

Facility: <i>M^cGuire</i>		Date of Examination: <i>August 2014</i>		
Item	Task Description	Initials		
		a	b*	c#
1. W R I T T E N	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	<i>N-2</i>	<i>N/A</i>	<i>BDL</i>
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	<i>N-2</i>	<i>N/A</i>	<i>BDL</i>
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	<i>N-2</i>	<i>N/A</i>	<i>BDL</i>
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	<i>N-2</i>	<i>N/A</i>	<i>BDL</i>
2. S I M U L A T O R	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	<i>N-1</i>	<i>N-1</i>	<i>N-1</i>
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity, and ensure that each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s), and that scenarios will not be repeated on subsequent days.			
	c. To the extent possible, assess whether the outline(s) conform(s) with the qualitative and quantitative criteria specified on Form ES-301-4 and described in Appendix D.			
3. W / T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.			
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations	<i>✓</i>	<i>✓</i>	<i>✓</i>
	c. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.	<i>N-1</i>	<i>N-1</i>	<i>N-1</i>
4. G E N E R A L	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	<i>N-2</i>	<i>N/A</i>	<i>BDL</i>
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	<i>N-2</i>	<i>N/A</i>	<i>BDL</i>
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	<i>N-2</i>	<i>N/A</i>	<i>BDL</i>
	d. Check for duplication and overlap among exam sections.	<i>N-2</i>	<i>N/A</i>	<i>BDL</i>
	e. Check the entire exam for balance of coverage.	<i>N-2</i>	<i>N/A</i>	<i>BDL</i>
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	<i>N-2</i>	<i>N/A</i>	<i>BDL</i>
a. Author	Printed Name/Signature <i>B. Caballero for PHIL CAPEHART / via email -- attached (K1-2)</i>		Date <i>8/8/13</i>	
b. Facility Reviewer (*)	<i>N/A</i>		<i>N/A</i>	
c. NRC Chief Examiner (#)	<i>BRUNO CABALLERO Bruno Caballero</i>		<i>8/8/13</i>	
d. NRC Supervisor	<i>RICHARD S. GALOWIN Richard Galowin</i>		<i>8/8/2013</i>	
Note:	# Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required. * Not applicable for NRC-prepared examination outlines			

N-1: This Form ES-201-2 only documents the written exam outline.

Facility: <i>M E Guire</i>		Date of Exam: <i>August 2014</i>															
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 & Abnormal Plant Evolutions	1	3	2	4	N/A			3	3	N/A			3	18	3	3	6
	2	2	1	2	N/A			1	2	N/A			1	9	2	2	4
	Tier Totals	5	4	5	N/A			4	5	N/A			4	27	5	5	10
2. Plant Systems	1	2	3	2	2	3	3	2	3	3	3	2	28	3	2	5	
	2	1	1	1	1	1	1	1	1	1	1	0	10	0	2	1	
	Tier Totals	3	4	3	3	4	4	3	4	4	4	2	38	5	3	8	
3. Generic Knowledge and Abilities Categories				1	2	3	4	10	1	2	3	4	7				
				3	2	2	3		2	1	2	2					

- Note:
- 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 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.
 - 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/evolutions 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.
 - 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.
 - Absent a plant-specific priority, only those K/As 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.
 - Select SRO topics for Tiers 1 and 2 from the shaded systems and K/A categories.
 - * 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/As.
 - On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings (IRs) 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.
 - 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 10 CFR 55.43.

ES-401		PWR Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 1 (IRO) (SRO)							Form ES-401-2	
E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	IR	#	
000007 (BW/E02&E10; CE/E02) Reactor Trip - Stabilization - Recovery / 1		R					(R) EK2.03			
000008 Pressurizer Vapor Space Accident / 3			R				(R) AK3.03			
000009 Small Break LOCA / 3					S		(S) EA2.34			
000011 Large Break LOCA / 3						S	(S) EG2.2.44			
000015/17 RCP Malfunctions / 4			R				(R) AK3.07			
000022 Loss of Rx Coolant Makeup / 2				(R)			(R) AA2.01			
000025 Loss of RHR System / 4				R			(R) AA1.09			
000026 Loss of Component Cooling Water / 8			R				(R) AK3.04			
000027 Pressurizer Pressure Control System Malfunction / 3						S	(S) AG2.4.31			
000029 ATWS / 1		R					(R) EK2.06			
000038 Steam Gen. Tube Rupture / 3				(R)	S		(R) EA2.03 (S) EG2.1.30			
000040 (BW/E05; CE/E05; W/E12) Steam Line Rupture - Excessive Heat Transfer / 4				R			(R) AA1.03			
000054 (CE/E06) Loss of Main Feedwater / 4	R						(R) AK1.01			
000055 Station Blackout / 6			R				(R) EK3.01			
000056 Loss of Off-site Power / 6					S		(S) AA2.55			
000057 Loss of Vital AC Inst. Bus / 6				R			(R) AA1.01			
000058 Loss of DC Power / 6					(R)		(R) AA2.01			
000062 Loss of Nuclear Svc Water / 4						(R)	(R) AG2.4.8			
000065 Loss of Instrument Air / 8					S	(R)	(R) AG2.4.11, (S) AA2.05			
W/E04 LOCA Outside Containment / 3										
W/E11 Loss of Emergency Coolant Recirc. / 4	R						(R) EK1.1			
BW/E04; W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4						(R)	(R) EG2.2.44			
000077 Generator Voltage and Electric Grid Disturbances / 6	R						(R) AK1.02			
K/A Category Totals: RO 3 2 4 3 3 3 Group Point Total: 18/6										

SRO

3 3

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
007EK2.03	Reactor Trip - Stabilization - Recovery / 1	3.5	3.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reactor trip status panel
008AK3.03	Pressurizer Vapor Space Accident / 3	4.1	4.6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Actions contained in EOP for PZR vapor space accident/ LOCA
015AK3.07	RCP Malfunctions / 4	4.1	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ensuring that S/G levels are controlled properly for natural circulation enhancement
022AA2.01	Loss of Rx Coolant Makeup / 2	3.2	3.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Whether charging line leak exists
025AA1.09	Loss of RHR System / 4	3.2	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LPI pump switches, ammeter, discharge pressure gauge, flow meter, and indicators
026AK3.04	Loss of Component Cooling Water / 8	3.5	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Effect on the CCW flow header of a loss of CCW
029EK2.06	ATWS / 1	2.9	3.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Breakers, relays, and disconnects.
038EA2.03	Steam Gen. Tube Rupture / 3	4.4	4.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Which S/G is ruptured
040AA1.03	Steam Line Rupture - Excessive Heat Transfer / 4	4.3	4.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Isolation of one steam line from header
054AK1.01	Loss of Main Feedwater / 4	4.1	4.3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MFW line break depressurizes the S/G (similar to a steam line break)
055EK3.01	Station Blackout / 6	2.7	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Length of time for which battery capacity is designed

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
057AA1.01	Loss of Vital AC Inst. Bus / 6	3.7	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manual inverter swapping
058AA2.01	Loss of DC Power / 6	3.7	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	That a loss of dc power has occurred; verification that substitute power sources have come on line
062AG2.4.8	Loss of Nuclear Svc Water / 4	3.8	4.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of how abnormal operating procedures are used in conjunction with EOPs.
065AG2.4.11	Loss of Instrument Air / 8	4.0	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of abnormal condition procedures.
077AK1.02	Generator Voltage and Electric Grid Disturbances / 6	3.3	3.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Over-excitation
we05EG2.2.44	Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4	4.2	4.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to interpret control room indications to verify the status and operation of a system, and understand how operator actions and directives affect plant and system conditions
WE11EK1.1	Loss of Emergency Coolant Recirc. / 4	3.7	4.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Components, capacity, and function of emergency systems.

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
009EA2.34	Small Break LOCA / 3	3.6	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Conditions for throttling or stopping HPI
011EG2.2.44	Large Break LOCA / 3	4.2	4.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to interpret control room indications to verify the status and operation of a system, and understand how operator actions and directives affect plant and system conditions
027AG2.4.31	Pressurizer Pressure Control System Malfunction / 3	4.2	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of annunciators alarms, indications or response procedures
038EG2.1.30	Steam Gen. Tube Rupture / 3	4.4	4.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to locate and operate components, including local controls.
056AA2.55	Loss of Off-site Power / 6	3.8	3.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Subcooled margin monitors
065AA2.05	Loss of Instrument Air / 8	3.4	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	When to commence plant shutdown if instrument air pressure is decreasing

ES-401	PWR Examination Outline Emergency and Abnormal Plant Evolutions - Tier 1/Group 2 (RO/SRO)							Form ES-401-2	
E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	IR	#
000001 Continuous Rod Withdrawal / 1									
000003 Dropped Control Rod / 1									
000005 Inoperable/Stuck Control Rod / 1									
000024 Emergency Boration / 1		R					(R) AK2.04		
000028 Pressurizer Level Malfunction / 2					(R)		(R) AA2.08		
000032 Loss of Source Range NI / 7									
000033 Loss of Intermediate Range NI / 7									
000036 (BW/A08) Fuel Handling Accident / 8									
000037 Steam Generator Tube Leak / 3				R			(R) AA1.08		
000051 Loss of Condenser Vacuum / 4					R		(R) AA2.02		
000059 Accidental Liquid RadWaste Rel. / 9	R						(R) AK1.01		
000060 Accidental Gaseous Radwaste Rel. / 9			R				(R) AK3.02		
000061 ARM System Alarms / 7						S	(S) AG 2.1.19		
000067 Plant Fire On-site / 8									
000068 (BW/A06) Control Room Evac. / 8						S	(S) AG 2.1.31		
000069 (WE14) Loss of CTMT Integrity / 5			R				(R) EK3.4		
000074 (WE06&E07) Inad. Core Cooling / 4									
000076 High Reactor Coolant Activity / 9									
WE01 & E02 Rediagnosis & SI Termination / 3									
WE13 Steam Generator Over-pressure / 4						R	(R) EG 2.1.25		
WE15 Containment Flooding / 5									
WE16 High Containment Radiation / 9					S		(S) EA2.2		
BW/A01 Plant Runback / 1									
BW/A02&A03 Loss of NNI-X/Y / 7									
BW/A04 Turbine Trip / 4									
BW/A05 Emergency Diesel Actuation / 6									
BW/A07 Flooding / 8									
BWE03 Inadequate Subcooling Margin / 4									
BWE08; (WE03) LOCA Cooldown - Depress. / 4	R						(R) EK1.3		
BWE09; CE/A13; WE09&E10 Natural Circ. / 4									
BWE13&E14 EOP Rules and Enclosures									
CE/A11; (WE08) RCS Overcooling - PTS / 4					S		(S) EA2.2		
CE/A16 Excess RCS Leakage / 2									
CE/E09 Functional Recovery									
K/A Category Point Totals:	RO	2	1	2	1	2	1	Group Point Total:	9/4
	SRO					2	2		



KA	NAME / SAFETY FUNCTION:	IR		K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO												
024AK2.04	Emergency Boration / 1	2.6	2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pumps
028AA2.08	Pressurizer Level Malfunction / 2	3.1	3.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PZR level as a function of power level
037AA1.08	Steam Generator Tube Leak / 3	3.3	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Charging flow indicator
051AA2.02	Loss of Condenser Vacuum / 4	3.9	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Conditions requiring reactor and/or turbine trip
059AK1.01	Accidental Liquid RadWaste Rel. / 9	2.7	3.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Types of radiation, their units of intensity and the location of the sources of radiation in a nuclear power plant
060AK3.02	Accidental Gaseous Radwaste Rel. / 9	3.3	3.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Isolation of the auxiliary building ventilation
WE03EK1.3	LOCA Cooldown - Depress. / 4	3.5	3.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annunciators and conditions indicating signals, and remedial actions associated with the (LOCA Cooldown and Depressurization).
we13EG2.1.25	Steam Generator Over-pressure / 4	3.9	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to interpret reference materials such as graphs, monographs and tables which contain performance data.
WE14EK3.4	Loss of CTMT Integrity / 5	3.3	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RO or SRO function 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.

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
061AG2.1.19	ARM System Alarms / 7	3.9	3.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to use plant computer to evaluate system or component status.
068AG2.1.31	Control Room Evac. / 8	4.6	4.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to locate control room switches, controls and indications and to determine that they are correctly reflecting the desired plant lineup.
WE08EA2.2	RCS Overcooling - PTS / 4	3.5	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adherence to appropriate procedures and operation within the limitations in the facility's license and amendments.
WE16EA2.2	High Containment Radiation / 9	3.0	3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adherence to appropriate procedures and operation within the limitations in the facility's license and amendments.

ES-401	PWR Examination Outline Plant Systems - Tier 2/Group 1 (RO) (SRO)													Form ES-401-2	
System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G	K/A Topic(s)	IR	#	
003 Reactor Coolant Pump	R							S				(R) K1.04 (S) A2.01			
004 Chemical and Volume Control					R				R			(R) A3.14 (R) K5.32			
005 Residual Heat Removal						R						(R) K6.03			
006 Emergency Core Cooling							R					(R) A1.06			
007 Pressurizer Relief/Quench Tank							R					(R) A1.01			
008 Component Cooling Water											R	(R) G2.1.31			
010 Pressurizer Pressure Control									R			(R) A3.01			
012 Reactor Protection								R				(R) A2.01			
013 Engineered Safety Features Actuation											R	(R) G2.4.46			
022 Containment Cooling		R									S	(R) K2.01 (S) G2.1.28			
025 Ice Condenser	R								R			(R) A3.02, (R) K1.03			
026 Containment Spray										R	S	(R) A4.05 (S) G2.4.31			
039 Main and Reheat Steam					R							(R) K5.05			
059 Main Feedwater				R				S		R		(R) A4.12, (R) K4.13, (S) A2.12			
061 Auxiliary/Emergency Feedwater						R						(R) K6.02			
062 AC Electrical Distribution		R						S				(R) K2.01, (S) A2.13			
063 DC Electrical Distribution				R								(R) K4.01			
064 Emergency Diesel Generator						R		R				(R) A2.13, (R) K6.07			
073 Process Radiation Monitoring					R							(R) K5.01			
076 Service Water		R	R									(R) K2.08, (R) K3.01			
078 Instrument Air			R									(R) K3.01			
103 Containment								R		R		(R) A2.05, (R) A4.04			
K/A Category Point Totals:	RO	2	3	2	2	3	3	2	3	3	3	2	Group Point Total:		28/5
	SRO										3			2	

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
003K1.04	Reactor Coolant Pump	2.6	2.9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CVCS
004A3.14	Chemical and Volume Control	3.4	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Letdown and charging flows
004K5.32	Chemical and Volume Control	3.1	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Purpose and control of heat tracing (prevent crystallization)
005K6.03	Residual Heat Removal	2.5	2.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RHR heat exchanger
006A1.06	Emergency Core Cooling	3.6	3.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Subcooling margin
007A1.01	Pressurizer Relief/Quench Tank	2.9	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maintaining quench tank water level within limits
008G2.1.31	Component Cooling Water	4.6	4.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to locate control room switches, controls and indications and to determine that they are correctly reflecting the desired plant lineup.
010A3.01	Pressurizer Pressure Control	3.0	3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PRT temperature and pressure during PORV testing
012A2.01	Reactor Protection	3.1	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Faulty bistable operation
013G2.4.46	Engineered Safety Features Actuation	4.2	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to verify that the alarms are consistent with the plant conditions.
022K2.01	Containment Cooling	3.0	3.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Containment cooling fans

RO

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
025A3.02	Ice Condenser	3.4	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Isolation valves
025K1.03	Ice Condenser	3.2	3.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Containment sump system
026A4.05	Containment Spray	3.5	3.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Containment spray reset switches
039K5.05	Main and Reheat Steam	2.7	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bases for RCS cooldown limits
059A4.12	Main Feedwater	3.4	3.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initiation of automatic feedwater isolation
059K4.13	Main Feedwater	2.9	2.9	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Feedwater fill for S/G upon loss of RCPs
061K6.02	Auxiliary/Emergency Feedwater	2.6	2.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pumps
062K2.01	AC Electrical Distribution	3.3	3.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Major system loads
063K4.01	DC Electrical Distribution	2.7	3.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manual/automatic transfers of control
064A2.13	Emergency Diesel Generator	2.6	2.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Consequences of opening auxiliary feeder bus (ED/G sub supply)
064K6.07	Emergency Diesel Generator	2.7	2.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Air receivers

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
073K5.01	Process Radiation Monitoring	2.5	3.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Radiation theory, including sources, types, units and effects
076K2.08	Service Water	3.1	3.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ESF-actuated MOVs
076K3.01	Service Water	3.4	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Closed cooling water
078K3.01	Instrument Air	3.1	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Containment air system
103A2.05	Containment	2.9	3.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Emergency containment entry
103A4.04	Containment	3.5	3.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Phase A and phase B resets

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
003A2.01	Reactor Coolant Pump	3.5	3.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Problems with RCP seals, especially rates of seal leak-off
022G2.1.28	Containment Cooling	4.1	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of the purpose and function of major system components and controls.
026G2.4.31	Containment Spray	4.2	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of annunciators alarms, indications or response procedures
059A2.12	Main Feedwater	3.1	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Failure of feedwater regulating valves
062A2.13	AC Electrical Distribution	2.2	2.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identification and ranking of the most probable cause of grounds, referring to electrical distribution diagrams

ES-401	PWR Examination Outline Plant Systems - Tier 2/Group 2 (RO) (SRO)													Form ES-401-2	
System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G	K/A Topic(s)	IR	#	
001 Control Rod Drive							R					(R) A2.03			
002 Reactor Coolant							S					(S) A2.04			
011 Pressurizer Level Control			R									(R) K4.01			
014 Rod Position Indication															
015 Nuclear Instrumentation							R					(R) A1.07			
016 Non-nuclear Instrumentation									R			(R) A4.02			
017 In-core Temperature Monitor															
027 Containment Iodine Removal															
028 Hydrogen Recombiner and Purge Control															
029 Containment Purge															
033 Spent Fuel Pool Cooling										S		(S) G2.4.11			
034 Fuel Handling Equipment					R							(R) K6.02			
035 Steam Generator			R									(R) K3.01			
041 Steam Dump/Turbine Bypass Control															
045 Main Turbine Generator				R								(R) K5.23			
055 Condenser Air Removal									R			(R) A3.03			
056 Condensate															
068 Liquid Radwaste															
071 Waste Gas Disposal															
072 Area Radiation Monitoring															
075 Circulating Water		R										(R) K2.03			
079 Station Air							S					(S) A2.01			
086 Fire Protection	R											(R) K1.02			
K/A Category Point Totals:	RO														

SRO

2

1

Group Point Total:

10/3

KA	NAME / SAFETY FUNCTION:	IR		K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G											TOPIC:								
		RO	SRO																				
001A2.03	Control Rod Drive	3.5	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								Effect of stuck rod or Misaligned rod
011K4.01	Pressurizer Level Control	3.3	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								Operation of PZR heater cutout at low PZR level
015A1.07	Nuclear Instrumentation	3.3	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								Changes in boron concentration	
016A4.02	Non-nuclear Instrumentation	2.7	2.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>								Recorders	
034K6.02	Fuel Handling Equipment	2.6	3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								Radiation monitoring systems	
035K3.01	Steam Generator	4.4	4.6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								RCS	
045K5.23	Main Turbine Generator	2.7	2.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								Relationship between rod control and RCS boron concentration during T/G load increases	
055A3.03	Condenser Air Removal	2.5	2.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								Automatic diversion of CARS exhaust	
075K2.03	Circulating Water	2.6	2.7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								Emergency/essential SWS pumps	
086K1.02	Fire Protection	2.7	3.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								Raw service water	

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
002A2.04	Reactor Coolant	4.3	4.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Loss of heat sinks
033G2.4.11	Spent Fuel Pool Cooling	4.0	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of abnormal condition procedures.
079A2.01	Station Air	2.9	3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cross-connection with IAS

(Might be tough to get to SRO level.....)

Facility: <i>ME Guire</i>		Date of Exam: <i>August 2014</i>					
Category	K/A #	Topic	RO		SRO-Only		
			IR	#	IR	#	
1. Conduct of Operations	2.1.7	<i>Evaluate plant performance... make judgments</i>	4.4				
	2.1.14	<i>Knowledge of criteria/conditions for announce</i>	3.1				
	2.1.21	<i>Ability to verify the controlled procedure</i>	3.5				
	2.1.						
	2.1.3	<i>Knowledge of shift/short term relief practices</i>			3.9		
	2.1.45	<i>Ability to interpret diverse indications...</i>			4.3		
	Subtotal			3		2	
2. Equipment Control	2.2.36	<i>Analyze effect of maintenance activities...</i>	3.1				
	2.2.38	<i>Knowledge of conditions/limitations in license</i>	3.6				
	2.2.						
	2.2.25	<i>Knowledge of T.S. bases for LCOs/safety limits</i>			4.2		
	2.2.						
	2.2.						
Subtotal			2		1		
3. Radiation Control	2.3.4	<i>Rad exposure limits-normal/emergency</i>	3.2				
	2.3.5	<i>Ability to use rad monitoring systems</i>	2.9				
	2.3.						
	2.3.6	<i>Ability to approve release permits</i>			3.8		
	2.3.15	<i>Knowledge of rad monig systems</i>			3.1		
	2.3.						
Subtotal			2		2		
4. Emergency Procedures / Plan	2.4.11	<i>Knowledge of abnormal condition proc's</i>	4.0				
	2.4.25	<i>" " Fire protection proc's</i>	3.3				
	2.4.30	<i>" " events... must be reported</i>	2.7				
	2.4.						
	2.4.21	<i>Knowledge of parameters/logic safety functions</i>			4.6		
	2.4.40	<i>Knowledge of SRO responsibilities in E-plan</i>			4.5		
	Subtotal			3		2	
Tier 3 Point Total			10	10	7	7	

BK 8/8/13



KA	NAME / SAFETY FUNCTION:	IR		K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G												TOPIC:					
		RO	SRO																		
G2.1.14	Conduct of operations	3.1	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of criteria or conditions that require plant-wide announcements, such as pump starts, reactor trip, mode changes, etc.
G2.1.21	Conduct of operations	3.5	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability verify the controlled procedure copy.
G2.1.7	Conduct of operations	4.4	4.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior and instrument interpretation.
G2.2.36	Equipment Control	3.1	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to analyze the effect of maintenance activities, such as degraded power sources, on the status of limiting conditions of operations
G2.2.38	Equipment Control	3.6	4.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of conditions and limitations in the facility license.
G2.3.4	Radiation Control	3.2	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of radiation exposure limits under normal and emergency conditions
G2.3.5	Radiation Control	2.9	2.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to use radiation monitoring systems
G2.4.11	Emergency Procedures/Plans	4.0	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of abnormal condition procedures.
G2.4.25	Emergency Procedures/Plans	3.3	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of fire protection procedures.
G2.4.30	Emergency Procedures/Plans	2.7	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of events related to system operations/status that must be reported to internal organizations or outside agencies.

KA	NAME / SAFETY FUNCTION:	IR		K1 K2 K3 K4 K5 K6 A1 A2 A3 A4 G												TOPIC:					
		RO	SRO																		
G2.1.3	Conduct of operations	3.7	3.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of shift or short term relief turnover practices.
G2.1.45	Conduct of operations	4.3	4.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to identify and interpret diverse indications to validate the response of another indication
G2.2.25	Equipment Control	3.2	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of the bases in Technical Specifications for limiting conditions for operations and safety limits.
G2.3.15	Radiation Control	2.9	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of radiation monitoring systems
G2.3.6	Radiation Control	2.0	3.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to approve release permits
G2.4.21	Emergency Procedures/Plans	4.0	4.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of the parameters and logic used to assess the status of safety functions
G2.4.40	Emergency Procedures/Plans	2.7	4.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of the SRO's responsibilities in emergency plan implementation.