

Draft Submittal

**NORTH ANNA JUNE EXAM
50-338 & 50-33912004-301**

JUNE 17 - 25, 2004

Written Exam Sample outlines

NORTH ANNA
RD

Tier ■ Group ■

Name/Safety Function	K1	K2	K3	A1	A2	G	KA	Question Type	K/A Topic(s)	RO	RO
Reactor Trip - Stabilization - Recovery! 1	0	1	0	0	0	0	007EK2.02	Knowledge of the interrelations between (EMERGENCY PLANT EVOLUTION) and the following:(CFR: 41.7 / 45.7 / 45.8)	Breakers, relays and disconnects	2.6	2.8
Pressurizer Vapor Space Accident! 3	1	0	0	0	0	0	008AK1.02	Knowledge of the operational implications of the following concepts as they apply to the (ABNORMAL PLANT EVOLUTION):(CFR: 41.8 to 41.10 / 45.3)	Change in leak rate with change in pressure	3.1	3.7
Small Break LOCA / 3	0	0	0	1	0	0	009EA1.17	Ability to operate and / or monitor the following as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.7 / 45.5 / 45.6)	PRT	3.4	3.4
Large Break LOCA! 3	0	0	0	0	0	1	011EG2.4.49	This is a Generic, no stem Statement is associated.	Ability to perform without reference to procedures those actions that require immediate operation of system components and controls.	4	4
RCP Malfunctions 14	0	0	0	0	1	0	015AA2.08	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	When to secure RCPs on high bearing temperature	3.4	3.5
Loss of Rx Coolant Makeup / 2	0	0	0	0	0	0	022AK3.05	Knowledge of the reasons for the following responses as they apply to (ABNORMAL PLANT EVOLUTION):(CFR: 41.5 / 41.10 / 45.6 / 45.13)	K/A Randomly Rejected	3.2	3.4
Loss of RHR System / 4	0	0	0	0	0	0	025AK1.01	Knowledge of the operational implications of the following concepts as they apply to the (ABNORMAL PLANT EVOLUTION):(CFR: 41.8 to 41.10 / 45.3)	K/A Randomly Rejected	3.9	4.3

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Pier 1 Group 1

Name/Safety Function	K1	K2	K3	A1	A2	G	KA	Question Type	K/A Topic(s)	RO	SRO
Loss of Component Cooling Water / 8	0	0	0	0	0	0	026AK1	Knowledge of the operational implications of the following concepts as they apply to the (ABNORMAL PLANT EVOLUTION):(CFR: 41.8 to 41.10 / 45.3)	K/A Randomly Rejected	0	0
Pressurizer Pressure Control System Malfunction/ 3	0	0	1	0	0	0	027AK3.01	Knowledge of the reasons for the following responses as they apply to (ABNORMAL PLANT EVOLUTION):(CFR: 41.5 / 41.10 / 45.6 / 45.13)	Isolation of PZR spray following loss of PZR heaters	3.5	3.8
ATWS / 1	1	0	0	0	0	0	029EK1.03	Knowledge of the operational implications of the following concepts as they apply to the EMERGENCY PLANT EVOLUTION):(CFR: 41.8 to 41.10 / 45.3)	K/A Randomly Rejected	3.6	3.8
Steam Gen. Tube Rupture / 3	1	0	0	0	0	0	038EK1.02	Knowledge of the operational implications of the following concepts as they apply to the EMERGENCY PLANT EVOLUTION):(CFR: 41.8 to 41.10 / 45.3)	Leak rate vs. pressure drop	3.2	3.5
Steam Line Rupture – Excessive Heat Transfer / 4	0	0	1	0	0	0	040AK3.04	Knowledge of the reasons for the following responses as they apply to (ABNORMAL PLANT EVOLUTION):(CFR: 41.5 / 41.10 / 45.6 / 45.13)	Actions contained in EOPs for steam line rupture	4.5	4.7
Loss of Main Feedwater / 4	0	0	0	1	0	0	054AA1.03	Ability to operate and / or monitor the following as they apply to (ABNORMAL PLANT EVOLUTION):(CFR: 41.7 / 45.5 / 45.6)	APW auxiliaries, including oil cooling water supply	3.5	3.7
Station Blackout / 6	0	0	0	0	0	1	055EG2.4.6	This is a Generic, no stem statement is associated.	Knowledge symptom based EOP mitigation strategies.	3.1	4
Loss of Off-site Power / 6	1	0	0	0	0	0	056AK1.01	Knowledge of the operational implications of the following concepts as they apply to the (ABNORMAL PLANT	Principle of cooling by natural convection	3.7	4.2

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Name/Safety Function	K2	K3	A	Q2	G	KA	Question Type	K/A Topic(s)	RO	SR
Loss of Vital AC Inst Bus / 6	0	1		0	0	057AK3.01	Knowledge of the reasons for the following responses as they apply to (ABNORMAL PLANT EVOLUTION):(CFR: 41.5 / 41.10 / 45.6 / 45.13)	Actions contained in EOP for loss of vital ac electrical instrument bus	4.1	4.4
Loss of DC Power / 6	0	0		1	0	058AA2.03	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	DC loads lost; impact on ability to operate and monitor plant systems	3.5	3.9
	0	0	0	0	0	062AK2		K/A Rejected	0	0
I8				1	0	065AA2.03	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	Location and isolation of leaks	2.6	2.9
LOCA Outside Containment / 3	0	0	0	1	0	WE04EA2.1	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	Facility conditions and selection of appropriate procedures during abnormal and emergency operations.	3.4	4.3
	0	1	0	0	0	WE11EK2.2	Knowledge of the interrelations between (EMERGENCY PLANT EVOLUTION) and the following:(CFR: 41.7 / 45.7 / 45.8)	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	3.9	4.3
	0	0	0	0	0	WE12EG2.4.6	This is a Generic, no stem statement is associated	WA Randomly Rejected	3.1	4

Tier 1 Group 1

Name/Safety Function	K1	K2	K3	A1	A2	G	KA	Question Type	K/A Topic(s)	RO	SRO
Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4	0	1	0	0	0	0	VE05EK2.2	Knowledge of the interrelations between (EMERGENCY PLANT EVOLUTION) and the following:(CFR: 41.7 / 45.7 / 45.8)	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.	3.9	4.2
RCP Malfunctions / 4	0	0	0	0	0	0	15AG2.1.28	This is a Generic, no stem statement is associated.	Knowledge of the purpose and function of major system components and controls.	3.2	3.3

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Tier 1 Group 2

Name / Safety Function	K1	K2	K3	A1	A2	KA	Question Type	K/A Topic(s)	RO	SR
Continuous Rod Withdr	0	0	0	0	0	001AK3.02	Knowledge of the reasons for the following responses as they apply to (ABNORMAL PLANT EVOLUTION):(CFR: 41.5 / 41.10 / 45.6 / 45.13)	K/A Randomly Rejected	3.2	4.3
Dropped Control Rod /	0	0	1	0	0	003AK3.09	Knowledge of the reasons for the following responses as they apply to (ABNORMAL PLANT EVOLUTION):(CFR: 41.5 141.10: 45.6 145.13)	Recording of group bank position for dropped rod (reference point used to withdraw dropped rod to equal height with other rods in the bank)	3	3.5
Inoperable/Stuck Contr	0	0	0	0	0	005AK3.05	Knowledge of the reasons for the following responses as they apply to (ABNORMAL PLANT EVOLUTION):(CFR: 41.5 / 41.10 / 45.8 145.13)	K/A Randomly Rejected	3.4	4.2
Emergency Boration /	1	0	0	0	0	024AK1.04	Knowledge of the operational implications of the following concepts as they apply to the (ABNORMAL PLANT EVOLUTION):(CFR: 41.8 to 41.10 145.3)	Low temperature limits for boron concentration	2.8	3.6
Pressurizer Level Malft	0	0	0	0	0	028AK2.03	Knowledge of the interrelations between (ABNORMAL PLANT EVOLUTION) and the following:(CFR: 41.7 / 45.7 / 45.8)	K/A Randomly Rejected	2.6	2.9
Loss of Source Range	0	0	0	0	1	032AA2.09	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 143.5 145.13)	Effect of improper HV setting	2.5	2.9
Loss of Intermediate R	0	0	0	0	1	033AA2.05	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	Nature of abnormality from rapid survey of control room data	3	3.1
Fuel Handling Accident	0	0	0	0	0	036AA1.03	Ability to operate and / or monitor the following as they apply to (ABNORMAL PLANT EVOLUTION)	K/A Randomly Rejected	3.5	3.9

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Tier1 Group2

		(3	A1	A2	G	KA	Question Type	K/A Topic(s)	RO	SRO
							PLANT EVOLUTION):(CFR: 41.7 / 45.5 / 45.6)			
		0	0	0	0	037AA2.16	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	4.1	4.3
Loss of Condenser Vac	0	0	1	0	0	051AA1.04	Ability to operate and / or monitor the following as they apply to (ABNORMAL PLANT EVOLUTION):(CFR: 41.7 / 45.5 / 45.0)	Rod position	2.5	2.5
Accidental Liquid RadV	0	0	0	0	0	059AK1.02	Knowledge of the operational implications of the following concepts as they apply to the (ABNORMAL PLANT EVOLUTION):(CFR: 41.8 to 41.10 / 45.3)	K/A Randomly Rejected	2.6	3.2
Accidental Gaseous Ra	0	0	0	0	0	060AK2.02	Knowledge of the interrelations between (ABNORMAL PLANT EVOLUTION) and the following:(CFR: 41.7 / 45.7 / 45.8)	K/A Randomly Rejected	2.7	3.1
ARM System Alarms /	0	0	0	0	0	061AK2.01	Knowledge of the interrelations between (ABNORMAL PLANT EVOLUTION) and the following:(CFR: 41.7 / 45.7 / 45.8)	Detectors at each ARM system location	2.5	2.6
		0	0	0	1	067AG2.2.22	This is a Generic, no stem statement is associated.	Knowledge of limiting conditions for operations and safety limits.	3.4	4.1
Control Room Evac. / E	0	0	0	0	0	068AA1.16	Ability to operate and / or monitor the following as they apply to (ABNORMAL PLANT EVOLUTION):(CFR: 41.7 / 45.5 / 45.6)	K/A Randomly Rejected	3.2	3.3
Loss of CTMT Integrity	0	0	0	0	0	069AA1.01	Ability to operate and / or monitor the	K/A Randomly Rejected	3.5	3.7

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Name / Safety Function	K1	K2	K3	A1	A2	G	KA	Question Type	K/A Topic(s)	RO	SRO
								following as they apply to (ABNORMAL PLANT EVOLUTION):(CFR: 41.7 145.5 / 145.6)			
Inad. Core Cooling / 4	0	0	0	0	0	0	074EK3.04	Knowledge of the reasons for the following responses as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.5 / 41.10 / 45.6 / 145.13)	K/A Randomly Rejected	3.9	4.2
High Reactor Coolant /	0	0	0	0	0	0	076AK1	Knowledge of the operational implications of the following concepts as they apply to the (ABNORMAL PLANT EVOLUTION):(CFR: 41.8 to 41.10 / 45.3)	K/A Randomly Rejected	0	0
Radiagnosis / 3	0	0	0	0		0	WE01EK1.2	Knowledge of the operational implications of the following concepts as they apply to the EMERGENCY PLANT EVOLUTION):(CFR: 41.8 to 41.10 / 45.3)	WA Randomly Rejected	3.4	
Steam Generator Over	0	0	0	0	0	0	WE13EK3.3	Knowledge of the reasons for the following responses as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.5 / 41.10 / 45.6 / 45.13)	K/A Randomly Rejected	3.2	3.4
Containment Flooding	0	0	0	0	0	0	WE15EA1.3	Ability to operate and/or monitor the following as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.7 / 45.5 / 45.6)	K/A Randomly Rejected	2.8	3.0
High Containment Rad	0	0	0	0	0	0	WE16EK1.2	Knowledge of the operational implications of the following concepts as they apply to the EMERGENCY PLANT EVOLUTION):(CFR: 41.8 to 41.10 / 145.3)	K/A Randomly Rejected	2.7	3.2

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Tier 1 Group 2

Name / Safety Function	K1	K2	K3	A1	A2	G	KA	Question Type	K/A Topic(s)	RO	SRO
SI Termination / 3	0	1	0	0	0	0	WE02EK2.2	Knowledge of the interrelations between (EMERGENCY PLANT EVOLUTION) and the following:(CFR: 41.7 / 45.7 / 45.8)	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	3.9
LOCA Cooldown - Dep	0	0	0	0	0	0	WE03EK1.3	Knowledge of the operational implications of the following concepts as they apply to the EMERGENCY PLANT EVOLUTION):(CFR: 41.8 to 41.10 / 45.3)	K/A Randomly Rejected	3.5	3.8
Natural Circ. / 4	0	0	0	0	0	0	WE09EA2.1	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	3.1	3.8
Natural Circ. With Sear	0	0	0	0	0	0	WE10EK2.2	Knowledge of the interrelations between (EMERGENCY PLANT EVOLUTION) and the following:(CFR: 41.7 / 45.7 / 45.8)	K/A Randomly Rejected	3.6	3.9
RCS Overcooling - PT	0	0	0	0	0	0	WE08EA2.1	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	3.4	4.2
Degraded Core Cooling	0	0	0	1	0	0	WE06EA2.2	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	Adherence to appropriate procedures and operation within the limitations in the facility's license and amendments.	3.5	4.1
Saturated Core Cooling	0	0	0	0	0	0	WE07EK2.1	Knowledge of the interrelations between (EMERGENCY PLANT EVOLUTION) and the following:(CFR: 41.7 / 45.7 / 45.8)	K/A Randomly Rejected	3.2	3.5
Loss of CTMT Integrity	0	0	0	0	0	0	WE14EG2.4.4	This is a Generic, no stem statement is	K/A Randomly Rejected	4	4

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Tier 1 Group 2

Name / Safety Function	K1	K2	K3	A1	A2	G	KA	Question Type	K/A Topic(s)	RO	SRO
								associated.			

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Tier 2 Group 1

Name / Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	Question Type	Topic(s)	KA	RO	SRO
Reactor Coolant Pump	0	0	0	0	0	0	0	0	0	0	1	This is a Generic, no stem statement is associated.	Knowledge of limiting conditions for operations and safety limits.	003GG2.2.22	3.4	4.1
Chemical and Volume Control	0	1	0	0	0	0	0	0	0	0	0	Knowledge of electrical power supplies to the following:(CFR: 41.7)	BWST tank heaters	004K2.04		
Residual Heat Removal	1	0	0	0	0	0	0	0	0	0	0	Knowledge of the physical connections and/or cause-effect relationships between (SYSTEM) and the following:(CFR: 41.2 to 41.9 145.7 to 45.8)	RCSO	005K1.09	3.6	3.9
Emergency Core Cooling	0	1	0	0	0	0	0	0	0	0	0	Knowledge of electrical power supplies to the following:(CFR: 41.7)	ESFAS-operated valves	006K2.04	3.6	3.8
Pressurizer Relief/Quench Tank	0	0	0	0	0	0	0	0	0	1	0	Ability to manually operate and/or monitor in the control room:(CFR: 41.7 / 45.5 to 45.8)	PRT spray supply valve	007A4.01	2.7	2.7
Component Cooling Water	0	0	0	1	0	0	0	0	0	0	0	Knowledge of (SYSTEM) design feature(s) and or interlock(s) which provide for the following:(CFR: 41.7)	Operation of the CCW swing-bus power supply and its associated breakers and controls	008K4.07	2.6	2.7
Pressurizer Pressure Control	0	0	0	0	0	0	0	0	0	0	1	This is a Generic, no stem statement is associated.	Knowledge of annunciators alarms and indications and use of the response instructions.	010GG2.4.31	3.3	3.4
Reactor Protection	0	1	0	0	0	0	0	0	0	0	0	Knowledge of electrical power supplies to the following:(CFR: 41.7)	RPS channels, components and interconnections	012K2.01	3.3	3.7
Engineered Safety Features Actuation	0	0	0	1	0	0	0	0	0	0	0	Knowledge of (SYSTEM) design feature(s) and or interlock(s) which provide for the following:(CFR: 41.7)	Safeguards equipment control reset	013K4.10	3.3	3.7

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Tier 2 Group 1

Name / Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	Question Type	KIA Topic(s)	KA	IO	SRC
Containment Cooling	0	0	1	0	0	0	0	0	0	0	0	Knowledge of the effect that a loss or malfunction of the (SYSTEM) will have on the following:(CFR: 41.7 / 45.6)	Containment equipment subject to damage by high or low temperature, humidity and pressure	022K3.01	9	3.2
Ice Condenser	0	0	0	0	0	0	0	0	0	0	0		K/A Rejected	025K5.02		
Containment Spray	0	0	0	0	0	0	0	0	1	0	0	Ability to monitor automatic operations of the (SYSTEM) including:(CFR: 41.7 / 45.5)	Verification that cooling water is supplied to the containment spray heat exchanger	026A3.02	9	4.2
Main and Reheat-Steam	1	0	0	0	0	0	0	0	0	0	0	Knowledge of the physical connections and/or cause-effect relationships between (SYSTEM) and the following:(CFR: 41.2 to 41.9 / 45.7 to 45.8)	AFW	039K1.07	3.4	3.4
Condensate	1	0	0	0	0	0	0	0	0	0	0	Knowledge of the physical connections and/or cause-effect relationships between (SYSTEM) and the following:(CFR: 41.2 to 41.9 / 45.7 to 45.8)	MFW	056K1.03	2.6	2.6
Main Feedwater	1	0	0	0	0	0	0	0	0	0	0	Knowledge of the physical connections and/or cause-effect relationships between (SYSTEM) and the following:(CFR: 41.2 to 41.9 / 45.7 to 45.8)	AFW system	059K1.02	3.4	3.4
Auxiliary/Emergency Feedwater	0	0	0	0	1	0	0	0	0	0	0	Knowledge of the operational implications of the following concepts as they apply to the (SYSTEM):(CFR: 41.5 / 45.7)	Feed line voiding and water hammer	061K5.04	2.7	3.2
AC Electrical Distribution	0	0	0	0	0	0	1	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use	Consequences of improper sequencing when transferring to or from an inverter	062A2.03	9	3.4

Tier 2 Group 1

Name / Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	Question Type	K/A Topic(s)	KA	RO	SRO
												procedures to correct, control, or mitigate the consequences of those abnormal operation:(CFR: 41.5 / 43.5 / 45.3 / 45.13)				
DC Electrical Distribution	0	0	0	0	0	0	1	0	0	0	0	Ability to predict and/or monitor changes in parameters associated with operating the (SYSTEM) controls including:(CFR: 41.5 / 45.5)	Battery capacity as it is affected by discharge rate	063A1.01	2.5	3.3
Emergency Diesel Generator	0	0	1	0	0	0	0	0	0	0	0	Knowledge of the effect that a loss or malfunction of the (SYSTEM) will have on the following:(CFR: 41.7 / 45.6)	ED/G (manual loads)	064K3.03	3.6	3.9
Process Radiation Monitoring	0	0	1	0	0	0	0	0	0	0	0	Knowledge of the effect that a loss or malfunction of the (SYSTEM) will have on the following:(CFR: 41.7 / 45.6)	Radioactive effluent releases	073K3.01	3.6	4.2
Service Water	0	0	0	0	0	0	0	0	0	1	0	Ability to manually Operate and/or monitor in the control room:(CFR: 41.7 / 45.5 to 45.8)	SWS pumps	076A4.01	2.9	2.9
Instrument Air	0	0	0	0	0	0	0	0	0	0	1	This is a Generic. no stem statement is associated	Ability to locate and operate components, including local controls.	078GG2.1.30	3.9	3.4
Containment	0	0	0	1	0	0	0	0	0	0	0	Knowledge of (SYSTEM) design feature(s) and or interlock(s) which provide for the following:(CFR: 41.7)	Vacuum breaker protection	103K4.01	3.0	3.7
Pressurizer Pressure Control	0	0	0	0	1	0	0	0	0	0	0	Knowledge of the operational implications of the following concepts as they apply to the (SYSTEM):(CFR: 41.5 / 45.7)	Constant enthsly expansion through a valve	010K5.02	2.6	3.0
Containment Spray	0	0	1	0	0	0	0	0	0	0	0	Knowledge of the effect that a loss or	CCS	026K3.01	3.9	4.1

Tier 2 Group 1

Name	Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	G	Question Type	K/A Topic(s)	KA	RO	SRO
												malfunction of the (SYSTEM) will have on the following:(CFR: 41.7 / 45.6)				
Residual Heat Removal		0	0	0	0	0	0	0	0	0	0	Ability to manually operate and/or monitor in the control room:(CFR: 41.7 / 45.5 to 45.8)	Heat exchanger bypass flow control	005A4.02	3.4	3.1
Condensate		0	0	0	0	0	0	0	1	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation:(CFR: 41.5 / 43.5 / 45.3 / 45.13)	Loss of condensate pumps	056A2.04	2.6	2.8
Instrument Air		0	0	0	0	0	0	0	0	1	0	Ability to monitor automatic operations of the (SYSTEM) including (CFR 41.7 / 45.5)	Air pressure	078A3.01	3.1	3.2
Condensate		0	0	0	0	0	0	0	0	0	0		K/A Rejected	056K6	0	0
Reactor Protection		0	0	0	0	0	1	0	0	0	0	Knowledge of the effect that a loss or malfunction of the following will have on the (SYSTEM):(CFR: 41.7 / 45.7)	Bistables and bistable test equipment	012K6.01	2.8	3.3

Tier 2 Group 2

Name / Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	Question Type	K/A Topic(s)	KA	RO	SRO
Hydrogen Recombiner and Purge Control	0	0	0	0	0	0	0	0	0	0	0	Knowledge of the operational implications of the following concepts as they apply to the (SYSTEM):(CFR: 41.5 / 45.7)	K/A Randomly Rejected	028K5.03	2.9	3.6
Containment Purge	0	0	0	0	0	0	0	1	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation:(CFR: 41.5 / 43.5 / 45.3 145.13)	Maintenance or other activity taking place inside containment	029A2.01	2.9	3.6
Spent Fuel Pool Cooling	0	0	1	0	0	0	0	0	0	0	0	Knowledge of the effect that a loss or malfunction of the (SYSTEM) will have on the following:(CFR: 41.7 / 45.6)	Area ventilation systems	033K3.01	2.6	3.1
Fuel Handling Equipment	0	0	0	0	0	0	0	0	0	0	0	Ability to predict and/or monitor changes in parameters associated with operating the (SYSTEM) controls including:(CFR: 41.5 / 45.5)	K/A Randomly Rejected	034A1.02	2.9	3.7
Steam Generator	0	0	0	0	0	0	0	0	0	0	0	Knowledge of the effect that a loss or malfunction of the (SYSTEM) will have on the following:(CFR: 41.7 145.6)	K/A Randomly Rejected	035K3.03	3.0	3.1
Steam Dump/Turbine Bypass Control	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation:(CFR: 41.5 / 43.5 / 45.3 145.13)	K/A Randomly Rejected	041A2.02	3.6	3.9
Main Turbine Generator	0	0	0	0	0	0	0	0	0	0	0	Knowledge of the physical connections and/or cause-effect relationships between (SYSTEM) and the	K/A Randomly Rejected	045K1.06	2.6	2.6

Tier 2 Group 2

Name / Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	Question Type	K/A Topic(s)	KA	RO	SRO
												following:(CFR: 41.2 to 41.9 / 45.7 to 45.8)				
Condenser Air Removal	0	0	1	0	0	0	0	0	0	0	0	Knowledge of the effect that a loss or malfunction of the (SYSTEM) will have on the following:(CFR: 41.7 / 45.6)	Main condenser	055K3.01	2.5	2.7
Liquid Radwaste	0	0	0	0	0	0	0	0	0	0	0	Knowledge of the physical connections and/or cause-effect relationships between (SYSTEM) and the following:(CFR: 41.2 to 41.9 145.7 to 45.8)	K/A Randomly Rejected	068K1.07	2.7	2.9
Waste Gas Disposal	0	1	0	0	0	0	0	0	0	0	0	Knowledge of the physical connections and/or cause-effect relationships between (SYSTEM) and the following:(CFR: 41.2 to 41.9 145.7 to 45.8)	K/A Randomly Rejected	071K1.05	2.7	2.8
Area Radiation Monitoring	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	072GG2.4.31	3.3	3.4
Circulating Water	0	0	0	1	0	0	0	0	0	0	0	Knowledge of (SYSTEM) design feature(s) and or interlock(s) which provide for the following:(CFR: 41.7)	Heat sink	075K4.01	2.5	2.8
Station Air	0	0	0	0	0	0	0	0	0	0	0	Knowledge of the effect that a loss or malfunction of the (SYSTEM) will have on the following:(CFR: 41.7 / 45.6)	K/A Randomly Rejected	079K3	0	0
Fire Protection	0	0	0	0	0	0	0	1	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation:(CFR: 41.5 / 43.5 /	failure to actuate the FPS when required, resulting in fire damage	086A2.04	3.3	3.9

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Tier 2 Group 2

Name / Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	Q	Question Type	K/A Topic(s)	KA	RO	SRO	
											45.3 / 45.13)					
Control Rod Drive	0	0	0	0	1	0	0	0		0	0	Knowledge of the operational implications of the following concepts as they apply to the (SYSTEM):(CFR: 41.5 / 45.7)	Relationships between reactivity due to boron and reactivity due to control rod	001K5.09	3.5	3.7
Reactor Coolant	0	0	0	0	0	0	1	0		0	0	Ability to predict and/or monitor changes in parameters ass the (SYSTEM) controls including:(CFR: 41.5 / 45.5)	RCS T-ave	002A1.09	3.7	3.8
Pressurizer Level Control	0	0	0	0	0	1	0	0		0	0	Knowledge of the effect that a loss or malfunction of the following will have on the (SYSTEM):(CFR: 41.7 / 45.7)	Reasons for starting charging pump while increasing letdown flow rate	011K6.01	2.8	3.2
Rod Position Indication	0	0	0	1	0	0	0	0		0	0	Knowledge of (SYSTEM) design feature(s) and or interlock(s) which		014K4.06	3.4	3.7
Nuclear Instrumentation	0	0	0	0	0	0	0	0				that a lo				
Non-nuclear Instrumentation	0	0	0	0	0	0	0	0		1	0	Ability to manually operate and/or monitor in the control room:(CFR: 41.7 / 45.5 to 45.8)	NNI channel select controls	016A4.01	2.9	2.8
In-core Temperature Monitor	0	0	0	0	0	0	0	0		0	0	Ability to manually operate and/or monitor in the control room:(CFR: 41.7 / 45.5 to 45.8)	K/A Randomly Rejected	017A4.02	3.8	4.1
Containment Iodine Removal	0	0	0	0	0	0	0	0		0	0	Knowledge of (SYSTEM) design feature(s) and or interlock(s) which provide for the following:(CFR: 41.7)	K/A Randomly Rejected	027K4	0	0

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Tier 2 Group 2

Name / Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	Question Type	K/A Topic(s)	KA	RO	SRO

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Tier 3

Group	KA	Topic	RO	SRO
Conduct of Operations	G2.1.22	Ability to determine Mode of Operatton.	2.8	3.3
Conduct of Operations	G2.1.20	Ability to execute procedure steps.	4.3	4.2
Conduct of Operations	G2.1.1	Knowledge of conduct of operations requirements.	3.7	3.8
Equipment Control	G2.2.22	Knowledge of limiting conditions for operations and safety limits.	3.4	4.1
Equipment Control	G2.2.2	Ability to manipulate the console controls as required to operate the facility between shutdown	4	3.5
Equipment Control	G2.2.27	Knowledge of the refueling process.	2.6	3.5
Radiation Control	G2.3.9	Knowledge of the process for performing a containment purge.	2.5	3.4
Radiation Control	G2.3.2	Knowledge of facility ALARA program.	2.5	2.9
Emergency Procedures/Plan	G2.4.29	Knowledge of the emergency plan.	2.6	4
Emergency Procedures/Plan	G2.4.15	Knowledge of communications procedures associated with EOP implementation.	3	3.5

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NORTH ANNA
SRO

Tier 1 Group 1

Name/Safety Function	K1	K2	K3	A1	A2	G	KA	Question Type	K/A Topic(s)	RO	SRQ
Reactor Trip - Stabilization-Recovery / 1	0	0	0	0	0	0	007EG2.4.49	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	4	4
Pressurizer Vapor Space Accident / 3	0	0	0	0	0	0	008AA2.10	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	3.6	3.6
Small Break LOCA / 3	0	0	0	1	0	0	009EA2.23	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.10 143.5 / 45.13)	RCP operating parameters and limits	2.8	3.3
Large Break LOCA / 3	0	0	0	0	0	0	011EA2.09	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	WA Randomly Rejected	4.2	4.3
RCP Malfunctions / 4	0	0	0	0	0	0	015AA2.07	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 143.5 / 45.13)	K/A Randomly Rejected	2.1	2.9
Loss of Rx Coolant Makeup / 2	0	0	0	0	0	0	022AG2.1.33	This is a Generic, no stem statement is associated.	WA Randomly Rejected	3.4	4
Loss of RHR System / 4	0	0	0	0	0	1	025AG2.2.25	This is a Generic, no stem statement is associated.	Knowledge of bases in technical specifications for limiting conditions for operations and safety limits.	2.5	3.7
Loss of Component Cooling Water / 8	0	0	0	0	0	0	026AG2.2.22	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	3.4	4.1

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Tier I Group 1

Name/Safety Function	K1	K2	K3	A1	A2	G	KA	Question Type	K/A Topic(s)	RO	SR
Pressurizer Pressure Control System Malfunction / 3	0	0	0	0	0	0	027AG2.4.6	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	3.1	4
ATWS / 1	0	0	0	0	0	0	029EG2.2.22	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	3.4	4.1
Steam Gen. Tube Rupture / 3	0	0	0	0	1	0	038EA2.09	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	Existence of natural circulation, using plant parameters.	4.2	4.2
Steam Line Rupture - Excessive Heat Transfer / 4	0	0	0	0	0	0	040AG2.1.33	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	3.4	4
Loss of Main Feedwater / 4	0	0	0	0	0	0	054AG2.4.49	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	4	4
Station Blackout / 6	0	0	0	0	0	0	055EA2.06	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	WA Randomly Rejected	3.7	4.1
Loss of OR-site Power Y6	0	0	0	0	0	0	056AG2.2.22	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	3.4	4.1
Loss of Vital AC Inst. Bus / 6	0	0	0	0	0	0	057AA2.05	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 143.5/ 45.13)	K/A Randomly Rejected	3.5	3.8
Loss of DC Power / 6	0	0	0	0	0	1	058AG2.4.4	This is a Generic, no stem statement is associated.	Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency	4	4.3

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Tier 1 Group 1

Name/Safety Function	K1	K2	K3	A1	A2	G	KA	Question Type	K/A Topic(s)	RO	SRO
									and abnormal operating procedures.		
Loss of Nuclear Svc Water / 4	0	0	0	0	0	1	062AG2.1.14	This is a Generic, no stem statement is associated.	Knowledge of system status criteria which require the notification of plant personnel	2.5	3.3
Loss of Instrument Air / 8	0	0	0	0	0	1	065AG2.4.4	This is a Generic, no stem statement is associated.	Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures.	4	4.3
LOCA Outside Containment / 3	0	0	0	0	0	0	WE04EG2.2.2	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	3.4	4.1
Loss of Emergency Coolant Recirc. / 4	0	0	0	0	1	0	WE11EA2.2	Ability to determine and interpret the following as they apply to (EMERGENCY PLANTEVOLUTION):(CFR: 41.10 / 43.5/ 45.13)	Adherence to appropriate procedures and operation within the limitations in the facility's license and amendments.	3.4	4.2
Steam Line Rupture - Excessive Heat Transfer / 4	0	0	0	0	0	0	WE12EG2.2.2	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	2.5	3.7
Inadequate Heat Transfer- Loss of Secondary Heat Sink / 4	0	0	0	0	0	0	WE05EA2.1	Ability to determine and interpret the following as they apply to (EMERGENCY PLANTEVOLUTION):(CFR: 41.10 143.5/ 45.13)	K/A Randomly Rejected	3.4	4.4

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Tier 1 Group 2

Name / Safety Function	K1	K2	K3	2	G	KA	Question Type	K/A Topic(s)	RO	SRO
Continuous Rod Withd	0	0	0	0	0	001AG2.2.25	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	2.5	3.7
Dropped Control Rod /	0	0	0	0	0	003AA2.04	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	3.4	3.6
Inoperable/Stuck Contr	0	0	0	0	0	005AG2.1.33	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	3.4	4
Emergency Boration /	0	0	0	0	1	024AG2.1.32	This is a Generic, no stem statement is associated.	Ability to explain and apply all system limits and precautions.	3.4	3.8
Pressurizer Level Malft	0	0	0	0	0	028AA2.13	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	2.9	3.2
Loss of Source Range	0	0	0	0	0	032AG2.1.14	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	2.5	3.3
Loss of Intermediate R	0	0	0	0	0	033AG2.1.14	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	2.5	3.3
Fuel Handling Accident	0	0	0	0	0	036AG2.4.4	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	4	4.3
Steam Generator Tube	0	0	0	0	0	037AA2.16	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	4.1	4.3
Loss of Condenser Vax	C	0	0	0	0	051AG2.2.25	This is a Generic, no stem statement is	K/A Randomly Rejected	2.5	3.7

Tier 1 Group 2

Name / Safety Function	K1	K2	K3	A1	A2	G	KA	Question Type	K/A Topic(s)	RO	SRO
								associated.			
Accidental Liquid RadV	0	0	0	0	0	0	059AA2.02	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	2.9	3.9
Accidental Gaseous Ra	0	0	0	0	0	0	060AA2.06	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	3.6	3.8
ARM System Alarms /	0	0	0	0	0	0	061AG2.2.22	This is a Generic, no Stem statement is associated.	K/A Randomly Rejected	3.4	4.1
Plant Fire On-site / 9 8	0	0	0	0	0	0	067AG2.1.32	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	3.4	3.8
Control Room Evac. / E	0	0	0	0	0	0	068AA2.01	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 143.5 / 45.13)	K/A Randomly Rejected	4	4.3
Loss of CTMT Integrity	0	0	0	0	0	0	069AG2.1.33	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	3.4	4
Inad. Core Cooling / 4	0	0	0	0	0	0	074EG2.1.33	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	3.4	4
High Reactor Coolant /	0	0	0	0	0	0	076AA2.06	Ability to determine and interpret the following as they apply to ABNORMAL PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	2.2	2.5

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Tier 1 Group 2

Name / Safety Function	K1	K2	K3	A1	A2
Radiagnosis / 3	0	0	0	0	0
Steam Generator Over	0	0	0	0	0
Containment Flooding	0	0	0	0	0
High Containment Rad	0	0	0	0	0
SI Termination / 3	0	0	0	0	0
LOCA Cooldown - Dep	0	0	0	0	0
Natural Circ. / 4	0	0	0	0	0
Natural Circ. With Sear	0	0	0	0	0
RCS Overcooling - PTS	0	0	0	0	0

KA	Question Type	K/A Topic(s)	RO	SRO
0 WE01EA2.1	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION): (CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	3.2	4
1 WE13EG2.2.2	This is a Generic, no stem statement is associated.	Knowledge of bases in technical specifications for limiting conditions for operations and safety limits.	2.5	3.7
0 WE15EG2.1.1	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	2.5	3.3
0 WE16EG2.4.1	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	3.3	3.3
1 WE02EG2.2.2	This is a Generic, no stem statement is associated.	Knowledge of bases in technical specifications for limiting conditions for operations and safety limits.	2.5	3.7
0 WE03EA2.2	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION): (CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	3.5	4.1
0 WE09EA2.1	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION): (CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	3.1	3.8
1 WE10EG2.4.4	This is a Generic, no stem statement is associated.	Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures.	4	4.3
0 WE08EA2.2	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION): (CFR: 41.10 / 43.5 / 45.13)	Adherence to appropriate procedures and	3.5	4.1

Tier 1 Group 2

Name / Safety Function	K1	K2	K3	A1	A2	G	KA	Question Type	K/A Topic(s)	RO	SR
								following as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	operation within the limitations in the facility's license and amendments.		
Degraded Core Cooling	0	0	0	0	0	0	WE06EA2.2	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	3.5	4.1
Saturated Core Cooling	0	0	0	0	0	0	WE07EA2.1	Ability to determine and interpret the following as they apply to (EMERGENCY PLANT EVOLUTION):(CFR: 41.10 / 43.5 / 45.13)	K/A Randomly Rejected	3.2	4.0
Loss of CTMT Integrity	0	0	0	0	0	0	WE14EG2.1.3.	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	3.4	4

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Tier 2 Group 1

Time / Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	Question Type	K/A Topic(s)	KA	RO	SRO
Reactor Coolant Pump	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	003GG2.4.49	4.0	4.0
Chemical and Volume Control	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	004GG2.4.49	4.0	4.0
Residual Heat Removal	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	005GG2.1.28	3.2	3.3
Emergency Core Cooling	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct control, or mitigate the consequences of those abnormal operation: (CFR: 41.5 / 43.5 / 45.3 / 45.13)	K/A Randomly Rejected	006A2.02	3.9	4.3
Pressurizer Relief/Quench Tank	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation: (CFR: 41.5 / 43.5 / 45.3 / 45.13)	K/A Randomly Rejected	007A2.03	3.6	3.9
Component Cooling Water	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	008GG2.1.23	3.9	4.0
Pressurizer Pressure Control	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation: (CFR: 41.5 / 43.5 / 45.3 / 45.13)	K/A Randomly Rejected	010A2.01	3.3	3.6

Tier 2 Group 1

Name / Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	Question Type	K/A Topic(s)	KA	RO	SRO
Reactor Protection	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation: (CFR: 41.5 / 43.5 / 45.3 / 45.13)	K/A Randomly Rejected	012A2.03	3.4	3.7
Engineered Safety Features Actuation	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	013GG2.1.32	3.4	3.8
Containment Cooling	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation: (CFR: 41.5 / 43.5 / 45.3 / 45.13)	K/A Randomly Rejected	022A2.06	2.8	3.2
Ice Condenser	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	025GG2.1.28	3.2	3.3
Containment Spray	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation: (CFR: 41.5 / 43.5 / 45.3 / 45.13)	WA Randomly Rejected	026A2.03	4.1	4.4
Main and Reheat Steam	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	039GG2.1.23	3.9	4.0
Condensate	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or	K/A Randomly Rejected	056A2.04	2.6	2.8

Tier 2 Group

Name / Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	Question Type	K/A Topic(s)	KA	RO	SRO
												mitigate the consequences of those abnormal operation:(CFR: 41.5 / 43.5 / 45.3 145.13)				
Main Feedwater	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	/A Randomly Rejected	059GG2.4.6	3.1	4
Auxiliary/Emergency Feedwater	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	/A Randomly Rejected	061GG2.4.50	3.3	3.3
AC Electrical Distribution	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	knowledge of annunciators alarms and indications and use of the response instructions.	062GG2.4.31	3.3	3.4
DC Electrical Distribution	0	0	0	0	0	0	0	0	0	0	0		K/A Rejected	063A2.01		0
Emergency Diesel Generator	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	Ability to perform without reference to procedures those actions that require immediate operation of system components and controls.	064GG2.4.49	4	4.0
Process Radiation Monitoring	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation:(CFR: 41.5 143.5 / 45.3 / 45.13	K/A Randomly Rejected	073A2.02	2.7	3.2
Service Water	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem Statement is associated.	/A Randomly Rejected	076GG2.1.32	3.4	3.8
Instrument Air	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b)	/A Randomly Rejected	078A2		0

Tier 2 Group 1

Name	Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	Question Type	KIA Topic(s)	KA	RO	SRO
													based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation: (CFR: 41.5 / 43.5 / 45.3 / 45.13)				
	Containment	0	0	0	0	0	0	0	1	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation: (CFR: 41.5 / 43.5 / 45.3 / 45.13)	emergency containment entry	3A2.05	2.9	3.9
	Auxiliary/Emergency Feedwater	0	0	0	0	0	0	0	1	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation: (CFR: 41.5 / 43.5 / 45.3 / 45.13)	loss of air to steam supply valve	3A2.01	3.2	3.6

Tier 2 Group 2

Name / Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	Question Type	K/A Topic(s)	KA	O	IO
Control Rod Drive	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation:(CFR: 41.5 / 43.5 / 45.3 / 45.13)	K/A Randomly Rejected	01A2.13	4	6
Reactor Coolant	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation:(CFR: 41.5 / 43.5 / 45.3 / 45.13)	K/A Randomly Rejected	02A2.03	1	3
Pressurizer Level Control	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation:(CFR: 41.5 / 43.5 / 45.3 / 45.13)	K/A Randomly Rejected	11A2.02	2	2
Rod Position Indication	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation:(CFR: 41.5 / 43.5 / 45.3 / 45.13)	K/A Randomly Rejected	14A2.02	1	6
Nuclear Instrumentation	0	0	0	0	0	0	0	0	0	0	0		K/A Rejected	015A2.01	0	
Pion-nuclear Instrumentation	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	016GG2.4.30	2	6

Tier 2 Group 2

Name / Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	Question Type	K/A Topic(s)	KA	RO	SRO
In-core Temperature Monitor	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	017GG2.1.30	3.9	3.4
Containment Iodine Removal	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	027GG2.1.27	2.8	2.9
Hydrogen Recombiner and Purge Control	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	028GG2.1.33	3.4	4.0
Containment Purge	0	0	0	0	0	3	0	0	0	0	1	This is a Generic, no stem statement is associated.	Knowledge of the purpose and function of major system components and controls.	029GG2.1.28	3.2	3.3
Spent Fuel Pool Cooling	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation:(CFR: 41.5 / 43.5 / 45.3 / 45.13)	K/A Randomly Rejected	033A2.03	3.1	3.5
Fuel Handling Equipment	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (h) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation:(CFR: 41.5 / 43.5 / 45.3 / 45.13)	K/A Randomly Rejected	034A2.03	3.3	4.0
Steam Generator	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	035GG2.2.22	3.4	4.1
Steam	0	0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the	K/A Randomly Rejected	041A2.03	2.8	3.1

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Tier 2 Group 2

Name	Safety Function	K1	K2	K3	K5	K6	A1	A2	A3	A4	G	Question Type	K/A Topic(s)	KA	RO	SRO
Dump/Turbine Bypass Control												following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation: (CFR: 41.5 / 43.5 / 45.3 / 45.13)				
Main Turbine Generator		0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	045GG2.2.22	3.4	4.1
Condenser Air Removal		0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	055GG2.2.25	2.5	3.7
Liquid Radwaste		0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation: (CFR: 41.5 / 43.5 / 45.3 / 45.13)	K/A Randomly Rejected	068A2.02	2.7	2.8
Waste Gas Disposal		0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	K/A Randomly Rejected	071GG2.1.30	3.9	3.4
Area Radiation Monitoring		0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	WA Randomly Rejected	072GG2.4.50	3.3	3.3
Circulating Water		0	0	0	0	0	0	0	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation: (CFR: 41.5 / 43.5 / 45.3 / 45.13)	K/A Randomly Rejected	075A2.01	3.0	3.2
Station Air		0	0	0	0	0	0	0	0	0	0		K/A Rejected	079K3	0	0

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Tier 2 Group 2

Name / Safety Function	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	Question Type	K/A Topic(s)	KA	RO	SRC
Fire Protection	0	0	0	0	0	0	0	0	0	0	0	This is a Generic, no stem statement is associated.	WA Randomly Rejected	086GG2.4.3	3.3	3.4
Pressurizer Level Control	0	0	0	0	0	0	0	1	0	0	0	Ability to (a) predict the impacts of the following on the (SYSTEM) and (b) based on those predictions. use procedures to correct, control, or mitigate the consequences of those abnormal operation:(CFR: 41.5 / 43.5 / 45.3 / 45.13)	Failure of PZR level instrument - high	011A2.10	3.4	3.6
Station Air	0	0	0	0	0	0	0	0	0	0	0		K/A Rejected	079A2.01	0	0
Fuel Handling Equipment	0	0	0	0	0	0	0	0	0	0	0		K/A Rejected	034GG2.4.6	0	0
Containment Iodine Removal	0	0	0	0	0	0	0	0	0	0	0		K/A Rejected	027A2.01	0	0

Tier 3

Group	KA	Topic	RO	SRO
Conduct of Operations	G2.1.7	Ability to evaluate plant performance and make operational judgments based on operating cha	3.7	4.4
Conduct of Operations	G2.1.32	Ability to explain and apply all system limits and precautions.	3.4	3.8
Equipment Control	G2.2.19	Knowledge of maintenance work order requirements.	2.1	3.1
Equipment Control	G2.2.9	Knowledge of the process for determining if the proposed change, test or experiment increases	2	3.3
Radiation Control	G2.3.6	Knowledge of the requirements for reviewing and approving release permits.	2.1	3.1
Emergency Procedures/Plan	G2.4.27	Knowledge of fire in the plant procedure.	3	3.5
Emergency Procedures/Plan	G2.4.45	Ability to prioritize and interpret the significance of each annunciator or alarm.	3.3	3.6