Administrative Documents

TURKEY POINT DEC. 2003 EXAM 50-250/2003-301

DECEMBER 3 - 15,2003

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2.	Exam Outline Quality Checklist	ES-201-2
A.	Exam Security Agreement	ES-201-3-
A.	Administrative Topics Outline (Final)	ES-301-1
_5.	Control Room Systems and Facility Walk-through Test (Final)	: Outline ES-301-2 ✓
6.	Operating Test Quality Check Sheet	ES-301-3 🗸
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Facility:	Turkey Point Date of Examination:	<u>+2/8 +9, 200</u>
Examina	ions Developed by: Operating by Facility / Written by NRC	143-10/ 000
Target Date*	Task Description/ Reference	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a & b)	The
-120	2. NRC examiners and facility contact assigned(C.1.d; C.2.e)	$ \mathbf{w} $
-120	3. Facility contact briefed on security & other requirements (C.2.c)	m
-120	4. Corporate notification letter sent (C.2.d)	The
[-90]	[5. Reference material due (C.I.e; C.3.c)]	me
-75	6. Integrated examination outline(s) due (C.1.e & f; C.3.d)	an s
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	sur 1
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	m
-30	9. Preliminary license applications due (C.1.I; C.2.g; ES-202)	-mer
-14	10. Final license applications due and assignment sheet prepared (C.1.I; C.2.g; ES-202)	TIN
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	nut
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	Tril
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	wa: 6H 12/9
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	The
-7	 Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k) 	Puls
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	THE
Th Th	rget dates are keyed to the examination date identified in the corporate not ey are for planning purposes and may be adjusted on a case-by-case basi h the facility licensee. plies only <i>to</i> examinations prepared by the NRC.	

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ES-201

Same 2

(DRAFT) Sample Plan only Examination Outline Quality Checklist Form ES-201-2

			Initia	is
ltem	Task Description	a	b*	
1.	a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	Ø	MA	
W R 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.	B	Ma	ŀ
T T	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	Ð	r/A	ŀ
E N	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.		MA	ļ
2.	a. Using Form ES-301-5, verity that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, and major transients.		$\left[\right]$	
S I M	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; ensure 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 scenarios will not be repeated over successive 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: (1) the outline(s) contain(s) the required number of control room and in-plant tasks, (2) no more than 30% of the test material is repeated from the last NRC examination, (3)* no tasks are duplicated from the applicants' audit test(s), and (4) no more than 80% of any operating test is taken directly from the licensee's exam banks. 			
	 b. Verify that: (1) the tasks are distributed among the safety function groupings as specified in ES-301, (2) one task is conducted in a low-power or shutdown condition, (3) 40%4 - 6 (2 - 3 for SRO-U of the tasks require the applicant to implement an alternate path procedure, (4) one in-plant task tests the applicant's response to an emergency or abnormal condition, and (5) the in-plant walk-through requires the applicant to enter the RCA. 	л.	A	
	 c. Verify that the required administrative topics are covered, with emphasis on performance- based activities. 			
	d. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on successive subsequent days.			
4.	 Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section. 			
G E	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	\square	ļ	_
N E	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	\square	Į	
R A	d. Check for duplication and overlap among exam sections.	ļ	Α_	
î	e. Check the entire exam for balance of coverage.			
	f. Assess whether the exam fits the appropriate job level (RO or SRO).			
c. NR	hor <u>Steven</u> D. Rose Printed Name/Signature cility Reviewer (*) <u>NLA</u> C Chief Examiner (#) <u>Times Huy</u> C. 160 (b/Times Huy C		D 10/6 (
Note:	* Not applicable for NRC-developed examinations. # Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required. NA items will be reviewed on Final submitteel.			_

	FINAL		-		-
S-201	a Outline Quality Checklist	Form	ES-	201-2	5
E - alith u	Turkey Point Date of Examination:	12/2	- 15/1	2	
Facility:	Jurkey Poind Date of Examination:	<u>////</u>			
ltem	Task Description		initial b*	s c#	
	a . Marife that the sufficiency file the conversion model for EC 401	a	d		
1. W	a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	7	MA	60	m
R 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.	fu	MA	\mathbb{V}^{\checkmark}	m
Ţ	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic the systems	na	up.	0	ren
E N	d. Assess whether the justifications for deselected or rejected K/A attendion are approximate	me	MA	P.	we
2.	a. Using Form ES-301-5, verify that the proposed scenario sets over the required sumbers normal evolutions, instrument and component failures, and major cansients.	K	pe A	for	Α.
S I M	b. Assess whether there are enough scenario sets (and spares) to the projected number and mix of applicants in accordance with the expected crew composition and the schedule without compromising exam integrity; ensure each applicant can be tested using a basis one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s)*, and scenarios will not be repeated over successive on subsequent days	GHC GM	125	Pre	
	c. To the extent possible, assess whether the outline(s) conform(s) with the construction of quantitative criteria specified on Form ES-301-4 and described an Appendix D.	(AB	Mrs.	Ren	
3. W / T	 a. Verify that: (1) the outline(s) contain(s) the required number accontrol neural and rescart tasks? (2) no more than 30% of the test material is repeated from the that the manifestor, (3)* no tasks are duplicated from the applicates and tester, and (4) no more than 80% of any operating testes taken directly from the testers is exam banks. 	N	My	1 AL	
	 b. Verify that: (1) the tasks are distributed among the sefety function groupings by specified in ES-301, (2) one task is conducted in a low ower or shuttern condition. (3) 40%4 - 6 (2 - 3 for SRO-U) of the tasks rectar the applicant to Implement an alternate path procedure, (4) Are in-plant task tests the applicant's response to emergency or abnormal condition, and (5) the in-plant walk-transmission to the applicant to emergency or abnormal condition, and 	2	pus	and the sec	
	ck. Venty that the required administrative topics are covered, with emphasis on performance- based behydold	3	My	me	
	d. Determine it mensure enough character outlines to test the projected number and mix of applicants and mixing that no items are diplicated on successive subsequent days.	w	ing	Fire	
4.	a desess whether plant specific priorities (including PRA and IPE insights) are covered in the appropriate exam sector.	Ŵ	pre	53	
G E	b. Assess whether the 10 COR 55.41/43 and 55.45 sampling is appropriate.	W	and the second	an	ł
AN I	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	W	123	and	F
	d. Check for duplication and overlap among exam sections.	W	pers	SW	-
	e. Check the entry exam for balance of coverage.	w	heres	and the	F
	t. Annuas whether the exam fits the appropriate job level (RO or SRO).	W	phy	in	-
c. NRC	T.C. Kolb Tuko Channel Signature		11-2		1/29
	Contractor and the first state of the state				70

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SROZI NRC EXAM

Examination Security Agreement

1. Pre-Examination

ES-201

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of <u>203</u> as of the date of my signature. Lagree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to these applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC. Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may neutrin cancellation of the examinations or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any incomation concerning the NRC licensing examinations administered during the week(s) of $\frac{D_3}{2}$ From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)
Ya #of 11/1/03	PRINTED NAME 1. GLEN BLINDE 2. INC. Miller 3. RILLORDC Bretton 4. FRANK LEDON 5. RICHARD JACOB 6. GEORGE MOYSSID! 7. S. R. ALLEN 8. S. DOGSON 9. VICKY MCBRICK 10. MARIA LACAL 13. CHARER, JURN 14. MARIA LACAL 15. TERMY JONES	JOB TITLE / RESPONSIBILITY SIMULATOR EXAM DEVELOPED ENCOM Alminication COSCAT Trags - FPL Residentshine SIMULATOR EXAMINED SIMULATOR EXAMINED	A REAL
		OPERATIONS PER O	Tero Du
	NOTES:		
			25 of 25

Turkey Point Form ES-201-3 03-15 Dec DATE SIGNATURE (2) DATE NOTE 12/15/03 09/03/ 12-15-03 09/03/03 12153 01/013 9-12-2 12-16-03 128203 9-26-6 12-15-03 9-26-03 Ġ. 275 C/34 11/3/02 2/15/ 121 11/5/03 12/16/0 12/15/03 ano 6.04 Ilzile arth 12/18/03 11/25/0

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ES-201

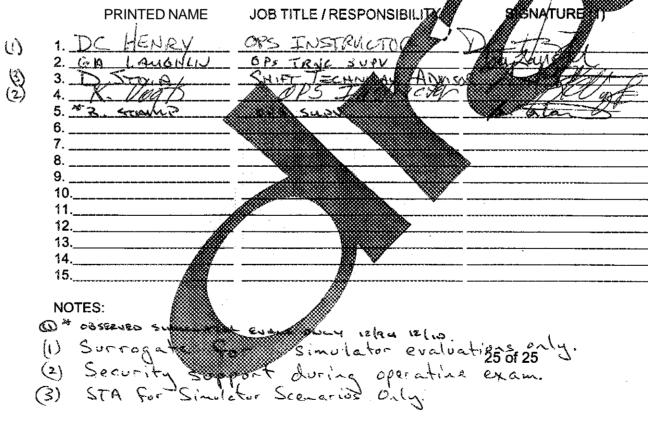
Examination Security Agreement

1. <u>Pre-Examination</u>

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations date of my signature. I agree that I will not knowingly divulge any information about these examines by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance administered these licensing examinations from this date until completion of examination administered by the NRC. Furthermore, I am aware of the physical security measures and requirem procedures) and understand that violation of the conditions of this agreement may result in service action against me of the facility licensee. I will immediately report to facility management of the examination security may have been compromised.

2. <u>Post-Examination</u>

To the best of my knowledge, I did nat divulge to any unauthorized personative momentation concerning the week(s) of \mathcal{B} -il \mathcal{D} From the date that I entered into this security economics until the instruct, evaluate, or provide performance feedback to those applicants who were economic to the noted below and authorized by the NRC.



		Form	n ES-201-3
scheduled f	the week(s) o	18-11 Deel3	as of the
ce leedback	persons who h to those applica	ave pot been : per scheduled	authorized
Cation, exce	N 26 SOUCIÉCAIS	noted below	and
lation of the	exampled in the line is an examplement of the line is a second seco	racility license	e's cement
IRC chief exa	aminer any indic	ations or sugg	jestions that
	RC licensing exa		
	n of examinatior g examinations,		
	5 ,		,, ,
DATE	SIGNATUR	RE (2) DA	ATE NQTE
12/8/0	3 2 4-7	P 12-	12.03
12/8/0	> ruzanski		10-03 D
12-8-	15 PACO	ig \$ 13	1263
12-4-03	p. plan	5 12	14/02 0
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Examination Security Agreeme

1. Pre-Examination

ES-201

I acknowledge that I have acquired specialized knowledge about the NRC licensing examined date of my signature. I agree that I will not knowingly divulge any information about these experiments of the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performation administered these licensing examinations from this date until completion of examination administered by the NRC. Furthermore, I am aware of the physical security measures and required procedures) and understand that violation of the conditions of this agreement may result in the action against me or the facility licensee. I will immediately report to facility management of examination security may have been compromised.

2. <u>Post-Examination</u>

To the best of my knowledge, I did not divulge to any unauthorized persons any information during the week(s) of $\underline{\mathfrak{D}_{ac}}_{3.5}, \underline{2\omega}_{3}$ From the date that I entered into this security agreement instruct, evaluate, or provide performance feedback to those applicants who were administrate noted below and authorized by the NRC.

1. Michael W. Chambers Instructor Man Chamber 2. Hrank Wurster Trastructor fact Lowert 3. Robert Meixell Shift Managed fact Lowert 4. John Shepart Mrstructor	1)
3. <u>Robert Meixell Shift Managel</u>	•
4. John Shapard Mrstak Tak	مسل برم
5	21
b	
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9	
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12 13	
14	
15 NOTES:	
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nt			F	orm ES	-201-3
xaminatio ormance f Iministrati Juirement cancellatio	eedback to on, except s (as docur on of the ex	the week(s) bersons who those applic as specifica nanted in the campations niner any ind	have not be cante sched by noted be facility lice and/or an e	en authouled to b low and nsee's nforcemo	f the orized e ent
until the \gtrsim	inpletion of licensing of	Clicensing exponential examinations	on administr s, except as	ation, I d specifica	id not ally
ar	DATE	SIGNATU	RE (2)	DATE	NOTE
12	13/03	Munda	mbra	12/5	63_
olip I	12/3/03 12/3/03 12/4/3	A Sel	R	12/3	-/03
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FINAL	
Administrative Topics Outline	Form ES-301-1
its 3 & 4 Date of Examination	on: December, 2003
Operating Test Nu	mber: 1
Describe activity to he performed	
G.2.1.7(3.7/4.4) In preparation for a planned reactor power change, j calculation to determine the correct volume of boric achieve the desired power change. (M) (15 min.)	
 G.2.1.12 (2.9/4.0) Evaluate the applicable Technical Specification(s) i of the Unit 4 Startup Transformer when Unit 4 is at 4. List all Limiting Conditions for Operations affect operator responses, options and time limits. (N) (2000) 	100% power and Unit 3 is in Mod cted, Action Statement required
G.2.2.18 (2.3/3.6) Determine Contingency Actions due to loss of a CC inventory operation and Phase II decay beat load co	
G.2.3.6 (2.1/3.1) Review for the purpose of approving a radioactive I the embedded errors. (M) (15 min.)	liquid release permit. Identify all
G.2.4.40 (2.3/4.0) Review for the purpose of approving the Florida Nu Form. Identify all of the embedded errors. (M) (2	
	Operating Test Nu Describe activity to he performed G.2.1.7(3.7/4.4) In preparation for a planned reactor power change, calculation to determine the correct volume of borid achieve the desired power change. (M) (15 min.) G.2.1.12 (2.9/4.0) Evaluate the applicable Technical Specification(s) i of the Unit 4 Startup Transformer when Unit 4 is at 4. List all Limiting Conditions for Operations affect operator responses, options and time limits. (N) (and the content of the content of the loss of a CC inventory operation and Phase II decay beat load content of the embedded errors. (M) (15 min.) G.2.3.6 (2.1/3.1) Review for the purpose of approving a radioactive for the embedded errors. (M) (15 min.) G.2.4.40 (2.3/4.0) Review for the purpose of approving the Florida Number of the purpose of approving the Florida Numer of the purpose of approving the Florida N

		n/In-Plant Systems	Form ES-30	1-2
Facility: Turkey Poin	t Units 3 & 4	Date of Examination:	December,	2003
Exam Level: SRO ([) SRO (U)	Operating Test 2	Number: 1	
Control Room System	us (8 for RO: 7 for SR(D <u>-I; 2 or 3 fo</u> r SRO-U)		
	Systems/JPM T	itle	Type Code*	Safety Function
	<u>Alternate</u> Hot Leg Re Hot Leg path valve fa	circulation (15 min.) illure)	(A) (S) (L) (D)	2
h. 005/Respond to L (RHR Pump Trip o	oss of Residual Heat F & FCV-605 failure)	Removal (30 min.)	(A) (S) (L) (M)	4
	nd to FCV-113A Failu emergency boration va	are During Boration (20 min.) lve)	(A) (S) (L) (M)	1
d. 010/ Respond to a (PT-444 failure + s	(A) (S) (D)	3		
e. 015/ Place Power Range N-44 in Service/Respond to loss of Power Range Channel N-44 (15 min.)				7
f. 061/ Shutdown 2 A the EOPs (25 min.	-	nrt Signals Present While in	(A) (S) (D)	4
		• ``	(5)(1)	
g. 062/ Restore Power (Restores degraded		min.)	(S) (L) (N)	6
		min.)		6
(Restores degraded	CCW System)			6
(Restores degraded h. In-Plant Systems (3 for	CCW System) r RO; 3 for SRO-I; 3 o			6 5
(Restores degraded h. In-Plant Systems (3 for i. 028/ Locally Place (20 min.)	CCW System) r RO; 3 for SRO-I; 3 d Unit 4 Hydrogen Mo	or 2 for SRO-U)	(N)	

<u>ES</u>-301

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FINAL Operating Test Quality <u>Checklist</u>

	Turkey Point Rate of Examination 12/3-12/03 perating	Test	Numbe	ч":
	/ 1. GENERAL CRITERIA		Initial	s
		_a	b*	c#
	The operating test conforms with the previously approved outline; changes are consistent with sampling requirements (e.g., 10 CFR 55.45, operational importance, safety function distribution)	ω	Ms	The
	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	W	pro	The
	The operating test shall not duplicate items from the applicants' sudit test(s)(see Section D.1.a)	j.	ps	Tar
	Overlap with the written examination and between different parts of the operating test categories is within acceptable limits.	An	14	πι
·	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	w	ing	A A
	2. WALK-THROUGH (CATEGORY A & B) CRITERIA	*7		
	Each JPM includes the following, as applicable: initial conditions initialing cues references and took, including associated procedures reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time critical by the facility licensee specific performance criteria that include: - detailed expected actions with exact criteria and nomenclature - system response and other examiner cues - statements describing important observations to be made by the applicant - criteria for successful completion of the task - identification of critical steps and their associated performance standards - restrictions on the sequence of steps, if applicable	ω	145	D pa
	The prescripted questions in Oategory A are predominantly open reference and meet the criteria in Attachment 1 of ES-301. Repetition from operating tests used during the previous licensing examination is within	ω	IAS	Ø
b.	acceptable limits (30% for the walk-through) and do not compromise test integrity.		<u> </u>	aren
).	At least 20 percent of the JPMs on each test are new or significantly modified.	w	pro.	Jen
	3: SIMULATOR (GATEGORY G) CRITERIA		u.s.	
Ĩ	The associated simulator operating tests scenario sets, have been reviewed in accordance with Form ES-301-4 and a copy is attached.	560	ps	no
NRC	Supervisor MICHAEL E. ERNSTES Michael E. Grutte	<u> </u> // //	1024 - 06- 1- 6- -14-0	<u>03</u> 3 3

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S-301	ー デルス Simulator Scenar	rio Quality Checkl	ist	Form	ES-	301-4		
Facility:	Turken Point Date of Exam: 12/3-	-12/03 Scenario Num	bers: (2 3/40per	erating Test No.:				
	QUALITATIVE ATTRIBUTES					S		
				a	b*	c#		
1.	The initial conditions are realistic, in that some equi service, but it does not cue the operators into expec		ation may be out of	610	ps	The		
2.	The scenarios consist mostly of related events.			600	ps	Vie		
3.	Each event description consists of the point in the scenario when it is to be in the malfunction(s) that are entered to initi- the symptoms/cues that will be visible to the the expected operator actions (by shift po the event termination point (if applicable)	ate the event the crew sition)		<i>E</i>	K	A A		
4.	No more than one non-mechanistic failure (e.g., pip without a credible preceding incident such as a seis	e break) is incorporated	into the scenario	676	jng	ma		
5.	The events are valid with regard to physics and the	modynami cs :		616	pro	nic		
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.					The		
7.	If time compression techniques are used, the scenario summary clearly so indicates. Operators have sufficient time to carry wt expected activities without undue time constraints. Cues are given.					129		
8.	The simulator modeling is not altered.			Ser Con	ins	min		
9.	The scenarios have been validated. Pursuant to 19 CFR 55.46(d), any open simulator performance deficiencies have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios:				ps	The		
10.	Every operator will be evaluated using at least one new or significantly modified scenario. All other scenarios have been altered in accordance with Section D.45 of ES-301.					proc		
1 1	Al individual operator competencies can be evaluat the form along with the simulator scenarios).	ed, as verified using For	m ES-301-6 (submit	640	ps	nu		
12.	Each applicant will be significantly involved in the m specified on Form ES-301-5 (submit the form with the	inimum number of trans he simulator scenarios).	ients and events	6fr	M	an		
13.	The level of difficulty is appropriate to support licens	sing decisions for each c	rew position.	685	INS	The		
TARGET D. 4.D &d	QUANTITATIVE ATTRIBUTES (PER SCENARIO; 1		Actual Attributes					
1	Total malfunctions (5-8)		(6)(6)(6)(6)	C.f.C	Ny	2m		
2	Malfunctions after EOP entry (1-2)		2121112	isto.	123	33		
3.	Abnormal events (2-4)		(3) (3) (4) (4) (3)	680	K	our		
4	Major transients (1-2)		3131111	60	ps	12		
5.	EQPs entered/requiring substantive actions (1-2)		2 1(3)/2/2	GAD	ps	AC.		
6.	EOP contingencies requiring substantive actions (0	-2)	112/2/0	GD	Ins	Red		
7.	Critical tasks (2-3)		2/3)/2/2	(a)	ps	Jus		

volues in porentheses include cotratol / conditional events

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			FINA	H								
~	ES-301		Transient and	Even	t Chec	klist			Fo	rm ES	-301-5	5
	Turkey P	sint	OPERATIN	IG TES	ST NC).: U	- 4					:
	Applicant Type	Evolution	Mi nimum Number			Sc	cenario	o Num	iber			
	Type	Туре			1		2		3	4		
				RO	BOP	RO	BOP	RO	BOR	. RO	BOP	
		Reactivity	1*				\geq	<u></u>				Not applicable.
		Normal	1*									NORO
	RO	Instrument / Component	4*		×			$\overline{}$				license condidates
		Major	1				\ge					
		Reactivity	1*	1		പ്പ	(i)	L	1	1	Ł	
		Normal	0	0	1	0	<u> </u>	i	0	0	L	values in
	As RO	Instrument / Component	2*	4	\$ (2)	4 (2)	2	3(4)	z (3)	4	1(2)	parentheses and include optional/conditional
		Major	1	<u> </u>	<u>4</u>	1	3		1	Ĺ	L	events
	SRO-I			SRO		520	, <u> </u>	520		SRO		
		Reactivity	0	1		â	<u>_</u>	1		£		
		Normal	12		-~~~~ 	.	-	Ł	-	1	uga-	
5 - au	As SRO	Instrument / Component	2*	4(5)	- //	4(5)		4 (5)		4(5)	<i></i>	
		Major	1	1 SRO		1 280	~.	1. 5.20.	-	L	-	
		Reactivity	0	<u> </u>	-	Lí)	-	1	u	4]
		Normal	. 1*	1	-	1	-	1	1	1	(
	SRO-U	Instrument / Component	2*	4(5)	-	4(5))	4(5)	-	4(5)		
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Understand and Interpret Annunciators and Alarms												
Interpret / Diagnose Events and Conditions	2,3,5 6,7,8	2,3,5 6, <i>6</i> ,9	2,3,5 6,7,8	23,4 5,67	873 0	3,5,6 8	23	12,4, 9 6,7			2,5,6	2 ,7
Understand Plant and System Response												
Comply With and Use Procedures (1)	1-8	1-9	1-8	5-7	4, 6,7 4, 6,7			Š.	1,2,4 5,6,7			
Operate Control Boards (2)	N/2-	NIN	SP1J/A	2		3-8	1-1-			4-9		1,4-
Communicate and Interact With the Crew	1-8	13	1-8	Ŧ	2-0		1-8	2.4- 7	1.2.4 5,6.7	1.2 4-9	2,4- 8	1, 3-
Demonstrate Supervisory Ability (3)	-6	1-9	8	1.7	MA	NA	NIA	N/A	NIA	NA	NA	ы <i>і</i> д
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ES-401	
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Written Examination Quality Checklist

Date of Exam: +2+3-15/03 -Exam Level: RO/SRO Point Facility: Turkey -03 12 Initia c* b* Item Description а E. MA met of Questions and answers technically accurate and applicable to facility 1. 2. a. NRC K/As referenced for all questions E Berl b. Facility learning objectives referenced as available Æ, **N**A~ SRO questions are appropriate per Section D.2.d of ES-401 З. Question selection and duplication from the last two NRC licensing exams 4. Ver 1 appears consistent with a systematic sampling process Question duplication from the license screeninglaudit exam was controlled as 5. indicated below (check the item that applies) and appears appropriate: the audit exam was systematically and randomly developed; or MA Ģ the audit exam was completed before the license exam was started; or 30 4 x the examinations were developed independently; or , the licensee certifies that there is no duplication; or cther (explain) 6. Bank use meets limits (no more than 75 percent Bank Modified New from the bank at least 10 percent new, and the G 2 rest modified); enter the actual RO / SRO-only 3016 Ð 13/2 32/17 question distribution(s) at right Between 50 and 60 percent of the questions on Memory C/A 7. the RO exam are written at the comprehension/analysis level; the SRO exam Ð may exceed 60 percent if tho randomly selected 39 19 36 16 K/As support the higher cognitive levels; enter P the actual RO / SRO guestion distribution(s) at right Var 4 References/handouts provided do not give away answers 8. Question content conforms with specific K/A statements in the previously 9. Ð approved examination outline and is appropriate for the Tier to which they are assigned; deviations are justified Ð **8** - V Question psychometric quality and format meet ES, Appendix B, guidelines 10. Ô The exam contains the required number of one-point, multiple choice items; the 11. me? total is correct and agrees with value on cover sheet Printed Name / Signature Bate a. Author b. Facility Reviewer (*) 12-1-03 c. NRC Chief Examiner (#) A.M. F.S.K. 16 d. NRC Regional Supervisor Stage of Chappen 12-7-03 hir tic * The facility reviewer's initials/signature are not applicable for NRC-developed Note # Independent NRC reviewer in 🗋 "or" chief examiner concurrence rewired

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ES-401

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Written Examination Turkey Point Review Worksheet

~ "	1.	2.	3	B. Psyc	hometr	ic Flaws	5	4.	Job Cont	ent Fla	aws	5. O	ther	6.	
Q#	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q≂ K/A	SRO Only	U/E/S	
											In	structio	ons		
				[F	Referto	Section	n D of ES	5-401	and Appe	endix E	B for add	ditiona	linforr	nation re	egarding eac
1.	Ent	er the le	evel of k	nowle	dge(LC	OK) of e	ach que	stion a	is either (F)unda	amental	or (H)	igher (cognitiv	e leve l .
2.	Enter the level of difficulty (LOD) of each question using a 1-5 (easy-difficult) rating scale (questions in the 2														
3.	Cir	ן ר ר (The ster The Ster The ans One or r	n lacks n or di s wer ch n ore th	suffici stractor oices a an one	ent focu s contai re a col ⊦distrac	in cues (lection c tors is n	it the c i.e., d of unre ot crea	correct an ues, Spe latedtrue dible.	cific de /false	stateme	ers, ph ents.	rasing.	. length.	
4.	One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumption 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 KIA but, as written, is The question requires the recall of knowledge that is too specific for the closed reference test mode (The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel met The question requires reverse logic or application compared to the job requirements.														
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6. 7.	Ba At 1. LOK	eck que sed on t a minim 2. LOD	The que The que The que stions the he revie um, exp Stem	estion re estion c hat are ewer's j blain ar 3. Psyc	equires ontains equires sampl udgme udgme thometr	the rec data w reverse ed for c nt, is th atings (ric Flaw Cred.	all of kn ith an ur e logic of onforma e questi e.g., hov s	owledge realist appli nce w on as w the A 4.	ge that is tic level o cation col ith the ap written (L ppendix Job Con	too sp f accu mpare prove)nacco B psyc tent Fl #/ units	ecific for racy or d to the d KIA ar eptable chometr aws Back- ward	r the c incons job re nd thos (requi ic attri 5. C Q= K/A	closed sistent quiren se that ring re butes butes SRO Only	reference units (e. nents. are <u>des</u> pair or re are not l 6. U/E/S	cetest mode g., panel me ignated SRC eplacement),

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Form ES-401-9

7. Explanation
ch of the following concepts.]
2 - 4 range are acceptable).
needed, or too much needless information).
ons that are not contradicted by stern).
is not Operational in content). e(i.e., it is not required to be known from memory), eter in percent with question in gallons).
O-only (K/A and license level mismatches are unacceptable).
), in need of (E)ditorial enhancement, or (S)atisfactory?
7.
Explanation
CIA 2.9/3.0, Bank FA Suggest "Pressurizer leveland letdown Row" he blank with choices of increase or decrease.
DR Comment not accepted, branch has no preference

Q#	1. LOK	2. LOD	:	3. Psyc	hometi	ic Flaw;	S	4.	Job Con	ent Fla	aws	5. O	ther	6.	7.
\	(F/H)	(1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		SRO Only	U/E/S	Explanation
2	H	3										Y	N	E S	003K3.04, CIA 3.914.1 New 10/29/03 RFA Typo in the stem. RPS system should be just RPS. Either say if the high or if a high not if the a high. Suggest distractw "C" read RPS will see a high flow signal on one channels of "B" loop. No reactor trip will occur. Move "RPS will see a" to the stem. 10/30/03 SDR Comment accepted 11/28/03 Facility requested minor wording change and added "only" to response "C" to ensure incorrect. 1215103 TCK Requested changes incorporated.
3	н	3				x						Y	N	E S	004A4.19. CIA 3.1/2.8, New 10/29/03 RFA Distractor "D" is not plausible. Suggest: The letdown isolation vale will not auto close on a loss of control air or loss of 125 vdc. 10/30/03 SDR Comment not accepted, this distractor suggestion does not support the stem. Distractor "D" is plausible in that operators should knowthe proper sequence
4	FH	2										Y	N	S	005A4.02, C/A 3.4/3.1, Bank 10/29/03 RFA Question is system knowledge. LOK + F 10/30/03 SDR Comment not accepted. According to direction from Usova, the operator has to know multiple pieces of information, so this is CIA.
5	F	3										Y	N	E S	006K6.03, MEM 3.6/3.9, Bank 10/29/03 RFA Distractor "C" is not plausible. Suggest: "Depressurize the RCS to a ^{llow l} ow head safety injection." 10/30/03 SDR Comment accepted. 11/28/03 accepted editorial change. 12/5/03 TCK Requested changes incorporated.
6	H	3										Y	N		007A1.01, CIA 2.9/3.1, New 10/30/03 RFA Since the question solicits an action: Reword didstractors to Reduce PRT temperature, reduce PRT level, Reduce PRT pressure, Obtain a grab sample. 10/30/03 SDR Comment accepted 11/28/03 Facility requested editorial change. 12/5/03 TCK Requested changes incorporated.
7	н	3										Y	N	S	007EK2.02, CIA 2.6t2.8. New 10/29/03 RFA OK 11/28/03 Facilityrequested editorial cnange. 12/5/03TCK Requested changes incorporated.

7.	Explanation	008AG2.4.21, C/A 2.8/3.8, Bank 10/29/03 RFA Needs to be verified. 10/31/03 TCK OK 11/28/03 Facility requested words to be moved from answers to stem. 12/5/03 TCK Requested changes incorporated.	 008G2.1.28, C/A 3.2/3.3, New 10/29/03 RFA Change "to the restore" to "to restore" in the stem. 10/29/03 SDR Comment accepted 11/25/03 Facility requested wording changes to simplify responses. 12/5/03 TCK Left "momentarily" in stem to make answers more plausible. Otherwise, accepted proposed changes. 	008K1.04, C/A 3.3/3.3, Modified 10/29/03 RFA Change "in service" to "in-service" 10/30/03 SDR Comment accepted 11/28/03 Facility proposed an new question due to reverse logic. 12/5/03 TCK Requested changes incorporated.	010K2.02, MEM 2.5/2.7, Bank 10/29/03 RFA OK	011EK3.02, MEM 3.5/3.7, Bank 10/29/03 RFA Distractor D is not plausible. Suggest: To minimize SG pressure drop to ensure adaquate steam pressure is available for SDAFW pump operation. Distractor Analysis is not valid because initial condition already stated that a LOCA has occurred. 10/30/03 SDR Comment accepted	012G2.1.33, MEM 3.4/4.0, Bank 10/29/03 RFA Distractor "C" appears to say basically the same thing as "D. "Example: There are 4 marbles and 2 of them are bad. "C" says do not pick up marbles 3 and 4. "D" says pick up marbles 1 and 2. 10/30/03 SDR Comment not accepted. IAV ONOP-049.1 this step 5.4.1 caution states that the BS that are required are tripped unless it results in ESF. To do distractor "C" would be incorrect IAW the EOP.	013K6.01, C/A 2.7/3.1, Bank 10/29/03 RFA IAW the reference, a reactor trip WILL occur first which makes distractor "A" also correct. Re-evaluate 10/30/03 SDR Comment not accepted. Plant status is <p10 scram<br="" so="">will not occur on low pressurizer pressure. 11/23/03 Facility added serboints to choices "A" and "B". 12/5/03 TCK Requested changes incorporated.</p10>
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5.0	Å Å	≻	≻	<u>≻</u>	7	>	<u>≻ </u>	•
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tent Fl	#/ units							
4. Job Content Flaws	Minutia							
4	Jop Link		······································					
Flaws	Partial							
3. Psychometric Flaws	Cred. Dist.					x	×	
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ŧ	1 ,	æ	თ	13 (7	5	12	13	<u></u>

· · · · · · · · · · · · · · · · · · ·	Explanation	015AA1.22, MEM 4.0/4.2, Modified 10/29/03 RFA OK 11/28/03 Facility requested minor wording changes. 12/5/03 TCK Requested changes incorporated.	015K1.01, MEM 4.1/4.2, Bank 10/29/03 RFA OK	016A2.04, C/A 2.5/2.6, New 10/29/03 RFA Change the quotes ' ' to " " (All Questions) 10/30/03 SDR Comment not incorporated. Beautification.	 017A4.01, C/A 3.8/4.1, New 10/29/03 RFA OK 11/12/03 TCK Removed statement in stem referring to "immediate actions" per ONOP 050. This gave a clue to answering SRO question 00562.4.49. 11/128/03 Facility requested minor wording changes. 12/5/03 TCK Requested changes incorporated. 	 022A4.03, MEM 3.2/3.2, New 10/29/03 RFA Distractors A,B, D Change "switch in ON" to "switch in the ON position" Distractors B,D Change "it's" to "its" 10/30/03 SDR Comments incorporated. 11/28/03 Facility requested changing "cooling unit" to "NCC". Revised answer "D" since it could be interpreted as being correct. 	 024AA2.06, C/A 3.6/3.7, Modified 10/29/03 RFA Change 3rd paragraph of stem to the following: After 100 minutes of emergency borating *024AA2.06 refers to boron dilution. Suggest AA2.05 boron addition. *024AA2.06 refers to boron dilution. Suggest AA2.05 boron addition. *024AA2.06 refers to boron dilution. Suggest AA2.05 boron addition. *024AA2.06 refers to boron dilution. Suggest AA2.05 boron addition. *024AA2.06 refers to boron dilution. Suggest AA2.05 boron addition. *024AA2.06 refers to boron dilution. Suggest AA2.05 boron addition. *10/30/03 SDR Matches K/A due to interpreting amount of boron addition. Answer 'A' is correct if temp is increasing and 2 S/G not available. *03/103 TCK Agree with actions taken and still meets K/A. *125/03 TCK Requested changes incorporated.
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c Flaws	Cred. Dist.						
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3. Psychometric Flaws	Cues						
3	Stem Focus						
2.	(1-5)	e	2	e	m	m	4
+- <u>)</u>	(F/H)	L.	Ľ.	т	т	LL.	I
5	5	15	16	1	\$	<u>5</u>	20

T.	Explane	 025AK3.01, C/A 3.1/3.4, Modified 07/29/03 RFA According to the procedure and attachment 2, "A" is the correct answer. Re-evaluate Maybe SRO only 10/30/03 SDR Procedure actions for loss of RHR so RO should know. 10/30/03 SDR Procedure actions for loss of RHR so RO should know. 10/30/03 SDR Procedure actions for loss of RHR so RO should know. 10/30/03 SDR Procedure actions for loss of RHR so RO should know. 10/30/03 SDR Procedure actions for loss of RHR so RO should know. 10/30/03 SDR Procedure actions for loss of RHR so RO should know. 10/30/03 SDR Procedure actions for loss of RHR so RO should know. 10/30/03 SDR Procedure actions for loss of RHR so RO should know. 10/30/03 SDR Procedure actions for loss of RHR so RO should know. 10/30/03 SDR Procedure actions for loss of RHR so RO should know. 10/30/03 SDR Procedure actions for loss of RHR so RO should know. 10/30/03 SDR Procedure actions for loss of RHR so RO should know. 11/28/03 Facility requested adding another bullet to stem to ensure conditions such that a RCP cannot be started. Also changed stem to address loss of "A" RHP Pp instead of "B". 12/5/02 TCK Requested changes incorporated. 	026K4.04, C/A 3.7/4.1, Bank 10/29/03 RFA Verify answer with facility. 11/13/03 TCK Answer verified correct with utility. OK	027AK2.03, C/A 2.6/2.8, Bank 10/29/03 RFA OK	027K5.01, MEM 3.1/3.4, New 10/29/03 RFA Move "The ECF Units contain" to the stem KA 1mp = 3.1/3.4 not 3.4/3.7 10/30/03 SDR Comment accepted 11/28/03 Facility requested minor wording changes. 12/5/03 TCK Requested changes incorporated.	028AG2.4.31, C/A3.3/3.4, Modified 10/29/03 RFA Distractors "A" & "C" can be ruled out. Because if "C" was correct, "A" would be also. Applicant knows there can be only one correct answer. Re-write distractor "A" or "C" (i.e. Distractor "A" is a subset of Distractor "C") 10/30/03 Comment accepted 11/28/03 Facility requested minor wording change and to add additional words to "D" since it was also a correct answer. 12/5/03 TCK Requested changes incorporated.	029A3.01, MEM 3.8/4.0, Modified 10/29/03 RFA The stem contains 2 identical bullets. 10/30/03 SDR Comment accepted 11/28/03 Facility suggested rewrite of question so that it addresses how the plant operates. 12/5/03 TCK Requested changes incorporated.
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2	(F/H)	I	T	т	Lu.	I	Ц.
	5	21	8	23	54	52	8

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7.	Explanation	029EA2.05, C/A 3.4/3.4, New 10/29/03 RFA Change stem: "describes next action(s)" to "describes 11 or ext action(s)" 10/30/03 SDR Comment accepted 11/28/03 Facility revised stem into bullet format. 12/5/03 TCK Requested changes incorporated.	032AK1.01, C/A 2.5/3.1, Bank 10/29/03 RFA Distractor "A" is not plausible. Recommend: Change distractor "A" to be the opposite of distractor "C". increase because 10/30/03 SDR Comment not accepted. What if the applicant does not know that it has an affect. By changing distractor "A" we cannot test that knowledge deficiency. 10/31/03 TCK Agree. Leave as is. 11/28/03 Facility suggested changing nomenclature in "C" and "D" to match their terminology. Other minor changes. 12/5/03 TCK Requested changes incorporated.	033G2.1.28, MEM 3.2/3.3, Bank 10/29/03 TCK, OK 11/28/03 Facility suggested minor editorial changes. 12/5/03 TCK Requested changes incorporated.	039K1.09, MEM 2.7/2.7, New 10/29/03 RFA OK	039K5.01, MEM 2.9/3.1, Bank 10/29/03 RFA There is an element of correctness to all the distractors. Recommendationn: replace the question 10/30/03 SDR Comment not accepted. Facility evaluate. 10/31/03 TCK Question meets K/A. Question is easy but it meets all requirements. 11/05/03 TCK Facility verified for accuracy. 11/05/03 TCK Requested changing "condensate" to "water". 12/5/03 TCK Requested changes incorporated.	040AA1.23, C/A 3.6/3.5, New 10/29/03 RFA This question is soliciting a procedural action. KA 040AA1.23 is ability to operate/monitor pressure gages for a pressure drop. This is more SRO only. 11/13/03 TCK Reviewed question again and believe it meets K/A. 11/13/03 TCK Requested changes incorporated.
G	U/E/S	ш vy	ш o	S	s	3 VI	3 VI
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.7	Explanation	041A2.03, C/A 2.8/3.1, New 10/29/03 TCK, Change the stem from "on the line to the Steam Dumps" to "on the line supplying the Steam Dumps". Since the steam dumps can only be operated manually then they are inoperable per TS. If the unit has to be shutdown because of this then distractor C and/or D may be correct also. 10/31/03 SDR Incorporated first change. Steam dumps are not in TS so C and D are not correct. New question PAC Question replaced since utility could not verify references. New question OK. 11/28/03 Facility requested revising stem to indicate a "Loss of Instrument Air". 12/5/03 TCK Requested changes incorporated.	051AG2.2.2, C/A 4.0/3.5, New 10/29/03 TCK, There is no correct answer since the immediate action per procedure is to place hogging jet into service. This must be done prior to tripping reactor even if in the "Do not operate" range. Suggest modifying answer A such that "start reducing load and monitor condenser vacuum. Trip reactor if unable to restore vacuum. Also, may need reference for this question since answer is in subsequent actions. 10/31/03 SDR Modified question so that stem states that hogging jet is in service. Facility will decide if they need reference.	054AK1.01, C/A 4.1/4.3, Bank 10/29/03 TCK, Would it be plausible to change distractor A or D such that a S/G reference leg or variable leg instrument line has failed? 10/31/03 SDR Left as-is so the question didn't point everything to a leak in containment. 11/28/03 Facility requested minor editorial change. 12/5/03 TCK bb Requested changes incorporated.	 055EA2.03, C/A 3.9/4.7, New 10/29/03 TCK, Revise correct answer to "placed in Pull to Lock to prevent a potential bus overload when power is restored." Distractor C needs the word "required" removed at end. Distractor D needs revised "ensures alignment for injection without operator action." 10/31/03 SDR. Comments incorporated. 11/28/03 TCK Requested changes incorporated.
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Q#	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		SRO Only	U/E/S	Explanation
37	F	2										Y	N	E	056AA1.24, MEM 2.9/3.0, Bank 10129103 TCK, Remove "occurs" in stem. Remove "indications" and change "indicator" to "indication" in the stem. Subgetse making distractors We recorrect and "C" incorrect since "C" seems 10/31/03 SDR Incorporated comments except changing correct answer. This would take question away from K/A topic. 11128103 Facility requested revising stem to indicate successful natural circulation. 12/5/03 TCK Requested changes incorporated.
38	н	3				×						Y	N	บ s	056G2.1.2, C/A 3.0/4.0, New 10/29/03 TCK, Distractor "B" may be correct also since a "pump in service" requires the suction valve to be open. Suggest changing it to say when both the suction and discharge valves are open, 10/30/03 SDR Irregardless of whether pump is in service, the condenser has to be at a vacuum for the answer to be correct. No change made.
39	F	3										Y	N	S	057AA2.19, MEM 4.0/4.3, Bank 19/29/03 TCK, OK 11/28/03 Facility proposed a rewrite of the question since it was a level question. 12/5/03 TCK Requested changes incorporated.
40	F	2-3				×						Y	Z	US	058AA2.03, MEM3.5/3.9, Modified 10/29/03 TCK. Move "3D01" in the stem after "DC Bus. Suggest revising distractor "D" since 3A load Sequencer will be lost which prevents some Safeguards equipment from starting. This could be interpreted as a correct answer. 10/30/03 SDR All requested changes incorporated.
41	F	2										Y	N	S	059K4.16. MEM 3.1/3.2, Bank 10/29/03 TCK. OK 11/28/03 Facility requested minor editorial changes. 12/5/03 TCK Requested changes incorporated.
42	н	3										Y	N	E s	061A1.01, C/A 3.3/3 6, New 10129103 TCK. Change distractor "A" from 22% to 32% to make the distractors more even and this one more plausible. 10/30/03 SDR Requested change incorporated. 11/28/03 Facility requested minor editorial changes. 1215103 TCK Requested changes incorporated.

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÷	Explanation	061K6.02, MEM 2.5/2.8, Modified 10/29/03 TCK, Revise stem to "consequence of a fire involving the Unit	For distractor "C" add "within 2 hours" after "verified operable". 10/30/03 SDR Requested changes incorporated. 11/28/03 Facility requested minor editorial cnange. 12/5/03 TCK Requested changes incorporated.	062A1.01, MEM 3.4/3.8, Bank 10/29/03 TCK, In stem make "prior" all capital letters. 10/30/03 SDR Requested change incorporated. 11/13/03 TCK Distractor plausibility verified with utility as requested.	052A3.04, MEM 2.7/2.9, Bank 10/29/03 TCK, Remove "The AUTOMATIC STATIC TRANSFER switch will transfer the load to the "and move it to the stern. Change "C" and "D" to sav "and automaticult transfers back to the NORMAL inverter." The 51	seconds is given in the stem. 10/30/03 SDR Requested changes incorporated. 11/13/03 TCK Facility verified auto transfer of inverter. OK. 11/128/03 TCK Requested minor editorial change.	062AK3.03, MEM 4.0/4.2, Bank 10/29/03 TCK. Safeguards is spelled wrong in all places. Regards is spelled wrong in stem. Order is spelled wrong in distractor "A". 10/30/03 SDR Requested changes incorporated.	063K3.02, MEM 3.5/3.7, Bank 10/29/03 TCK, OK	064A3.07, MEM 4.0/4.0, Bank 10/29/03 TCK, change loss of off-site power to "Loss of Off-Site Power". 10/30/03 SDR Requested change incorporated.	067AK1.02, MEM 3.1/3.9, Modified 10/29/03 TCK, Change the stern to "Which ONE of the following describes the current status of the fire pumps?" 10/30/03 SDR Requested change incorporated. 11/28/03 TCK Requested removing "rapidly" from stem.	
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7.	Explanation	071K1.06.C/A 3.1/3.1, Modified 10/29/03 TCK, Move "RCV-014, Waste Disposal System Gas Decay Tank Discharge valve will" to the stem. Swap "A" and "B" answers around. 10/30/03 SDR Incorporated first request only. 2 rd request not necessary. 11/13/03 TCK Facility verified answer is supported by documentation. 11/28/03 TCK Requested minor editorial change.	073K5.01, MEM 2.5/3.0, Modified 10/29/03 TCK, Remove "(n)" in stem. Radioactivity is spelled wrong in stem. Remove "detector" in stem. 10/30/03 SDR Requested changes incorporated.	076A2.01, C./A 3.5/3.7, Modified 10/29/03 TCK, Remove "causing" in stem. Revise distractor "C" to say "Increase cooling water flow to the turbine lube oil cooler to reduce bearing temperatures and implement" If you leave "trip criteria" in the answer then this gives a cue. Add "within 1 hour" after "shutdown". 10/30/03 SDR Incorporated all suggestions except the last one sunce this is a normal 3.0.3 action. 11/28/03 Facility requested minor editorial cnange.	076K4.02, MEM 2.9/3.2, Bank 10/29/03 TCK, Change, ICW, to (ICW) in stem. Racked is spelled wrong in stem. Suggest changing stem to have the "B" ICW pump in PTL instead of racked out. This will make "A" the correct answer and change the question to modified. Mark the correct answer. 10/30/03 SDR Requested changes incorporated. 11/28/03 Facility requested changes incorporated. 12/5/03 TCK Requested changes incorporated.	078K3.01, MEM 3.1/3.4, Bank 10/29/03 TCK, OK 11/28/03 Facility requests to add valve number to stem. 12/5/03 TCK Requested changes incorporated.	078K4.02, C/A 3.2/3.5, New 10/29/03 TCK, Remove extra "on" in stem. Change "close" to "closed"in distractor "A" and "B" 10/30/03 SDR Requested changes incorporated. 11/28/03 Facility requested to move words out of answers to the stem. 12/5/03 TCK Requested changes incorporated.	
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7.	Explanation	086K5.04, C/A 2.9/3.5, Modified 10/29/03 TCK, Distractor "D" is not plausible. Replace it with the sutomatic or manual CO2 system actuation. 10/30/03 SDR Requested change incorporated. 11/28/03 TCK Requested minor editorial changes.	103A3.01, MEM 3.9/4.2, Bank 10/29/03 TCK, Rmove brackes around the "s" in the stern. Remove the comma after 'A' in disctactors A and C. 10/30/03 SDR Requested changes incorporated. 11/28/03 TCK Requested minor editorial changes. 12/5/03 TCK Requested changes incorporated.	G2.1.11, MEM 3.0/3.8, Modified 10/29/03 TCK, OK	G2.1.20, MEM 4.3/4.2, Bank 10/29/03 TCK, OK 11/28/03 Facility requested word consolidation to the stem. 12/5/03 TCK Requested changes incorporated.	 G2.1.27, MEM 2.8/2.9, Modified 10/29/03 TCK, Swap answer "A" and "B" 10/31/03 SDR Recommendation not accepted. Beautification. 11/13/03 TCK Does not match K/A. Replace question. 11/13/03 TCK Replaced the question with a bank question. OK. 	 G2.2.11, MEM 2.5/3.4, Bank 10/29/03 TCK, Need to verify what isinclued in step 4.1. Remove "process," in stem. Place in order of shortest to longest. 10/31/03 SDR Removed "process" but did not reorder answers. Beautification. 11/28/03 Facility proposed rewrite of question. 12/5/03 TCK Requested changes incorporated. 	G2.2.27, C/A 2.5/2.9, Bank 10/29/03 TCK, Change "Is" to "are" in answer "A". Change "D" to read "shall be stopped immediately. Refueling operations can continue ONL Y "shall be stopped immediately. A has been repaired and declared OPERABLE." 10/31/03 SDR Comments incorporated.
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1. 2. 3. Peychometric Flaws 4. Job Content Flaws 5. Other I_OK COD Stem Cues Tr Cred. F 2 3. Peychometric Flaws 4. Job Content Flaws 5. Other F 2 3. Peychometric Flaws 4. Job Content Flaws 5. Other F 2 7 7 7 7 N X X X X X N 3.4 3.4 1.05 Minutia #1 Back Cal 1.05 1.05 Minutia #1 N X X X X X N X X X X X N 3.3 3.4 X X X N 3.3 3.4 X X X N X X X X X N X X X X X N X X X X X N X X X X X N X X X X X N X X X X	6.	U/E/S	s s	м	ш	~	တ	ဟ	s c
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Q#	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		SRO Only	U/E/S	Explanation
69	F	2				×			X			Y	Y	US	WE04EG2.4.18, MEM 2.7/3.6, New 10129103 TCK, Replace question or revuse question to RO knowledge level. Also. distractors "B" and "D" are not plausible since the break is outside containment (per stem) and containment isolations would not be expected. 11/12/03 TCK Revised stem to clearly state EOP ECA 1.1 is entered. Revised distractors to say Phase 'A' occurs instead fo Phase 'B' since it is more plausible. Verified to be RO level knowledge. 11/28/03 Facility suggested editorial change. 12/5/03 TCK Requested changes incorporated
70	F	3										Y	Y	? S	WE05EA1.1, MEM 4.1/4.0, New 10129103 TCK, This question may not be suitable for KO knowledge. Ask site for their opinion. Distractor "D" needs to have "Thermal Couple" changed to "thermocouple". 11110103 TCK Added title to stem for FR-H.1. Facility aarees that qauestion is acceptable for RO knowledge
71	F	3										Y	Y	E	WEOREK3.2, MEM3.6/4.0, New 10/29/03 TCK. Need to check with utility to see if this is RO knowledge. Make distractors more general and identify a5 major event (i.e., Loss of Feedwater, Large break LOCA, etc.) 11/13/03 TCK Facility agreed that question is appropriate for RO knowledge. Made revisions to distractors so that all answers are consistent with appropriate failures. OK
72	н	3							x			Y	N	U S	WE10EK2.2,C/A 3.6/3.9,New 10/29/03 TCK , Reword last paragraph since this is copied out of the text word for word. Nureg 1021 states this should not be done Since it is not discriminating due to person could recognize paragraph. 11/13/03 TCK Question revised to get rid of minutia.
73	н	3										Y	N	E S	WE11EK1.2, C/A 3.6/4.1, New 10/29/03 TCK, Need to make "or" capitalized and bold in the stem to differentiate between the 2 sets of numbers. Add a statement saying "reference provided" and provide chart for reference Believe question should be C/A instead of MEM. 10/31/03 TCK "Or" has been capitalized. OK for RO since reference chart is being given. Changed to C/A. 11/28/03 Facility proposed new question since question 100 gane a clue t" the answer. 12/5/03 TCK Requested changes incorporated.

	1.	2.	:	3. Psyc	hometr	ic Flaws	6	4.	Job Con	tent Fl	aws	5. C	Other	6.	7.
Q#	L.OK (F/H)	LOD (1-5)	Stem Focus		T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only	U/E/S	Explanation
74	F	3										Y	YN	? S	WE12EK2.2, MEM 3.6/3.9, New 10/29/03 TCK. Distractor "A'requires "level" to be inserted after pressurizer. May not be RO knowledge level. 11/10/03 TCK Reviewed by licensee. Removed PTN at beginning of stem only. Acceptable by licensee for RO. 11/28/03 Facility requested minor editorial change. 12/5/03 TCK Requested changes incorporated.
75	H	3										Y	Y	? S	WE14EK3.3,C/A 3.5/3.5, New 10/29/03 TCK. May not be RO knowledge level. Answer is same wording as in the basis documents. 11/13/03 TCK Question remains as-is but we know that it is wordv. Facility will propose different question. 11/28/03 Facility requested minor editorial change. 12/5/03 TCK Requested changes incorporated.
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1	н	3										Y	Y	S	004A1.04, CIA 3.9/4.1, Bank 11/12/03 TCK, Made minor spelling changes. OK now. 11/28/03 Facility requested minar wording changes in stern and answers 12/5/03 TCK Requested changes incorporated.
2	F	2										Y	Y	S	005G2.4.49, MEM 4.0/4.0, New 11/12/03 TCK OK 11/12/03 Facility requested minor wording changes and added words to "locally" look for indications of cavitation in answer "C" since the as written answer could also be a correct answer, 12/5/03 TCK Requested changes incorporated.
3	Н	3		×		×						¥	Y	U S	007G2.1.14, C/A 2.5/3.3, New 11/12/03 TCK Stem talks about sending operator to open valve but distractor B and D says to close valves. Not credible. Distractor C is also implausible because stem says that maintenance is complete. 11/13/03 TCK Question revised with new distractors. OK 11/28/03 Facility requested wording changes and a change to answer "B" since it was also correct. Bolded last word of each response. 12/5/03 TCK Incorporated all changes except changed "closed" to "open" for answer "C".
4	ti	2										Y	Y	E S	022AA2.02, C/A 3.2/3.7, New 11/12/03 TCK Moved part of the answers up to the stem and corrected some spelling. OK 11128103 Facility requested minor wordsmithing. 12/5/03 TCK Requested changes incorporated.

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	1.	2.		3. Psyc	:homctr	ric Flaw	S	4.	Job Con	tent Fl	aws	5. C	ther	6.	7.
Q#	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only	U/E/S	Explanation
5	Н	3										Y	Y	E S	026A2.03. CIA 4.1/4.4, New 11/12/03 TCK Restructured stem and placed in bullet form for ease of reading. OK 11128103 Facility requested minor wordsmithing. 12/5/03 TCK Requested changes incorporated.
6	н	2	x									Y	Y	U S	027AG2.2.15, C/A 2.5/3.4,New 11/12/03 TCK The stem is asking the basis for a caution statement in a procedure but the answers describe the operation of the components. Ensure the answers are related to the question. 11/13/03 TCK Stem revised such that answers are related to the question. OK. 11/28/03 Facility reworded all responses to help readability. 12/5/03 TCK Requested changes incorporated.
7	H	3										Y .	Y	E S	029EG2.1.7, C/A 3.7/4.4, Bank 11112103 TCK Bolded 'do not' to ensure no ambiguity. OK 11128103 Facility eliminated unnecessary words and minor wordsmithing. 12/5/03 TCK Requested changes incorporated.
8	괴	2				x						Y	Y	U S	033AG2.1.20, C/A 4.3/4.2, New 11/12/03 TCK All answers are correct. Re-write or replace question. 11112103 TCK New question developed that meets criteria. OK 11/28/03 Facility reworded distractor "D" and requested some bolding. 11/28/03 TCK Requested changes incorporated.
9	F	2										Y	Y	S	1034G2.1.7, MEM 3.7/4.4, New. OK. 125103 TCK Requested changes incorporated.
10	H	3										Y	Y	E S	041A2.02, C/A 3.6/3.9, Bank 11/12/03 TCK Revised stem to state that "One condenser dump valve remains full open" instead of "condenser dump valve fails to dose. 11/28/03 Facility revised condition in Stem to be 100% power and one steam dump valve open. Revised answers for new conditions. 12/5/03 TCK Requested changes incorporated.
11	н	3										Y	Y	S	055EG2.4.22, C/A 3.0/4.0, Bank 11/12/03 TCK OK. 11128103 Facility requested minor wordsmithing. 12/5/03 TCK Requested changes incorporated.
12	н	3										Y	Y	S	061AA2.05, C/A 3.5/4.2, New 11/12/03 TCK OK 11/28/03 Facility requested new question since system was wrong for the associated K/A. 12/5/03 TCK Requested changes incorporated.

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7.	Explanation	065AG2.1.9. MEM 2.9/3.3, New 11/12/03 TCK No CFR 43 reference for K/A and no specific learning objective. Replace K/A	M 3.3/4.4, Bank OK. y added an alarm in the ste 1 conditions. equested changes incorpo	074EG2.4.16, C/A 3.0/4.0, New 11/12/03 TCK OK. 11/28/03 Facility requested minor wording change. 12/5/03 TCK Requested changes incorporated.	G2.1.33 001, C/A 3.4/4.0, Bank 11/12/02 TCK OK. 11/22/03 Facility requested changing stem to address only the containment air lock doors being open. Revise answers accordingly. 12/5/03 TCK Agreed with facility to rewrite question to address mode change restrictions.	G2.1.33 002, C/A 3.4/4.0, New 11/12/03 TCK OK 11/28/03 Facility stated that original question went beyond bounds of K/A. Proposed a new question. 12/5/03 TCK Requested changes incorporated.	G2.2.17, MEM 2.3/3.5, Modified 11/12/03 TCK Changed 'priority 1' to 'priority A' in the stem since 0- ADM-701 does not list priority 1 as an option. 11/28/03 Facility requested changing stem to address "AA" priority work since SROs need to know 3.0.0 entry conditions. 12/5/03 TCK Requested changes incorporated.	 G2.2.31, C/A 2.2/2.9, New 11/12/03 TCK OK. TCS AC AC. 11/28/03 Facility suggested rewriting question to address temperature restrictions for offloading core instead of speed restrictions since this is more operationally oriented. 12/5/03 TCK Requested changes incorporated.
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6.	J/E/S	 S G2.3.4, MEM 2.5/3.1, Bank G2.3.4, MEM 2.5/3.1, Bank G2.3.4, MEM 2.5/3.1, Bank Gold accepted by facility and accepted by Chief Examiner. New question proposed by facility and accepted by Chief Examiner. 11/28/03 Facility requested minor wording change. 12/5/03 TCK Requested changes incorporated. 	S G2.4.7, C/A 3.1/3.8, New 11/1/2/03 TCK OK.	 S G2.4.45, C/A 3.3/3.6, Modified 11/12/03 TCK OK. 11/28/03 Facility proposed new question since this one did not meet K/A 12/5/03 TCK Requested changes incorporated. 	E WE04EA2.2, C/A 3.6/4.2, New S 11/12/03 TCK OK. Added EPN numbers to suction valves.	 WE05EA2.2, C/A 3.7/4.3, New WE05EA2.2, C/A 3.7/4.3, New 11/03/03 TCK Question is too far into the subsequent steps to test. Suggest replacing question and keeping K/A. N.A. Acceptable. 11/12/03 TCK Requested editorial change. 12/5/03 TCK Requested changes incorporated. 	 WE07EG2.4.35, MEM 3.3/3.5, New 10/31/03 TCK Does not meet K/A. Replace. 10/31/03 TCK Substitute question developed. Now meets K/A with new question. 11/13/03 TCK Requested editorial change. 12/5/03 TCK Requested changes incorporated.
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Written Examination Grading Quality Checklist

Facility: Turkey Point Date of Exam: Dec. 3-15, 2003	Exa	m Leve	el: SRO
		Initials	;
Item Description	a	b	с
1. Clean answer sheets copied before grading	The	N/A	Ø
2. Answer key changes and question deletions justified and documented	MA	N/A	N/A
 Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations) 	Ru	N/A	Ś
 Grading for all borderline cases (80 +/- 2% overall and 70 +/- 4% on the SRO-only) reviewed in detail 	The	N/A	
5. All other failing examinations checked to ensure that grades are justified	Rue	N/A	X
 Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants 	The	N/A	d/
Printed Name / Signature	41 7		ate
a. Grader T.C.Kolb/Tuloll	_		3/04 -04
b. Facility Reviewer(*)N/A		N/	Ά
c. NRC Chief Examiner (*)	-	0/12	04
d. NRC Supervisor (*) <u>MICHAEL E. ERNSTES</u> Michael E.E.	t	1113	104
(*) The facility reviewer's signature is not applicable for examination NRC; two independent NRC reviews are required.	onsgrade	ed by th	ie

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Т	urkey Bint 12/3-15/03	
	Task Description	Date Complete
1.	Facility written exam comments or graded exams. received and verified complete	12/18/03
2.	Facility written exam comments reviewed and incorporated and NRC grading completed, if necessary	12/18/03
3.	Operating tests graded by NRC examiners	1/12/04
4.	NRC Chief examiner review of written exam and operating test grading completed	1/13/04
5.	Responsible supervisor review completed	1/13/04
6.	Management (licensing official) review completed	1/13/04
7.	License and denial letters mailed	1/15/04
8.	Facility notified of results	1/13/04
9.	Examination report issued (refer to NRC MC 0610-0612)	1/15/04
10.	Reference material returned after final resolution of any appeals	N/A

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