Facility:		Callaway 2	007	NRC	Exa	amir	atio	n		Da	ate c	of Ex	am:	11/	/26/200	07			
						R	0 K	/A C	ateg	ory l	Poin	ts				SRC	)-Only	Poin	ts
Tier	r	Group	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G *	Total	A	2	G	*	Total
1.	0	1	3	3	3				3	3			3	18	3	3	3		6
Abnori	ncy & mal	2	2	2	1				1	2			1	9	2	2	2		4
Plan Evoluti	nt ons	Tier Totals	5	5	4				4	5			4	27	Ę	5	5		10
2	Plant	1	2	2	3	3	3	3	3	3	2	2	2	28	3	3	2		5
Syste	ms	2	1	0	1	1	1	1	1	1	1	1	1	10	1	0	2		3
		Tier Totals	3	2	4	4	4	4	4	4	3	3	3	38	4	4	4		8
3. Ger	eneric Knowledge and Abilities1234101234Categories422222101234														4	7			
	C	Categories	egories 4 2 2 2 2 2 1 2 7														,		
Note:	1.	Ensure th of the RC the "Tier	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). The point total for each group and tier in the proposed outline must match that specified in the														ch tier outline,		
	2.	The point table. The table bas must tota	the "Tier Totals" in each K/A category shall not be less than two). 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 $\pm 1$ 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/ evolution site-spec Attachme	evol's tha ific s ent 2	lutior at do syste , for	ns w not ms t guid	ithin app hat a lanc	eac ly at are r e reg	h gro the not ir gardi	oup a facili ncluc ing e	are i ity sh ded c elimir	dent noulo on th natio	ified d be le ou n of	on t dele utline inap	he assoc ted and should propriate	ciated justifie be add e K/A s	outline d; ope led. R statem	e; syste rationa efer to ents.	ems c ally in eS-4	r nportant, ł01,
	4.	Select to evolution	pics in tł	from ne gr	i as oup	man befo	y sys ore s	sterr elec	ns ar ting	nd ev a se	volut	ions d top	as p bic fo	oossible; or any sys	sampl stem o	e ever r evolu	y syste ution.	em or	
	5.	Absent a shall be s	plar selec	nt sp cted.	ecifi Us	c prie e the	ority, e RO	, onl and	y tho I SR	ose k O ra	(As tings	havii s for	ng a the	n importa	ance ra SRO-o	ating (I only po	R) of 2 rtions,	2.5 or resp	higher ectively.
	6.	Select SF	RO t	opics	s for	Tier	rs 1 a	and	2 fro	m th	e sh	ade	d sys	stems an	d K/A	catego	ories.		
	7.*	The gene the topics	eric ( s mu	G) K ist be	(/As e rele	in Ti evar	ers ′ it to i	1 an the a	d 2 s appli	shall cabl	be s e ev	selec oluti	ted <sup>-</sup> on o	from Sec r system	tion 2	of the	K/A C	atalo	g, but
	8.	On the for important and categorian equipment side of Construction SRO-only	llow ce ra gory nt is olum y exa	ing p ating . Ent sam nn A2 ams.	bage s (IF er th pled 2 for	s, er s) fo ie gr in o Tier	nter f or the oup ther 2, C	the F and thar Grou	۲/A r plica tier Ca p 2 (	total ble l total tego	pers, icen s for ry A e #1	, a b se le eac 2 or doe	rief c evel, ch ca G* c s no	descriptic and the itegory ir on the SF t apply).	on of ea point t the ta RO-onl Use du	ach toj otals (: ble ab y exan uplicat	pic, the #) for e ove; if n, ente e page	e topi each fuel er it oi es for	cs' system nandling n the left RO and
	9.	For Tier 3 description linked to	3, se ons, 10C	lect IRs, FR5	topic and 5.43	s fro poir	om S nt tot	Secti als (	on 2 (#) o	of tł n Fo	ne K rm E	/A C ES-4	atalo 01-3	og, and e 5. Limit S	enter th SRO se	ne K/A electior	numb ns to K	ers, (/As t	nat are

	-	-				-				
008 / Pressurizer Vapor Space Accident / 3						x	AA2.24	Ability to determine and interpret the following as they apply to the Pressurizer Vapor Space Accident: Value at which turbine bypass valve maintains header pressure after a reactor trip	2.6	76
027 / Pressurizer Pressure Control System Malfunction / 3	x						2.1.2	Conduct of Operations: Knowledge of operator responsibilities during all modes of plant operation.	4.0	77
038 / Steam Generator Tube Rupture / 3	x						2.4.4	Emergency Procedures / Plan Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures.	4.3	78
040 / Steam Line Rupture / 4	x						2.4.31	Emergency Procedures / Plan Knowledge of annunciators alarms and indications, and use of the response instructions.	3.4	79
058 / Loss of DC Power / 6						x	AA2.01	Ability to determine and interpret the following as they apply to the Loss of DC Power: That a loss of dc power has occurred; verification that substitute power sources have come on line	4.1	80
062 / Loss of Nuclear Service. Water / 4						x	AA2.05	Ability to determine and interpret the following as they apply to the Loss of Nuclear Service Water: The normal values for CCW-header flow rate and the flow rates to the components cooled by the CCWS	2.5	81
007 / Reactor Trip / 1			х				EK2.03	Knowledge of the interrelations between a reactor trip and the following: Reactor trip status panel	3.5	39
008 / Pressurizer Vapor Space Accident / 3				x			AK3.05	Knowledge of the reasons for the following responses as they apply to the Pressurizer Vapor Space Accident: ECCS termination or throttling criteria	4.0	40
009 / Small Break LOCA / 3	x						2.1.23	Conduct of Operations: Ability to perform specific system and integrated plant procedures during all modes of plant operation.	3.9	41
011 / Large Break LOCA / 3					x		EA1.05	Ability to operate and monitor the following as they apply to a Large Break LOCA: Manual and/or automatic transfer of suction of charging pumps to borated source	4.3	42
022 / Loss of Reactor Coolant Makeup / 2	х						2.1.27	Conduct of Operations: Knowledge of system purpose and or function.	2.8	43

E/	APE # / Name Safety Function	G	K1	K2	K3	A1	A2	Number	K/A Topic(s)	Imp.	Q#

			-	-	-					-
026 / Loss of Component Cooling Water / 8						х	AA2.01	Ability to determine and interpret the following as they apply to the Loss of Component Cooling Water: Location of a leak in the CCWS	2.9	44
027 / Pressurizer Pressure Control System Malfunction / 3			х				AK2.03	Knowledge of the interrelations between the Pressurizer Pressure Control Malfunctions and the following: Controllers and positioners	2.6	45
029 / Anticipated Transient Without Scram (ATWS) / 1			x				EK2.06	Knowledge of the interrelations between the and the following an ATWS: Breakers, relays, and disconnects	2.9	46
038 / Steam Generator Tube Rupture / 3		x					EK1.03	Knowledge of the operational implications of the following concepts as they apply to the SGTR: Natural circulation	3.9	47
040 / Steam Line Rupture / 4					x		AA1.15	Ability to operate and / or monitor the following as they apply to the Steam Line Rupture: T-ave. protection indicators	3.9	48
054 / Loss of Main Feedwater / 4		x					AK1.01	Knowledge of the operational implications of the following concepts as they apply to Loss of Main Feedwater (MFW): MFW line break depressurizes the S/G (similar to a steam line break)	4.1	49
055 / Station Blackout / 6		x					EK1.01	Knowledge of the operational implications of the following concepts as they apply to the Station Blackout : Effect of battery discharge rates on capacity	3.3	50
056 / Loss of Off-site Power / 6						х	AA2.88	Ability to determine and interpret the following as they apply to the Loss of Offsite Power: Necessary S/G water level for natural circulation	4.1	51
058 / Loss of DC Power / 6	x						2.4.31	Emergency Procedures / Plan Knowledge of annunciators alarms and indications, and use of the response instructions.	3.3	52
062 / Loss of Nuclear Service. Water / 4				x			AK3.04	Knowledge of the reasons for the following responses as they apply to the Loss of Nuclear Service Water Effect on the nuclear service water discharge flow header of a loss of CCW	3.5	53
065 / Loss of Instrument Air / 8				x			AK3.04	Knowledge of the reasons for the following responses as they apply to the Loss of Instrument Air: Cross-over to backup air supplies	3.0	54

E/APE # / Name Safety Function	G	K1	K2	K3	A1	A2	Number	K/A Topic(s)	Imp.	Q#
E04 / LOCA Outside Containment / 3						х	EA2.2	Ability to determine and interpret the following as they apply to the (LOCA Outside Containment) Adherence to appropriate procedures and operation within the limitations in the facility's license and amendments.	3.6	55
E11 / Loss of Emergency Coolant Recirculation / 4					x		EA1.1	Ability to operate and / or monitor the following as they apply to the (Loss of Emergency Coolant Recirculation) Components, and functions of control and safety systems, including instrumentation, signals, interlocks, failure modes, and automatic and manual features.	3.9	56
K/A Category Point Totals:	6	3	3	3	3	6	Group Point T	otal:		24

E/APE # / Name Safety Function	G	K1	K2	K3	A1	A2	Number	K/A Topic(s)	Imp.	Q#
001 / Continuous Rod Withdrawal / 1	x						2.1.23	Conduct of Operations: Ability to perform specific system and integrated plant procedures during all modes of plant operation.	4.0	82
005 / Inoperable/Stuck Control Rod / 1						x	AA2.04	Ability to determine and interpret the following as they apply to the Inoperable / Stuck Control Rod: Interpretation of computer in-core TC map for dropped rod location	3.4	83
E03 / LOCA Cooldown and Depressurization / 4						x	EA2.1	Ability to determine and interpret the following as they apply to the (LOCA Cooldown and Depressurization) Facility conditions and selection of appropriate procedures during abnormal and emergency operations.	4.2	84
E06 / Degraded Core Cooling / 4	x						2.2.22	Equipment Control Knowledge of limiting conditions for operations and safety limits.	4.1	85
001 / Continuous Rod Withdrawal / 1	x						2.1.14	Conduct of Operations: Knowledge of system status criteria which require the notification of plant personnel.	2.5	57
024 / Emergency Boration / 1						x	AA2.03	Ability to determine and interpret the following as they apply to the Emergency Boration: Correlation between boric acid controller setpoint and boric acid flow	2.9	58
059 / Accidental Liquid RadWaste Release / 9		x					AK1.02	Knowledge of the operational implications of the following concepts as they apply to Accidental Liquid Radwaste Release: Biological effects on humans of various types of radiation, exposure levels that are acceptable for nuclear power plant personnel, and the units used for radiation-intensity measurements and for radiation exposure levels	2.6	59
069 / Loss of Containment Integrity / 5						x	AA2.02	Ability to determine and interpret the following as they apply to the Loss of Containment Integrity: Verification of automatic and manual means of restoring integrity	3.9	60
076 / High Reactor Coolant Activity / 9			x				AK2.01	Knowledge of the interrelations between the High Reactor Coolant Activity and the following: Process radiation monitors	2.6	61

E/APE # / Name Safety Function	G	K1	K2	K3	A1	A2	Number	K/A Topic(s) Ir	mp.	Q#
E02 / SI Termination / 3			x				EK2.2	Knowledge of the interrelations between the (SI Termination) and the following: Facility's heat removal systems, including primary coolant, emergency coolant, the decay heat removal systems, and relations between the proper operation of these systems to the operation of the facility.	3.5	62
E03 / LOCA Cooldown and Depressurization / 4					x		EA1.2	Ability to operate and / or monitor the following as they apply to the (LOCA Cooldown and Depressurization) Operating behavior characteristics of the facility.	3.7	63
E07 / Saturated Core Cooling / 4				x			EK3.4	Knowledge of the reasons for the following responses as they apply to the (Saturated Core Cooling) RO or SRO function as a within the control room team as appropriate to the assigned position, in such a way that procedures are adhered to and the limitations in the facilities license and amendments are not violated.	3.3	64
E08 / Pressurized Thermal Shock / 4		x					EK1.3	Knowledge of the operational implications of the following concepts as they apply to the (Pressurized Thermal Shock) Annunciators and conditions indicating signals, and remedial actions associated with the (Pressurized Thermal Shock).	3.5	65
K/A Category Point Total:	3	2	2	1	1	4	Group Point T	otal:		13

System #/Name	G	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	Number	K/A Topics	Imp.	Q#
005 Residual Heat Removal									x			A2.01	Ability to (a) predict the impacts of the following malfunctions or operations on the RHRS, and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Failure modes for pressure, flow, pump motor amps, motor temperature, and tank level instrumentation	2.9	86
006 Emergency Core Cooling									x			A2.12	Ability to (a) predict the impacts of the following malfunctions or operations on the ECCS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Conditions requiring actuation of ECCS	4.8	87
012 Reactor Protection	x											2.4.50	Emergency Procedures / Plan Ability to verify system alarm setpoints and operate controls identified in the alarm response manual.	3.3	88
062 AC Electrical Distribution	x											2.2.25	Equipment Control Knowledge of bases in technical specifications for limiting conditions for operations and safety limits.	3.7	89
064 Emergency Diesel Generator									x			A2.12	Ability to (a) predict the impacts of the following malfunctions or operations on the ED/G system; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Loss of air-cooling fans	3.1	90
003 Reactor Coolant Pump										х		A3.04	Ability to monitor automatic operation of the RCPS, including: RCS flow	3.6	1
004 Chemical and Volume Control						x						K5.26	Knowledge of the operational implications of the following concepts as they apply to the CVCS: Relationship between VCT pressure and NPSH for charging pumps	3.1	2
005 Residual Heat Removal							х					K6.03	Knowledge of the effect of a loss or malfunction on the following will have on the RHRS: RHR heat exchanger	2.5	3
006 Emergency Core Cooling									x			A2.12	Ability to (a) predict the impacts of the following malfunctions or operations on the ECCS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Conditions requiring actuation of ECCS	4.5	4
007 Pressurizer Relief/Quench Tank											x	A4.10	Ability to manually operate and/or monitor in the control room: Recognition of leaking PORV/code safety	3.6	5

System #/Name	G	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	Number	K/A Topics	Imp.	Q#
	-														-
008 Component Cooling Water								х				A1.04	Ability to predict and/or monitor changes in parameters to prevent exceeding design limits) associated with operating the CCWS controls including: Surge tank level	3.1	6
010 Pressurizer Pressure Control		х										K1.08	Knowledge of the physical connections and/or cause-effect relationships between the PZR PCS and the following systems: PZR LCS	3.2	7
012 Reactor Protection							х					K6.03	Knowledge of the effect of a loss or malfunction of the following will have on the RPS: Trip logic circuits	3.1	8
012 Reactor Protection				Х								K3.04	Knowledge of the effect that a loss or malfunction of the RPS will have on the following: ESFAS	3.8	9
013 Engineered Safety Features Actuation								х				A1.08	Ability to predict and/or monitor changes in parameters (to Prevent exceeding design limits) associated with operating the ESFAS controls including: Containment sump level	3.7	10
013 Engineered Safety Features Actuation					x							K4.06	Knowledge of ESFAS design feature(s) and/or interlock(s) which provide for the following Recirculation actuation system reset	4.0	11
022 Containment Cooling										х		A3.01	Ability to monitor automatic operation of the CCS, including: Initiation of safeguards mode of operation	4.1	12
022 Containment Cooling					х							K4.02	Knowledge of CCS design feature(s) and/or interlock(s) which provide for the following: Correlation of fan speed and flowpath changes with containment pressure	3.1	13
026 Containment Spray					x							K4.08	Knowledge of CSS design feature(s) and/or interlock(s) which provide for the following: Automatic swapover to containment sump suction for recirculation phase after LOCA (RWST low- low level alarm)	4.1	14
039 Main and Reheat Steam						x						K5.01	Knowledge of the operational implications of the following concepts s the apply to the MRSS: Definition and causes of steam/water hammer	2.9	15
059 Main Feedwater									x			A2.11	Ability to (a) predict the impacts of the following malfunctions or operations on the MFW; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Failure of feedwater control system	3.0	16

System #/Name	G	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	Number	K/A Topics	Imp.	Q#
059 Main Feedwater		x										K1.02	Knowledge of the physical connections and/or cause-effect relationships between the MFW and the following systems: AFW system	3.4	17
061 Auxillary/Emergency Feedwater			x									K2.02	Knowledge of bus power supplies to the following: AFW electric driven pump	3.7	18
062 AC Electrical Distribution				х								K3.01	Knowledge of the effect that a loss or malfunction of the ac distribution system will have on the following: Major system loads	3.5	19
063 DC Electrical Distribution			х									K2.01	Knowledge of bus power supplies to the following: Major dc loads	2.9	20
064 Emergency Diesel Generator							х					K6.08	Knowledge of the effect of a loss or malfunction of the following will have on the ED/G system: Fuel oil storage tanks	3.2	21
073 Process Radiation Monitoring						x						K5.02	Knowledge of the operational implications as they apply to concepts as they apply to the PRM system: Radiation intensity changes with source distance	2.5	22
073 Process Radiation Monitoring									x			A2.02	Ability to (a) predict the impacts of the following malfunctions or operations on the PRM system; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Detector failure	2.7	23
076 Service Water	x											2.1.2	Conduct of Operations: Knowledge of operator responsibilities during all modes of plant operation.	3.0	24
076 Service Water								x				A1.02	Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the SWS controls including: Reactor and turbine building closed cooling water temperatures.	2.6	25
078 Instrument Air	x											2.4.50	Emergency Procedures / Plan Ability to verify system alarm setpoints and operate controls identified in the alarm response manual.	3.3	26
103 Containment											х	A4.03	Ability to manually operate and/or monitor in the control room: ESF slave relays	2.7	27
103 Containment				x								K3.01	Knowledge of the effect that a loss or malfunction of the containment system will have on the following: Loss of containment integrity under shutdown conditions	3.3	28

System #/Name	G	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	Number		K/A Topics	Imp.	Q#
K/A Category Point Totals:	4	2	2	3	3	3	3	3	6	2	2	Group F	Point Total:			33

System #/Name G K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 Number K/A Topics Imp. Q#	System #/Name	G	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	Number	K/A Topics	Imp.	Q#
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			r		1					1		-			
002 Reactor Coolant	x											2.1.14	Conduct of Operations: Knowledge of system status criteria which require the notification of plant personnel.	3.3	91
015 Nuclear Instrumentation	х											2.2.22	Equipment Control: Knowledge of limiting conditions for operations and safety limits.	4.1	92
034 Fuel Handling Equipment		x										K1.03	Knowledge of the physical connections and/or cause-effect relationships between the Fuel Handling System and the following systems: CVCS	2.7	93
001 Control Rod Drive											х	A4.10	Ability to manually operate and/or monitor in the control room: Determination of an ECP	3.5	29
002 Reactor Coolant										х		A3.01	Ability to monitor automatic operation of the RCS, including: Reactor coolant leak detection system	2.7	30
011 Pressurizer Level Control					х							K4.03	Knowledge of PZR LCS design feature(s) and/or interlock(s) which provide for the following: Density compensation of PZR level	2.6	31
016 Non-nuclear Instrumentation				х								K3.12	Knowledge of the effect that a loss or malfunction of the NNIS will have on the following: S/G	3.4	32
029 Containment Purge								x				A1.02	Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the Containment Purge System controls including: Radiation levels	3.4	33
045 Main Turbine Generator		x										K1.06	Knowledge of the physical connections and/or cause-effect relationships between the MT/G system and the following systems: RCS, during steam valve test	2.6	34
068 Liquid Radwaste							х					K6.10	Knowledge of the effect of a loss or malfunction on the following will have on the Liquid Radwaste System : Radiation monitors	2.5	35
071 Waste Gas Disposal						х						K5.04	Knowledge of the operational implication of the following concepts as they apply to the Waste Gas Disposal System: Relationship of hydrogen/oxygen concentrations to flammability	2.5	36
072 Area Radiation Monitoring									x			A2.02	Ability to (a) predict the impacts of the following malfunctions or operations on the ARM system- and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Detector failure	2.8	37

System #/Name	G	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	Number		K/A Topics	Imp.	Q#
086 Fire Protection	x											2.1.23	Conduct of Operations: Ability to perform specific system and integrated plant procedures during all modes of plant operation. 3.9		3.9	38
K/A Category Point Totals:	3	1	0	1	1	1	1	1	1	1	1	Group Poir	nt Total:			13

Facility:	Cal	laway 200 Examinati	7 NRC	Date of Exam:		11/2			
0.1	<u></u>			<b>.</b>		R	0	SRO	-Only
Categ	jory	K/A #		Горіс	IR	Q#	IR	Q#	
		2.1.32	Ability to exp precautions	olain and apply all syste			3.8	94	
		2.1.5	Ability to loc directives re	ate and use procedures lated to shift staffing an			3.4	95	
1.		2.1.24	Ability to obt and mechar	tain and interpret station nical drawings.	ı electrical	2.8	66		
Conduct of Operations		2.1.30	Ability to loc including loc	ate and operate compo cal controls.	nents,	3.9	67		
		2.1.29	Knowledge of lineups.	of how to conduct and v	erify valve	3.4	68		
		2.1.20	Ability to exe	ecute procedure steps.		4.3	69		
		Subtotal				4		2	
		2.2.9	Knowledge of proposed ch the probabilition an accident experiment.	of the process for detern hange, test or experimen ity of occurrence or con during the change, test	mining if the nt increases sequences of or			3.3	96
		2.2.19	Knowledge of requirement	of maintenance work or			3.1	97	
2. Equipment (	Control	2.2.25	Knowledge for limiting c limits.	of bases in technical sp onditions for operations	ecifications and safety	2.5	70		
	2.2.30	Knowledge of during fuel h handling are facility, syste in support of instrumenta	of RO duties in the cont nandling such as alarms a, communication with ems operated from the of f fueling operations, an tion.	3.5	71				
		Subtotal					2		2
		2.3.4	Knowledge of contamination levels in exc	of radiation exposure lin on control, including per cess of those authorized	nits and missible I			3.1	98
3. Rediction C	antral	2.3.11	Ability to cor	ntrol radiation releases.	2.7	72			
Raulauon C	Officion	2.3.9	Knowledge containment	of the process for perfor t purge.	rming a	2.5	73		
		Subtotal				2		1	
		2.4.44	Knowledge or recommend	of emergency plan prote ations.	ective action			4.0	99
		2.4.6	Knowledge strategies.	symptom based EOP m			4.0	100	
4. Emergency Procedures / Plan	/ Plan	2.4.34	Knowledge of main control including system implications	of RO tasks performed of RO tasks performed of I room during emergence stem geography and sy .	outside the y operations stem	3.8	74		
		2.4.2	Knowledge of automatic ac conditions.	of system set points, int ctions associated with E	3.9	75			
		Subtotal					2		2
Tier 3 Point	Total						10		7

Tier / Group	Randomly Selected K/A	Reason for Rejection
1/2	001 / 2.4.30	The subject K/A's importance rating isn't equal to or greater than 2.5 for the license level of the proposed examination, and there isn't a site-specific priority that justifies keeping the K/A if its importance rating is below 2.5. Randomly replaced with G2.1.14
1 / 1	008 AK3.02	Excessive overlap for topic with question 5. Randomly selected 008 AK3.05
2 / 1	025 K4.02	Facility does not have Ice Condenser. Randomly selected system 022. Kept K4.02
2 / 1	061 K2.03	Facility does not have a diesel driven AFW Pump. Randomly selected 061 K2.02
2/2	002 A3.02	Facility does not have a containment sound monitoring system. Randomly selected 002 A3.01
2 / 1	010 K1.05	Excessive overlap for topic with question 5. Randomly selected 010 K1.08
3 / 4	G2.4.49	RO level Generic not suitable for SRO topic. (Immediate Actions) Randomly selected G2.4.6
2/2	015 G2.4.49	RO level Generic not suitable for SRO topic. (Immediate Actions) Randomly selected 015 G2.2.22
2 / 1	006 A2.04	No procedure guidance for topic, no credible scenario to serve as basis for test item. Randomly selected 006 A2.12

#### Callaway 2007 NRC Initial License Written Examination Written Examination Outline Methodology

The written examination outline was developed using a proprietary electronic random outline generator developed by Western Technical Services, Inc.

The software was designed to provide a written examination outline in accordance with the criteria contained in NUREG 1021, Revision 9.

The application was developed using Visual Basic code, relying on a true random function based on the PC system clock. The random generator selects topics in a Microsoft Access Database containing Revision 2 of the PWR K&A catalogue. The selected data is then written to a separate data table. The process for selection of topics is similar to the guidance in ES-401, Attachment 1.

The attached outline report and plant specific suppression profile report are written directly from the data tables created by the software. Electronic copies of the data tables are on file.

The process used to develop the outlines is as follows:

- For Tier 1 and Tier 2 generic items, only the items required to be included in accordance with ES-401, Attachment 2 are included in the generation process.
- Outline is generated for all topics with KA importance ≥2.5.
- 25 SRO topics are randomly selected from Tier 1 AA2 and required generic items, Tier 2 A2 and required generic items, (including all System 034 topics) and Tier 3 generic items (All with ties to 10CFR55.43). 75 RO topics are randomly selected to complete the outline, 100 topics total.
- The exam report generated lists the topic (Question) number in the far right column. RO topics are numbered 1-75, and SRO topics are numbered 76–100. The SRO topics are written in red ink for ease of identification.
- Items that are rejected after the initial generation process are placed on the rejected items page. Replacement topics are either randomly generated or are inserted upon direction of the Chief Examiner.
- Disposition of any item randomly selected but not included in the outline is documented and included.