A4.01	2.7	
061 Auxiliary/Emergency Feedwater	85					84						K6.01, ^{4.1} K1.01	2.5	
068 Liquid Radwaste	97											K1.07 - 2.7	2.7	
071 Waste Gas Disposal									74			A3.02	2.8	
072 Area Radiation Monitoring														
K/A Category Point Totals:												Group Point Total:		23

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ES-401		PWR RO Examination Outline Plant Systems - Tier 2/Group 2											Form ES-401-4	
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
002 Reactor Coolant							88					A1.08	3.7	
006 Emergency Core Cooling			42	52								K3.01, K4.30 ^{3.6}	4.1	
010 Pressurizer Pressure Control									51			A3.02	3.6	
011 Pressurizer Level Control					50							K5.13	3.2	
012 Reactor Protection		49		41								K4.01, K2.01 ^{3.3}	3.7	
014 Rod Position Indication				40								K4.06	3.4	
016 Non-nuclear Instrumentation			75					7				A2.03, K3.02 ^{3.4}	3.0	
026 Containment Spray			65					39				A2.07, K3.01 ^{3.9}	3.6	
029 Containment Purge														
033 Spent Fuel Pool Cooling														
035 Steam Generator							31					A1.02	3.5	
039 Main and Reheat Steam														
055 Condenser Air Removal														
062 AC Electrical Distribution				76								K4.01	3.3	
063 DC Electrical Distribution									9			A3.01	2.7	
064 Emergency Diesel Generator							38	37				A2.16, A1.03 ^{3.2}	3.3	
073 Process Radiation Monitoring											77	Q2.30	3.5	
075 Circulating Water														
079 Station Air	11											K1.01	3.0	
086 Fire Protection										36		K4.02	3.5	
K/A Category Point Totals:												Group Point Total:		20

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ES-401		PWR RO Examination Outline Plant Systems - Tier 2/Group 3											Form ES-401-4	
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
005 Residual Heat Removal	35											K1.01	3.2	
007 Pressurizer Relief/Quench Tank							23					A1.02	2.7	
008 Component Cooling Water			34									K3.03	4.1	
027 Containment Iodine Removal														
028 Hydrogen Recombiner and Purge Control		33					32					A1.01, ^{2.5} K2.01	3.4	
034 Fuel Handling Equipment														
041 Steam Dump/Turbine Bypass Control														
045 Main Turbine Generator														
076 Service Water	78											K1.19	3.6	
078 Instrument Air				79								K4.03	3.2	
103 Containment	80											K1.02	3.9	
K/A Category Point Totals:												Group Point Total:		8
Plant-Specific Priorities														
System / Topic	Recommended Replacement for...					Reason					Points			
Plant-Specific Priority Total: (limit 10)														

Facility: 1P3		Date of Exam:		Exam Level: RG	
Category	K/A #	(Q#)	Topic	Imp.	Points
Conduct of Operations	2.1. 20	(53)	EXECUTE PROCEDURE STEPS	3.6	1
	2.1. 18	(54)	LOGS + REPORTS	2.9	1
	2.1. 1	(81)	CONDUCT OF OPS REQUIREMENTS	3.7	1
	2.1.				
	2.1.				
	2.1.				
	Total				
Equipment Control	2.2. 27	(28)	REFUELING PROCESS	2.6	1
	2.2. 25	(55)	T.S. BASES	2.5	1
	2.2. 13	(82)	TAGGING	3.6	1
	2.2. 13	(83)	TAGGING	3.6	1
	2.2.				
	2.2.				
	Total				
Radiation Control	2.3. 10	(58)	PERSONNEL EXPOSURE	2.9	1
	2.3. 1	(56)	10 CFA 20 REQUIREMENTS	2.6	1
	2.3. 4	(57)	EXPOSURE LIMITS	2.5	1
	2.3.				
	2.3.				
	2.3.				
	Total				
Emergency Procedures/ Plan	2.4. 49	(25)	IMMEDIATE ACTIONS	4.0	1
	2.4. 21	(26)	STATUS OF SAFETY FUNCTIONS	3.7	1
	2.4. 5	(27)	OPERATING PROCEDURES	2.9	1
	2.4.				
	2.4.				
	2.4.				
	Total				
Tier 3 Point Total (RO/SRO)					(13)/17

Facility: <u>LP3</u>		Date of Exam:		Exam Level: <u>SRO</u>										
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	4	7					3	4			4	24
	2	2	3	3					3	3			2	16
	3	-	1	-					-	1			1	3
	Tier Totals	4	8	10					6	8			7	43
2. Plant Systems	1	1	1	2	1	1	1	1	3	2	1	1	2	19
	2	1	2	1	2	1	-	4	2	1	1	1	2	17
	3	1	-	1	-	-	-	1	-	-	-	1	4	
	Tier Totals	3	3	2	4	2	3	7	5	3	3	5	40	
3. Generic Knowledge and Abilities						Cat 1		Cat 2		Cat 3		Cat 4		17
						4		5		4		4		
<p>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).</p> <p>2. Actual point totals must match those specified in the table.</p> <p>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.</p> <p>4. Systems/evolutions within each group are identified on the associated outline.</p> <p>5. The shaded areas are not applicable to the category/tier.</p> <p>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.</p> <p>7. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings for the SRO 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.</p>														

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ES-401		PWR SRO Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 1							Form ES-401-3	
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						6	2.3.10	3.3		
000005 Inoperable/Stuck Control Rod / 1			5				AK3.04	4.1		
000011 Large Break LOCA / 3								-		
W/E04 LOCA Outside Containment / 3								-		
* W/E01 & E02 Rediagnosis & SI Termination / 3			74				EK3.2	3.9		
* 000015/17 RCP Malfunctions / 4				29			AA1.03	3.8		
* BW/E09; CE/A13; W/E09&E10 Natural Circ. / 4		71					EK2.2	3.9		
000024 Emergency Boration / 1	30	73					AK1.02 - 3.9 , AK2.03 - 2.6	-		
000026 Loss of Component Cooling Water / 8			42				AK3.03	4.7		
000029 Anticipated Transient w/o Scram / 1			98				EK3.12	4.7		
* 000040 (BW/E05; CE/E05; W/E12) Steam Line Rupture - Excessive Heat Transfer / 4				72			EA1.2	3.7		
* CE/A11; W/E08 RCS Overcooling - PTS / 4	58						EK1.1	3.8		
000051 Loss of Condenser Vacuum / 4								-		
000055 Station Blackout / 6					14		EA2.03	4.7		
000057 Loss of Vital AC Elec. Inst. Bus / 6								-		
000059 Accidental Liquid RadWaste Rel. / 9		46					AK2.01	2.8		
000062 Loss of Nuclear Service Water / 4								-		
000067 Plant Fire On-site / 9					36		AA2.03	3.5		
000068 (BW/A06) Control Room Evac. / 8			32			24	AK3.17 - 4.0, 2.4.26 - 3.3	-		
000069 (W/E14) Loss of CTMT Integrity / 5		33			1		AK2.03 - 2.9 , AA2.01 - 4.3	-		
000074 (W/E06&E07) Inad. Core Cooling / 4			43	57	7	15/16	EK3.03 - 3.9, EA1.2 - 3.7, EA2.1 - 3.5, 2.4.11 - 3.6, 2.4.22 - 4.0	-		
BW/E03 Inadequate Subcooling Margin / 4								-		
000076 High Reactor Coolant Activity / 9			48				AK3.05	3.6		
BW/A02&A03 Loss of NNI-X/Y / 7								-		
K/A Category Totals:							Group Point Total:		24	

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ES-401		PWR SRO Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 2						Form ES-401-3	
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				47			EA1.01	3.4	
BW/A01 Plant Runback / 1								-	
BW/A04 Turbine Trip / 4								-	
000008 Pressurizer Vapor Space Accident / 3	99						AK1.01	3.7	
000009 Small Break LOCA / 3						11	2.4.6	4.0	
BW/E08; W/E03 LOCA Cooldown - Depress. / 4		89	88		4		EK2.2-4.0, EK3.4-3.9, EA2.1-4.2	-	
W/E11 Loss of Emergency Coolant Recirc. / 4				100			EA1.3	4.2	
000022 Loss of Reactor Coolant Makeup / 2			44				AK3.03	3.3	
000025 Loss of RHR System / 4	45						AK1.01	4.3	
000027 Pressurizer Pressure Control System Malfunction / 3		41					AK2.03	2.8	
000032 Loss of Source Range NI / 7								-	
000033 Loss of Intermediate Range NI / 7								-	
000037 Steam Generator Tube Leak / 3			52		12		AK3.10-3.7, AA2.10-4.1	-	
000038 Steam Generator Tube Rupture / 3						17	2.4.48	3.8	
000054 (CE/E06) Loss of Main Feedwater / 4								-	
BW/E04; W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4		92		31			EK2.1-3.9, EA1.2-4.0	-	
000058 Loss of DC Power / 6									
000060 Accidental Gaseous Radwaste Rel. / 9									
000061 ARM System Alarms / 7					10		AA2.06	4.1	
W/E16 High Containment Radiation / 9									
000065 Loss of Instrument Air / 8									
CE/E09 Functional Recovery									
K/A Category Point Totals:							Group Point Total:		16

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ES-401		PWR SRO Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 3							Form ES-401-3	
E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points	
000028 Pressurizer Level Malfunction / 2					23		AA 2.2.11	3.6		
000036 (BW/A08) Fuel Handling Accident / 8		49					AK 2.02	3.9		
000056 Loss of Off-site Power / 6						22	2.2.23	3.8		
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										
W/E15 Containment Flooding / 5										
K/A Category Point Totals:								Group Point Total:		
								3		

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ES-401 PWR SRO Examination Outline Plant Systems - Tier 2/Group 2													Form ES-401-3	
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
002 Reactor Coolant							94					A1.08	3.7	
006 Emergency Core Cooling			70	80								K3.01-4.2, K4.30-3.9	-	
010 Pressurizer Pressure Control									79			A3.02	3.5	
011 Pressurizer Level Control					78							K5.13	3.4	
012 Reactor Protection		77		69								K2.01-3.7, K4.01-4.0	-	
016 Non-nuclear Instrumentation								35				A2.03	3.3	
027 Containment Iodine Removal											3	2.1.34	2.9	
028 Hydrogen Recombiner and Purge Control		61					60					K2.01-2.8, A1.01-3.8	-	
029 Containment Purge													-	
033 Spent Fuel Pool Cooling													-	
034 Fuel Handling Equipment													-	
035 Steam Generator							59					A1.02-3.8	3.8	
039 Main and Reheat Steam													-	
055 Condenser Air Removal													-	
062 AC Electrical Distribution													-	
064 Emergency Diesel Generator							66	65				A1.03-3.3, A2.16-3.7	-	
073 Process Radiation Monitoring											19	2.4.38	4.0	
075 Circulating Water													-	
079 Station Air	39											K1.01	3.1	
086 Fire Protection										64		A4.02	3.5	
103 Containment													-	
K/A Category Point Totals:													Group Point Total:	17

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ES-401		PWR SRO Examination Outline Plant Systems - Tier 2/Group 3											Form ES-401-3	
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
005 Residual Heat Removal	63										8	K1.01-3.4 , 2.4.48-3.8	—	
007 Pressurizer Relief/Quench Tank							51					A1.02	2.9	
008 Component Cooling Water			62									K3.03	4.2	
041 Steam Dump/Turbine Bypass Control														
045 Main Turbine Generator														
076 Service Water														
078 Instrument Air														
K/A Category Point Totals:												Group Point Total:		4
Plant-Specific Priorities														
System / Topic	Recommended Replacement for...						Reason						Points	
Plant-Specific Priority Total: (limit 10)														

Facility: (P3 - 3/200) Date of Exam:			SRO Exam Level:	
Category	K/A #	(Q#) Topic	Imp.	Points
Conduct of Operations	2.1. 12	(19) - APPLY TECH SPECS	4.0	1
	2.1. 10	(25) - CONDITIONS + LIMITATIONS IN LICENSE	3.9	1
	2.1. 20	(81) - ACCURATE LOGS + REPORTS	3.9	1
	2.1. 18	(82) - EXECUTE PROCEDURE STEPS	3.0	1
	2.1.			
	2.1.			
	Total			4
Equipment Control	2.2. 17	(13) - MANAGING MAINTENANCE ACTIVITIES	3.5	1
	2.2. 6	(26) - PROCESS FOR PROCEDURE CHANGES	3.3	1
	2.2. 23	(27) - TRACKING LOGS	3.8	1
	2.2. 27	(56) - REFUELING PROCESS	3.5	1
	2.2. 25	(83) - T.S. BOBES	3.7	1
	2.2.			
	Total			5
Radiation Control	2.3. 4	(28) - RAD EXPOSURE LIMITS	3.1	1
	2.3. 1	(84) - 10 CFR - RAD CONTROL	3.0	1
	2.3. 4	(45) - RAD EXPOSURE LIMITS	3.1	1
	2.3. 10	(86) - GUARD AGAINST PERSONNEL EXPOSURE	3.3	1
	2.3.			
	2.3.			
	Total			4
Emergency Procedures/ Plan	2.4. 16	(2) - EOP IMPLEMENTATION	3.9	1
	2.4. 49	(53) - IMMEDIATE ACTIONS	4.0	1
	2.4. 21	(54) - ASSESS SAFETY FUNCTIONS	4.3	1
	2.4. 5	(55) - PROCEDURE NETWORK	3.6	1
	2.4.			
	2.4.			
	Total			4
Tier 3 Point Total (RO/SRO)				13 (17)