BWR Examination Outline

FORM ES-401-1

Facility Name: [Dresden				C	Date	of E	Exan	n: 4/	/8/1	Э							
						RO	K/A	<mark>،</mark> Ca	tego	ry P	'oint	S			SI	RO-Or	nly Po	oints
Tier	Group	K 1	K 2	К 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G *	Total	A	2	G	;*	Total
1. Emeraency &	1	3	3	3				3	4	Ī	-	4	20	·	4	3	3	7
Abnormal	2	2	1	1		N/A	i.	1	1	N	/A	1	7		1	2	2	3
Evolutions	Tier Totals	5	4	4				4	5			5	27		5	Ę	5	10
2.	1	2	3	3	3	3	2	2	2	2	2	2	26	;	3	2	2	5
Plant	2	1	1	1	1	1	1	1	1	2	1	1	12	0	1	2	2	3
Systems	Tier Totals	3	4	4	4	4	3	3	3	4	3	3	38		4	4	1	8
3. Generic Ki	nowledge and	d A b	ilitie	s	Ĺ	1		2	;	3	Ĺ	4	10	1	2	3	4	7
(Categories					2	[:	3	2	2	;	3		2	2	1	2	
2. 3.	only outlines (i.e., except for one category in Tier 3 of the SRO-only outline, the "Tier Totals" in each K/A category shall not be less than two). (One Tier 3 Radiation Control K/A is allowed if the K/A is replaced by a K/A from another Tier 3 Category). 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 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.															A from The final visions. The hat do not are not elimination		
4. 5. 6. 7.*	Select topics i before selectir Absent a plant Use the RO ar Select SRO to The generic (C	rom ng a : nd S opics G) K/	as ri secc cific RO r for (As in	nany ond to prio ratino Tiers n Tie	sysi opic rity, gs fo 1 ai ers 1	for a only or the nd 2 and	thos RO fron 2 sh	syste syste se K/ and n the nall b	As h SR(Sha Sha Sha Sha Sha Sha Sha Sha Sha Sha	ns a evo avin J-on ded lecte	s po plutio g an ly pc syste ed fre	n. importior ems om S	e; sample eve ortance rating is, respectively and K/A categ Section 2 of the	(IR) of y. ories. K/A C	2.5 or 2.5 or	• highe , but the	r shall ne topi	the group be selected. ics must be
8.	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 apply apply.														e ratings group and tegory A2 or t apply). Use			
9.	For Tier 3, sel and point total	ect to Is (#)	opice) on '	s fror Forn	ກ Se າ ES	ection	∩ 2 c -3.	of the Limit	∍ K/A t SR(v cat O se	alog. electi [,]	, and ons t	I enter the K/A to K/As that are	numb e linke	ers, de d to 10	escripti CFR	ons, IF 55.43.	₹s,
G*	Generic K/As																	

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ES-401	raen	ov an	l d Abr	BWR	Exar	ninat	tion Outline	Form E	S-401-1
E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	IR	#
295001 Partial or Complete Loss of Forced Core Flow Circulation / 1 & 4					0 3		Ability to determine and/or interpret the following as they apply to Partial or Complete Loss of Forced Core Flow Circulation: Actual core flow	3.3	1
295003 Partial or Complete Loss of AC / 6						02. 42	Ability to recognize system parameters that are entry-level conditions for Technical Specifications.	3.9	1
295004 Partial or Total Loss of DC Pwr / 6	0 4						Knowledge of the operational implications of the following concepts as they apply to Partial or Total Loss of DC Pwr: Effect of battery discharge rate on capacity	2.8	1
295005 Main Turbine Generator Trip / 3		0 5					Knowledge of the interrelations between Main Turbine Generator Trip and the following: Extraction steam system	2.6	1
295006 SCRAM / 1			0 1				Knowledge of the reasons for the following responses as they apply to SCRAM: Reactor water level response	3.8	1
295016 Control Room Abandonment / 7				0 9			Ability to operate and/or monitor the following as they apply to Control Room Abandonment: Isolation/emergency condenser(s): Plant-Specific	4.0	1
295018 Partial or Total Loss of CCW / 8					0 3		Ability to determine and/or interpret the following as they apply to Partial or Total Loss of CCW: Cause for partial or complete loss	3.2	1
295019 Partial or Total Loss of Inst. Air / 8						01. 30	Ability to locate and operate components, including local controls.	4.4	1
295021 Loss of Shutdown Cooling / 4	0 3						Knowledge of the operational implications of the following concepts as they apply to Loss of Shutdown Cooling: Adequate core cooling.	3.9	1
295023 Refueling Acc / 8		0 2					Knowledge of the interrelations between Refueling Accidents and the following: Fuel pool cooling and cleanup system	2.9	1
295024 High Drywell Pressure / 5			0 1				Knowledge of the reasons for the following responses as they apply to High Drywell Pressure: Drywell spray operation: Mark-I&II	3.6	1
295025 High Reactor Pressure / 3				0 1			Ability to operate and/or monitor the following as they apply to High Reactor Pressure: Main steam line drains	2.9	1
295026 Suppression Pool High Water Temp. / 5					0 3		Ability to determine and/or interpret the following as they apply to Suppression Pool High Water Temp.: Reactor pressure	3.9	1
295027 High Containment Temperature / 5									0
295028 High Drywell Temperature / 5						02. 38	Knowledge of conditions and limitations in the facility license.	3.6	1
295030 Low Suppression Pool Wtr Lvl / 5	0 2						Knowledge of the operational implications of the following concepts as they apply to Low Suppression Pool Wtr LvI: Pump NPSH	3.5	1
295031 Reactor Low Water Level / 2		0 1					Knowledge of the interrelations between Reactor Low Water Level and the following: Reactor water level indication	4.4	1
295037 SCRAM Condition Present and Reactor Power Above APRM Downscale or Unknown / 1			0 1				Knowledge of the reasons for the following responses as they apply to SCRAM Condition Present and Reactor Power Above APRM Downscale or Unknown: Recirculation pump trip/runback: Plant-Specific	4.1	1
295038 High Off-site Release Rate / 9				0 6			Ability to operate and/or monitor the following as they apply to High Off-site Release Rate: Plant ventilation	3.5	1
600000 Plant Fire On Site / 8					0 4		Ability to determine and/or interpret the following as they apply to Plant Fire On Site: The fire's extent of potential operational damage to plant equipment	2.8	1
700000 Generator Voltage and Electric Grid Disturbances / 6						04. 30	Knowledge of events related to system operation/status that must be reported to internal organizations or external agencies, such as the State, the NRC, or the transmission system operator.	2.7	1
K/A Category Totals:	3	3	3	3	4	4	Group Point Total:		20

ES-401	raona		l d A br	BWR	Exar	nina nt Ev	tion Outline	Form E	S-401-1
E/APE # / Name / Safety Function	K	K R	K K	A	A	G	K/A Topic(s)	IR	#
295002 Loss of Main Condenser Vac / 3	1	2	3	1	2				0
295007 High Reactor Pressure / 3									0
295008 High Reactor Water Level / 2									0
295009 Low Reactor Water Level / 2									0
295010 High Drywell Pressure / 5	0 1						Knowledge of the operational implications of the following concepts as they apply to High Drywell Pressure: Downcomer submergence: Mark-t&II	3.0	1
295011 High Containment Temp / 5									0
295012 High Drywell Temperature / 5		0 2					Knowledge of the interrelations between High Drywell Temperature and the following: Drywell cooling	3.6	1
295013 High Suppression Pool Temp. / 5									0
295014 Inadvertent Reactivity Addition / 1			0 2				Knowledge of the reasons for the following responses as they apply to Inadvertent Reactivity Addition: Control rod blocks	3.7	1
295015 Incomplete SCRAM / 1									0
295017 High Off-site Release Rate / 9									0
295020 Inadvertent Cont. Isolation / 5 & 7				0 2			Ability to operate and/or monitor the following as they apply to Inadvertent Cont. Isolation: Drywell ventilation/cooling system	3.2	1
295022 Loss of CRD Pumps / 1									0
295029 High Suppression Pool Wtr Lvl / 5					0 1		Ability to determine and/or interpret the following as they apply to High Suppression Pool Wtr LvI: Suppression pool water level	3.5	1
295032 High Secondary Containment Area Temperature / 5									0
295033 High Secondary Containment Area Radiation Levels / 9						04. 02	Knowledge of system set points, interlocks and automatic actions associated with EOP entry conditions.	4.5	1
295034 Secondary Containment Ventilation High Radiation / 9									0
295035 Secondary Containment High Differential Pressure / 5									0
295036 Secondary Containment High Sump/Area Water Level / 5									0
500000 High CTMT Hydrogen Conc. / 5	0 1						Knowledge of the operational implications of the following concepts as they apply to High CTMT Hydrogen Conc.: Containment integrity	3.3	1
K/A Category Totals:	2	1	1	1	1	1	Group Point Total:		7

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ES-401						F	lan	BW	/R I	Exa	mina . Tie	tion Outline F	orm E	S-401-1
System # / Name	K 1	K 2	К 3	K 4	K 5	к 6	A 1	A 2	A 3	A 4	G	K/A Topic(s)	IR	#
203000 RHR/LPCI: Injection Mode		0 3										Knowledge of electrical power supplies to the following: Initiation logic	2.7	1
205000 Shutdown Cooling			0 2									Knowledge of the effect that a loss or malfunction of the Shutdown Cooling will have on following: Reactor water level: Plant-Specific	3.2	1
206000 HPCI				0 1								Knowledge of HPCI design feature(s) and/or interlocks which provide for the following: Turbine trips: BWR-2, 3, 4	3.8	1
207000 Isolation (Emergency) Condenser					0 2							Knowledge of the operational implications of the following concepts as they apply to Isolation (Emergency) Condenser: Heat exchanger operation: BWR-2, 3	3.0	1
209001 LPCS			0 1			0 3						Knowledge of the effect that a loss or malfunction of the LPCS will have on following: Reactor water level; Knowledge of the effect that a loss or malfunction of the following will have on the LPCS: Torus/suppression pool water level	3.8; 3.3	2
209002 HPCS														0
211000 SLC							0 4					Ability to predict and/or monitor changes in parameters associated with operating the SLC controls including: Valve operations	3.6	1
212000 RPS	1 3							0 2				Knowledge of the physical connections and/or cause-effect relationships between RPS and the following: Containment pressure; Ability to (a) predict the impacts of the following on the RPS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: RPS bus power supply failure	3.5; 3.7	2
215003 IRM									0 2			Ability to monitor automatic operations of the IRM including: Annunciator and alarm signals	3.3	1
215004 Source Range Monitor										0 4		Ability to manually operate and/or monitor in the control room: SRM drive control switches	3.2	1
215005 APRM / LPRM											01. 20	Ability to interpret and execute procedure steps.	4.6	1
217000 RCIC														0
218000 ADS	0 2											Knowledge of the physical connections and/or cause-effect relationships between ADS and the following: Low pressure core spray: Plant-Specific	4.0	1
223002 PCIS/Nuclear Steam Supply Shutoff			0 4									Knowledge of the effect that a loss or malfunction of the PCIS/Nuclear Steam Supply Shutoff will have on following: Reactor building radiation level	3.4	1
239002 SRVs		0 1										Knowledge of electrical power supplies to the following: SRV solenoids	2.8	1
259002 Reactor Water Level Control				1 0								Knowledge of Reactor Water Level Control design feature(s) and/or interlocks which provide for the following: Three element control (main steam flow, reactor feedwater flow and reactor water level provide input)	3.4	1
261000 SGTS						0 4						Knowledge of the effect that a loss or malfunction of the following will have on the SGTS: Process radiation monitoring	2.9	1
262001 AC Electrical Distribution		0 1			0 1							Knowledge of electrical power supplies to the following: Off-site sources of power, Knowledge of the operational implications of the following concepts as they apply to AC Electrical Distribution: Principle involved with paralleling two A.C. sources	3.3; 3.1	2
262002 UPS (AC/DC)				0 1				0 1				Knowledge of UPS (AC/DC) design feature(s) and/or interlocks which provide for the following: Transfer from preferred power to alternate power supplies; Ability to (a) predict the impacts of the following on the UPS (AC/DC); and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Under voltage	3.1; 2.6	2
263000 DC Electrical Distribution							0 1					Ability to predict and/or monitor changes in parameters associated with operating the DC Electrical Distribution controls including: Battery charging/discharging rate	2.5	1
264000 EDGs					0 6				0 6			Knowledge of the operational implications of the following concepts as they apply to EDGs: Load sequencing; Ability to monitor automatic operations of the EDGs including: Cooling water system operation	3.4; 3.1	2
300000 Instrument Air										0 1		Ability to manually operate and/or monitor in the control room: Pressure gauges	2.6	1
400000 Component Cooling Water											04. 45	Ability to prioritize and interpret the significance of each annunciator or alarm.	4.1	1
K/A Category Totals:	2	3	3	3	3	2	2	2	2	2	2	Group Point Total:		26

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ES-401 BWR Examination Outline Form ES-401-1 Plant Systems - Tier 2/Group 2 (RO) System # / Name K K K K A A A G K/A Topic(s) IR #														
System # / Name	K	K	K	K	K	K	A	A	A	A	G	K/A Topic(s)	IR	#
201001 CRD Hydraulic	1	2	3	4	5	6	1	2	3	4				0
201002 RMCS									0			Ability to monitor automatic operations of the RMCS including: Rod movement	2.8	1
201003 Control Rod and Drive Mechanism									2					0
201004 RSCS														0
201005 RCIS														0
201006 RWM														0
202001 Recirculation														0
202002 Recirculation Flow Control			0 5									Knowledge of the effect that a loss or malfunction of the Recirculation Flow Control will have on following: Recirculation pump speed: Plant-Specific	3.2	1
204000 RWCU														0
214000 RPIS				0 1								Knowledge of RPIS design feature(s) and/or interlocks which provide for the following: Reed switch locations	3.0	1
215001 Traversing In-core Probe														0
215002 RBM														0
216000 Nuclear Boiler Inst.														0
219000 RHR/LPCI: Torus/Pool Cooling Mode														0
223001 Primary CTMT and Aux.					0 3							Knowledge of the operational implications of the following concepts as they apply to Primary CTMT and Aux.: Down comer operation 2	2.8	1
226001 RHR/LPCI: CTMT Spray Mode														0
230000 RHR/LPCI: Torus/Pool Spray Mode														0
233000 Fuel Pool Cooling/Cleanup														0
234000 Fuel Handling Equipment														0
239001 Main and Reheat Steam						0 1						Knowledge of the effect that a loss or malfunction of the following will have on the Main and Reheat Steam: Electrical power	3.1	1
239003 MSIV Leakage Control														0
241000 Reactor/Turbine Pressure Regulator														0
245000 Main Turbine Gen. / Aux.							0 7					Ability to predict and/or monitor changes in parameters associated with operating the Main Turbine Gen. / Aux. controls including: First stage turbine pressure	2.8	1
256000 Reactor Condensate								1 6				Ability to (a) predict the impacts of the following on the Reactor Condensate; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: High demineralizer differential pressure	2.8	1
259001 Reactor Feedwater														0
268000 Radwaste														0
271000 Offgas									0 1			Ability to monitor automatic operations of the Offgas including: Automatic system isolations	3.3	1
272000 Radiation Monitoring		0 3										Knowledge of electrical power supplies to the following: Stack gas radiation monitoring system 2	2.5	1
286000 Fire Protection										0 4		Ability to manually operate and/or monitor in the control room: Fire main pressure: Plant-Specific 2	2.8	1
288000 Plant Ventilation														0
290001 Secondary CTMT											04 06	Knowledge of EOP mitigation strategies.	3.7	1
290003 Control Room HVAC	0 6											Knowledge of the physical connections and/or cause-effect relationships between Control Room HVAC and the following: Plant air systems 2	2.6	1
290002 Reactor Vessel Internals														0
K/A Category Totals:	1	1	1	1	1	1	1	1	2	1	1	Group Point Total:		12

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ES-401 Emer	genc	y and	ا Abn ل	BWR Iorma	Exar Il Plai	minat nt Ev	tion Outline olutions - Tier 1/Group 1 (SRO)	Form E	S-401-1
E/APE # / Name / Safety Function	K 1	К 2	К 3	A 1	A 2	G	K/A Topic(s)	IR	#
295001 Partial or Complete Loss of Forced Core Flow Circulation / 1 & 4					0 2		Ability to determine and/or interpret the following as they apply to Partial or Complete Loss of Forced Core Flow Circulation: Neutron monitoring	3.2	1
295003 Partial or Complete Loss of AC / 6						02. 25	Knowledge of the bases in Technical Specifications for limiting conditions for operations and safety limits.	4.2	1
295004 Partial or Total Loss of DC Pwr / 6									0
295005 Main Turbine Generator Trip / 3					0 7		Ability to determine and/or interpret the following as they apply to Main Turbine Generator Trip: Reactor water level	3.6	1
295006 SCRAM / 1									0
295016 Control Room Abandonment / 7									0
295018 Partial or Total Loss of CCW / 8						04. 05	Knowledge of the organization of the operating procedures network for normal, abnormal, and emergency evolutions.	4.3	1
295019 Partial or Total Loss of Inst. Air / 8									0
295021 Loss of Shutdown Cooling / 4									0
295023 Refueling Acc / 8					0 1		Ability to determine and/or interpret the following as they apply to Refueling Accidents: Area radiation levels	4.0	1
295024 High Drywell Pressure / 5									0
295025 High Reactor Pressure / 3									0
295026 Suppression Pool High Water Temp. / 5									0
295027 High Containment Temperature / 5									0
295028 High Drywell Temperature / 5									0
295030 Low Suppression Pool Wtr Lvl / 5									0
295031 Reactor Low Water Level / 2						01. 23	Ability to perform specific system and integrated plant procedures during all modes of plant operation.	4.4	1
295037 SCRAM Condition Present and Reactor Power Above APRM Downscale or Unknown / 1									0
295038 High Off-site Release Rate / 9									0
600000 Plant Fire On Site / 8					0 5		Ability to determine and/or interpret the following as they apply to Plant Fire On Site: Ventilation alignment necessary to secure affected area	3.0	1
700000 Generator Voltage and Electric Grid Disturbances / 6									0
K/A Category Totals:	0	0	0	0	4	3	Group Point Total:		7

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ES-401				BWR	Exa	mina	tion Outline	Form E	S-401-
Eme	rgeno	y and	d Abr	orma	al Plai	nt Ev	rolutions - Tier 1/Group 2 (SRO)		
E/APE # / Name / Safety Function	K 1	K 2	К 3	A 1	A 2	G	K/A Topic(s)	IR	#
295002 Loss of Main Condenser Vac / 3									0
295007 High Reactor Pressure / 3									0
295008 High Reactor Water Level / 2									0
295009 Low Reactor Water Level / 2									0
295010 High Drywell Pressure / 5									0
295011 High Containment Temp / 5									0
295012 High Drywell Temperature / 5									0
295013 High Suppression Pool Temp. / 5						04. 47	Ability to diagnose and recognize trends in an accurate and timely manner utilizing the appropriate control room reference material.	4.2	1
295014 Inadvertent Reactivity Addition / 1									0
295015 Incomplete SCRAM / 1									0
295017 High Off-site Release Rate / 9					0 1		Ability to determine and/or interpret the following as they apply to High Off-site Release Rate: Off-site release rate: Plant-Specific	4.2	1
295020 Inadvertent Cont. Isolation / 5 & 7									0
295022 Loss of CRD Pumps / 1									0
295029 High Suppression Pool Wtr Lvl / 5									0
	1	1	1	1		1		1	

295032 High Secondary Containment Area Temperature / 5									0
295033 High Secondary Containment Area Radiation Levels / 9									0
295034 Secondary Containment Ventilation High Radiation / 9						04. 41	Knowledge of the emergency action level thresholds and classifications.	4.6	1
295035 Secondary Containment High Differential Pressure / 5									0
295036 Secondary Containment High Sump/Area Water Level / 5									0
500000 High CTMT Hydrogen Conc. / 5									0
K/A Category Totals:	0	0	0	0	1	2	Group Point Total:		3

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		_		_		Р	lant	Sy	ster	ns -	Tier	2/Group 1 (SRO)		
System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	А 3	A 4	G	K/A Topic(s)	IR	#
203000 RHR/LPCI: Injection														0
205000 Shutdown Cooling Mode														0
206000 HPCI														0
207000 Isolation (Emergency) Condenser														0
209001 LPCS				1										0
209002 HPCS														0
211000 SLC				1										0
212000 RPS														0
215003 IRM														0
215004 Source Range Monitor								0 4				Ability to (a) predict the impacts of the following on the Source Range Monitor; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Up scale and downscale trips	3.7	1
215005 APRM / LPRM											01. 07	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation.	1.7	1
217000 RCIC														0
218000 ADS														0
223002 PCIS/Nuclear Steam Supply Shutoff								1 1				Ability to (a) predict the impacts of the following on the PCIS/Nuclear Steam Supply Shutoff; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Standby liquid initiation	3.9	1
239002 SRVs														0
259002 Reactor Water Level Control											04. 18	Knowledge of the specific bases for EOPs. 4.	l.0	1
261000 SGTS														0
262001 AC Electrical Distribution														0
262002 UPS (AC/DC)														0
263000 DC Electrical Distribution								0 1				Ability to (a) predict the impacts of the following on the DC Electrical Distribution; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Grounds	3.2	1
264000 EDGs														0
300000 Instrument Air														0
400000 Component Cooling Water														0
K/A Category Totals:	0	0	0	0	0	0	0	3	0	0	2	Group Point Total:		5

ES-401 BWR Examination Outline Form ES-401 Plant Systems - Tier 2/Group 2 (SRO)												S-401-1		
Plant Systems - Tier 2/Group 2 (SRO) System # / Name K K K K K K K A <														
System # / Name	к 1	к 2	к 3	к 4	к 5	к 6	A 1	A 2	А 3	A 4	G	K/A Topic(s)	IR	#
201001 CRD Hydraulic														0
201002 RMCS														0
201003 Control Rod and Drive Mechanism														0
201004 RSCS														0
201005 RCIS														0
201006 RWM														0
202001 Recirculation											04. 09	Knowledge of low power/shutdown implications in accident (e.g., loss of coolant accident or loss of residual heat removal) mitigation strategies.	4.2	1
202002 Recirculation Flow Control														0
204000 RWCU														0
214000 RPIS														0
215001 Traversing In-core Probe								0 1				Ability to (a) predict the impacts of the following on the Traversing In-core Probe; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Low reactor water level: Mark-t&II(Not-BWR1)	2.9	1
215002 RBM														0
216000 Nuclear Boiler Inst.														0
219000 RHR/LPCI: Torus/Pool Cooling Mode														0
223001 Primary CTMT and Aux.														0
226001 RHR/LPCI: CTMT Spray Mode														0
230000 RHR/LPCI: Torus/Pool Spray Mode														0
233000 Fuel Pool Cooling/Cleanup											01. 32	Ability to explain and apply system limits and precautions.	4.0	1
234000 Fuel Handling Equipment														0
239001 Main and Reheat Steam														0
239003 MSIV Leakage Control														0
241000 Reactor/Turbine Pressure Regulator														0
245000 Main Turbine Gen. / Aux.														0
256000 Reactor Condensate														0
259001 Reactor Feedwater														0
268000 Radwaste														0
271000 Offgas														0
272000 Radiation Monitoring														0
286000 Fire Protection														0
288000 Plant Ventilation														0
290001 Secondary CTMT														0
290003 Control Room HVAC				1										0
290002 Reactor Vessel Internals				1										0
K/A Category Totals:	0	0	0	0	0	0	0	1	0	0	2	Group Point Total:		3

ES-401 Generic Knowledge and Abilities Outline (Tier 3)

Facility Nam	e:Dresde	en Date of Exam:4/8/19				
Category	K/A #	Topic	R	0	SRO	-Only
Catogory	10/11/1		IR	#	IR	#
	2.1. 17	Ability to make accurate, clear, and concise verbal reports.	3.9	1	4.0	
	2.1. 43	Ability to use procedures to determine the effects on reactivity of plant changes, such as reactor coolant system temperature, secondary plant, fuel depletion, etc.	4.1	1	4.3	
1.	2.1.					
Conduct of	2.1.					
oporationo	2.1. 04	Knowledge of individual licensed operator responsibilities related to shift staffing, such as medical requirements, "no-solo" operation, maintenance of active license status, 10CFR55, etc.	3.3		3.8	1
	2.1. 40	Knowledge of refueling administrative requirements.	2.8		3.9	1
	Subtota			2		2
	2.2. 22	Knowledge of limiting conditions for operations and safety limits.	4.0	1	4.7	
	2.2. 36	Ability to analyze the effect of maintenance activities, such as degraded power sources, on the status of limiting conditions for operations.	3.1	1	4.2	
2.	2.2. 40	Ability to apply Technical Specifications for a system.	3.4	1	4.7	
Equipment Control	2.2.					
	2.2. 01	Ability to perform pre-startup procedures for the facility, including operating those controls associated with plant equipment that could affect reactivity.	4.5		4.4	1
	2.2. 43	Knowledge of the process used to track inoperable alarms.	3.0		3.3	1
	Subtota			3		2
	2.3. 07	Ability to comply with radiation work permit requirements during normal or abnormal conditions.	3.5	1	3.6	
	2.3. 15	Knowledge of radiation monitoring systems, such as fixed radiation monitors and alarms, portable survey instruments, personnel monitoring equipment, etc.	2.9	1	3.1	
3.	2.3.					
Radiation Control	2.3.					
	2.3.					
	2.3. 06	Ability to approve release permits.	2.0		3.8	1
	Subtota			2		1
	2.4. 12	Knowledge of general operating crew responsibilities during emergency operations.	4.0	1	4.3	
	2.4. 31	Knowledge of annunciator alarms, indications, or response procedures.	4.2	1	4.1	
4. Emorganos	2.4. 39	Knowledge of RO responsibilities in emergency plan implementation.	3.9	1	3.8	
Procedures	2.4.					
/ Plan	2.4. 22	Knowledge of the bases for prioritizing safety functions during abnormal/emergency operations.	3.6		4.4	1
	2.4. 25	Knowledge of fire protection procedures.	3.3		3.7	1
	Subtota			3		2
Tier 3 Point	Total			10		7