

Written Examination Quality Checklist
Form ES-401-6

Draft

Facility:					
Date of Exam:	Exam Level:	RO	SRO		
			Initial		
			a b* c#		
1.	Questions and answers are technically accurate and applicable to the facility.		W WZ WZ		
2.	a.	NRC K/As are referenced for all questions.	W WZ		
	b.	Facility learning objectives are referenced as available.	WZ WZ		
3.	SRO questions are appropriate in accordance with Section D.2.d of ES-401		W WZ WZ		
4.	The sampling process was random and systematic (If more than 4 RO or 2 SRO questions were repeated from the last 2 NRC licensing exams, consult the NRR OL program office).		WZ		
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: <input checked="" type="checkbox"/> the audit exam was systematically and randomly developed, or <input type="checkbox"/> the audit exam was completed before the license exam was started, or <input type="checkbox"/> the examinations were developed independently, or <input type="checkbox"/> the licensee certifies that there is no duplication, or <input type="checkbox"/> other (explain)		W WZ WZ		
6.	Bank use meets limits (no more than 75 percent from the bank, at least 10 percent new, and the rest new or modified); enter the actual RO / SRO-only question distribution(s) at right.	Bank	Modified	New	W WZ WZ
		3 / 1	0 / 0	72 / 24	
7.	Between 50 and 60 percent of the questions on the RO exam are written at the comprehension/ analysis level; the SRO exam may exceed 60 percent if the randomly selected K/As support the higher cognitive levels; enter the actual RO / SRO question distribution(s) at right.	Memory	C/A		W WZ WZ
		33 / 5	42 / 20		
8.	References/handouts provided do not give away answers or aid in the elimination of distractors.		W WZ WZ		
9.	Question content conforms with specific K/A statements in the previously approved examination outline and is appropriate for the tier to which they are assigned; deviations are justified.		W WZ WZ		
10.	Question psychometric quality and format meet the guidelines in ES Appendix B.		W WZ WZ		
11.	The exam contains the required number of one-point, multiple choice items; the total is correct and agrees with the value on the cover sheet.		W WZ WZ		
		Printed Name / Signature	Date		
a.	Author	William Miller / W.C. Miller	02-27-07		
b.	Facility Reviewer (*)	G.A. Laughlin / G.A. Laughlin	2/27/07		
c.	NRC Chief Examiner (#)	Edwin Lee, Jr. / Edwin Lee, Jr.	3/30/07		
d.	NRC Regional Supervisor	Robert H. AAG / Robert H. AAG	4/24/07		
Note: * The facility reviewer's initials/signature are not applicable for NRC-developed examinations. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.					

{PRIVATE } Facility: Turkey Point															
Tier	Group	RO K/A Category Points													
		K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G *	Total		
1. Emergency & Abnormal Plant Evolutions	1	5	2	3	N/A			2	3	N/A			3	18	
	2	2	0	4				0	1				2	9	
	Tier Totals	7	2	7				2	4				5	27	
2. Plant Systems	1	4	2	0	4	1	1	3	4	2	4	3	28		
	2	1	0	2	0	1	1	1	1	0	1	2	10		
	Tier Totals	5	2	2	4	2	2	4	5	2	5	5	38		
3. Generic Knowledge and Abilities Categories					1	2	3	4						10	
					2	3	3	2							

- Note:1. Ensure that at least two topics from every applicable K/A category are sampled within each tier of the RO and SRO-only outlines (i.e., except for one category in Tier 3 of the SRO-only outline, the "Tier Totals" in each K/A category shall not be less than two).**
- 2. The point total for each group and tier in the proposed outline must match that specified in the table. The final point total for each group and tier may deviate by ± 1 from that specified in the table based on NRC revisions. The final RO exam must total 75 points and the SRO-only exam must total 25 points.**
 - 3. Systems/evolutions within each group are identified on the associated outline; systems or evolutions that do not apply at the facility should be deleted and justified; operationally important, site-specific systems that are not included on the outline should be added. Refer to ES-401, Attachment 2, for guidance regarding the elimination of inappropriate K/A statements.**
 - 4. Select topics from as many systems and evolutions as possible; sample every system or evolution in the group before selecting a second topic for any system or evolution.**
 - 5. Absent a plant-specific priority, only those 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.**
 - 6. Select SRO topics for Tiers 1 and 2 from the shaded systems and K/A categories.**
 - 7.* The generic (G) K/As in Tiers 1 and 2 shall be selected from Section 2 of the K/A Catalog, but the topics must be relevant to the applicable evolution or system.**
 - 8. 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.**
 - 9. For Tier 3, select topics from Section 2 of the K/A catalog, and enter the K/A numbers, descriptions, IRs, and point totals (#) on Form ES-401-3. Limit SRO selections to K/As that are linked to 10 CFR 55.43.**

{PRIVATE }ES-401

**PWR Examination Outline
Emergency and Abnormal Plant Evolutions - Tier 1/Group 1 (RO)**

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	#
000007 Reactor Trip - Stabilization - Recovery / 1					0 2		Able to determine and interpret following as they apply to reactor trip: Proper actions to be taken if the automatic safety functions have not taken place	4.3/ 4.6	1
000008 Pressurizer Vapor Space Accident / 3			0 5				Knowledge for the reasons for the following responses as they apply to the PRZ vapor space accident : ECCS terminating or throttling criteria	4.0/ 4.5	1
000009 Small Break LOCA / 3							NOT SELECTED	-	0
000011 Large Break LOCA / 3					0 2		Able to determine and interpret the following as they apply to a LBLOCA: Consequences to RHR of not resetting SI	3.3/ 3.7	1
000015/17 RCP Malfunctions / 4				0 2			Able to operate and/or monitor the following as they apply to the RCP Malfunctions (Loss of RC flow): RCP Oil Reservoir level and alarm indicators	2.8/ 2.7	1
000022 Loss of Rx Coolant Makeup / 2			0 7				Knowledge for the reasons for the following responses as they apply to the Loss of Reactor Coolant Makeup: Isolating charging.	3.0/ 3.2	1
000025 Loss of RHR System / 4		*		0 4			Able to operate and/or monitor the following as they apply to the Loss of RHR System: Closed cooling water pumps	2.8/ 2.6	1
000026 Loss of Component Cooling Water / 8			0 3				Knowledge for the reasons for the following responses as they apply to the loss of CCW: Guidance contained in EOP for loss of CCW.	4.0/ 4.2	1
000027 Pressurizer Pressure Control System Malfunction / 3	0 2						Knowledge of the operational implications of the following concepts as they apply to the pressurizer pressure control malfunctions: Expansion of liquids as temperature increases	2.8/ 3.1	1
000029 ATWS / 1						1.30	As it relates to the ATWS event: Able to locate and operate components, including local controls	3.9/ 4.0	1
000038 Steam Gen. Tube Rupture / 3	0 2						Knowledge of the operational implications of the following concepts as they apply to the SGTR: Leak rate vs pressure drop	3.2/ 3.5	1
000040 (W/E12) Steam Line Rupture - Excessive Heat Transfer / 4	*	0 1					000040 SELECTED, W/E12 NOT SELECTED Knowledge of the interrelations between the steam line rupture and the following: Valves	2.6/ 2.5	1

E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	IR	#
000054 Loss of Main Feedwater / 4	0 1						Knowledge of the operational implications of the following concepts as they apply to the Loss of Main FW: MFW line break depressurizes the S/G (similar to a steam line break)	4.1/ 4.3	1
000055 Station Blackout / 6	0 2						Knowledge of the operational implications of the following concepts as they apply to the station blackout: Natural Circulation Cooling	4.1/ 4.4	1
000056 Loss of Off-site Power / 6							NOT SELECTED	-	0
000057 Loss of Vital AC Inst. Bus / 6							NOT SELECTED	-	0
000058 Loss of DC Power / 6						4.4	As it relates to the loss of DC power event: Able to recognize abnormal indications for system operating parameters which are entry level conditions for emergency and abnormal operating procedures.	4.0/ 4.3	1
000062 Loss of Nuclear Svc Water / 4							NOT SELECTED	-	0
000065 Loss of Instrument Air / 8						1.23	As it relates to the loss of instrument air event: Able to perform specific system and integrated plant procedures during all modes of plant operation.	3.9/ 4.0	1
WE04 LOCA Outside Containment / 3					1		Able to determine and interpret the following as they apply to the LOCA OC: Facility conditions and selection of appropriate procedures during abnormal and emergency operations.	3.4/ 4.3	1
WE11 Loss of Emergency Coolant Recirc. / 4	*	2					Knowledge of the interrelations between the loss of emergency coolant recirc and the following: facility's heat removal systems incl 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	1
WE05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4	2						Knowledge of the operational implications of the following concepts as they apply to the Loss of secondary heat sink: Normal, abnormal and emergency operating procedures associated with the loss of secondary heat sink	3.9/ 4.5	1
K/A Category Totals:	5	2	3	2	3	3	Group Point Total:		18

{PRIVATE }ES-401

PWR Examination Outline
Emergency and Abnormal Plant Evolutions - Tier 1/Group 2 (RO)

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							NOT SELECTED	-	0
000003 Dropped Control Rod / 1							NOT SELECTED	-	0
000005 Inoperable/Stuck Control Rod / 1							NOT SELECTED	-	0
000024 Emergency Boration / 1							NOT SELECTED	-	0
000028 Pressurizer Level Malfunction / 2							NOT SELECTED	-	0
000032 Loss of Source Range NI / 7							NOT SELECTED	-	0
000033 Loss of Intermediate Range NI / 7							NOT SELECTED	-	0
000036 Fuel Handling Accident / 8					0 1		Able to determine and interpret the following as they apply to the fuel handling incidents: ARM system indications	3.2/ 3.9	1
000037 Steam Generator Tube Leak / 3			0 3				Knowledge for the reasons for the following responses as they apply to the SGTL: comparison of makeup flow and letdown flow for various modes of operation	3.1/ 3.3	1
000051 Loss of Condenser Vacuum / 4			0 1				Knowledge for the reasons for the following responses as they apply to the loss of condenser vacuum: loss of steam dump capability upon loss of condenser vacuum	2.8/ 3.1	1
000059 Accidental Liquid RadWaste Rel. / 9							NOT SELECTED	-	0
000060 Accidental Gaseous Radwaste Rel. / 9							NOT SELECTED	-	0
000061 ARM System Alarms / 7							NOT SELECTED	-	0
000067 Plant Fire On-site / 8							NOT SELECTED	-	0
000068 Control Room Evac. / 8						1.28 *	As it relates to the control room evacuation event: Knowledge of the purpose and function of major system components and controls	3.2/ 3.3	1
000069 (W/E14) Loss of CTMT Integrity / 5			3				W/E14 SELECTED, 000069 NOT SELECTED Knowledge for the reasons for the following responses as they apply to the high containment pressure: manipulation of controls required to obtain desired operating results during abnormal and emergency situations.	3.5/ 3.5	1

E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	IR	#
000074 (W/E06&E07) Inad. Core Cooling / 4	1						W/E06 SELECTED, 000074 & W/E07 NOT SELECTED Knowledge of the operational implications of the following concepts as they apply to the degraded core cooling: components, capacity and function of emergency systems.	3.6/ 4.0	1
000076 High Reactor Coolant Activity / 9							NOT SELECTED	-	0
W/E01 & E02 Rediagnosis & SI Termination / 3			1				W/E02 SELECTED W/E01 NOT SELECTED Knowledge for the reasons for the following responses as they apply to the SI termination: Facility operating characteristics during transient conditions, including coolant chemistry and the effects of temperature, pressure, and reactivity changes and operating limitations and reasons for these operating characteristics.	3.3/ 3.6	1
W/E13 Steam Generator Over-pressure / 4							NOT SELECTED	-	0
W/E15 Containment Flooding / 5							NOT SELECTED	-	0
W/E16 High Containment Radiation / 9							NOT SELECTED	-	0
W/E03 LOCA Cooldown - Depress. / 4	3						Knowledge of the operational implications of the following concepts as they apply to LOCA Cooldown and Depressurization: annunciators and conditions, indicating signals and remedial actions associated with the (LOCA cooldown and depressurization	3.5/ 3.8	1
W/E09&E10 Natural Circ. / 4							NOT SELECTED	-	0
W/E08 RCS Overcooling - PTS / 4						1.28	As it relates to the PTS event: Knowledge of the purpose and function of major system components and controls.	3.2/ 3.3	1
K/A Category Point Totals:	2	0	4	0	1	2	Group Point Total:		9

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											0 7	Ability to manually operate and/or monitor in the control room RCP seal bypass	2.6/ 2.6	1
004 Chemical and Volume Control	2 3							1 1				Knowledge of the physical connection and/or cause-effect relationships between the CVCS and the RWST Ability to (a) predict the impacts of the following malfunctions or operations on the CVCS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: loss of IAS	3.4/ 3.7 3.6/ 4.2	1 1
005 Residual Heat Removal											1.30	As it relates to RHR, ability to locate and operate components, including local controls	3.9/ 3.4	1
006 Emergency Core Cooling											0 8	Ability to manually operate and/or monitor in the control room	4.2/ 4.3	1
007 Pressurizer Relief/Quench Tank							0 2					Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the PRTS controls including maintaining PRT pressure.	2.7/ 2.9	1
008 Component Cooling Water											0 8	Ability to manually operate and/or monitor in the control room: CCW pump control switch	3.1/ 2.8	1
010 Pressurizer Pressure Control							0 1					Ability to (a) predict the impacts of the following malfunctions or operations on the PZR PCS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Heater failures	3.3/ 3.6	1

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	#	
012 Reactor Protection				0 6		0 2						Knowledge of the RPS design feature(s) and/or interlock(s) which provide for automatic or manual enable/disable of RPS trips	3.2/ 3.5	1	
												Knowledge of the effect of a loss or malfunction of the following will have on the RPS: Redundant Channels	2.9/ 3.1	1	
013 Engineered Safety Features Actuation											0 2	Ability to manually operate and/or monitor in the control room reset of ESFAS channels	4.3/ 4.4	1	
022 Containment Cooling		0 1										x	Knowledge of the power supplies to the containment cooling fans	3.0/ 3.1	1
026 Containment Spray				0 1			0 1						Knowledge of the CSS design feature(s) and/or interlock(s) which provide for: source of water for CSS, including recirculation phase after LOCA	4.2/ 4.3	1
													Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the CSS controls including containment pressure	3.9/ 4.2	1
039 Main and Reheat Steam					0 5							x	Knowledge of the operational implications of the following concept as it applies to the MRSS: Basis for the RCS cooldown limits	2.7/ 3.1	1
059 Main Feedwater	0 3					x				0 2			Knowledge of the physical connection and/or cause-effect relationships between the main feedwater and the S/Gs.	3.1/ 3.3	1
													Ability to monitor automatic operation of the MFW, including programmed levels of the S/G	2.9/ 3.1	1
061 Auxiliary/Emergency Feedwater				0 2						0 1			Knowledge of the AFW design feature(s) and/or interlock(s) which provide for: AFW automatic start upon loss of MFW pump, S/G level, blackout or SI	4.5/ 4.6	1
													Ability to monitor automatic operation of the AFW, including: AFW startup and flows	4.2/ 4.2	1

062 AC Electrical Distribution					x							2.25	As it relates to the AC Electrical Distribution: Knowledge of the bases in Tech Specs for LCOs and safety limits	2.5/ 3.7	1
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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	#
063 DC Electrical Distribution	0 3											Knowledge of the physical connection and/or cause-effect relationships between the DC Electrical Distribution and the battery charger and battery	2.9/ 3.5	1
064 Emergency Diesel Generator		0 3						x			1.23	Knowledge of the power supplies to the control power As it relates to the EDG, ability to perform specific system and integrated plant procedures during all modes of plant operation	2.9/ 3.3 3.9/ 4.0	1 1
073 Process Radiation Monitoring								0 2				Ability to (a) predict the impacts of the following malfunctions or operations on the PRMS and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: detector failure	2.7/ 3.2	1
076 Service Water							0 2					Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the Service Water controls including reactor and turbine building closed cooling water temperatures	2.6/ 2.6	1
078 Instrument Air	0 2					x						Knowledge of the physical connection and/or cause-effect relationships between the Instrument air and the service air	2.7/ 2.8	1
103 Containment				0 6				0 3				Knowledge of the Ctmt design feature(s) and/or interlock(s) which provide for containment isolation system Ability to (a) predict the impacts of the following malfunctions or operations on the Ctmt; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Phase A & B Isolation	3.1/ 3.7 3.5/ 3.8	1 1
K/A Category Point Totals:	4	2	0	4	1	1	3	4	2	4	3	Group Point Total:		28

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			0 1									Knowledge of the effect that a loss or malfunction of the CRDS will have on the CVCS	2.9/ 3.0	1
002 Reactor Coolant						0 2						Knowledge of the effect of a loss or malfunction of the following RCS components: RCP	3.6/ 3.8	1
011 Pressurizer Level Control							0 1					Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the PRZ LCS controls including PRZ level and pressure	3.5/ 3.6	1
014 Rod Position Indication												NOT SELECTED	-	0
015 Nuclear Instrumentation										0 3		Ability to manually operate and/or monitor in the control room: trip bypasses	3.8/ 3.9	1
017 In-core Temperature Monitor												NOT SELECTED	-	0
027 Containment Iodine Removal												NOT SELECTED	-	0
028 Hydrogen Recombiner and Purge Control												NOT SELECTED	-	0
029 Containment Purge												NOT SELECTED	-	0
033 Spent Fuel Pool Cooling												NOT SELECTED	-	0
034 Fuel Handling Equipment							0 1					Ability to (a) predict the impacts of the following malfunctions or operations on the fuel handling system; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: dropped fuel element	3.6/ 4.4	1
035 Steam Generator	1 4											Knowledge of the physical connection and/or cause-effect relationships between the S/G and the ESF	3.9/ 4.1	1

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	#
041 Steam Dump/Turbine Bypass Control											1.28	As it relates to the SD Sys: Knowledge of the purpose and function of major system components and controls	3.2/ 3.3	1
045 Main Turbine Generator												NOT SELECTED	-	0
055 Condenser Air Removal		x	0 1									Knowledge of the effect that a loss or malfunction of the CARS will have on the main condenser	2.5/ 2.7	1
056 Condensate			x	x						x	4.50	As it relates to the condensate system: Ability to verify system alarm setpoints and operate controls identified in the alarm response manual	3.3/ 3.3	1
068 Liquid Radwaste												NOT SELECTED	-	0
071 Waste Gas Disposal					0 4	x						Knowledge of the operational implications of the following concept as it applies to the WGD system: relationship of H2/O2 concentrations to flammability	2.5/ 3.1	1
072 Area Radiation Monitoring												NOT SELECTED	-	0
075 Circulating Water												NOT SELECTED	-	0
079 Station Air												NOT SELECTED	-	0
086 Fire Protection												NOT SELECTED	-	0
K/A Category Point Totals:	1	0	2	0	1	1	1	1	0	1	2	Group Point Total:		10

{PRIVATE } Facility: Turkey Point		Date of Exam: 04/2007			
Category	K/A #	Topic	RO		
			IR	#	
1. Conduct of Operations	2.1.				
	2.1.8	Ability to coordinate personnel activities outside of the control room	3.8/3.6	1	
	2.1.11	Knowledge of less than one hour technical specification action statements for systems	3.0/3.8	1	
	Subtotal			2	
2. Equipment Control	2.2.				
	2.2.4	Ability to explain the variations in control board layouts , systems, instrumentation and procedural actions between units at a	2.8/3.0	1	
	2.2.11	Knowledge of the process for controlling temporary changes	2.5/3.4	1	
	2.2.28	Knowledge of new and spent fuel movement procedures	2.6/3.5	1	
	Subtotal			3	
3. Radiation Control	2.3.				
	2.3.1	Knowledge of 10CFR20 and related facility radiation control requirements	2.6/3.0	1	
	2.3.2	Knowledge of facility ALARA program	2.5/2.9	1	
	2.3.4	Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized	2.5/3.1	1	
	Subtotal			3	
4. Emergency Procedures / Plan	2.4.				
	2.4.4	Ability to recognize abnormal indications for system operating parameters which are entry level conditions for emergency and abnormal operating procedures	4.0/4.3	1	
	2.4.5	Knowledge of the organization of the operating procedures network for normal , abnormal and emergency evolutions	2.9/3.6	1	
	Subtotal			2	
Tier 3 Point Total				10	

{PRIVATE }Tier / Group	Randomly Selected K/A	Reason for Rejection
1/1	000025 K2.12	KA value < 2.5
1/1	000040K1.03	Zero K-2s. Too Many K-1s (9). Random choice to make K-2.
1/1	W/E11 EK1.3	Zero K-2s. Too Many K-1s (9). Random choice to make K-2.
1/2	000068G2.4.31	Alarm response procedure not used during CR Evac.
2/1	059K5	No choices \geq 2.5
2/1	062K5	No choices \geq 2.5
2/1	078K6	No choices \geq 2.5
2/2	055K2	No choices \geq 2.5
2/2	056K3	No choices \geq 2.5
2/2	056K4	No choices \geq 2.5
2/2	056A3	No choices \geq 2.5
2/2	071K6	No choices \geq 2.5
2/1	022G2.4.31	Zero K-2s. Too many Gs (7). Random choice to make K-2
2/1	039G2.4.49	One K-5. Too many Gs (7). Random choice to make K-5
2/1	064A2.03	Zero K-2s. Too many Gs (7). Random choice to make K-2
3/1	G21.17	Changed after phone call with Edwin Lea - Better to evaluate verbal communications in other settings, written question was not acceptable during the NRC draft review

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Examination Outline Cross-Reference:	Level	RO	SRO
	Tier #	_____	_____
	Group #	_____	_____
	K/A #	_____	_____
	Importance Rating	_____	_____

Proposed Question:

Proposed Answer: _____

Explanation (Optional):

Technical Reference(s): _____ (Attach if not previously provided)

Proposed references to be provided to applicants during _____ examination: _____

Learning Objective: _____ (As available)

Question Source: Bank # _____

Modified Bank # _____ (Note changes or attach parent)

New _____

Question History: Last NRC Exam _____

(Optional: Questions validated at the facility since 10/95 will generally undergo less rigorous review by the NRC; failure to provide the information will necessitate a detailed review of every question.)

Question Cognitive Level: Memory or Fundamental Knowledge _____

Comprehension or Analysis _____

10 CFR Part 55 Content: 55.41 _____

55.43 _____

Comments:

{PRIVATE }Facility:																		
Date of Exam:		Exam Level: RO SRO																
			Initial															
			a b* c#															
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		/	/															
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		/	/															
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9.	Question content conforms with specific K/A statements in the previously approved examination outline and is appropriate for the tier to which they are assigned; deviations are justified.																	
10.	Question psychometric quality and format meet the guidelines in ES Appendix B.																	
11.	The exam contains the required number of one-point, multiple choice items; the total is correct and agrees with the value on the cover sheet.																	
<table style="width:100%; border: none;"> <tr> <td style="width: 45%;"></td> <td style="text-align: center; border: none;">Printed Name / Signature</td> <td style="text-align: right; border: none;">Date</td> </tr> <tr> <td style="padding: 5px;">a. Author</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> </tr> <tr> <td style="padding: 5px;">b. Facility Reviewer (*)</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> </tr> <tr> <td style="padding: 5px;">c. NRC Chief Examiner (#)</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> </tr> <tr> <td style="padding: 5px;">d. NRC Regional Supervisor</td> <td style="border: none;">_____</td> <td style="border: none;">_____</td> </tr> </table>					Printed Name / Signature	Date	a. Author	_____	_____	b. Facility Reviewer (*)	_____	_____	c. NRC Chief Examiner (#)	_____	_____	d. NRC Regional Supervisor	_____	_____
	Printed Name / Signature	Date																
a. Author	_____	_____																
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d. NRC Regional Supervisor	_____	_____																
Note: * The facility reviewer's initials/signature are not applicable for NRC-developed examinations. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.																		

**ES-401, Rev. 9 Site-Specific RO Written Examination Form ES-401-7
Cover Sheet**

<p>{PRIVATE } U.S. Nuclear Regulatory Commission Site-Specific RO Written Examination</p>	
<p>Applicant Information</p>	
<p>Name: _____</p>	
<p>Date: _____</p>	<p>Facility/Unit: _____</p>
<p>Region: I II III IV</p>	<p>Reactor Type: W CE BW GE</p>
<p>Start Time: _____</p>	<p>Finish Time: _____</p>
<p>Instructions</p> <p>Use the answer sheets provided to document your answers. Staple this cover sheet on top of the answer sheets. To pass the examination, you must achieve a final grade of at least 80.00 percent. Examination papers will be collected 6 hours after the examination begins.</p>	
<p>Applicant Certification</p> <p>All work done on this examination is my own. I have neither given nor received aid.</p> <p align="right">_____</p> <p align="right">Applicant's Signature</p>	
<p>Results</p>	
<p>Examination Value</p>	<p>_____ Points</p>
<p>Applicant's Score</p>	<p>_____ Points</p>
<p>Applicant's Grade</p>	<p>_____ Percent</p>

<p>{PRIVATE } U.S. Nuclear Regulatory Commission Site-Specific SRO Written Examination</p>	
Applicant Information	
Name:	
Date:	Facility/Unit:
Region: I II III IV	Reactor Type: W CE BW GE
Start Time:	Finish Time:
Instructions	
<p>Use the answer sheets provided to document your answers. Staple this cover sheet on top of the answer sheets. To pass the examination you must achieve a final grade of at least 80.00 percent overall, with 70.00 percent or better on the SRO-only items if given in conjunction with the RO exam; SRO-only exams given alone require a final grade of 80.00 percent to pass. You have 8 hours to complete the combined examination, and 3 hours if you are only taking the SRO portion.</p>	
Applicant Certification	
<p>All work done on this examination is my own. I have neither given nor received aid.</p>	
<p>_____</p> <p>Applicant's Signature</p>	
Results	
RO/SRO-Only/Total Examination Values	_____ / _____ / _____ Points
Applicant's Scores	_____ / _____ / _____ Points

Applicant's Grade

___ / ___ / ___ **Percent**

{PRIVATE} Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	# units	Back-ward	Q= K/A	SRO Only		

Instructions
 [Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]

- Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
- Enter the level of difficulty (LOD) of each question using a 1 – 5 (easy – difficult) rating scale (questions in the 2 – 4 range are acceptable).
- Check the appropriate box if a psychometric flaw is identified:
 - The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
 - The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).
 - The answer choices are a collection of unrelated true/false statements.
 - The distractors are not credible; single implausible distractors should be repaired, more than one is unacceptable.
 - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).
- Check the appropriate box if a job content error is identified:
 - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
 - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
 - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
 - The question requires reverse logic or application compared to the job requirements.
- Check questions that are sampled for conformance with the approved K/A and those that are designated SRO-only (K/A and license level mismatches are unacceptable).
- Based on the reviewer's judgment, is the question as written (U)nsatisfactory (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
- At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).

PRI VAT E } Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partia l	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			

Tier		Group	SRO-Only Points			
			A2	G*	Total	
1. Emergency & Abnormal Plant Evolutions	1		3	3	6	
	2		1	3	4	
	Tier Totals		4	6	10	
2. Plant Systems	1		2	3	5	
	2		0	2	1	3
	Tier Totals		4	4	8	
3. Generic Knowledge and Abilities Categories			1	2	3	4
			2	2	1	2

- Note:1. Ensure that at least two topics from every applicable K/A category are sampled within each tier of the RO and SRO-only outlines (i.e., except for one category in Tier 3 of the SRO-only outline, the "Tier Totals" in each K/A category shall not be less than two).
- 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 ES-401, Attachment 2, 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.
 - 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.

{PRIVATE }ES-401

**PWR Examination Outline
Emergency and Abnormal Plant Evolutions - Tier 1/Group 1 (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	#
000007 Reactor Trip - Stabilization - Recovery / 1							NOT SELECTED	-	0
000008 Pressurizer Vapor Space Accident / 3							NOT SELECTED	-	0
000009 Small Break LOCA / 3					0 4		Able to determine and interpret the following as they apply to Small Break LOCA: PRZ Level	3.8/ 4.0	1
000011 Large Break LOCA / 3							NOT SELECTED	-	0
000015/17 RCP Malfunctions / 4							NOT SELECTED	-	0
000022 Loss of Rx Coolant Makeup / 2							NOT SELECTED	-	0
000025 Loss of RHR System / 4							NOT SELECTED	-	0
000026 Loss of Component Cooling Water / 8							NOT SELECTED	-	0
000027 Pressurizer Pressure Control System Malfunction / 3							NOT SELECTED	-	0
000029 ATWS / 1							NOT SELECTED	-	0
000038 Steam Gen. Tube Rupture / 3							NOT SELECTED	-	0
000040 (W/E12) Steam Line Rupture - Excessive Heat Transfer / 4					2		W/E12 SELECTED 000040 NOT SELECTED Able to determine and interpret the following as they apply to Uncontrolled Depressurization of all S/Gs: Adherence to appropriate procedures and operation within the limitations in the facility's license and amendments	3/4 3/9	1
000054 Loss of Main Feedwater / 4							NOT SELECTED	-	0
000055 Station Blackout / 6							NOT SELECTED	-	0
000056 Loss of Off-site Power / 6					4 7		Able to determine and interpret the following as they apply to Loss of Off-site Power: Proper operation of the EDG load sequencer	3.8/ 3.9	1
000057 Loss of Vital AC Inst. Bus / 6						1.33	As it relates to Loss of Vital AC Inst. Bus: Ability to recognize indications for system operating parameters which are entry-level conditions for technical specifications	3.4/ 4.0	1
000058 Loss of DC Power / 6							NOT SELECTED	-	0
000062 Loss of Nuclear Svc Water / 4						2.22	As it relates to Loss of Nuclear Svc Water: Knowledge of limiting conditions for operations & safety limits	3.4/ 4.1	1

{PRIVATE }ES-401

PWR Examination Outline
Emergency and Abnormal Plant Evolutions - Tier 1/Group 1 (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	#
000065 Loss of Instrument Air / 8							NOT SELECTED	-	0
W/E04 LOCA Outside Containment / 3							NOT SELECTED	-	0
W/E11 Loss of Emergency Coolant Recirc. / 4							NOT SELECTED	-	0
W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4						4.30	As it relates to Loss of secondary Heat Sink: Knowledge of which events related to system operations/status should be reported to outside agencies	2.2/ 3.6	1
K/A Category Totals:					3	3	Group Point Total:		6

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							NOT SELECTED	-	0
000003 Dropped Control Rod / 1						4.6	As it relates to the dropped control rod event: Knowledge of symptom based EOP mitigation strategies	3.1/ 4.0	1
000005 Inoperable/Stuck Control Rod / 1						2.22	As it relates to the Inoperable/Stuck Control Rod: knowledge of limiting conditions for operations and safety limits	3.4/ 4.1	1
000024 Emergency Boration / 1							NOT SELECTED	-	0
000028 Pressurizer Level Malfunction / 2					0 8		Able to determine and interpret the following as they apply to Pressurizer Level Malfunction: PZR level as a function of power level	3.1/ 3.5	1
000032 Loss of Source Range NI / 7							NOT SELECTED	-	0
000033 Loss of Intermediate Range NI / 7							NOT SELECTED	-	0
000036 Fuel Handling Accident / 8							NOT SELECTED	-	0
000037 Steam Generator Tube Leak / 3						1.33	As it relates to Steam Generator Tube Leak: Ability to recognize indications for system operating parameters which are entry-level conditions for technical specifications	3.4/ 4.0	1
000051 Loss of Condenser Vacuum / 4							NOT SELECTED	-	0
000059 Accidental Liquid RadWaste Rel. / 9							NOT SELECTED	-	0
000060 Accidental Gaseous Radwaste Rel. / 9							NOT SELECTED	-	0
000061 ARM System Alarms / 7							NOT SELECTED	-	0
000067 Plant Fire On-site / 8							NOT SELECTED	-	0
000068 Control Room Evac. / 8							NOT SELECTED	-	0
000069 (W/E14) Loss of CTMT Integrity / 5							NOT SELECTED	-	0
000074 (W/E06&E07) Inad. Core Cooling / 4							NOT SELECTED	-	0
000076 High Reactor Coolant Activity / 9							NOT SELECTED	-	0
W/E01 & E02 Rediagnosis & SI Termination / 3							NOT SELECTED	-	0
W/E13 Steam Generator Over-pressure / 4							NOT SELECTED	-	0
W/E15 Containment Flooding / 5							NOT SELECTED	-	0
W/E16 High Containment Radiation / 9							NOT SELECTED	-	0
W/E03 LOCA Cooldown - Depress. / 4							NOT SELECTED	-	0
W/E09&E10 Natural Circ. / 4							NOT SELECTED	-	0
W/E08 RCS Overcooling - PTS / 4							NOT SELECTED	-	0
K/A Category Point Totals:					1	3	Group Point Total:		4

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								0 3				Ability to (a) predict the impacts of the following malfunctions or operations on the RCP; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Problems associated with RCP motors, including faulty motors and current, and winding and bearing temperature problems	2.7/ 3.1	1
004 Chemical and Volume Control												NOT SELECTED	-	0
005 Residual Heat Removal												NOT SELECTED	-	0
006 Emergency Core Cooling											4.6	As it relates to Emergency Core Cooling: Knowledge of symptom based EOP mitigation strategies	3.1/ 4.0	1
007 Pressurizer Relief/Quench Tank												NOT SELECTED	-	0
008 Component Cooling Water												NOT SELECTED	-	0
010 Pressurizer Pressure Control												NOT SELECTED	-	0
012 Reactor Protection												NOT SELECTED	-	0
013 Engineered Safety Features Actuation												NOT SELECTED	-	0
022 Containment Cooling								0 4				Ability to (a) predict the impacts of the following malfunctions or operations on the CCS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Loss of service water	2.9/ 3.2	1
026 Containment Spray												NOT SELECTED	-	0
039 Main and Reheat Steam												NOT SELECTED	-	0
059 Main Feedwater												NOT SELECTED	-	0

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	#
061 Auxiliary/Emergency Feedwater											2.22	As it relates to the AFW system: knowledge of limiting conditions for operations and safety limits	3.4/ 4.1	1
062 AC Electrical Distribution												NOT SELECTED	-	0
063 DC Electrical Distribution												NOT SELECTED	-	0
064 Emergency Diesel Generator												NOT SELECTED	-	0
073 Process Radiation Monitoring											1.33	As it relates to Process Radiation Monitoring: Ability to recognize indications for system operating parameters which are entry-level conditions for technical specifications.	3.4/ 4.0	1
076 Service Water												NOT SELECTED	-	0
078 Instrument Air												NOT SELECTED	-	0
103 Containment												NOT SELECTED	-	0
K/A Category Point Totals:							2				3	Group Point Total:		5

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												NOT SELECTED	-	0
002 Reactor Coolant												NOT SELECTED	-	0
011 Pressurizer Level Control												NOT SELECTED	-	0
014 Rod Position Indication								0 2				Ability to (a) predict the impacts of the following malfunctions or operations on the RPIS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: loss of power to the RPIS	3.1/ 3.6	1
015 Nuclear Instrumentation												NOT SELECTED	-	0
												NOT SELECTED	-	0
017 In-core Temperature Monitor								0 2				Ability to (a) predict the impacts of the following malfunctions or operations on the ITM system; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Core Damage	3.6/ 4.1	1
027 Containment Iodine Removal												NOT SELECTED	-	0
028 Hydrogen Recombiner and Purge Control												NOT SELECTED	-	0
029 Containment Purge												NOT SELECTED	-	0
033 Spent Fuel Pool Cooling												NOT SELECTED	-	0
034 Fuel Handling Equipment												NOT SELECTED	-	0
035 Steam Generator												NOT SELECTED	-	0
041 Steam Dump/Turbine Bypass Control												NOT SELECTED	-	0
045 Main Turbine Generator												NOT SELECTED	-	0

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	#
055 Condenser Air Removal												NOT SELECTED	-	0
056 Condensate												NOT SELECTED	-	0
068 Liquid Radwaste												NOT SELECTED	-	0
071 Waste Gas Disposal												NOT SELECTED	-	0
072 Area Radiation Monitoring											1.14	As it relates to Area Radiation Monitoring: Knowledge of system status criteria which require the notification of plant personnel	2.5/ 3.3	1
075 Circulating Water												NOT SELECTED	-	0
079 Station Air												NOT SELECTED	-	0
086 Fire Protection											*	NOT SELECTED	-	0
K/A Category Point Totals:								2			1	Group Point Total:		3

Category		K/A #	Topic	SRO-Only	
				IR	#
1. Conduct of Operations	2.1.				
	2.1.7	Ability to evaluate plant performance and make operational judgements based on operating characteristics, reactor behavior, and instrument interpretation		4.4	1
	2.1.32	Ability to explain and apply all system limits and precautions		3.8	1
	Subtotal				2
2. Equipment Control	2.2.				
	2.2.24	Ability to analyze the effect of maintenance activities on LCO status		3.8	1
	2.2.27	Knowledge of the refueling process		3.5	1
	Subtotal				2
3. Radiation Control	2.3.				
	2.3.10	Ability to perform procedures to reduce excessive levels of radiation and guard against personnel exposure		3.3	1
	Subtotal				1
4. Emergency Procedures / Plan	2.4.				
	2.4.7	Knowledge of the event based EOP mitigation strategies		3.8	1
	2.4.44	Knowledge of emergency plan protective action recommendations		4.0	1
	Subtotal				2
Tier 3 Point Total					7

{PRIVATE }Tier / Group	Randomly Selected K/A	Reason for Rejection
2/2	086G2.4.4	Unable to write SRO level question based on this KA

Examination Outline Cross-Reference:	Level	RO	SRO
	Tier #	_____	_____
	Group #	_____	_____
	K/A #	_____	_____
	Importance Rating	_____	_____

Proposed Question:

Proposed Answer: _____

Explanation (Optional):

Technical Reference(s): _____ (Attach if not previously provided)

Proposed references to be provided to applicants during _____ examination: _____

Learning Objective: _____ (As available)

Question Source: Bank # _____

Modified Bank # _____ (Note changes or attach parent)

New _____

Question History: Last NRC Exam _____

(Optional: Questions validated at the facility since 10/95 will generally undergo less rigorous review by the NRC; failure to provide the information will necessitate a detailed review of every question.)

Question Cognitive Level: Memory or Fundamental Knowledge _____

Comprehension or Analysis _____

10 CFR Part 55 Content: 55.41 _____

55.43 _____

Comments:

(PRIVATE)Facility:			
Date of Exam:		Exam Level: RO SRO	
			Initial
			a b* c#
1.	Questions and answers are technically accurate and applicable to the facility.		
2.	a. NRC K/As are referenced for all questions. b. Facility learning objectives are referenced as available.		
3.	SRO questions are appropriate in accordance with Section D.2.d of ES-401		
4.	The sampling process was random and systematic (If more than 4 RO or 2 SRO questions were repeated from the last 2 NRC licensing exams, consult the NRR OL program office).		
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: ___ the audit exam was systematically and randomly developed, or ___ the audit exam was completed before the license exam was started, or ___ the examinations were developed independently, or ___ the licensee certifies that there is no duplication, or ___ other (explain)		
6.	Bank use meets limits (no more than 75 percent from the bank, at least 10 percent new, and the rest new or modified); enter the actual RO / SRO-only question distribution(s) at right.	Bank	Modified
		New	
		3 / 1	0 / 0
		72 / 24	
7.	Between 50 and 60 percent of the questions on the RO exam are written at the comprehension/ analysis level; the SRO exam may exceed 60 percent if the randomly selected K/As support the higher cognitive levels; enter the actual RO / SRO question distribution(s) at right.	Memory	C/A
		33 / 5	42 / 20
8.	References/handouts provided do not give away answers or aid in the elimination of distractors.		
9.	Question content conforms with specific K/A statements in the previously approved examination outline and is appropriate for the tier to which they are assigned; deviations are justified.		
10.	Question psychometric quality and format meet the guidelines in ES Appendix B.		
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a. Author		Printed Name / Signature	
b. Facility Reviewer (*)		Date	
c. NRC Chief Examiner (#)		_____	_____
d. NRC Regional Supervisor		_____	_____
Note: * The facility reviewer's initials/signature are not applicable for NRC-developed examinations. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.			

{PRIVATE } U.S. Nuclear Regulatory Commission Site-Specific RO Written Examination	
Applicant Information	
Name:	
Date: May 2007	Facility/Unit: Turkey Point
Region: I <u>II</u> III IV	Reactor Type: <u>W</u> CE BW GE
Start Time:	Finish Time:
Instructions	
Use the answer sheets provided to document your answers. Staple this cover sheet on top of the answer sheets. To pass the examination, you must achieve a final grade of at least 80.00 percent. Examination papers will be collected 6 hours after the examination begins.	
Applicant Certification	
All work done on this examination is my own. I have neither given nor received aid.	
_____ Applicant's Signature	
Results	
Examination Value	__100__ Points
Applicant's Score	_____ Points
Applicant's Grade	_____ Percent

<p>{PRIVATE } U.S. Nuclear Regulatory Commission Site-Specific SRO Written Examination</p>	
<p>Applicant Information</p>	
<p>Name:</p>	
<p>Date: May 2007</p>	<p>Facility/Unit: Turkey Point</p>
<p>Region: I <u>II</u> III IV</p>	<p>Reactor Type: <u>W</u> CE BW GE</p>
<p>Start Time:</p>	<p>Finish Time:</p>
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<p>All work done on this examination is my own. I have neither given nor received aid.</p>	
<p>_____</p> <p>Applicant's Signature</p>	
<p>Results</p>	
<p>RO/SRO-Only/Total Examination Values</p>	<p> <u>75</u> / <u>25</u> / <u>100</u> Points</p>
<p>Applicant's Scores</p>	<p> ___ / ___ / ___ Points</p>
<p>Applicant's Grade</p>	<p> ___ / ___ / ___ Percent</p>

{PRIVATE} Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
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 - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
 - The question requires reverse logic or application compared to the job requirements.
5. Check questions that are sampled for conformance with the approved K/A and those that are *designated SRO-only* (K/A and license level mismatches are unacceptable).
6. Based on the reviewer’s judgment, is the question as written (U)nsatisfactory (**requiring repair or replacement**), in need of (E)ditorial enhancement, or (S)atisfactory?
7. **At a minimum, explain any “U” ratings (e.g., how the Appendix B psychometric attributes are not being met).**

{PRI VAT E} Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partia l	Job- Link	Minutia #/ units	Back- ward	Q= K/A	SRO Only				

