Facility:	Nine Mile Point Unit 2	Date of Exam:	December 2017 NRC

Tier	Group	RO K/A Category Points											SRO-Only Points					
		K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G *	Total	A2		G*		Total
1. Emergency & Plant Evolutions	1	3	3	3				3	4			4	20	3		4		7
	2	1	1	1				1	2			1	7	1		2		3
	Tier Totals	4	4	4				4	6			5	27	4		6		10
2. Plant Systems	1	2	2	2	3	3	3	1	2	2	3	3	26	3		2		5
	2	1	1	1	1	1	1	1	1	2	1	1	12	0	1	2		3
	Tier Totals	3	3	3	4	4	4	2	3	4	4	4	38	4		4		8
3. Generic Knowledge & Abilities Categories		1			2			3			4		10	1	2	3	4	7
		2			3			2			3			1	2	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). (One Tier 3 Radiation Control K/A is allowed if the K/A is replaced by a K/A from another Tier 3 Category.)
2. The point total for each group and tier in the proposed outline must match that specified in the table. The final point total for each group and tier may deviate by ±1 from that specified in the table based on NRC revisions. The final RO exam must total 75 points and the SRO-only exam must total 25 points.
3. Systems/evolutions within each group are identified on the 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 KAs 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/A's
8. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings (IR) 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 10CFR55.43.

NMP2 2017 NRC
Written Examination Outline
Emergency and Abnormal Plant Evolutions – Tier 1 Group 1

EAPE # / Name Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Q#
295019 Partial or Complete Loss of Instrument Air / 8					X		AA2.01 - Ability to determine and/or interpret the following as they apply to PARTIAL OR COMPLETE LOSS OF INSTRUMENT AIR: Instrument air system pressure	3.6	76
295038 High Off-site Release Rate / 9					X		EA2.04 - Ability to determine and/or interpret the following as they apply to HIGH OFF-SITE RELEASE RATE: Source of off-site release	4.5	77
295021 Loss of Shutdown Cooling / 4					X		AA2.03 - Ability to determine and/or interpret the following as they apply to LOSS OF SHUTDOWN COOLING: Reactor water level	3.5	78
295025 High Reactor Pressure / 3						X	2.1.31 - Conduct of Operations: Ability to locate control room switches, controls, and indications, and to determine that they correctly reflect the desired plant lineup.	4.3	79
295003 Partial or Complete Loss of AC Power / 6						X	2.4.41 - Emergency Procedures / Plan: Knowledge of the emergency action level thresholds and classifications.	4.6	80
295001 Partial or Complete Loss of Forced Core Flow Circulation / 1 & 4						X	2.1.25 - Conduct of Operations: Ability to interpret reference materials, such as graphs, curves, tables, etc.	4.2	81
295031 Reactor Low Water Level / 2						X	2.1.7 – Conduct of Operation: Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation.	4.7	82
295003 Partial or Complete Loss of AC Power / 6	X						AK1.01 - Knowledge of the operational implications of the following concepts as they apply to PARTIAL OR COMPLETE LOSS OF A.C. POWER: Effect of battery discharge rate on capacity	2.7	39
700000 Generator Voltage and Electric Grid Disturbances	X						AK1.01 - Knowledge of the operational implications of the following concepts as they apply to GENERATOR VOLTAGE AND ELECTRIC GRID DISTURBANCES and the following: Definition of terms: volts, watts, amps, VARs, power factor	3.3	40
600000 Plant Fire On-site / 8	X						AK1.02 - Knowledge of the operational implications of the following concepts as they apply to Plant Fire On Site: Fire Fighting	2.9	41
295024 High Drywell Pressure / 5		X					EK2.06 - Knowledge of the interrelations between HIGH DRYWELL PRESSURE and the following: Emergency generators	3.9	42
295031 Reactor Low Water Level / 2		X					EK2.08 - Knowledge of the interrelations between REACTOR LOW WATER LEVEL and the following: Automatic depressurization system	4.2	43
295025 High Reactor Pressure / 3		X					EK2.05 - Knowledge of the interrelations between HIGH REACTOR PRESSURE and the following: Safety/relief valves: Plant-Specific	4.1	44
295006 SCRAM / 1			X				AK3.03 - Knowledge of the reasons for the following responses as they apply to SCRAM: Reactor pressure response	3.8	45

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Written Examination Outline
Emergency and Abnormal Plant Evolutions – Tier 1 Group 1

EAPE # / Name Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Q#
295030 Low Suppression Pool Water Level / 5			X				EK3.06 - Knowledge of the reasons for the following responses as they apply to LOW SUPPRESSION POOL WATER LEVEL: Reactor SCRAM	3.6	46
295016 Control Room Abandonment / 7			X				AK3.03 - Knowledge of the reasons for the following responses as they apply to CONTROL ROOM ABANDONMENT: Disabling control room controls	3.5	47
295021 Loss of Shutdown Cooling / 4				X			AA1.01 - Ability to operate and/or monitor the following as they apply to LOSS OF SHUTDOWN COOLING: Reactor water cleanup system	3.4	48
295023 Refueling Accidents / 8				X			AA1.06 - Ability to operate and/or monitor the following as they apply to REFUELING ACCIDENTS: Neutron monitoring	3.3	49
295004 Partial or Complete Loss of DC Power / 6				X			AA1.01 - Ability to operate and/or monitor the following as they apply to PARTIAL OR COMPLETE LOSS OF D.C. POWER: D.C. electrical distribution systems	3.3	50
295005 Main Turbine Generator Trip / 3					X		AA2.01 - Ability to determine and/or interpret the following as they apply to MAIN TURBINE GENERATOR TRIP: Turbine speed	2.6	51
295018 Partial or Complete Loss of CCW / 8					X		AA2.04 - Ability to determine and/or interpret the following as they apply to PARTIAL OR COMPLETE LOSS OF COMPONENT COOLING WATER: System flow	2.9	52
295001 Partial or Complete Loss of Forced Core Flow Circulation / 1 & 4					X		AA2.01 - Ability to determine and/or interpret the following as they apply to PARTIAL OR COMPLETE LOSS OF FORCED CORE FLOW CIRCULATION: Power/flow map	3.5	53
295038 High Off-site Release Rate / 9						X	2.1.19 - Conduct of Operations: Ability to use plant computers to evaluate system or component status.	3.9	54
295037 SCRAM Condition Present and Reactor Power Above APRM Downscale or Unknown / 1						X	2.4.46 - Emergency Procedures / Plan: Ability to verify that the alarms are consistent with the plant conditions.	4.2	55
295019 Partial or Complete Loss of Instrument Air / 8						X	2.1.28 – Conduct of Operations: Knowledge of the purpose and function of major system components and controls.	4.1	56
295026 Suppression Pool High Water Temperature / 5						X	2.4.31 - Emergency Procedures / Plan: Knowledge of annunciator alarms, indications, or response procedures.	4.2	57
295028 High Drywell Temperature / 5					X		EA2.04 - Ability to determine and/or interpret the following as they apply to HIGH DRYWELL TEMPERATURE: Drywell pressure	4.1	58
K/A Category Totals:	3	3	3	3	4/3	4/4	Group Point Total:		20/7

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Written Examination Outline
Emergency and Abnormal Plant Evolutions – Tier 1 Group 2

EAPE # / Name Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Q#
295013 High Suppression Pool Temperature / 5					X		AA2.01 - Ability to determine and/or interpret the following as they apply to HIGH SUPPRESSION POOL TEMPERATURE: Suppression pool temperature	4.0	83
295029 High Suppression Pool Water Level / 5						X	2.4.8 - Emergency Procedures / Plan: Knowledge of how abnormal operating procedures are used in conjunction with EOPs.	4.5	84
295035 Secondary Containment High Differential Pressure / 5						X	2.1.19 - Conduct of Operations: Ability to use plant computers to evaluate system or component status.	3.8	85
295002 Loss of Main Condenser Vacuum / 3	X						AK1.04 - Knowledge of the operational implications of the following concepts as they apply to LOSS OF MAIN CONDENSER VACUUM: Increased offgas flow	3.0	59
295008 High Reactor Water Level / 2		X					AK2.04 - Knowledge of the interrelations between HIGH REACTOR WATER LEVEL and the following: PCIS/NSSSS: Plant-Specific	3.1	60
295014 Inadvertent Reactivity Addition / 1			X				AK3.02 - Knowledge of the reasons for the following responses as they apply to INADVERTENT REACTIVITY ADDITION: Control rod blocks	3.7	61
295007 High Reactor Pressure / 3				X			AA1.05 - Ability to operate and/or monitor the following as they apply to HIGH REACTOR PRESSURE: Reactor/turbine pressure regulating system	3.7	62
295033 High Secondary Containment Area Radiation Levels / 9					X		EA2.03 - Ability to determine and/or interpret the following as they apply to HIGH SECONDARY CONTAINMENT AREA RADIATION LEVELS: Cause of high area radiation	3.7	63
295010 High Drywell Pressure / 5						X	2.2.40 - Equipment Control: Ability to apply technical specifications for a system.	3.4	64
295032 High Secondary Containment Area Temperature / 5					X		EA2.01 - Ability to determine and/or interpret the following as they apply to HIGH SECONDARY CONTAINMENT AREA TEMPERATURE: Area temperature	3.8	65
K/A Category Totals:	1	1	1	1	2/1	1/2	Group Point Total:		7/3

NMP2 2017 NRC
Written Examination Outline
Plant Systems – Tier 2 Group 1

System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A2	A 3	A 4	G		Imp.	Q#
212000 RPS								X				A2.16 - Ability to (a) predict the impacts of the following on the REACTOR PROTECTION SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Changing mode switch position	4.1	86
209002 HPCS								X				A2.05 - Ability to (a) predict the impacts of the following on the HIGH PRESSURE CORE SPRAY SYSTEM (HPCS); and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: D.C. electrical failure: BWR-5,6	2.9	87
400000 Component Cooling Water											X	2.2.37 - Equipment Control: Ability to determine operability and / or availability of safety related equipment.	4.6	88
211000 SLC											X	2.1.23 – Conduct of Operations: Ability to perform specific system and integrated plant procedures during all modes of plant operation.	4.4	89
215004 Source Range Monitor								X				A2.04 - Ability to (a) predict the impacts of the following on the SOURCE RANGE MONITOR (SRM) SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Upscale and downscale trips	3.7	90
239002 SRVs	X											K1.06 - Knowledge of the physical connections and/or cause-effect relationships between RELIEF/SAFETY VALVES and the following: Drywell instrument air/ drywell pneumatics: Plant-Specific	3.4	1
264000 EDGs	X											K1.07 - Knowledge of the physical connections and/or cause-effect relationships between EMERGENCY GENERATORS (DIESEL/JET) and the following: Emergency core cooling systems	3.9	2
212000 RPS		X										K2.01 - Knowledge of electrical power supplies to the following: RPS motor-generator sets	3.2	3

NMP2 2017 NRC
Written Examination Outline
Plant Systems – Tier 2 Group 1

System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A2	A 3	A 4	G		Imp.	Q#
209002 HPCS		X										K2.02 - Knowledge of electrical power supplies to the following: Valve electrical power: BWR-5,6	2.8	4
263000 DC Electrical Distribution			X									K3.01 - Knowledge of the effect that a loss or malfunction of the D.C. ELECTRICAL DISTRIBUTION will have on following: Emergency generators: Plant-Specific	3.4	5
223002 PCIS/Nuclear Steam Supply Shutoff			X									K3.19 - Knowledge of the effect that a loss or malfunction of the PRIMARY CONTAINMENT ISOLATION SYSTEM/NUCLEAR STEAM SUPPLY SHUT-OFF will have on following: Containment atmosphere sampling.	2.8	6
211000 SLC				X								K4.10 - Knowledge of STANDBY LIQUID CONTROL SYSTEM design feature(s) and/or interlocks which provide for the following: Over pressure protection	2.8	7
215003 IRM				X								K4.01 - Knowledge of INTERMEDIATE RANGE MONITOR (IRM) SYSTEM design feature(s) and/or interlocks which provide for the following: Rod withdrawal blocks	3.7	8
300000 Instrument Air					X							K5.01 - Knowledge of the operational implications of the following concepts as they apply to the INSTRUMENT AIR SYSTEM: Air compressors	2.5	9
218000 ADS					X							K5.01 - Knowledge of the operational implications of the following concepts as they apply to AUTOMATIC DEPRESSURIZATION SYSTEM: ADS logic operation	3.8	10
209001 LPCS						X						K6.01 - Knowledge of the effect that a loss or malfunction of the following will have on the LOW PRESSURE CORE SPRAY SYSTEM: A.C. power	3.4	11
203000 RHR/LPCI: Injection Mode						X						K6.11 - Knowledge of the effect that a loss or malfunction of the following will have on the RHR/LPCI: INJECTION MODE (PLANT SPECIFIC): ADS	4.1	12
262002 UPS (AC/DC)						X						K6.02 - Knowledge of the effect that a loss or malfunction of the following will have on the UNINTERRUPTABLE POWER SUPPLY (A.C./D.C.): D.C. electrical power	2.8	13

NMP2 2017 NRC
Written Examination Outline
Plant Systems – Tier 2 Group 1

System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A2	A 3	A 4	G		Imp.	Q#
400000 Component Cooling Water							X					A1.02 - Ability to predict and / or monitor changes in parameters associated with operating the CCWS controls including: CCW temperature	2.8	14
205000 Shutdown Cooling								X				A2.08 - Ability to (a) predict the impacts of the following on the SHUTDOWN COOLING SYSTEM (RHR SHUTDOWN COOLING MODE); and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Loss of heat exchanger cooling	3.3	15
259002 Reactor Water Level Control								X				A2.01 - Ability to (a) predict the impacts of the following on the REACTOR WATER LEVEL CONTROL SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Loss of any number of main steam flow inputs	3.3	16
217000 RCIC									X			A3.04 - Ability to monitor automatic operations of the REACTOR CORE ISOLATION COOLING SYSTEM (RCIC) including: System flow	3.6	17
215004 Source Range Monitor									X			A3.04 - Ability to monitor automatic operations of the SOURCE RANGE MONITOR (SRM) SYSTEM including: Control rod block status	3.6	18
261000 SGTS										X		A4.03 - Ability to manually operate and/or monitor in the control room: Fan	3.0	19
215005 APRM / LPRM										X		A4.03 - Ability to manually operate and/or monitor in the control room: APRM back panel switches, meters and indicating lights	3.2	20
262001 AC Electrical Distribution											X	2.2.12 - Equipment Control: Knowledge of surveillance procedures.	3.7	21
223002 PCIS/Nuclear Steam Supply Shutoff											X	2.4.20 - Emergency Procedures / Plan: Knowledge of operational implications of EOP warnings, cautions, and notes.	3.8	22
205000 Shutdown Cooling										X		A4.01 - Ability to manually operate and/or monitor in the control room: SDC/RHR pumps	3.7	23
203000 RHR/LPCI: Injection Mode											X	2.1.25 - Conduct of Operations: Ability to interpret reference materials, such as graphs, curves, tables, etc.	3.9	24

NMP2 2017 NRC
Written Examination Outline
Plant Systems – Tier 2 Group 1

System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A2	A 3	A 4	G		Imp.	Q#
212000 RPS					X							K5.02 - Knowledge of the operational implications of the following concepts as they apply to REACTOR PROTECTION SYSTEM: Specific logic arrangements	3.3	25
218000 ADS				X								K4.03 - Knowledge of AUTOMATIC DEPRESSURIZATION SYSTEM design feature(s) and/or interlocks which provide for the following: ADS logic control	3.8	26
K/A Category Totals:	2	2	2	3	3	3	1	2/3	2	3	3/2	Group Point Total:	26/5	

NMP2 2017 NRC
Written Examination Outline
Plant Systems – Tier 2 Group 2

System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A2	A 3	A 4	G		Imp.	Q #
204000 RWCU								X				A2.08 - Ability to (a) predict the impacts of the following on the REACTOR WATER CLEANUP SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: RWCU pump seal failure	3.1	91
201006 RWM											X	2.1.32 – Conduct of Operations: Ability to explain and apply system limits and precautions.	4.0	92
286000 Fire Protection											X	2.4.11 - Emergency Procedures / Plan: Knowledge of abnormal condition procedures.	4.2	93
290001 Secondary Containment	X											K1.09 - Knowledge of the physical connections and/or cause-effect relationships between SECONDARY CONTAINMENT and the following: Plant air systems	2.9	27
215002 RBM		X										K2.01 - Knowledge of electrical power supplies to the following: RBM channels: BWR-3,4,5	2.5	28
290003 Control Room HVAC			X									K3.04 - Knowledge of the effect that a loss or malfunction of the CONTROL ROOM HVAC will have on following: Control room pressure	2.8	29
239001 Main and Reheat Steam				X								K4.10 - Knowledge of MAIN AND REHEAT STEAM SYSTEM design feature(s) and/or interlocks which provide for the following: Moisture removal from steam lines prior to admitting steam	2.9	30
202001 Recirculation					X							K5.03 - Knowledge of the operational implications of the following concepts as they apply to RECIRCULATION SYSTEM: Pump/motor cooling: Plant-Specific	2.7	31
216000 Nuclear Boiler Instrumentation						X						K6.02 - Knowledge of the effect that a loss or malfunction of the following will have on the NUCLEAR BOILER INSTRUMENTATION: D.C. electrical distribution	2.8	32
256000 Reactor Condensate							X					A1.09 - Ability to predict and/or monitor changes in parameters associated with operating the REACTOR CONDENSATE SYSTEM controls including: Feedwater temperature	3.1	33

NMP2 2017 NRC
Written Examination Outline
Plant Systems – Tier 2 Group 2

System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A2	A 3	A 4	G		Imp.	Q #
241000 Reactor/Turbine Pressure Regulator								X				A2.10 - Ability to (a) predict the impacts of the following on the REACTOR/TURBINE PRESSURE REGULATING SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Loss of stator water cooling: Plant-Specific	3.1	34
202002 Recirculation Flow Control									X			A3.02 - Ability to monitor automatic operations of the RECIRCULATION FLOW CONTROL SYSTEM including: Lights and alarms	3.4	35
230000 RHR/LPCI: Torus/Pool Spray Mode										X		A4.01 - Ability to manually operate and/or monitor in the control room: Pumps	3.7	36
226001 RHR/LPCI: Containment Spray Mode											X	2.4.21 - Emergency Procedures / Plan: 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.	4.0	37
272000 Radiation Monitoring									X			A3.01 - Ability to monitor automatic operations of the RADIATION MONITORING SYSTEM including: Main steam isolation indications	3.8	38
K/A Category Totals:	1	1	1	1	1	1	1	1/1	2	1	1/2	Group Point Total:		12/3

Facility:	NMP2 2017 NRC		Date:	05/24/16			
Category	K/A #	Topic	RO		SRO-Only	
			IR	Q#	IR	Q#
1. Conduct of Operations	2.1.34	Knowledge of primary and secondary plant chemistry limits.			3.5	94
	2.1.14	Knowledge of criteria or conditions that require plant-wide announcements, such as pump starts, reactor trips, mode changes, etc.	3.1	66		
	2.1.9	Ability to direct personnel activities inside the control room.	2.9	67		
	Subtotal			2		1
2. Equipment Control	2.2.42	Ability to recognize system parameters that are entry-level conditions for Technical Specifications.			4.6	95
	2.2.6	Knowledge of the process for making changes to procedures.			3.6	99
	2.2.36	Ability to analyze the effect of maintenance activities, such as degraded power sources, on the status of limiting conditions for operations.	3.1	68		
	2.2.13	Knowledge of tagging and clearance procedures.	4.1	69		
	2.2.39	Knowledge of less than or equal to one hour Technical Specification action statements for systems.	3.9	74		
	Subtotal			3		2
3. Radiation Control	2.3.15	Knowledge of radiation monitoring systems, such as fixed radiation monitors and alarms, portable survey instruments, personnel monitoring equipment, etc.			3.1	96
	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.			3.8	100
	2.3.11	Ability to control radiation releases.	3.8	70		
	2.3.4	Knowledge of radiation exposure limits under normal or emergency conditions.	3.2	71		
	Subtotal			2		2

4. Emergency Procedures / Plan	2.4.1	Knowledge of EOP entry conditions and immediate action steps.			4.8	97
	2.4.18	Knowledge of the specific bases for EOPs.			4.0	98
	2.4.6	Knowledge of EOP mitigation strategies.	3.7	72		
	2.4.28	Knowledge of procedures relating to a security event.	3.2	73		
	2.4.18	Knowledge of the specific bases for EOPs.	3.3	75		
	Subtotal			3		2
Tier 3 Point Total				10		7

Tier / Group	Randomly Selected K/A	Reason for Rejection
The systematic and random sampling process utilized the pre-approved Nine Mile Point Unit 2 K/A suppression list.		
The following K/As were rejected following the systematic and random sampling process:		
1 / 1	Question 80 295003 Partial or Complete Loss of AC Power 2.4.31 - Knowledge of annunciator alarms, indications, or response procedures.	An acceptable question could not be developed at the SRO level without testing minutia due to a lack of appropriate alarms. Randomly re-selected K/A 295003 Partial or Complete Loss of AC Power 2.4.41 - Knowledge of the emergency action level thresholds and classifications.
1 / 1	Question 82 295031 Reactor Low Water Level 2.4.45 - Ability to prioritize and interpret the significance of each annunciator or alarm.	An acceptable question could not be developed at the SRO level without testing minutia due to a lack of appropriate alarms. Randomly re-selected K/A 295031 Reactor Low Water Level 2.1.7 – Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation.
2 / 1	Question 89 211000 SLC 2.4.34 - Knowledge of RO tasks performed outside the main control room during an emergency and the resultant operational effects.	An acceptable question could not be developed at the SRO level due to lack of RO-specific tasks performed outside the Main Control Room related to SLC. Randomly re-selected K/A 211000 SLC 2.1.23 - Ability to perform specific system and integrated plant procedures during all modes of plant operation.

2 / 2	Question 92 201006 RWM 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.	The randomly sampled generic K/A is also sampled on Question 37 and does not fit well with the RWM system. Randomly re-selected K/A 201006 RWM 2.1.32 - Ability to explain and apply system limits and precautions.
3	Question 99 2.2.37 - Ability to determine operability and / or availability of safety related equipment.	The randomly sampled generic K/A is already tested on the SRO exam on Question 88. Randomly re-selected K/A 2.2.6 - Knowledge of the process for making changes to procedures.
2 / 1	Question 1 239002 SRVs K1.02 - Knowledge of the physical connections and/or cause-effect relationships between RELIEF/SAFETY VALVES and the following: SPDS/ERIS/CRIDS/GDS: Plant-Specific	An acceptable question could not be developed for the randomly sampled K/A because of limited and simplistic SRV indication on SPDS. Randomly re-selected K/A 239002 SRVs K1.06 - Knowledge of the physical connections and/or cause-effect relationships between RELIEF/SAFETY VALVES and the following: Drywell instrument air/ drywell pneumatics: Plant-Specific.
2 / 1	Question 6 223002 PCIS/Nuclear Steam Supply Shutoff K3.02 - Knowledge of the effect that a loss or malfunction of the PRIMARY CONTAINMENT ISOLATION SYSTEM/NUCLEAR STEAM SUPPLY SHUT-OFF will have on following: Fuel cladding temperature	An acceptable question could not be developed for the randomly sampled K/A without testing primarily GFES level knowledge. Randomly re-selected K/A 223002 PCIS/Nuclear Steam Supply Shutoff K3.19 - Knowledge of the effect that a loss or malfunction of the PRIMARY CONTAINMENT ISOLATION SYSTEM/NUCLEAR STEAM SUPPLY SHUT-OFF will have on following: Containment atmosphere sampling.

2 / 1	Question 7 211000 SLC K4.06 - Knowledge of STANDBY LIQUID CONTROL SYSTEM design feature(s) and/or interlocks which provide for the following: Core plate differential pressure indication	Core plate D/P indication at NMP2 does not use any part of SLC system. Randomly re-selected K/A 211000 SLC K4.10 - Knowledge of STANDBY LIQUID CONTROL SYSTEM design feature(s) and/or interlocks which provide for the following: Over pressure protection.
2 / 1	Question 25 212000 RPS K5.01 - Knowledge of the operational implications of the following concepts as they apply to REACTOR PROTECTION SYSTEM: Fuel thermal time constant	An acceptable question could not be developed for the randomly sampled K/A without testing primarily GFES level knowledge. Randomly re-selected K/A 212000 RPS K5.02 - Knowledge of the operational implications of the following concepts as they apply to REACTOR PROTECTION SYSTEM: Specific logic arrangements.
1 / 1	Question 46 295030 Low Suppression Pool Water Level EK3.07 - Knowledge of the reasons for the following responses as they apply to LOW SUPPRESSION POOL WATER LEVEL: NPSH considerations for ECCS pumps	An acceptable question could not be developed for the randomly sampled K/A without testing primarily GFES level knowledge. Additionally, NPSH considerations for ECCS pumps are already tested in a more operationally relevant way in Question 24. Randomly re-selected K/A 295030 Low Suppression Pool Water Level EK3.06 - Knowledge of the reasons for the following responses as they apply to LOW SUPPRESSION POOL WATER LEVEL: Reactor SCRAM.
1 / 1	Question 52 295018 Partial or Complete Loss of CCW AA2.02 - Ability to determine and/or interpret the following as they apply to PARTIAL OR COMPLETE LOSS OF COMPONENT COOLING WATER: Cooling water temperature	An acceptable question could not be developed without testing very similar concepts as those already tested in Question 14. Randomly re-selected K/A 295018 Partial or Complete Loss of CCW AA2.04 - Ability to determine and/or interpret the following as they apply to PARTIAL OR COMPLETE LOSS OF COMPONENT COOLING WATER: System flow.

1 / 1	Question 56 295019 Partial or Complete Loss of Instrument Air 2.4.49 - Ability to perform without reference to procedures those actions that require immediate operation of system	An acceptable question could not be developed for the randomly sampled generic K/A because N2-SOP-19, Loss of Instrument Air, does not have any immediate operator actions. Randomly re-selected K/A 295019 Partial or Complete Loss of Instrument Air 2.1.28 - Knowledge of the purpose and function of major system components and controls.
1 / 2	Question 64 295035 Secondary Containment High Differential Pressure 2.2.40 - Ability to apply technical specifications for a system.	An acceptable question could not be developed for the randomly sampled evolution without overlapping Question 85. Randomly re-selected K/A 295010 High Drywell Pressure 2.2.40 - Ability to apply technical specifications for a system.
3	Question 66 2.1.39 - Knowledge of conservative decision making practices.	An acceptable RO question could not be developed for the randomly sampled generic K/A and this topic is already tested adequately on the Operating exam. Randomly re-selected K/A 2.1.14 - Knowledge of criteria or conditions that require plant-wide announcements, such as pump starts, reactor trips, mode changes, etc.