

Facility: Cooper Nuclear Station			Date of Exam: 12/15/00			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	2	2				2	3			2	13
	2	3	6	3				3	2			2	19
	3	0	0	0				1	0			0	3
	Tier Totals	5	8	5				5	5			4	35
2. Plant Systems	1	5	1	5	2	2	0	4	3	4	4	1	31
	2	2	2	0	2	2	2	0	3	2	2	0	17
	3	0	1	2	1	0	0	0	0	0	0	0	4
	Tier Totals	7	3	7	5	4	2	4	6	6	6	1	52
3. Generic Knowledge and Abilities				Cat 1		Cat 2		Cat 3		Cat 4		13	
				5		3		2		3			
<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>													

ES-401		BWR RO Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 1						Form ES-401-2	
E/APE # / Name / Safety Function (Quest. #)	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points
295005 Main Turbine Generator Trip / 3 (98)	02						Core Limit Considerations	3.2	1
295005 Main Turbine Generator Trip / 3 (32)				04			Main Generator Controls	2.7	1
295006 SCRAM / 1 (1)						2.1.2	Operator's Responsibilities During All Modes Of Plant Operations	3.0	1
295007 High Reactor Pressure / 3 (27)					02		Reactor Power	4.2	1
295009 Low Reactor Water Level / 2 (2)			01				Recirc Runback	3.2	1
295010 High Drywell Pressure / 5 (89)					01		Leak Rates	2.8	1
295010 High Drywell Pressure / 5 (93)						2.4.2	Knowledge of system set points/ interlocks and auto action associated with EOP entry conditions	3.9	1
295014 Inadvertent Reactivity Addition / 1 (28)		07					Reactor Power	4.0	1
295015 Incomplete SCRAM / 1 (100)					01		Reactor Power	4.1	1
295015 Incomplete SCRAM / 1 (29)		07					CRD Mechanism	3.3	1
295024 High Drywell Pressure / 5 (30)			01				Drywell Spray Operations	3.4	1
295025 High Reactor Pressure / 3 (3)				03			Safety Relief Valves	4.4	1
295031 Reactor Low Water Level / 2 (31)	01						Adequate Core Cooling	3.7	1
								3.7	1
								3.0	1
K/A Category Totals:	2	2	2	2	3	2	Group Point Total:		13

<div>ES-401</div> <div>BWR RO Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 2</div> <div>Form ES-401-2</div>									
E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points
295001 Partial or Complete Loss of Forced Core Flow Circulation / 1 & 4 (33)		01					Recirculation System	3.8	1
295002 Loss of Main Condenser Vacuum / 3 (34)		08					Condenser Circulating Water System	2.6	1
295003 Partial or Complete Loss of AC Pwr / 6 (35)			05				Reactor Scram	3.7	1
295004 Partial or Complete Loss of DC Pwr / 6 (36)					04		System Lineups	2.8	1
295008 High Reactor Water Level / 2 (66)	02						Component Erosion/ Damage	2.8	1
295012 High Drywell Temperature / 5 (37)		02					Drywell Cooling	3.4	1
295016 Control Room Abandonment / 7 (38)			02				Turbine Trip	3.7	1
295016 Control Room Abandonment / 7 (39)				01			RPS	3.8	1
295018 Partial or Complete Loss of CCW / 8 (41)		01					System Loads	3.3	1
295018 Partial or Complete Loss of CCW / 8 (43)		01					System Loads	3.3	1
295019 Part. or Comp. Loss of Inst. Air / 8 (40)						2.1.12	Apply T.S. For A System	2.9	1
295022 Loss of CRD Pumps / 1 (42)		07					Reactor Pressure (Scram Assist)	2.5	1
295026 High Suppression Pool Water Temp. / 5 (45)				01			Suppression Pool Cooling	3.6	1
295028 High Drywell Temperature / 5 (90)	01						Reactor Water Measurement	3.5	1
295028 High Drywell Temperature / 5 (46)					03		Reactor Water Level	3.7	1
295028 High Drywell Temperature / 5 (44)						2.4.20	Knowledge of Operational Implications of EOP Warnings/Cautions/Notes	3.3	1
295029 High Suppression Pool Water Level / 5 (47)			01				Emergency Depressurization	3.5	1
295030 Low Suppression Pool Water Level / 5 (48)	03						Heat Capacity	3.8	1
295034 Sec. Cont. Ventilation High Rad. / 9 (49)				03			Secondary Containment Ventilation	4.0	1
K/A Category Point Totals:	3	6	3	3	2	2	Group Point Total:		19

ES-401 BWR RO Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 3										Form ES-401-2	
E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)			Imp.	Points
295021 Loss of Shutdown Cooling / 4											
295023 Refueling Accidents / 8 (51)			01				Refueling Floor Evacuation			3.6	1
295032 High Secondary Containment Area Temperature / 5 (52)			02				Reactor Scram			3.6	1
295035 Secondary Containment High Differential Pressure / 5											
295036 Secondary Containment High Sump/Area Water Level / 5 (54)				02			Fuel Pool Cooling and Clean Up System			2.9	1
K/A Category Point Totals:	0	0	2	1	0	0	Group Point Total:				3

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ES-401 BWR RO Examination Outline Plant Systems - Tier 2/Group 1														Form ES-401-2	
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)		Imp.	Points
201001 CRD Hydraulic (92)									08			Drive Water Flow		2.8	1
201002 RMCS (21)							01					CRD System Flow		2.8	1
202002 Recirculation Flow Control (91)				01								Scoop Tube Break		3.1	1
203000 RHR/LPCI: Injection Mode (53)			01									Reactor Water Level		4.3	1
206000 HPCI (22)								06				Inadequate System Flow		3.3	1
206000 HPCI (94)								14				Flow Controller Failure		3.3	1
209001 LPCS (50)	14											Reactor Vessel		3.7	1
209001 LPCS (75)											2.1.28	Knowledge of the Purpose and Function of Major System Components and Controls		3.2	1
211000 SLC (76)	05											RWCU		3.7	1
211000 SLC (77)							10					Lights And Alarms		3.7	1
212000 RPS (67)			04									APRM		3.5	1
212000 RPS (5)	12											Reactor Turbine Pressure Control System		3.4	1
215003 IRM (78)		01										IRM Channels/Detectors		2.5	1
215004 SRM (6)					01							Detector Operation		2.6	1
215005 APRM / LPRM (97)			01									Reactor Manual Control System		3.3	1

216000 Nuclear Boiler Instrumentation (96)			17									Emergency Generators	3.5	1
217000 RCIC (4)	07											Leak Detection	3.1	1
218000 ADS (7)								03				Loss Of Air Supply To Valves	3.4	1
223001 Primary CTMT and Auxiliaries (8)	04											Drywell Floor and Equipment Floor Drain	3.1	1
223001 Primary CTMT and Auxiliaries (9)				03								Containment/Drywell Operation	3.7	1
223002 PCIS/Nuclear Steam Supply (10) Shutoff							02					Valve Closures	3.7	1
239002 SRVs (11)							06					Reactor Power	3.7	1
241000 Reactor/Turbine Pressure (68) Regulator										08		Reactor Steam Flow	3.6	1
259001 Reactor Feedwater (69)									10			Pump Trips	3.4	1
259001 Reactor Feedwater (87)									10			Pump Trips	3.4	1
259002 Reactor Water Level Control (74)					02							Electro/ Pneumatic Converter Operation	2.2*	1
259002 Reactor Water Level Control (23)										05		Runout Flow Control Reset Controls	3.8	1
259002 Reactor Water Level Control (24)										01		All individual Component Controllers in the Manual Mode	3.8	1
261000 SGTS (25)			01									Secondary Containment and Environmental Differential Pressure	3.3	1
264000 EDGs (26)									05			Load Shedding and Sequencing	3.4	1
264000 EDGs (88)										01		Adjustment of Exciter Voltage	3.3	1
K/A Category Point Totals:	5	1	5	2	2	0	4	3	4	4	1	Group Point Total:		31

ES-401															BWR RO Examination Outline Plant Systems - Tier 2/Group 2										Form ES-401-2	
System # / Name		K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)		Imp.	Points										
201006 RWM (57)						01							Minimize Fuel Damage if a Control Rod Drop Accident		3.3	1										
202001 Recirculation (58)									08				Jet Pump Failure		3.1	1										
205000 Shutdown Cooling (59)									09				Reactor Low Water Level		3.6	1										
215002 RBM (55)										04			Verification or Proper Functioning/Operability		3.6	1										
226001 RHR/LPCI: CTMT Spray Mode (12)						02							Water Hammer		2.6	1										
230000 RHR/LPCI: Torus/Pool Spray Mode (79)							08						Nuclear Boiler Instrumentation		2.9	1										

245000 Main Turbine Gen. and Auxiliaries (80)	05											Extraction Steam System	2.7	1
256000 Reactor Condensate (60)									03			Condensate and/or booster pump protection	2.8	1
262001 AC Electrical Distribution (13)				03								Interlocks Between Auto Bus Trans. And Breakers	3.1	1
262002 UPS (AC/DC) (14)						03						Static Inverter	2.7	1
263000 DC Electrical Distribution (15)		01										Major DC Loads	3.1	1
271000 Offgas (61)										08		Process Radiation Monitoring System	3.2	1
272000 Radiation Monitoring (62)	03											Stack Gas	3.3	1
286000 Fire Protection (63)									01			Fire Water Pump Start	3.4	1
290001 Secondary CTMT (16)								05				High Area Temperature	3.1	1
300000 Instrument Air (95)		02										Emergency Air Compressor	3.0	1
400000 Component Cooling Water (17)				01								Auto Start Of The Standby Pump	3.4	1
K/A Category Point Totals:	2	2	0	2	2	2	0	3	2	2	0	Group Point Total:		17

BWR RO Examination Outline Plant Systems - Tier 2/Group 3													Form ES-401-2	
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
215001 Traversing In-core Probe														
233000 Fuel Pool Cooling and Cleanup (99)		02										RHR Pumps	2.8	1
234000 Fuel Handling Equipment (64)			03									Fuel Handling Operations	3.1	1
239003 MSIV Leakage Control														
268000 Radwaste														
288000 Plant Ventilation (18)				03								Auto Start/Stop Of Fans	2.8	1
290002 Reactor Vessel Internals (65)			03									Reactor Power	3.3	1
K/A Category Point Totals:	0	1	2	1	0	0	0	0	0	0	0	Group Point Total:		4
Plant-Specific Priorities														
System / Topic						Recommended Replacement for...						Reason		Points
Plant-Specific Priority Total: (limit 10)														

Facility: Cooper Nuclear Station		Date of Exam: 12/15/00		Exam Level: RO	
Category	K/A #	Topic	Imp.	Points	
Conduct of Operations	2.1.33	(19) Recognize Entry Level Conditions for T.S.	3.4	1	
	2.1.18	(81) Make Accurate/ Clear Concise Logs, Records, and Reports	2.9	1	
	2.1.23	(82) Perform Specific System And Integrated Plant Procedures During Different Modes	3.9	1	
	2.1.25	(72) Ability To Interpret Station Reference Material	2.8	1	
	2.1.27	(73) Knowledge of System Purpose and or Function	2.8	1	
	Total			5	
Equipment Control	2.2.13	(71) Knowledge of Tagging and Clearance Procedures	2.6	1	
	2.2.22	(70) Knowledge of Limiting Conditions for Operation and Safety Limits	3.0	1	
	2.2.26	(20) Knowledge of Refueling Administrative Requirements	3.4	1	
	Total			3	
Radiation Control	2.3.1	(83) Knowledge of 10CFR20 and Related Facility Radiation Controls	2.7	1	
	2.3.4	(84) Knowledge of Radiation Exposure Limits and Contamination Control	2.6	1	
	Total			2	
Emergency Procedures/ Plan	2.4.11	(85)Knowledge of Abnormal Condition Procedures	3.4	1	
	2.4.49	(86) Ability to Perform w/o Reference to Procedures for Immediate Actions	4.0	1	
	2.4.9	(56) Knowledge of Low Power/ Shutdown implications in Accident Mitigation Strategies	3.3	1	
	Total			3	
Tier 3 Point Total RO				13	

Facility: Cooper Nuclear Station Date of Exam: 12/15/2000 Exam Level: SRO													
Tier	Group	K/A Category Points											Point Total
		K 1	K2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G *	
1. Emergency & Abnormal Plant Evolutions	1	4	3	5				5	3			2	22
	2	1	6	2				3	2			2	16
	Tier Totals	5	10	7				9	4			4	39
2. Plant Systems	1	4	0	3	3	3	0	3	3	2	3	2	26
	2	3	1	1	2	1	2	1	3	3	1	0	18
	3	0	0	1	2	0	0	0	0	0	0	0	3
	Tier Totals	7	1	5	7	4	2	4	6	5	4	2	47
3. Generic Knowledge and Abilities				Cat 1		Cat 2		Cat 3		Cat 4		15	
				4		3		2		5			
<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>													

ES-401		BWR SRO Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 1						Form ES-401-1	
E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points
295003 Partial or Complete Loss of AC Pwr / 6 #35			05				Reactor Scram	3.7	1
295006 SCRAM / 1 #1						2.1.2	Operator's Responsibilities During All Modes of Plant Operations	4.0	1
295006 SCRAM / 1 #75		01					RPS	4.4	1
295007 High Reactor Pressure / 3 #27					02		Reactor Power	4.1	1
295009 Low Reactor Water Level / 2 #2			01				Recirc Runback	3.3	1
295009 Low Reactor Water Level / 2 #79	05						Natural Circulation	3.4	1
295014 Inadvertent Reactivity Addition / 1 #28		07					Reactor Power	3.9	1
295014 Inadvertent Reactivity Addition/1 #80					03		Cause of Reactivity Addition	4.3	1
295015 Incomplete SCRAM / 1 #29		07					CRD Mechanism	3.4	1
295016 Control Room Abandonment / 7 #38			02				Turbine Trip	3.8	1
295016 Control Room Abandonment / 7 #39				01			RPS	3.9	1
295023 Refueling Accidents Cooling Mode / 8 #51			01				Refueling Floor Evacuation	4.3	1
295023 Refueling Accidents Cooling Mode / 8 #77				04			Radiation Monitoring Equipment	3.7	1
295024 High Drywell Pressure / 5 #30			01				Drywell Sprays	4.0	1
295025 High Reactor Pressure / 3 #3				03			Safety Relief Valves	4.4	1
295025 High Reactor Pressure / 3 #78				07			ARI/RPT/ATWS	4.1	1
295025 High Reactor Pressure / 3 #82	05						Exceeding Safety Limits	4.7	1
295026 Suppression Pool High Water Temp. / 5 #45				01			Suppression Pool Cooling	4.1	1
295030 Low Suppression Pool Water Level / 5 #48	03						Heat Capacity	4.1	1
295030 Low Suppression Pool Water Level / 5 #76					01		Suppression Pool Level	4.2	1
295031 Reactor Low Water Level / 2 #31	01						Adequate Core Cooling	4.7	1
295038 High Off-site Release Rate / 9 #50				06			Plant Ventilation	3.6	1
500000 High Containment Hydrogen Conc. / 5 #85						2.2.22	Knowledge of Limiting Conditions of Operations and Safety Limits	4.1	1
K/A Category Totals:	4	4	5	6	2	2	Group Point Total:	23	

ES-401		BWR SRO Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 2						Form ES-401-1	
E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points
295001 Partial or Complete Loss of Forced Core Flow Circulation / 1 & 4 #33		01					Recirculation System	3.7	1
295002 Loss of Main Condenser Vacuum / 3 #34		08					Condenser Circulating Water System	3.2	1
295004 Partial or Total Loss of DC Pwr / 6 #36					04		System Lineups	3.3	1
295005 Main Turbine Generator Trip / 3 #32				04			Main Generator Controls	2.8	1
295008 High Reactor Water Level / 2 #66	02						Component Erosion/ Damage	2.8	1
295012 High Drywell Temperature / 5 #37		02					Drywell Cooling	3.7	1
295018 Partial or Total Loss of CCW / 8 #41		01					System Loads	3.4	1
295018 Partial or Total Loss of CCW / 8 #43		01					System Loads	3.4	1
295019 Partial or Total Loss of Inst. Air / 8 #40						2.1.12	Apply T.S. for a System	4.0	1
295022 Loss of CRD Pumps / 1 #42		07					Reactor Pressure (Scram Assist)	3.6	1
295028 High Drywell Temperature / 5 #46					03		Reactor Water Level	3.9	1
295028 High Drywell Temperature / 5 #44						2.4.20	Knowledge of Operational Implications of EOP Warnings/Cautions/Notes	4.0	1
295029 High Suppression Pool Water Level / 5 #47			01				Emergency Depressurizations	3.9	1
295032 High Secondary Containment Area #52 Temperature / 5			02				Reactor Scram	3.8	1
295034 Secondary Containment Ventilation High Radiation / 9 #49				03			Secondary Containment Ventilation	3.9	1
295036 Secondary Containment High Sump/Area Water Level / 5 #54				02			Affected Systems so as to Isolate Damaged Portions	3.6	1
K/A Category Point Totals:	1	6	2	3	2	2	Group Point Total:		16

ES-401		BWR SRO Examination Outline Plant Systems - Tier 2/Group 1										Form ES-401-1		
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
203000 RHR/LPCI: Injection Mode #53			01									Reactor Water Level	4.4	1
206000 HPCI #22								06				Inadequate System Flow	3.5	1
209001 LPCS #50	14											Reactor Vessel	3.8	1
209001 LPCS #92									01			Valve Operation	3.6	1
211000 SLC #93											2.1.10		3.9	1
212000 RPS #5	12											Reactor Turbine Pressure Control System	3.6	1
212000 RPS #67			04									APRM	3.6	1
215004 Source Range Monitor #6					01							Detector Operation	2.6	1
217000 RCIC #4	07											Leak Detection	3.2	1
218000 ADS #7								03				Loss of Air Supply to Valves	3.6	1
218000 ADS #97											2.4.22		4.0	1
223001 Primary CTMT and Auxiliaries #8	04											Drywell Floor and Equipment Floor Drain	3.2	1
223001 Primary CTMT and Auxiliaries #9				03								Containment/Drywell Operation	3.8	1
223002 PCIS/Nuclear Steam Supply Shutoff #10							02					Valve Closures	3.7	1
226001 RHR/LPCI: CTMT Spray Mode #12					02							Water Hammer	2.7	1
239002 SRVs #11							06					Reactor Power	3.8	1
241000 Reactor/Turbine Pressure Regulator #68										08		Control/ Governor Valve Operation	3.4	1
241000 Reactor/Turbine Pressure Regulator #94							14					Pressure Setpoint/ Pressure Demand	3.4	1
259002 Reactor Water Level Control #74					02							Electro/ Pneumatic Converter Operation	2.4	1
259002 Reactor Water Level Control #23										05		Runout Flow Control Reset Controls	3.5	1
259002 Reactor Water Level Control #24										01		All Individual Component Controllers in the Manual Mode	3.6	1
261000 SGTS #25			01									Secondary Containment and Environmental Differential Pressure	3.6	1
261000 SGTS #87				01								Automatic System Initiation	3.8	1
262001 AC Electrical Distribution #13				03								Interlocks Between Auto Bus Trans. And Breakers	3.4	1

264000 EDGs #26									05				Load Shedding and Sequencing	3.5	1
290001 Secondary CTMT #16									05				High Area Temperature	3.3	1
K/A Category Point Totals:	4	0	3	3	3	0	3	3	2	3	2		Group Point Total:		26

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<div> <div>ES-401</div> <div>BWR SRO Examination Outline Plant Systems - Tier 2/Group 2</div> <div>Form ES-401-1</div> </div>														
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
201002 RMCS #21							01					CRD System Flow	2.8	1
201006 RWM #57					01							Minimize Fuel Damage if a Control Rod Drop Accident	3.7	1
202001 Recirculation #58								08				Jet Pump Failure	3.4	1
205000 Shutdown Cooling #59								09				Reactor Low Water Level	3.8	1
215002 RBM #55									04			Verification or Proper Functioning / Operability	3.5	1
219000 RHR/LPCI: Torus/Pool Cooling Mode #81				07								Prevention of Water Hammer	3.1	1
230000 RHR/LPCI: Torus/Pool Spray Mode #84								15				Loss of, or Inadequate, Heat Exchanger Cooling Flow	3.4	1
230000 RHR/LPCI: Torus/Pool Spray Mode #95						10						Component Cooling Water Systems	2.9	1
234000 Fuel Handling Equipment #64			03									Fuel Handling Operations	3.8	1
245000 Main Turbine Gen. and Auxiliaries #98	01											AC Electrical Distribution	3.3	1
259001 Reactor Feedwater #69									10			Pump Trips	3.4	1
262002 UPS (AC/DC) #14						03						Static Inverter	2.9	1
263000 DC Electrical Distribution #15		01										Major DC Loads	3.4	1
271000 Offgas #61										08		Process Radiation Monitoring System	3.6	1
272000 Radiation Monitoring #62	03											Stack Gas	3.6	1
286000 Fire Protection #63									01			Fire Water Pump Start	3.4	1
290003 Control Room HVAC #100							05					System Initiations/ Reconfiguration	3.2	1
400000 Component Cooling Water #17				01								Auto Start of the Standby Pump	3.9	1
K/A Category Point Totals:	2	1	1	2	1	2	2	3	3	1	0	Group Point Total:		18

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ES-401		BWR SRO Examination Outline Plant Systems - Tier 2/Group 3										Form ES-401-1		
System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
256000 Reactor Condensate #60				03								Condensate and/or Booster Pump Protection	2.8	1
288000 Plant Ventilation #18				03								Auto Start/ Stop of the Fans	2.9	1
290002 Reactor Vessel Internals #65			03									Reactor Power	3.4	1
K/A Category Point Totals:			1	2								Group Point Total:		3
Plant-Specific Priorities														
System / Topic					Recommended Replacement for...					Reason			Points	
Plant-Specific Priority Total (limit 10):														

Facility:		Date of Exam:		Exam Level:	
Category	K/A #	Topic	Imp.	Points	
Conduct of Operations	2.1.12	#86 Ability to Apply T.S. for a System	4.0	1	
	2.1.33	#19 Recognize Entry Level Conditions for T.S.	4.0	1	
	2.1.25	#72 Ability To Interpret Station Reference Material	3.1	1	
	2.1.27	#73 Knowledge of System Purpose and or Function	2.9	1	
	Total			4	
Equipment Control	2.2.26	#20 Knowledge of Refueling Administrative Requirements	3.7	1	
	2.2.22	#70 Knowledge of Limiting Conditions for Operation and Safety Limits	4.1	1	
	2.2.13	#71 Knowledge of Tagging and Clearance Procedures	3.8	1	
	Total			3	
	Radiation Control	2.3.10	#96 Ability to perform Procedures to Reduce Excessive Levels Radiation and Guard Against Personnel Exposure	3.3	1
2.3.11		#83 Ability to Control Radiation Releases	3.2	1	
2.3.11		#88 Ability to Control Radiation Releases	3.2	1	
Total			3		
Emergency Procedures/ Plan		2.4.11	#89 Knowledge of Abnormal Condition Procedures	3.6	1
	2.4.29	#91 Knowledge of the Emergency Plan	4.0	1	
	2.4.42	#90 Knowledge of Emergency Response Facilities	3.7	1	
	2.4.9	#56 Knowledge of Low Power/ Shutdown implications in Accident Mitigation Strategies	3.9	1	
	2.4.29	#99 Knowledge of the Emergency Plan	4.0	1	
	Total			5	
	Tier 3 Point Total (RO/SRO)				15

**Cooper Nuclear Station
Exam Matrix (December 15, 2000)**

Master Ques #	KA No.	**Source	SRO Ques #	RO Ques #	Quest Replaced
1	295006 G2.1.2	M	1	1	
2	295009 K3.01	B	2	2	
3	295025 A1.03	B	3	3	
4	217000 K1.07	B	4	4	
5	212000 K1.12	M	5	5	
6	215004 K5.01	B	6	6	
7	218000 A2.03	M	7	7	Replaced
8	223001 K1.04	B	8	8	
9	223001 K4.03	B	9	9	
10	223002 A1.02	B	10	10	
11	239002 A1.06	B	11	11	
12	226001 K5.02	B	12	12	
13	262001 K4.03	B	13	13	
14	262002 K6.03	B	14	14	
15	263000 K2.01	B	15	15	
16	290001 A2.05	B	16	16	
17	400000 K4.01	B	17	17	
18	288000 K4.03	B	18	18	
19	G2.1.33	B	19	19	
20	G2.2.26	B	20	20	
21	201002 A1.01	B	21	21	
22	206000 A2.06	B	22	22	
23	259002 A4.05	N	23	23	
24	259002 A4.01	B	24	24	
25	261000 K3.01	M	25	25	
26	264000 A3.05	B	26	26	

**B=Bank, M=Modified, N=New

**Cooper Nuclear Station
Exam Matrix (December 15, 2000)**

Master Ques #	KA No.	**Source	SRO Ques #	RO Ques #	Quest Replaced
27	295007 A2.02	M	27	27	
28	295014 K2.07	M	28	28	
29	295015 K2.07	M	29	29	
30	295024 K3.01	B	30	30	
31	295031 K1.01	B	31	31	
32	295005 A1.04	N	32	32	
33	295001 K2.01	B	33	33	
34	295002 K2.08	M	34	34	
35	295003 K3.05	M	35	35	
36	295004 A2.04	B	36	36	
37	295012 K2.02	M	37	37	Replaced
38	295016 K3.02	N	38	38	
39	295016 A1.01	M	39	39	
40	295019 G2.1.12	B	40	40	
41	295018 K2.01	N	41	41	
42	295022 K2.07	M	42	42	
43	295018 K2.01	N	43	43	Replaced
44	295028 G2.4.20	N	44	44	
45	295026 A1.01	N	45	45	
46	295028 A2.03	B	46	46	
47	295029 K3.01	M	47	47	
48	295030 K1.03	B	48	48	
49	295034 A1.03	M	49	49	
50	209001 K1.14	B	50	50	
51	295023 K3.01	M	51	51	
52	295032 K3.02	B	52	52	

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**Cooper Nuclear Station
Exam Matrix (December 15, 2000)**

Master Ques #	KA No.	**Source	SRO Ques #	RO Ques #	Quest Replaced
53	203000 K3.01	B	53	53	
54	295036 A1.02	M	54	54	
55	215002 A3.04	N	55	55	Replaced
56	G2.4.9	B	56	56	
57	201006 K5.01	B	57	57	
58	202001 A2.08	M	58	58	Replaced
59	205000 A2.09	N	59	59	
60	256000 K4.03	M	60	60	Replaced
61	271000 A4.08	M	61	61	
62	272000 K1.03	B	62	62	
63	286000 A3.01	M	63	63	Replaced
64	234000 K3.03	N	64	64	Replaced
65	290002 K3.03	M	65	65	
66	295008 K1.02	B	66	66	
67	212000 K3.04	N	67	67	
68	241000 A4.08	B	68	68	
69	259001 A3.10	M	69	69	
70	G2.2.22	B	70	70	
71	G2.2.13	B	71	71	
72	G2.1.25	M	72	72	
73	G2.1.27	B	73	73	
74	259002 K5.02	M	74	74	
75	209001 G2.1.28	B		75	
76	211000 K1.05	B		76	
77	211000 A1.10	B		77	
78	215003 K2.01	B		78	

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**Cooper Nuclear Station
Exam Matrix (December 15, 2000)**

Master Ques #	KA No.	**Source	SRO Ques #	RO Ques #	Quest Replaced
79	230000 K6.08	B		79	
80	245000 K1.05	B		80	
81	G2.1.18	B		81	
82	G2.1.23	M		82	
83	G2.3.1	B		83	
84	G2.3.4	B		84	
85	G2.4.11	B		85	
86	G2.4.49	B		86	
87	259001 A3.10	M		87	
88	264000 A4.01	M		88	
89	295010 A2.01	M		89	
90	295028 K1.01	M		90	
91	202002 K4.01	N		91	
92	201001 A3.08	N		92	
93	295010 G2.4.2	N		93	
94	206000 A2.14	N		94	
95	300000 K2.02	N		95	
96	216000 K3.17	N		96	
97	215005 K3.01	M		97	
98	295005 K1.02	N		98	
99	233000 K2.02	M		99	
100	295015 A2.01	M		100	
101	295006 K2.01	N	75		
102	295030 A2.01	N	76		
103	295023 A1.04	N	77		
104	295025 A1.07	N	78		

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**Cooper Nuclear Station
Exam Matrix (December 15, 2000)**

Master Ques #	KA No.	**Source	SRO Ques #	RO Ques #	Quest Replaced
105	295009 K1.05	N	79		
106	295014 A2.03	N	80		
107	219000 K4.07	N	81		
108	295025 K1.05	N	82		
109	G2.3.11	N	83		
110	230000 A2.15	N	84		
111	500000 G2.2.22	N	85		
112	G2.1.12	N	86		
113	261000 K4.01	B	87		
114	G2.3.11	N	88		
115	G2.4.11	N	89		
116	G2.4.42	B	90		
117	G2.4.29	N	91		
118	209001 A3.01	M	92		
119	211000 G2.1.10	B	93		Replaced
120	241000 A1.14	N	94		Replaced
121	233000 K6.10	N	95		
122	G2.3.10	N	96		Replaced
123	218000 G2.4.22	N	97		
124	245000 K1.01	B	98		
125	G2.4.29	N	99		
126	290003 A1.05	N	100		

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