NUREG 1021

October 26, 2004

2130-04-20244

R. J. Conte, Chief, Operational Safety Branch U. S. Nuclear Regulatory Commission, Region I 475 Allendale Road King of Prussia, PA 19406-1415

> **Oyster Creek Generating Station** Docket No. 50-219

Submittal of Initial Operator License Examination Subject:

In accordance with NUREG 1021, Revision 9, "Operating Licensing Examination Standards for Power Reactors", Oyster Creek Generating Station is submitting the initial operator license written examination, both RO and SRO, for review and approval. This is in support of the NRC initial license written examination retake scheduled for the week of December 6, 2004.

In accordance with NUREG 1021, Revision 9, Section ES-201, we request that these materials be withheld from public disclosure until after the examinations are complete.

If any further information or assistance is needed, please contact Mr. Greg Young at 609-971-4196.

Sincerely,

1 S. Junt "

Herbert G. Tritt. II Facility Representative/Operations Support Manager **Oyster Creek Generating Station**

HGT/DIF

(Delivered only to John Caruso, Chief Examiner, NRC Region 1) Enclosures: One copy of the Oyster Creek written exam ES-201-3, Examination Security Agreement ES-401-6, Written Exam Quality Checklist ES-401-4, Record of Rejected K/As

R. J. Summers, USNRC Senior Resident Inspector, Oyster Creek CC: File No. 04015

\sim	Qu	estion	#	1										
	Exa	minat	ion Oi	utline Cro	ss-refere	nce		_						
	Lev	rel	RO		Tier #	1	Grou	p# 1		,				
	Kno	owledg	je and	Ability R	eference	Informatio	on			RO	SRO			
	295	6001		Partial or	Complete	e Loss of		AK3.02	Importance	3.7	3.8			
	Kno	woda	o of th	Forced C	for the fel	Circulation			Hating	L	L			
		wiedgi	e or in	e reasons										
	CO	MPI F1		SS OF FO	RCFD CC		Rea	actor power	response					
	FLC		RCULA	ATION:										
	Qu	estion:		• <u>•</u> ••••••••••••••••••••••••••••••••••					· · · · · · · · · · · · · · · · · · ·					
	Gìv	en the	follow	ing:										
	•	The re	actor i	is at 100%	power an	d stable								
	•	Five re	eactor	recirc pum	ps are op	erating								
	•	Ine "C		tor recirc in	VIG Drive i	following t	ker tri	ps on overc	current					
		Which of the following is the correct plant response as the operator carries out the imi												
	Wh													
	ope	rator a	ctions	of ABN-2,	Recircula	tion Pump	Trip?	' Assume no	o change to the	Recirc	Master			
	Flo	w Cont	roller s	setpoint du	i <mark>ring</mark> th i s ti	ransient.								
	Day													
	FOV		• • •											
\smile	٨	rise d	luring	the first two	o minutes	of operato	r actio	on due to th	e pump dischar	ge val	ve			
	A.	closir	ng											
	В.	drop	during	the first tw	vo minutes	s of operat	or act	ion due to tl	he pump discha	irge va	lve			
<i>,</i>	~	CIOSI	ig in at 7											
,	<u>с.</u>	rema	in at 7	5% throug	nout the ti	ransient du		ne Hecirc IV	laster Flow Cor	troller	setpoint			
	D.	l rise a	iuring i va the	n return to	o minutes 75%	of operato	r actio	on que to th	le pump dischai	ge var	ve			
	ΔΝ	SWFR			15/0									
	RE	FEREN		$\dot{\mathbf{b}}$	ABN-2	T	[ref #2	2]	[ref #3]					
				A is corre	ect, as the	discharge	valve	shuts, less	s flow is bypass	ed fror	n the			
				core, the	refore mo	re core flo	<i>n</i> afte	r the discha	arge valve is full	y shut.				
		_		B is inco	rrect, as th	ne sequen	ce is b	ackwards.						
	Exp	olanati	on:	C is inco	rrect as co	ore flow wil	l char	nge during e	execution of AB	N-2. TI	his			
				would be	be indicative of a discharge valve that failed to close.									
				the stop	rreci, as II	loon	WIII DE	e greater du	le to less bypas	S NOW	through			
	Ref	erence	es to h		None	<u></u>			ref nrv #21					
	pro	vided	during	g exam:				^r	or her wel					
	Lea	rning	`	10450										
	Obj	ective												

.

Question Source	Bank		Mod	ified	Bank	New	[X]
Question Cognitive Level:	Memory Knowled	or Fundame Ige	ental	[X]	Compreh Analysis	ension or	
10 CFR Part 55 Content:	55.41	(b) (5)	55	.43			

Que	estion	#	2										
Fxa	mina	tion (Dutline Cr	oss-refer	ence								
Lev	el	RO		Tier #	1	Gro	up #	1				· · ·	
Kno	wled	ge ar	nd Ability I	Reference	e Informa	tion		1			RO	SRO	
295	003	<u>J</u>	Partial of	or Comple	te Loss of	f AC	AA	1.03		mportance	4.4		
			Power	I					F	Rating			
Abil	ity to o	opera	te and/or r	nonitor the	e following	g as	SV	etam	e nec	essant to a	euro e	ofo plant	
they	/ apply	y to P	artial or Co	omplete L	oss of AC		Shi	itdov	is neo wn	635ary 10 a	5501C 5	ale plant	
Pov	ver:												
Que	estion	:											
The	plant	has e	experience	d a loss o	f offsite po	ower, a	and th	e fol	lowing	g conditions	exist:		
	• Bu	ises .	IC and 1D	are being	supplied	by the	ir resp	pecti	ve ED)Gs			
	RI	PV pr	essure is b	eing mair	tained at	935 ps	sig wit	h Isc	platior	Condense	rs		
	• 0	yster	Creek has	been info	rmed that	offsite	powe	er wil	l be re	estored no s	sooner	than 72	
	ho	ours											
l If o	nlant	ooold	own io oon	monood	ot tha 88.81	VIRALIR		uchl	0.000	down roto	whatw	ill ha tha	
II a Min	MINIMUM time it takes to clear the shutdown cooling interlocks, assuming a constant												
	cooldown rate?												
Δ													
	1.01												
D.	10 h									• • •			
<u> </u>	1910	ours			· · ·								
	22 n	ours								a			
	SWEH										1		
KE	-EKEI	NCE(S):	ABN-36		[ref i	#2]			[ref #3	- 10 -1-	— //- ···	
			Storting	im allowal		wn rat 5 poig	e auri	ng k		AC power I	s 10 de	eg. ⊢/nr.	
			Starting	arlocks of	ure @ 953	o psig	IS 550	s aec	ј . г				
			Bequire		vn of 188	den F	to de	ar S	DC in	terlocks			
Exc	lanati	ion:	lioquit			ucy. I				iteriooks.			
			A. assu	mes a Te	ch Spec a	llowab	le coo	oldov	vn rat	e of 100 de	a. F/hr		
			B. assu	mes the a	dministrat	tive lim	nit of 9	0 de	a. F/h	n r.	9		
			C. is the	e correct a	answer.				0				
			D. is inc	correct, bu	t plausible	e if a m	nath e	rror	is con	nmitted.			
Ref	erenc	es to	be	Stear	n tables				[ref	prv #2]			
pro	vided	duriı	ng exam:										
Lea	rning		10450										
Obj	ective)											
Que	estion	Sou	rce	Bank			Modif	ied	Bank		New	[X]	
Que	estion	Cog	nitive	Memor	y or Func	lamen	tal		Con	nprehensio	on or	[X]	
Lev	el:			Knowle	edge				Ana	l ysis			
10 (CFR P	art 5	5 Content:	55.41	(b) (5)		55.4	13					

Qu	esti	on #	4					· · · .								
Exa	amir	nation	0	utline C	ross-r	refe	rence)								
Lev	rel	RO			Tier a	#	1	G	roup	¥ 1						
Kne	owle	edge a	anc	d Ability	/ Refei	reno	ce Inf	ormat	ion					RO	SR	0_
2950	005			Main Tu	rbine G	ene	rator 7	ri p	A	K1.0	1	Impo Ratio	ortance ng	4.0	1	
Kno follo Ger	wleo wino nerat	lge of g conc or Trip	the ept: o:	operatic s as they	onal imp / apply	to N	tions c 1ain Tu	of the urbine	P	ress	ure e	ffects	on react	or pow	er	
Que	stio	n:														
Give Bas A. B. C.	 A plant startup is in progress Reactor pressure is 300 psig and rising slowly Turbine shell warming is in progress 5 minutes later the main turbine trips Based on the above conditions, reactor power will A. rise due to loss of feedwater heating. B. rise due to a rise in reactor pressure. C. lower due to a drop in reactor pressure. 															
	low		+0		motio or			.			<i>.</i>					
				anauloi	nauc se	Jan	1.		···							
REF	ERE	n. NCE(S	;):		315.1, 3.3.13.	step 3	•									
Exp	lana	tion:		A. is inc B. is inc C. is cor D. is inc Tech Sp NOTE:	orrect, orrect, as orrect, as orrect, oecs.) This eve	as fe stea s all as ti ent c	eedwa m flow Bypas he turb	ter hea / is cut is Valv bine tri ed dur	ating is off, bu res wil p scra ing 1F	s not ut BP l ope m is {18 s	in se V wil on foll bypa	ervice l oper owing ssed o and	below ~3 n, lowerir 1 the trip. below 30 is an LE	30% pc ng pres)% (40° R	ower. sure. % by	
Refe duri	References to be provided None during exam:															
Lear Obje	rning ectiv	l e	1	196, 120	00				·							
Que	esti	on So	urc	<u>e</u>	Bank				Mod	lified	Ban	k		New	[]	X]
Que Lev	estio el:	on Co	gn	itive	Memory or Fundamental [X] Comprehension Knowledge Analysis					n or						
10 (Cor	CFR nten	Part	55		55.	41	(b) (5)	55	5.43						

0.14	actin	n#	5											
Eva	min	$\frac{\pi}{2}$	Outline (ross-re	for	ance								
			Outime C	Tier #		1	Group	# 1						
Kn	nwle	dae a	nd Ability	Refere	nce	- Inform	nation	<u>" </u>				BO	SB	0
2950	006	uge a	Scram					AK1.0	3	Impo Ratir	ortance	3.7	4.0	<u> </u>
Kno follo	wled	ge of t conce	he operation the pts as they	onal impl y apply to	icati o Sc	ons of th ram:	е	React	vity co	ontrol				
Que	stion	:												
 The reactor scrammed from 100% power All red scram lights on 4F are LIT The "B" CRD pump is out of service for motor winding checks Three control rods indicate "48" on the full core display All other control rods indicate "GREEN-GREEN" on the full core display Which of the following actions will provide the MAXIMUM dP for successful rod insertion? A. Reset the scram and then manually re-scram the reactor. B. Place the mode switch to REFUEL and manually drive the rods 														
В.	Plac	e the	mode swite	ch to RE	FUE	L and ma	anually	drive	the ro	ds				
С.	Clos	se the	CRD coolir	ng water	pres	ssure cor	ntrol va	lve an	d mar	ually	drive th	e rods		
D.	Res	et the	scram and	l individu	ally	scram th	e rods	irom tl	ne Ro	d Scr	am Test	t Panel		
ANS	WER	:	D				••••							
REF	ERE	ICE(S)):	SP-21			[ref #2]				[ref #3]			
Exp	REFERENCE(S): SP-21 [ref #2] [ref #3] A is incorrect, as a full core scram will not develop maximum dP since scram discharge volume will not be vented and charging header pressure will be lower. Explanation: B is incorrect, as the drive pressure will be significantly below scram pressure for those three rods. C is incorrect, as the cooling water pressure will be significantly below scram pressure for those three rods.													
Refe	erence	es to b	e provided	None	Э	•			[ret	prv	#2]			
duri	ng ex	am:	F						-	-	-			
Leai Obje	rning ective	1	10450			1		·					.	
Que	estio	n Soi	urce	Bank			Мо	dified	Bank	<u>د</u>		New	[)	X]
Que Lev	estio el:	n Co	gnitive	Memo Know	ry o ledg	r Funda e	mental		Co An	mpre alysi	ehensio s	n or	[)	K]
10 (Cor	Level: Knowledge Analysis 10 CFR Part 55 55.41 (b) (5) 55.43 Content: 55.41 (b) (5) 55.43													

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Ex:	amination ()utline Cu	ross-refe	rence				· · · · · · · · · · · · · · · · ·		
Lev	vel RO		Tier #		Grou	o # 1				
Kno	owledge an	d Ability	Referen	ce Infor	mation				RO	SRO
2950	006	Scram				AA2.0	01	Importance Rating	4.5	4.6
Abil they	lity to determi y apply to Sci	ine and int ram:	erpret the	following) as	React	or pov	wer response		••••
Que	estion:									·
Rea A.	actor power w	<u>/ill</u> then imm	ediately d	rop due to	o a scra	m whe	en the	turbine stop	valves	close.
В.	initially rise,	then imm	ediately d	rop due to	o a scra	m whe	n the	acceleration	relav a	ctuates.
C.	immediately	/ drop due	to a scrar	n when th	he turbi	ne stor	valve	es close.	,, ,	
D.	immediately	/ drop due	to a scrar	n when th	he acce	eration	n relav	/ actuates.		
ANS	SWER:	3								
REF	FERENCE(S):	L 1	JFSAR, se 5.2.2.2	[ref #2]		[ref #3]	3]		
Exp	lanation:	As TCVs to void co Therefore A. is inco accelerat B. is corr C. is inco D. is inco	 void collapse, then will drop when control rods begin scramming. herefore: is incorrect because the stop valve closure happens after the cceleration relay actuates. is correct. is incorrect, as reactor power will initially rise due to void collapse. is incorrect, as reactor power will initially rise due to void collapse. 							
Refe duri	erences to be ing exam:	provided	provided None [ref prv #2]							
Leai Obje	rning ective	10450, 01	086, 1045	3						
Que	estion Sou	rce	Bank		M	odified	d Ban	k	New	[X]
Que Lev	estion Cogi /el:	nitive	Memory or Fundamental[X]ComprehenKnowledgeAnalysis			omprehensic alysis	on or			
10 0	CFR Part 5	5	55.41	(b) (5)		55.43				

•

Que	estion	# 7	7							<u> </u>		
Exa	mina	tion Or	Itline Cro	ss-refere	nce							
Lev	el			Tier #		Group) # 1					
Kno	owled	de and	Ability R	eference	Informati	ion				RO	SRO	
295	016	<u>.</u>	Control F	Room Aba	andonment	t	AA2.0	2 In R	nportance ating	4.2	4.3	
Abil follo ABA	ity to o wing ANDO	determi as they NMEN ⁻	ne and/or apply to (T:	interpret CONTRO	the L ROOM	Rea	ctor wa	ter leve))		4	
Que	estion	:				•						
Giv	en the	followi	na:									
• • Bas Shu	 A Control Room fire necessitated a Control Room Evacuation All necessary actions IAW ABN-30, "Control Room Evacuation" were performed prior to leaving the Control Room The Plant Process Computer has failed, and the backup Plant Process Computer is not available Based on the above conditions, RPV water level indication is available at the Remote Shutdown Panel AND at A. RK01 and RK02 											
Α.	RK0	1 and F	RK02									
В.	RK0	2 and F	RK03								······,	
C.	RK0	3 and F	RK05									
D.	RK0	5 and F	RK01									
ANS	SWER	R: A	١									
RE	FERE	NCE(S)	:	ABN-30		2000-0	DPS-30	24.24	[ref #3]			
Explanation:A is correct. Fuel zones as well as both triple low Bartons are available, as level can be read from the triple low Barton instruments as well. B is incorrect, as it does not address the triple low Barton on RK01 and RK03 has no RPV water level instrumentation on it C is incorrect, as it does not address the triple low Barton on RK01/2 and RK03/5 has no RPV water level instrumentation on it D is incorrect, as it does not address the triple low Barton on RK01/2 and RK03/5 has no RPV water level instrumentation on itD is incorrect, as it does not address the triple low Barton on RK02 and RK03/5 has no RPV water level instrumentation on it										ble, as and 2 and and		
Ref	erenc	es to b	e	None				l fref p	orv #2]			
pro	vided	during	exam:						J			
Lea Obj	rning ective	•	10438									
Que	estion	Sourc	e	Bank		Mo	dified	Bank		New	[X]	
Que Lev	estion el:	Cogni	tive	Memory Knowle	/ or Funda dge	amenta	I [X]	Com Anal	prehensio ysis	n or		
10 (10 CFR Part 55 Content: 55.41 (b) (7) 55.43											

Qu	est	ion #	8										
Exa	am	ination	Outline	Cross-	refe	rence							
Lev	/el	RO	-	Tier	#	1	Grou	p # 1					
Kne	ow	ledge a	nd Abili	ty Refe	rene	ce Inforr	matio	<u>1</u>			RO	SRO	
2950	018		Partial Compo	or Component Co	olete	Loss of g Water.		AK1.0	1 Imp Rat	oortance	3.5	3.6	
Knc follc com	wle wir nple	edge of t ng conce ete loss	he operat epts as the of compor	ional im ey apply nent coo	plica to p ling	tions of tl artial or water:	he	Effects operat	s on com ions	oonent/sys	stem		
Que	esti	on:											
The dete con in a regi	In a plant is operating at 100% power when a leak in the RBCCW system occurs. The leak is determined to be on the common discharge header, and RBCCW surge tank level is constant. In accordance with ABN-19, RBCCW Failure Response, which one of the following actions is required?												
A .	A. Isolate the RWCU system to reduce heat loads.												
В.	B. Start the standby BBCCW pump.												
<u>с.</u>	C		e a plant	shutdow	/n (A	W Proce	dure 2	03					
D.	S	cram the	e reactor L	AW ABN	J-1.			<u> </u>					
ANS	SWI	R:	С										
REF	ER	ENCE(S):	ABN-1	9	<u> </u>	[ref #	2]		[ref #3]			
Exp	lan	ation:	A. is ind B. is ind C. is th maintai D. is ind maintai	eak locat correct, w correct, w e correct ned, correct, w ned	ion c vould vould ansv vould	annot be i be correc be correc wer, and is be correc	isolated et for re- et for a p s dictate et for a p	I. Candio duced co bump trip ed for a le major lea	late must i poling capa p, not for a eak where ak where s	recognize t ability, not f leak. surge tank urge tank l	his. for a lea < level c evel ca	k. an be nnot be	
Ref duri	References to be provided NONE [ref prv #2] during exam:												
Lea Obj	rnir ecti	ng ve	00061										
Qu	est	ion So	urce	Ban	k		N	lodified	l Bank		New	[X]	
Qu Lev	est /el:	ion Co	gnitive	Men Knov	Memory or FundamentalComprehension orKnowledgeAnalysis					[X]			
10 Co	CF nte	R Part nt:	55	55	.41	(b) (4)		55.43					

Question #	9				·			<u></u>				
Examination O	utline Cros	ss-referen	ce									
Level RO		Tier #	1 (Group	# 1							
Knowledge and	Ability Re	eference li	nformatio	n				RO	SRO			
295019	Partial or Instrumer	Complete nt Air	Loss of	G	32.1.30	Imp Rat	bortance ting	3.9	3.4			
Conduct of Ope	rations			Ability incluc	/ to loca ling loc	ate and al contr	operate co ols	ompon	ients,			
Question:												
Given the follow	ing conditio	ons:										
 The plan The read RPV wat All feedw "A" CRD What actions ar 	 The plant has experienced a total loss of instrument Air The reactor was scrammed successfully RPV water level is 175 in. TAF and slowly rising All feedwater pumps are secured "A" CRD pump is operating What actions are required to stabilize reactor water level?											
A. Manually c	lose Chargi	ing Header	Isolation	V-15-5	2							
B. Manually c	lose CRD F	-low Contro	J Valves N	IC-30	4/B							
C. Manually c	lose CBD F	Bypass Iso	ation Valv	e V-15	-30		<u></u>		• • • • • • • • • • • •			
D Manually o	nen BWCI	Lletdown	Flow Cont	rol valv	e ND-2	2						
		Lotdonni										
REFERENCE(S	i): /	ABN-1	ſ	ref #2]			[ref #3]					
Explanation:	A is corre B is inco C is inco D is inco	ect. rrect, beca rrect, not d rrect, as R	use flow co irect by pr WCU is iso	ontrol v ocedur olated	alves f e.	ail close	ed on loss	of IA				
References to	be	None				[ref pr	v #2]					
provided durin	g exam:											
Learning Objective	10450											
Question Sour	ce	Bank		Мо	dified	Bank		New	[X]			
Question Cogr Level:	nitive	Memory Knowled	or Fundar ge	nental		Comp Analy	orehensio /sis	n or	[X]			
10 CFR Part 55	Content:	55.41	(b) (10)	5	5.43							

camination Ou	Itline Cross	-reference										
evel RO	T	ier # 1	Gro	up # 1								
(nowledge and	Ability Refe	erence Informa	tion			RO	SRO					
95021	Loss of Shu	tdown Cooling		G2.4.48	Importance Rating	3.5	3.8					
bility to interpre	t control roor	m indications to	.1	8								
erity the status a	and operation	n of system, an	a									
lirectives affect r	operator actionation	ons anu										
uestion:	siant and bye		·	÷								
liven the followi	<u></u>											
The plant is s Shutdown co "C" SDC loop RPV tempera The temperat	hutdown oling is in se is filled and ature is 310 c ture switch fo	rvice with "A" ar vented, and ha leg. F and being or the "A" SDC i	nd "B" s 1500 g coole nlet wa	SDC loops i) gpm RBC0 ed down at 1 ater tempera	in service CW flow through 10 deg. F per ho ature fails upsca	n its HX our with lle/due	SDC to a fault					
Vhat effect does	this failure h	nave on the SD	C syste	em, and what	at actions should	be tal	ken in					
A. System will i	solate. The f	DC Inlet and Ot aulty temperatu	itlet iso ire swit	tch must be	es) will close an overridden in o	duthe S rder to	SDC recover					
 A. System will isolate. The faulty temperature switch must be overridden in order to recover sold. B. V-17-19 and V-17-54 (SDC Inlet and Outlet Isolation Valves) will close and the SDC system will isolate. Alternate means of core cooling must be employed. 												
V-17-19 (SF	C Inlet Isola	tion Valve) will	close a	and trip both	SDC numps A	Iternat	e means					
of core cool	ing must be (employed.				atomat	c means					
"A" SDC put	mp will trip. F	Place the "C" SI	C pun	np in service	e and continue of	cooldov	wn with					
" "B" and "C"	SDC pumps.	,				_						
NSWER: D)											
EFERENCE(S)	•	RAP	Proc	. 305	[ref #3]							
Explanation:	A is incorrect suction tem B is incorrect switch fault. C is incorrect D is correct	ct for this situat perature switch ct, but would be ct but is correct	ion, bu fault. correc seque	t would be o ct for a recir ence if inlet i	correct for a rec c pump suction solation valve w	rc purr tempe vere to	ip rature close.					
References to b	e	None			[ref prv #2]							
		·					···					
Diective	50028											
	"A" &" B"	SDC Juny	s n U	ultup	die to V-	17 -1	9 Close					

Question Source	Bank		Mod	ified	Bank		New	[X]
Question Cognitive Level:	Memory Knowled	or Fundame Ige	ental		Com Anal	prehensi ysis	on or	[X]
10 CFR Part 55 Content:	55.41	(b) (10)	55	.43				

Que	Jestion # 11 camination Outline Cross-reference													
Exa	mina	ation	οι	utline Cro	oss-ref	eren	ce							
Lev	vel	RO			Tier a	#	1	Grou	ıp #	1				
Kno	owle	dge a	nd	Ability F	Referen	nce l	nformati	on					RO	SRO
295	023			Refuelin	g Accio	lents	3		A/	42.01	Imp Rat	bortance	3.6	4.0
Abi	lity to	deter	mi	ine and/o	r interp	ret th	ne							
follo	owing	as th	ey	apply to	REFUE	ELIN	G	Are	ea ra	adiatio	on levels	5		
AC		NIS:												
Que	estio	<u>n:</u>												
Giv	en th	e follo	Wİ	ng condit	ions:									
=		nutes		tio in a ra	fuction	outo	200							
	 Reactor Building HVAC radiation monitor reading 2 mr/hr 													
	• F	19 and		9 radiatio	n moni	tors	are hoth	readir	uni In 3	mr/h	r			
	· L		. 0			.010	are som	Juan	.90	(107)10				
T =	Γ = 30 minutes:													
	• F	RO and		•0 radiatio	n moni	tore	aro roadi	ina 12	0 m	r/hr				
	• •	GTS	ha	s initiated	and R	eact	or Buildir	ng izv na HV/		has tr	inned			
		010	110	o in additioe		cuo	or Dunan	ig • /			ipped			
Bas	sed u	pon th	ies	se conditio	ons, wh	ich d	of the foll	owing	has	S OCCL	irred?			
A.	Α fι	iel bu	٦d	le has be	en drop	ped								
В.	A fu	iel bui	nd	le has be	en misp	place	ed in fuel	pool						
C.	Fue	el Pool	s	kimmer si	urge tai	nk is	overflow	ing				· · · · · · · · · · · · · · · · · · ·		
D.	Aug	gmente	ed	Fuel Poc	ol Coolir	ng pi	ump tripp	ed						
AN	SWE	R:	A	۹										<u> </u>
RE	FERE	ENCE	(S)):	205.0								÷	
				A is cori	rect. Th	is w	ould incre	ease r	ad le	evels.				
Exp	olana	tion:		B is inco	prrect, v	voul	d not incr	ease I	ad	levels				
'	C is incorrect, would not increase rad levels.													
Port	oren	cos ta	<u>,</u>			NOUL		ease	aa	ieveis	i. T			
nei pro	vide	d duri	ם י חר	iexam.		ie								
	rnin	<u>a auri</u> a	1	01129 0	7423						1 <u>, , , ,</u>			
Obj	ectiv	9 /e		UII 200 U						_				
Que	estio	n Sou	Irc	e	Bank	<		IV	lod	ified	Bank		New	X
Que	estio	n Cog	jni	tive	Mem	ory	or Funda	ament	al		Comp	rehensio	n or	X
Lev	evel: Knowledge Analysis													
10	0 CFR Part 55 Content: 55.41 (b) (5) 55.43													

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Que	e	sti	on #	1	2						· · · ·			
Exa	a	miı	natio	n C	outline C	ross-	refe	erence						
Lev	Ve	el	R	2		Tier	#	1	Grou	p # 1				
Kno	0	wle	edge	an	d Ability	Refe	ren	ce Inform	nation	1			RO	SRO
2950	0;	24			High Dry	well P	ress	sure		EA1.0	6 Im Ra	portance ting	3.7	3.7
Abili they	ity / a	y to app	opera Iy to F	te a IIGF	Ind/or mon	itor the _L PRE	follo SSU	wing as JRE:	Eme	ergency	/ Genera	ators		
Que	es	stio	n:											
Give Wha	 The plant is operating at 100% power and stable High Drywell Pressure sensor RV-46B fails high All other Drywell Pressure sensors indicate 1.2 psig What effect does this have on the plant? A. NZ01B and NZ03B start, both EDGs idle start B. NZ01B and NZ03B start, ONLY #2 EDG idle starts 													
В.	╞	NZ	01B a	and	NZ03B s	tart, O		#2 EDG IC	dle sta	irts (
<u>C.</u>	╞		01A&	BS	tart, NZU	SA&B	start			start				
<u>D.</u>				B S	$\frac{1}{1}$	SA&B	start	, UNLY #2	EDG	Idle sta	irts			
	5 \ 2 C			$\frac{1}{6}$		241	D 1 .		Frof #C			Frof #21		
Exp		ana	tion:	<u>.</u>	A is incol B is incol C is the c connecte D is incol	rrect as correct as correct d	both both answ	n core spray n core spray ver, both co n EDGs star	v syster v syster re spra rt.	ns start ms and y syster	both EDC	DG start log	gic is cr	oss
duri	during exam:													
Lea Obje	e	ning ctiv	g 'e		00788				····-,					
Que	e	sti	on S	oui	ce	Ban	k		М	odified	Bank		New	[X]
Que Lev	e ve	sti el:	on C	ogi	nitive	Men Kno	nory wlec	or Funda dge	menta	al [X]	Com Anal	prehensio ysis	n or	
10 Cor	10 CFR Part 55 55.41 (b) (7) 55.43 Content: 55.41 (b) (7) 55.43													

Que	estio	n #	13						•••			· · · · ·		
Exa	min	ation	Outline C	ross-re	efer	ence								
Lev	el	RO		Tier #	-	1	Gro	oup #	# 1					
Kno	owle	dge a	nd Ability	Refer	ence	e Inforr	natio	on					RO	SRO
2950)25		High Rea	actor Pr	essu	ire		E	A1.0	7	Impo Ratin	rtance g	4.1	4.1
Abili	ty to c	perate	and/or mon	itor the f	ollow	ing as	Δ	RI/R	PT/A	TWS	(Plan	t Snecif	ic)	•
they	apply	to HIC	SH REACTO	R PRES	SSUF	RE:					(1)(21)		.0,	
Que	stion													
Give		, 10110v	ving. nt is at 15%	nower	and	stahlo								
	• M	SIVs i	nadvertent	v close	anu	Stable								
	• A	l conti	rol rods rem	nain at t	heir	pre-tran	sient	pos	itions	6				
	• R	PV pre	essure peal	ks at 10	66 p	sig, the	n dro	ps to	0 104	0 psig	g withi	n 5 sec	onds	
	• A	n oper	ator is cont	rolling p	oress	sure betv	ween	1 800) to 1	000 p	sig wi	th ICs 8		/s
	• NO other operator actions are taken													
Bas	ed or	the a	bove condi	tions, re	eacto	or power	will (drop	due	to a .	••			
_	parti	al loss	s of recircul	ation flo	w. a	nd will u	ultima	atelv	reac	h the	sourc	e range	becau	se of
A .	ARI	actuat	tion		,, ۵							e lange		
	com	plete l	oss of recir	culation	n flov	v, and w	ill ult	imate	ely re	each t	he so	urce rar	nge bec	ause of
D.	ARI	actua	tion											
С.	parti	al loss	s of recircul	ation flo	ow, a	nd will r	emai	in at	that	lower	ed po	wer leve	el, ultim	ately
	requ	iring a	an Emerger	ncy Dep	ress	urization	n due	to e	XCee	aing	the Ho			timataly
D.	requ	piete i iring s	oss of recir	culation	rose	v, and w urization	n due	nain to e		at iov	verea tha Hí	power i CTI	evel, ul	umatery
ANS	WFR	.		icy Dep	1035	unzation	Tuue			ung				
REF	EREN		:	E-1-a			ſref	#21				[ref #3]		
			A is inco	rrect du	ie to	ARI set	point	at 1	090	psig.	I	[]		
Evo	lanati	0.01.	B is inco	rrect sir	nce a	all pump	s will	l not	trip a	and A	RI set	point at	1090 p	sig
	anan	011.	C is corr	ect as c	only (3 pumps	s trip	on h	igh p	ressu	u r e <1	0.5 seco	onds	
			D is inco	rrect, n	ot al	l pumps	trip							
Refe duri	during exam:													
Lear Obje	ning ective		00208, 002	209										
Que	estio	n Soı	urce	Bank				Mod	lified	l Ban	<u>k </u>		New	[X]
Que	estio	n Cog	gnitive	Memo	ory o	r Funda	amer	ntal		Co	ompre	hensio	n or	[X]
Lev	el:			Know	ledg	je				Ar	nalysi	s		
10 0	10 CFR Part 55 55 41 (b) (6) 55 43													
Cor	ntent	•		55.4	**	(0) (0)		50	7.43					

Question #	- 1 1	4								
Examination	n Oı	utline Cross	s-refer	rence						
Level R	80	_	Tier #	1	Grou	p# 1				
Knowledge	and	Ability Ref	erenc	e Informati	ion				RO	SRO
295026		Suppressio Temperatu	n Poc re	ol High Wate	ər	G 2.1.25	Impo Ratin	rtance g	2.8	
Ability to obt	ain a	and interpret	static	on reference	; -		-			
materials su	ch a	s graphs, m	onogra	aphs, and						
tables which	cor	tain perform	ance	data.						
Question:										
Given the fol	llow	ng condition	IS:							
 RPV leve Torus pre Core Spr Torus wa Containn Containn What is the <u>I</u> limits? 	el is essu ray p ater ment ment	being mainta are is being r bumps NZ01 level is 150 i Spray pump Spray pump HEST Torus	ained mainta A anc inches o 51A o 51C temp	100 to 175 ained betwe NZ01B are and stable is running i is running i erature that	in. TAF en 4 ai opera n Toru: n Dryw is allo	nd 12 psig ting at 4,00 s Cooling r ell Spray r wed withou	00 gpm node at node at it excee	each 4,500 gr 4,500 gr ding any	om om ⁷ Core	Spray
A. 190 de	eg. F									·····
B. 193 de	g. F		·• _	·····						
C. 200 de	g. F									
D. 202 de	g. F		_							
ANSWER:	E	3								
REFERENC	E(S):		SP 4	[ref #	2]		[ref #3]		
Explanatior	ו:	For the col For 12 psig For 4 psig Use 4 psig determine A is incorre C is incorre D is incorre	nditior - "I" - "G" and s 193 d ect as t. ect as ect as	ns stated, C static head static head static head eg. F is the it is using the it is using 1 it is using 1	S static adjust adjust of 2.1 a highes he NZC 2 psig 2 psig	e head adju ment, nd NZ01C It temp. Th 1C curve, and the N	NOT ru erefore: Z01C cu	is 2.1 ps nning cu rve	sig. urve to	
References	to t)e	SP-4			1	iref prv :	#2]		
provided du	urin	a exam:					r h			
Learning Objective		03023	L			<u></u>				· <u> </u>

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Question Source	Bank		Modified	Bank		New	[X]
Question Cognitive Level:	Memory Knowled	or Fundame Ige	ental	Com Anal	prehensio ysis	on or	[X]
10 CFR Part 55 Content:	55.41	(b) (10) 55.43					

Question #	15								
Examination O	utline Cro	ss-referenc	e						
Level RO		Tier #	1 (Group	# 1				,
Knowledge and	d Ability R	eference In	formatio	n				RO	SRO
295028	High Dry	well Tempe	rature	E	A2.03	Impo Ratin	rtance g	3.7	
Ability to determ following as the TEMPERATUR	iine and/or y apply to H E:	interpret the IIGH DRYW	e VELL	React	or water	level			
Question:									
Given the follow A small s RPV pre Bulk dry "A" Yarw "B" Yarw NR & W Yarway i NR GEM WR GEM Based upon the	ing: steam line l ssure is 50 well tempe vay referend vay	break has o 0 psig and s rature is 255 ce leg temp reference le s read 90 in nents read 9 ment reads	ccurred ir stable 5 deg. F a erature is eg temper . TAF and 92 in. TAF 170 in. TA el	n the dry 495 de 500 de atures I stable and st AF and	ywell g. F g. F are 450 c able stable	leg. F			
A. is 90 in. TA				<u> </u>		<u></u>			,,,,
B. is 92 in. TA									
C. is 170 in. T	AF								
D. cannot be	determined]							
ANSWER:	C I	· · · · · · · · · · · · · · · · · · ·							
REFERENCE(S	<u>, </u>	SP-;	28 [ref #21			[ref #3]		
Explanation:	All instru A is inco B is inco C is corre D is inco	ments are b rrect as it is rrect as it is ect. Minimur rrect, as the	elow RPV below mi below mi n usable WR instr	/ satura nimum nimum level is ument	ation pres usable in usable in ~155 in. is usable	sure, th dicating dicating	erefore: J level J level		
References to	be	SP-28			[ref prv #	ŧ2]		
provided durin	g exam:								
Learning Objective	10445								
Question Sour	ce	Bank		Mod	dified Ba	nk		New	[X]
Question Cogn Level:	itive	Memory o Knowledg	r Fundan e	nental		Compre Analysis	hensio	n or	X
10 CFR Part 55	Content:	55.41 ((b)(10)	5	5.43				

	oction	#	16										
	-51101	#											
Exa	imina		Jutiline Cr	OSS-rete	erer		0						<u></u>
Lev		RO			Ħ	1	Gro	ıp #	1		-	1 = =	<u> </u>
Kno	owled	ge an	d Ability	Referen	ice I	nformat	ion	1				RO	SRO
295	030		Low Su	ppressio	on P	ool Wate	ər	EK	2.08	Impo Rati	ortance ng	3.5	3.8
Knc SUI the	wledg PRE follow	je of t SSIOI ing:	he interre	lations b VATER I	etwe LEV	een LOW EL and	/ EN	IRV o	dischar	rge sub	mergenc	÷e	·
Que	estion	1:					I						
Giv	on the	follov	wina:						<u>.</u>				
Ass rate	 Th Th Th uming of tor 1. \ 2. \ 	ne pla ne TO ne ST, the t rus lev What i hat is	nt is opera RUS LEV A informs ime starts /el drop, a is the max this base	ating at 1 EL HI/LC you that when th nswerth simum tir d upon?	100% D ala toru ne to a C A me to	% and sta arm annu us water orus low plowing t pefore El Te	able unciate level is level a wo qu MRVs www.	s low, larm estior can N	and d is rece ns. IO LO I	Iropping eived ar NGER I	g at 2 incl nd assum be manu unant	hes pe ning a d ally op	r minute constant ened?
Α.	Appr oper	oxima 1.	ately 16 to	17 minu	utes,	, due to l	oss of	supp	ressio	n capat	oility whe	n EMR	IVs are
В.	Appr	oxima	ately 16 to	17 minu	utes,	, due to l	oss of	supp	ressio	n capat	oility for a		٩.
C.	Appr oper	oxima 1.	ately 26 to	27 minu	utes,	, due to l	oss of	supp	ressio	n capat	oility whe	n EMR	Vs are
D.	Appr	oxima	ately 26 to	27 minu	ites,	due to l	oss of	supp	ressio	n capat	bility for a		٨.
ANS	SWEF	:	С										
RE	ERE	NCE(S):	EOP U	sers	Guide	RPV ATW	Cont S	rol – N	lo			
Exp	At 2 in/min drop, it has to go from 143" to 90", or ~53/2 or 26.5 minutes. At 110 inches, torus downcomers are uncovered. At 90 inches, EMRV Y quenchers are uncovered. At is incorrect because the EMRVs are still covered. B is correct for basis for torus downcomers uncovered, but not for EMRVs. C is correct D is incorrect due to wrong basis applied.												
Ref	erenc	es to	be	Nor	<u></u>								· · · · · · · · · · · · · · · · · · ·
pro	vided	durir	nd exam:										
Lea	rning		00369	1									
Obj	ective	•											

······

Question Source	Bank		Modifie	ed Bank		New	[X]
Question Cognitive Level:	Memory of Knowledge	or Fundam ge	ental	Com Anal	prehensic ysis	on or	[X]
10 CFR Part 55 Content:	55.41	(b) (10)	55.43				

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Que	estion	#	17								<u></u>
Exa	mina	tion O	utline Cros	ss-referei	nce						
Lev	el	RO		Tier #	1	Grou	р#	1			
Kno	wled	ge an	d Ability Re	eference	Informati	ion				RO	SRO
295	031		Reactor L	ow Wate	r Level		EK3	8.05	Importance Rating	4.2	4.3
Kno	wledg	e of th	ne reasons	for the fol	lowing						
resp WA	TER L	s as tr .EVEL	ey apply to	REACTO	RLOW	Em	erger	ncy de	pressurization		
Que	estion	:									
Give	en the	follow	ing conditio	ons:							
Bas	 Th RF Th NC RF 	ne Stea PV pre ne "B" D othe PV wa	am Cooling essure is be CRD pump r injection s ter level is -	EOP was ing mainta has been systems a -35 in. TA	entered ained betw started a re availab F and ste	when F ween 8 and is in ble eady	RPV I 00 ai njecti	evel ro nd 100 ng to t	eached 0 in. TA 00 psig with ICs he RPV	F	
Das							wing				
Α.	beca	itain p use a	dequate ste	am flow e	xists to k	e trying eep the	to re e core	store a e less	than 1500 deg.	F.	stems,
В.	Main beca	tain p use a	resent cond dequate ste	litions and am flow e	l continue exists to k	e trying eep the	to re e core	store a	additional inject than 1800 deg.	ion sys F.	stems,
C.	Cond the c	duct a ore le	n Emergeno ss than 150	cy Depres 0 deg. F.	surizatior	becau	ise in	suffici	ent steam flow	exists	to keep
D.	Cond the c	duct ai ore le	n Emergeno ss than 180	by Depres 0 deg. F.	surization	i becau	ise in	isuffici	ent steam flow	exists	to keep
ANS	SWER	I:	D			101	w				
REF	FEREI	NCE(S	5):	EC Us Gi	DP N vers vide	Stear	1 Coo	oling E	:OP		
A is incorrect, because level must be above -20 in to ensure clad does not exceed 1500 deg. F. B is incorrect, because the -42 in level corresponds to less than 1800 deg. F with NO injection and no subcooling. By having CRD injection, this invalidates all steam cooling assumptions. C is incorrect, because level must be above -20 in to ensure clad does not exceed 1500 deg. F. D is correct											
Ref	erenc	es to	be	Steam	Cooling E	EOP					
pro	vided	durin	g exam:								
Lea	rning		10450								
Obj	ective)									

Question Source	Bank		Modified	Bank		New	X
Question Cognitive Level:	Memory Knowled	or Fundame Ige	ental	Com Analy	prehensio /sis	n or	X
10 CFR Part 55 Content:	55.41	(b) (5)	55.43				

Ques	tion #	18												
Exam	nination C	Dutline Cro	ss-refer	ence		1								
Level	I RO		Tier #	1	Grou	ip# 1		·····	1					
Know	vledge ar	d Ability F	leferenc	e Informa	tion	<u>.</u>		RO	SRO					
29503	37	SCRAM	conditior	n present a	and	EK2.10	Importance	3.8						
		Reactor	Power al	bove APRI	М		Rating							
		Downsca	<u>ale or Un</u>	known										
Know	ledge of t	he interrela	tions bet	ween										
SCR/	AM CONE	DITION PRE	ESENT A	ND										
REAC	CTOR PO	WER ABO	VE APRN	Л	Rea	actor press	ure							
DOW	NSCALE	OR UNKN	OWN and	d the										
follow	/ing:													
Ques	tion:													
The p	olant is at	100% powe	er when t	he followin	ig occu	rs:								
The Main Turbine trips														
The Main Turbine trips A bydraulic ATWS occurs														
٠	A hydraulic ATWS occurs Between 2 and 2 turbing burges values are controlling RBV pressure at 025 pairs													
٠	Between 2 and 3 turbine bypass valves are controlling RPV pressure at 935 psig													
•	 Torus temperature is 76 deg. F and steady 													
٠	All reac	tor recircula	ation pun	nps are trip	ped									
٠	There a	ire NO pow	er oscilla	tions										
٠	RPV wa	ater level is	being ma	aintained b	betweer	n –20 and 3	0 in. TAF with F	eedwa	ater and					
	Conder	isate												
٠	Control	rods are be	eing man	ually inser	ted IAV	/ SP-21								
Base	d upon th	ese conditio	ons, whe	n can a pla	ant cool	down be co	ommenced?							
Δ	Nhen liqu	id noison ta	nk is at		\$			· · ·						
	When nov	ver reaches	IBM ran	ne 4 and	is conti	nuing to low	vor							
	mmodiate	wei reachee		ithin the or	anacity	of the turbi	no hypase valvo							
	Mhon nov	vor in stood			d by LE		alo indicatoro	10						
ANCU	MED.		y al 2 /0 d											
	DENCE	<u>D</u>	EOPa		[rof #	01	[rof #2]							
NEFL			EUFS	ouco thor		ci nood to inic	t boron undor	those						
		conditio		ause inen		neeu to inje		11696						
Evnla	nation	B is corr	io. act the r	pactor le e	hutdow	'n								
стрю			orrect by	caulor is s	reacto	rie etill ot n	ower							
			orrect be	cause life	vor in st	i is silli al f ill in the ne	wor range at 20/	<u>,</u>						
Rofor	onces to	he be		flowobarto			ver range at 2%	0						
nciel provi	ded duri	ng onem.		nowcharts	ł		ierpiv #∠]							
1001		10450 00	0057											
Object	nng stive	10450, 02	201											
objec	cuve	1												

Question Source	Bank		Modified	d Bank		New	[X]
Question Cognitive Level:	Memory Knowled	or Fundame ge	ental	Com Anal	prehensio ysis	on or	[X]
10 CFR Part 55 Content:	55.41	(b) (10)	55.43				

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Que	estic	n #	19	9														
Exa	imin	ation	Out	tline Cr	oss	-refere	nc	е										
Lev	el	RO			<u> </u>	lier #	1		Gro	oup	#	1						
Kno	owle	dge a	nd /	Ability	Ref	erence	In	format	ion						- <u></u>	RO	S	RO
295	038			High Of	ff Si	te Rele	ase	Rate			EK2	2.07	1 F	npo latii	ortance ng	3.5		
Knc	wlea	lge of	the	interrel	atio	ns betv	vee	n HIGF	1	:ont	rol	Roor	n ver	ntila	tion			
OF	F-SI	E RE	LEA	ASE RA	TE	and the	e fo	llowing	: 🔰									
Que	estic	n:																
Giv	en th	e follo	win	ng condi	ition	IS:												
• • Whi con	 The plant is operating at 100% power and steady Annunciator 10F-1-d, STACK EFFLUENT HI-HI alarms Stack RAGEMS Channel 1 & 2 are reading above their HI-HI alarm setpoint Which of the following correctly describes the Control Room HVAC System lineup for these conditions? 																	
Α.	No	rmal M	lod	е														
В.	Pu	rge Mo	bde															
C.	Pa	rtial Re	ecir	culation	Mc	de												
D.	Fu	I Recir	rcul	ation M	ode													
AN	SWE	R:	С		1		·	······································										
REI	FER	ENCE	(S):		4	1	0F- 31.	·1-d, 1	[ref	#2]					[ref #3]		
Exp	A is incorrect, as normal mode will not create a positive pressure in the control room. B is incorrect, as purge mode is only used to remove smoke, fumes or odors from the atmosphere. C is correct in accordance with actions taken IAW PAP 10F-1-K. D is incorrect as full recirc mode prevents toxic gas from entering the control room.																	
Ref	erer	ices to	o be	e		None							[ref	prv	#2]			
pro	VIDE	adur	ing	exam:]												
Ob	irnin jecti	g ve		12324														
Qu	estic	on Sou	irce	e	E	Bank				Мо	dif	ied I	Bank	Τ		New		[X]
Que	estic /el:	on Cog	gnit	tive	۲ {	Memory	y o eda	r Fund e	ame	ntal			Cor Ana	npr alvs	ehensio is	on or		[X]
10	CFR	Part 8	55 (Conten	t:	55.41	(b) (10)		5	55.4	3						

	estion #	2	0							· · · · · · · · · · · · · · · · · · ·		
Fx	aminatio	$\frac{1}{2}$	tline Cro	ss-refe	rer							
Lev	vel	RO		Tier #			Grou	p#	1			
Kn	owledge	and	Ability F	Reference	ce	Informatic	n				RO	SRO
600	0000		Plant Fi	e On Si	te			AA1	.09	Importance Rating	2.5	
Abi	lity to op	erate	and/or n	nonitor th	net	following	Pla	nt fire	zone	panel, including	g dete	ctor
ast	they app	ly to I	PLANT F	IRE ON	Sľ	TE:	loca	ation				
Qu	estion:											
•	The plat The "B" A fire st	nt is c Conti arts ir	ng: operating rol HVAC	at 100% system	is m	ower operating i	in Noi	rmal r	mode			
•	Significa The fire The folk 2 de 3 de 1 de 2 de	ant an <u>CAN</u> owing etector etector etector etector	nounts of NOT be detector rs in Zon rs in Zon r in Zone rs in Zone	smoke extinguis s have a e 1 for S e 2 for S 1 for Sy e 2 for S	an she acti Syst Syst Syst	due to a re d combust ed with port vated: tem A tem B em C tem C	ion pr table	oduc	g up ts are guishe	present from th rs	e fire	
Wh	iich of th	e follo	wing Co	ntrol Roo	om	Halon sys	tem(s	s) will	actuat	te?		
D.	System	ו A, B	and C									
E.	System	n A ar	nd B ONL	.Y								
F.	System	n B ar	nd C ONL	.Y								
D.	System	י C O l	NLY									
Α.	Syster	n A, E	3 and C									
В.	Syster	n A ai	nd B ONI	_Y								
C.	Syster	n B ai	nd C ON	LY								
D.	Systen	n C O	NLY									
AN	SWER:)									
RE	FERENC	CE(S)	•	ABN-2	9		[ref #2	2]		[ref #3]		
Ext	A is incorrect, two detectors from opposing zones must actuate to cause HALON actuation. B is incorrect, two detectors from opposing zones must actuate to cause HALON actuation. C is incorrect, since two detectors from opposing zones must activate to cause auto initiation of HALON. D is correct, two detectors from opposing zones have actuated											
Ref	ferences ovided d	s to b uring	e exam:	Non	е				[1	ref prv #2]		

Question Source Bank Modified Bank No		10445, 10450											
	ew	[X]											
Question CognitiveMemory or FundamentalComprehension ofLevel:KnowledgeAnalysis	or	[X]											
10 CFR Part 55 Content: 55.41 (b) (7) 55.43													

Question # 2	.1			_	<u></u>			
Examination Ou	utline Cross	s-referei	nce					
Level RO	7	Fier #	1	Grou	p# 2			
Knowledge and	Ability Ref	erence	Informatio	on			RO	SRO
295008	High React	tor Wate	r Level		AA2.02	Importance Rating	3.4	3.4
Ability to determi following as they WATER LEVEL:	ne and/or in apply to HI	iterpret t GH REA	he CTOR	Stea	am flow/fee	d flow mismatc	h	
Question:								
Given the followi	ng:							
 The plant is a RPV water let Indicated ste Indicated fee "B" EMRV fat NO operator 	at 100% pow evel is being am flow is 7 d flow is 7.1 ils open actions are tabilizes BE	ver maintaii .20 E6 II 6 E6 Ibr taken	ned at 160 om/hr n/hr	in. TA	AF in AUTO	ΔΝΠ		
the steam flow/fe	ed flow mis	match w	vill be	(2)	pre-tra	ansient conditio	ns.	
A. (1) abov (2) less	/e 160 in. T/ than	4F						
B. (1) belo (2) less	w 160 in. TA than	٩F		_				
C. (1) abov (2) great	/e160 in. TA .ter than	\F		_				
D. (1) belo (2) grea	w 160 in. TA ter than	٩F						
ANSWER:)							
REFERENCE(S)):	AE	3N-40					
Explanation:	EMRVs tap that the sta happens, t forward co setpoint, th mismatch, A is incorre B is incorre C is incorre D is correc	o off ups eam flow he FWL mponen he level o and will ect as le ect as m ect as le et as le	tream (ves through a C system v t will cause error will ev control at vel will be ismatch wi vel will be	ssel si n ope will "se e FRV ventua a lower lower ill be g lower	de) of the s n EMRV will be" a reduce s to close. A ally overcom er level. The and misma preater	team flow restri Il not be indicat ed steam flow, a As level drops t ne the steam flo erefore: tch will be highe	ctors, ed. Wh and the pelow t pw/feed er	such hen this e feed- he d flow
References to b	e	None				<u></u>		
provided during	exam:							
Learning Objective	10450							

Question Source	Bank		Modified	Bank	New	Х
Question Cognitive Level:	Memory Knowled	or Fundam Ige	ental	Compreh Analysis	ension or	Х
10 CFR Part 55 Content:	55.41	(b) (5)	55.43			

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n #	22												
$\frac{\pi}{2}$ otion Ω	<u>zz</u> utlina Cra	no rofo	rono	~									
	utime cro	Tior #			Cra		<u>+ 0</u>						
		Tier#		f	Grou	ib 4	# 2						
age and		eterenc	e in	format	ion		0 1 00				RO	SH	0
	High Rea	ctor Pre	essu	re		G	12.1.23	3 II F	mportan Rating	ce	3.9	4.0)
perforr	n specific s	system a	and										
ed plant	procedures	s during) diffe	erent									
of plant of	operation.												
on:													
ctor is a	t 100% pov	ver, whe	en th	e follov	ving oc	cui	rs:				·		
Vs close	e on high Tr	runnion	Roo	m temr	peratur	e							
ods rem	ain at their	pre-trar	nsier	nt positi	ons	-							
' pressu	re is 1215 r	osia and	d ste	adv	0110								
vell nres	sure is 17	nsia an	d risi	na									
ther svs	tems onera	ated as		ng									
and byo	terne opere		Слрс										
pressur	e will be re	duced l	эу										
cing BO	TH ICs in s	service,	IAW	SP-11									
ninating	and preve	nting in	jectio	on, IAW	/ SP-1	7							
pening l	MSIVs, IAV	V RPV (Cont	rol – wi	th ATV	vs							
nually o	pening <mark>ALI</mark>	L EMR	/s, I/	W Em	ergend	хy D	Depres	suriza	ation				
R:	B												
			EOP	RPV									
ENCE(S):		Cont with	trol	EOP	Us	er's G	uide	[ref	#3]			
		roct as	hotl		ill ha ir		anvico	/~105		15	<u> </u>		
	B is corre	act act	ermi	natina «	and nr	1 3t 21/0	nting i	\∕100 niecti	on will im	1.U 1me	diately	0911	
	nower to	turn du	e to	decrea	sed inl	eve et s	subcoc	njeun Nina s	and incre	200	dialeiy 1 voidi	uau na	36
ation:	Cisinco	rrect ac	5 MS	IVs car	not he	or a	abool	as a c	steam lin	a hr	eak ha	ing. Is	
	occurred			o our		, ob		u0 a c					
	D is inco	rrect as	s ED	is not r	equire	d							
ces to l	<u>, e is inter</u> be	FOP	s wit	hout er	ntry co	ndit	tions	1					
d durin	a exam:		5 ***	ur of		iun							
<u>a</u>	02257							<u></u>					
9 /e	02201												
n Sour	20	Bank			N/	lod	ified 5	Bank			New		[X]
n Coan	itive	Momo	ny or	Funda	montel		[Y1	Con	nnrehen				
n oogn		Knowle	adrae	i unud	nend			Δna	lveie	SIUI			
Dart 55	Content:	55 4		h)(10)		55	. 12		19313				
	ation O ation O ation O ation O adge and o performed plant of pressure of second result of pressure of plant of plant of pressure of	ation Outline Crossed RO dge and Ability Ray High Read o perform specific sector is at 100% power of plant operation. on: ctor is at 100% power Vs close on high The over the systems operation is at 100% power Vs close on high The over the systems operation is at 100% power Vs close on high The over the systems operation is at 100% power or pressure is 1215 provel pressure is 1215 provel pressure will be reserved in a their of pressure will be reserved in a prevention operation is and prevention operation is an operation in a prevention operation is incomplete to the prevention operation is incomplete to the power to the construction operation is incomplete to the power to the construction operation is incomplete to the power to the construction operation is incomplete to the power to the construction operation is incomplete to the power to the construction operation is incomplete to the power to the construction operation is incomplete to the power to the construction operation is incomplete to the power to the construction operation is incomplete to the power to the construction operation is incomplete to the power to the construction operation is incomplete to the power to the construction operation is incomplete to the power to the construction operation is incomplete to the power to the construction operation is incomplete to the constru	ation Outline Cross-refe RO Tier # adge and Ability Reference High Reactor Pression operform specific system a ad plant procedures during of plant operation. on: ctor is at 100% power, when Vs close on high Trunnion ods remain at their pre-trant pressure is 1215 psig and vell pressure is 17 psig and ther systems operated as pressure will be reduced be cing BOTH ICs in service, minating and preventing in pening MSIVs, IAW RPV (nually opening ALL EMR) R: B ENCE(S): A is incorrect, as b is correct, as t power to turn du C is incorrect, as B is correct, as t power to turn du C is incorrect, as occurred. D is incorrect, as g 02257 ve Bank m Cognitive Memore Knowle Knowle	ation Outline Cross-reference RO Tier # ridge and Ability Reference In High Reactor Pressu o perform specific system and ad plant procedures during difference of plant operation. on: ctor is at 100% power, when th Vs close on high Trunnion Roo ods remain at their pre-transien ' pressure is 1215 psig and ste vell pressure is 17 psig and risi ther systems operated as expe pressure will be reduced by cing BOTH ICs in service, IAW minating and preventing injectio pening MSIVs, IAW RPV Cont nually opening ALL EMRVs, I/ R: B ENCE(S): EOF Cont D is incorrect, as bott B is correct, as termin power to turn due to C is incorrect, as Sott B is correct, as termin power to turn due to C is incorrect, as BOT occurred. D is incorrect, as ED power to turn due to C is incorrect, as ED occurred. D is incorrect, as ED occurred. D is incorrect, as CD occurred. D is incorrect, as CD	on # 22 ation Outline Cross-reference RO Tier # 1 dge and Ability Reference Informat High Reactor Pressure o perform specific system and ad plant procedures during different of plant operation. on: ctor is at 100% power, when the follow Vs close on high Trunnion Room temp ods remain at their pre-transient positi / pressure is 1215 psig and steady vell pressure is 17 psig and rising ther systems operated as expected pressure will be reduced by cing BOTH ICs in service, IAW SP-11 minating and preventing injection, IAW pening MSIVs, IAW RPV Control – wi nually opening ALL EMRVs, IAW Em R: B ENCE(S): EOP RPV Control with ATWS A is incorrect, as both ICs w B is correct, as terminating a power to turn due to decrea C is incorrect, as MSIVs car occurred. D is incorrect, as ED is not r D is incorrect, as ED is not r m Cognitive Memory or Funda	on # 22 ation Outline Cross-reference RO Tier # 1 Ground Group dge and Ability Reference Information High Reactor Pressure Deperform specific system and ed plant procedures during different of plant operation. Pressure Deperform specific system and ed plant procedures during different of plant operation. Pressure Deperform specific system and ed plant procedures during different of plant operation. Pressure Deperform specific system and ed plant procedures during different of plant operation. Pressure is 100% power, when the following octor is at 100% power at the pressure is 1215 psig and steady well pressure is 1215 psig and steady well pressure is 17 psig and rising ther systems operated as expected pressure will be reduced by Control pressure is 17 psig and rising ther systems operated as expected pressure will be reduced by Control Pressure is 1215 psig and rising ther system is 1215 psig and steady ther system operated as expected EOP RPV Control – with ATV nually opening ALL EMRVs, IAW Emergence is is correct, as both ICs will be in B is correct, as terminating and prespower to turn due to decreased in C is incorrect, as	on # 22 ation Outline Cross-reference RO Tier # 1 Group is dge and Ability Reference Information High Reactor Pressure G D perform specific system and ed plant procedures during different of plant operation. G D perform specific system and ed plant procedures during different of plant operation. G D perform specific system and ed plant procedures during different of plant operation. G D perform specific system and ed plant procedures during different of plant operation. G D perform specific system and ed plant procedures during different of plant operation. G D perform specific system and ed plant procedures during different of plant operation. G D perform specific system and ed plant procedures during different of plant operation. G Sector is at 100% power, when the following occur Visit and their pre-transient positions of pressure is 1215 psig and steady well pressure is 17 psig and rising ther systems operated as expected Pressure systems operated as expected pressure will be reduced by Coing BOTH ICs in service, IAW SP-11 Encerce Site is incorrect, as both ICs will be in set is correct, as both ICs will be in set is correct, as terminating and preventing index of the decreased inlet set is incorrect, as SIVs cannot be op occurred. D is incorrect, as ED is not required is incorrect, as ED is not required is i	Im # 22 ation Outline Cross-reference RO Tier # 1 Group # 2 dge and Ability Reference Information High Reactor Pressure G2.1.23 opperform specific system and ed plant procedures during different of plant operation. G2.1.23 opperform specific system and ed plant procedures during different of plant operation. G2.1.23 opperform specific system and ed plant procedures during different of plant operation. G2.1.23 opperform specific system and ed plant procedures during different of plant operation. G2.1.23 opperform specific system and ed plant procedures during different of plant operation. G2.1.23 opperform specific system and ed plant procedures during different of plant operation. G2.1.23 opperform specific system and ed plant procedures during different operation. G2.1.23 opperform specific system and ed plant procedures during different operation. G2.1.23 opperform specific system and eduring examination and preventing injection. Gamma second se	Im # 22 ation Outline Cross-reference RO Tier # 1 Group # 2 dge and Ability Reference Information High Reactor Pressure G2.1.23 It Propertion Specific system and ed plant procedures during different of plant operation. G2.1.23 It Description Specific system and ed plant operation. G2.1.23 It Specific system and eduption and prevention in at their pre-transient positions Yes Yes Specific system and rising There systems operated as expected Specific system and rising Iter systems operated as expected Specific astervice, IAW SP-17	Imit 22 ation Outline Cross-reference Group # 2 dge and Ability Reference Information G2.1.23 Importan Rating operform specific system and ed plant procedures during different of plant operation. G2.1.23 Importan Rating operform specific system and ed plant procedures during different of plant operation. operform specific system and ed plant procedures during different of plant operation. G2.1.23 Importan Rating on: ctor is at 100% power, when the following occurs: visit of the procedures during different of plant operation. operform specific system and ed plant procedures during and steady vell pressure is 17 psig and rising ther systems operated as expected pressure will be reduced by cing BOTH ICs in service, IAW SP-11 minating and preventing injection, IAW SP-17 pening MSIVs, IAW RPV Control – with ATWS nually opening ALL EMRVs, IAW Emergency Depressurization [ref ATWS] Ris incorrect, as both ICs will be in service (>1051 psig > B is correct, as both ICs will be in service (>1051 psig > B is correct, as terminating and preventing injection will in power to turn due to decreased inlet subcooling and increc C is incorrect, as ED is not required Comprehen Analysis g 02257 cincered EOPs without entry conditions [X] g 02257 control Knowledge Comprehen Analysis <td>Imit 22 ation Outline Cross-reference Group # 2 RO Tier # 1 Group # 2 dge and Ability Reference Information G2.1.23 Importance Rating operform specific system and ed plant procedures during different of plant operation. G2.1.23 Importance Rating operform specific system and ed plant procedures during different of plant operation. G2.1.23 Importance Rating on: ctor is at 100% power, when the following occurs: Vs close on high Trunnion Room temperature ods remain at their pre-transient positions Pressure is 1215 psig and steady Veloa steady<td>Imit Imit Imit</td><td>Image: station outline Cross-reference RO Tier # 1 Group # 2 dge and Ability Reference Information RO SF Dependrom specific system and ad plant procedures during different of plant operation. G2.1.23 Importance 3.9 4.0 op perform specific system and ad plant procedures during different of plant operation. G2.1.23 Importance 3.9 4.0 or is at 100% power, when the following occurs: Vs close on high Trunnion Room temperature ods remain at their pre-transient positions / pressure is 1215 psig and steady vell pressure is 17 psig and steady vell pressure so perated as expected Pressure is 17 psig and rising ther systems operated as expected pressure will be reduced by EOP RPV Control – with ATWS EOP User's Guide [ref #3] nually opening ALL EMRVs, IAW Emergency Depressurization EOP User's Guide [ref #3] A is incorrect, as both ICs will be in service (>1051 psig > 1.5 sec.) B is correct, as terminating and preventing injection will immediately cau power to turn due to decreased inlet subcooling and increased voiding. C is incorrect, as ED is not required Comprehension or Analysis et obse EOP swithout entry conditions EOP swithout entry conditions Memory or Fundamental [X] Comprehension or Analysis</td></td>	Imit 22 ation Outline Cross-reference Group # 2 RO Tier # 1 Group # 2 dge and Ability Reference Information G2.1.23 Importance Rating operform specific system and ed plant procedures during different of plant operation. G2.1.23 Importance Rating operform specific system and ed plant procedures during different of plant operation. G2.1.23 Importance Rating on: ctor is at 100% power, when the following occurs: Vs close on high Trunnion Room temperature ods remain at their pre-transient positions Pressure is 1215 psig and steady Veloa steady <td>Imit Imit Imit</td> <td>Image: station outline Cross-reference RO Tier # 1 Group # 2 dge and Ability Reference Information RO SF Dependrom specific system and ad plant procedures during different of plant operation. G2.1.23 Importance 3.9 4.0 op perform specific system and ad plant procedures during different of plant operation. G2.1.23 Importance 3.9 4.0 or is at 100% power, when the following occurs: Vs close on high Trunnion Room temperature ods remain at their pre-transient positions / pressure is 1215 psig and steady vell pressure is 17 psig and steady vell pressure so perated as expected Pressure is 17 psig and rising ther systems operated as expected pressure will be reduced by EOP RPV Control – with ATWS EOP User's Guide [ref #3] nually opening ALL EMRVs, IAW Emergency Depressurization EOP User's Guide [ref #3] A is incorrect, as both ICs will be in service (>1051 psig > 1.5 sec.) B is correct, as terminating and preventing injection will immediately cau power to turn due to decreased inlet subcooling and increased voiding. C is incorrect, as ED is not required Comprehension or Analysis et obse EOP swithout entry conditions EOP swithout entry conditions Memory or Fundamental [X] Comprehension or Analysis</td>	Imit Imit	Image: station outline Cross-reference RO Tier # 1 Group # 2 dge and Ability Reference Information RO SF Dependrom specific system and ad plant procedures during different of plant operation. G2.1.23 Importance 3.9 4.0 op perform specific system and ad plant procedures during different of plant operation. G2.1.23 Importance 3.9 4.0 or is at 100% power, when the following occurs: Vs close on high Trunnion Room temperature ods remain at their pre-transient positions / pressure is 1215 psig and steady vell pressure is 17 psig and steady vell pressure so perated as expected Pressure is 17 psig and rising ther systems operated as expected pressure will be reduced by EOP RPV Control – with ATWS EOP User's Guide [ref #3] nually opening ALL EMRVs, IAW Emergency Depressurization EOP User's Guide [ref #3] A is incorrect, as both ICs will be in service (>1051 psig > 1.5 sec.) B is correct, as terminating and preventing injection will immediately cau power to turn due to decreased inlet subcooling and increased voiding. C is incorrect, as ED is not required Comprehension or Analysis et obse EOP swithout entry conditions EOP swithout entry conditions Memory or Fundamental [X] Comprehension or Analysis

Que	estio	n #	2	3											
Exa	amin	ation	Ou	tline Cr	oss-ref	eren	се								
Lev	/el	RC)		Tier	#	1	Grou	ıp #	2					
Kno	owle	dge a	nd	Ability	Referer	ice l	nformatio	on					RO	SRO	
295	6010			High Di	rywell Pi	ressi	ure		AK	1.03	ln Ra	portance ating	3.2	3.4	
Knc the DR`	owlec follo ^v YWE	lge of wing c LL PF	the on RES	e operati cepts as SSURE:	onal imp they ap	olicat oply t	tions of to HIGH	Ter	nper	atur	e incre	ases			
Que	estio	n:		· · · · · ·											
Give	en th	e follo	wi	ng:											
Whi	• E	f the f	yw ollo	wing is	NOT a	is 14 Ren Viable	i0 deg. F , U0 e mitigatio	and ri	ising ategy	slow v for	/ly lowerin	g Drywell p	oressu	refires /	est Con
Α.	Red	duce F	RB	CCW loa	ads.										
В.	Sta	rt all c	lryv	vell cool	ing fans	•						· · · · · · · · · · · · · · · · · · ·			
C.	Sta	rt the	sec	cond RB	CCW p	ump.	•								
D.	Byp	bass F	BC	CCW iso	lations a	and r	naximize	drywe	ell co	oling	J.				
ANS	SWE	R:	D												
REF	FERE	ENCE	(S)	:	RAP C	-3-f		C-8-h	1						
Explanation: A is addressed in C-3-f B is addressed in C-3-f C is addressed in C-3-f D is an EOP action, and EOPs would not be applicable in this condition															
Ref	eren	ces to	b b	e	No	ne									
pro	vide	d duri	ing	exam:											
Lea Obj	rnin ectiv	g /e	(00446											
Que	estio	n Sol	Irc	e	Bank	ζ		N	lodif	ied	Bank		New	[X]	
Que Lev	estio /el:	n Coç	gni	tive	Mem Knov	ory vled	or Funda ge	ment	al	[X]	Com Anal	prehensio ysis	n or		
10 0	CFR	Part 5	55 (Content	: 55	41	(b) (4)		55.4	13					

Question #	24								
Examination C	utline Cross	-referer	nce						
Level RO		Tier #	1	Grou	р#	2			
Knowledge an	d Ability Ref	erence	Informati	on			1	RO	SRO
295013	High Suppi	ression I	200		AK2	2.01	Importance	3.6	3.7
Knowledge of t	interrolatio	re no botw		1			пашту		
SUPPRESSION			IRF and	' Sur	opres	sion no	ool coolina		
the following:					, p. 00	olon p	501 000 m.g		
Question:									
Given the follow	ving:								
 A plant star RPV pressu Reactor pow EMRV testi Torus coolin Average tor If Torus temperature 	tup following a are is 1020 ps wer is 4% ng is in progra ng is in opera us temperatu ature continu are reaches _	a refueli ig ess tion re is risi es to ris (1)	ng outage ng de	e is in p require grees l	ed to	ess immec immed	liately stop EM iately SCRAM i	RV tes	ting if
temperature real A. (1) 105 (2) 110	aches(2)	degrees	F					
B. (1) 110 (2) 120)								
C. (1) 95 (2) 110)								
D. $\begin{pmatrix} 1 \\ 2 \end{pmatrix}$ 100)								
ANSWER:	A								
REFERENCE(5):	Te Sp 3.4	ech becs 5.A.1.c						
Explanation:	A is correc B is incorre C is incorre D is incorre 120.	t. ect. Scra ect. Norr ect. EMF	im is at 1 nal opera RV testing	10 and ting lin ı can g	RPV nit is o to	/ depre 95, and 105, bu	ssurization at 1 3 scram is 110. 1t RPV depress	20. urizatio	on is
References to provided during	be 1q exam:	None							
Learning Objective	10450	I				I			

Question Source	Bank		Mod	ified	Bank		New	[X]
Question Cognitive Level:	Memory Knowled	or Fundame ge	ental	[X]	Comp Analys	rehensio sis	n or	
10 CFR Part 55 Content:	55.41	(b) (3)	55	5.43				

Question #	25					· · · · · ·		
Examination O	utline Cros	s-referer	nce					
Level RO	•	Tier #	1	Grou	p# 2			
Knowledge and	d Ability Re	ference	Informati	on	· · · · · · · · · · · · · · · · · · ·		RO	SRO
295022	Loss of CF	RD Pump	DS		AK3.01	Importance Rating	3.7	3.9
Knowledge of th responses as th PUMPS:	ne reasons for ley apply to I	or the foll LOSS OF	lowing = CRD	Rea	actor Scram	1		
Question:								
Given the follow	vina:							
 A plant s RPV pre The "A" The "B" A scram is required scram times 	startup is in p ssure is 800 CRD pump t CRD pump v ired(1 s will be	orogress psig rips on o will not st){(2)	overload a art and allowa	nd CA able lim	NNOT be re	estarted		
A. (1) imn (2) with	nediately nin							
B. (1) imn (2) gre	nediately ater than							
C. (1) whe (2) with	en the secon	d accum	ulator ala	rms				
D. (1) whe (2) gre	en the secon ate <mark>r</mark> than	d accum	ulator ala	rms				
ANSWER:	A							
REFERENCE(S	5):	H- R/	7-c AP					
Explanation: A is correct B is incorrect, as the accumulators will ensure all rods will scram within times. C is incorrect, waiting for the second accumulator is correct when RPV pressure is above 850 psig. With accumulator alarms in, scam times m not be within allowable limits D is incorrect, waiting for the second accumulator is correct when RPV pressure is above 850 psig. With accumulator alarms in, scam times m not be within allowable limits								
References to	be	None						
provided durin	g exam:							
Learning Objective	10450							

Question Source	Bank		Modified	Bank	New	[X]
Question Cognitive Level:	Memory Knowled	or Fundame Ige	ental	Comprehe Analysis	ension or	[X]
10 CFR Part 55 Content:	55.41	(b) (10)	55.43			

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Que	estion #		26			· · · · · · · · · · · · · · · · · · ·						
Exa	minatio	n Oi	utline Cro	ss-refe	erer	nce				· · · · ·		
Lev	rei F	10		Tier #	ŧ	1	Grou	p #	2	- <u></u>		
Kno	wledge	and	Ability R	eferen	cel	Informat	ion				RO	SRO
295	029		High Sup Level	opressio	on F	Pool Wate	ər	EK3	.01	Importance Rating	3.5	
Kno resp SUI	owledge oonses a PPRESS	of th as the SION	e reasons ey apply to POOL W	for the HIGH ATER L	foll EV	owing EL:	Em	erger	ncy de	epressurization		
Que	estion:											
Give	en the fo The Dryw RPV RPV and Toru the at is the	plan reac vell p pres leve CRD is lev US l basi	ing: t has expe tor has be pressure is ssure is st el is being vel is 180 i nas ordere s for this c	erienced en scra being eady at maintai nches a d Emei lecision	d a a amn mai t 80 inec and rger	small LO ned intained t 0 psig d betweet rising at ncy Depr	CA Detwee n 138 a approx essuriz	n 4 al and 1 kimate ation	nd 12 75 in. ely 1	2 psig with drywe . with Condensat in. every 3 minut	II spra e/Feed tes	ys dwater
A. B		vent	exceeding				DCA WE		prog	ress to a DBA L		to
<u>р.</u>	To pre-	vent				stresses	the lev			uenchers and s	suppor	is.
U. D	To low		essure as	necess	sary	to allow				Injection system		
	EWED.	vent			ucu	urai uam	age du			evaled water leve		
REI	FERENC	E(S):		EC ba)P ses	TLL o	urve				
Ext	blanatio	n:	A is inco breach b not by a B is the curve. C is inco D is inco above th	orrect. If DBA L correct orrect, a prrect. S	tor ma OC, ans ans Struc	us level o terials we A. swer, bas ve are no ctural dar urve.	cannot ere to c sed upo t in the mage v	be m occur, on the Leve vill oc	ainta the F defir I Res cur o	ined in the PSP PCPL could be e nition of the Toru storation leg of R mly if torus level	and a xceed is Load PV coi is sign	vessel ed, but d Limit ntrol. ificantly
Ref	erences	s to l	be	EOI	Ps v	without e	ntry co	nditio	ns			
pro	vided d	urin	g exam:				-					
Lea Obi	irning iective		03000									

Question Source	Bank		Мос	lified	Bank	New	[X]
Question Cognitive Level:	Memory Knowled	or Fundame Ige	ental	[X]	Compr Analys	ehension or is	
10 CFR Part 55 Content:	55.41	(b) (10)	55	5.43			

Question #	27												
Examination O	utline Cro	ss-refer	ence										
Level RO		Tier #	1	Grou	IP# 2								
Knowledge and	d Ability R	leferenc	e Informat	ion			RO	SRO					
295009	Low Rea	tor Wat	ter Level		AA1.02	Importance Rating	4.0	4.0					
Ability to operate as they apply to	e and/or m Low Read	ionitor the stor Wate	e following er Level:	Re	actor wat	er level control		·					
Question:													
Given the follow	ving:												
 Plant is at point is at point is at point is a feed flow is 3 feed pump Reactor level Master feed "B" feed pump With NO operate 	 Plant is at power Feed flow is 5.5 E6 lbm/hr 3 feed pumps operating Reactor level control is in AUTO Master feedwater level setpoint is 160 in. "B" feed pump trips With NO operator action, feed flow will be 												
A. 5.5 E6 lbm	/hr												
B. 5.34 E6 lbr	n/hr												
C. 4.8 E6 lbm	/hr												
D. 4.46 E6 lbr	n/hr												
ANSWER:	B												
REFERENCE(S	s):	J-8-c	· · · · ·					-					
Explanation:	Explanation: A is incorrect, as feed pumps will go into runout B is correct, flow is limited 2.67 E6 per loop C is incorrect, this is the ROPS actuate setpoint D is incorrect, this is the BOPS bypass setpoint												
References to	be	None	<u>}</u>										
provided durin	g exam:					L							
Learning Objective	10450												
Question Sour	се	Bank		Ν	lodified	Bank	New	[X]					
Question Cogr Level:	nitive	Memor Knowl	ry or Fund edge	lament	al [X]	Comprehension Analysis	on or						
10 CFR Part 55	Content:	55.4	1 (b) (10)		55.43								

Qui	estior	#	28					÷							
Fxa	mina	tion	Outline (Cross-r	efe	rence									
Lev	vel	RO	<u>outilite</u>	Tier	#	2	Gr	oup #	1						
Kn	owled	de a	nd Ability	v Refer	rend	ce Infor	mat	ion					RO	SF	10
205	000	<u></u>	Shutdov	vn Cool	ing			K4	.01	ln Ra	npor ating	tance	3.7		
Knc des for t	wledg ign fea he foll	e of t atures owing	he Shutdo s(s) and/or g:	wn Coo interloc	ling ks v	system vhich pro	ovide	Hi	gh te	emperat	ure i	isolatio	n		
Que	stion:														
Give	en the	follov	wing:												
 "E" Recirculation Loop is in service; all other loops are idle The "C" recirc loop temperature instrument fails upscale Based on the above conditions, which one of the following will occur? 												,			
A. SDC system will isolate on low suction pressure AND running SDC pumps high temperature											s will tri	p or	1		
 B. Running SDC pumps will trip on low suction pressure AND SDC syst low suction pressure 											stem w	ill isola	te o	'n	
C.	SDC isolat	syste	em will isol alve closu	ate on h re	nigh	tempera	ture	AND r	unni	ing SDC) pur	nps wil	l trip or	١	
D.	Runr temp	ning S eratu	SDC pumps re	s will tri	o on	i high ter	nper	ature /	٩ND	SDC sy	yster	n will is	solate c	on hi	igh
ANS	WER:		С												
REF	EREN	CE(S)):	Proc. 3	05,	C-2-d	[re	f #2]				ref #3]			
Ехр	lanatic	on:	A is inc valve cl B is inc pressur C is the isolation D is inc	orrect, s osure. orrect, i e. correct n valve o orrect, r	nlet t ans clos	and outi swer, inle ure.	ies o et va et an ip on	n high Ives w d outle Iow si	tem /ill cl et va	p, pump ose on l lves on on press	os wi high high ure	temp, l temp, l temp,	n isolal NOT lo pumps	w	
Ref dur	erence ing exa	s to b m:	e provideo	Nor	ne		<u>.p on</u>	1011 0		[ref p	prv #	2]			
Lea	rning ective		00401	l .						1					
Qu	estior	n Sol	urce	Bank	(Modi	fied	Bank			New		٢X
Qu Lev	estior /el:	ı Co	gnitive	Mem Knov	ory vlec	or Func Ige	lame	ental	[X]	Com Anal	prel ysis	hensio	n or		
10 Co	CFR F	Part	55	55.	.41	(b) (7)		55	.43	4					

Que	es	tion	#	29		<u> </u>								
Exa	am	inat	tion (Dutline Cr	oss-ref	erend	ce							
Lev	/el		RO		Tier	#	2	Gr	oup #	1				
Kno	٥W	/led	ge ar	d Ability I	Referer	ice İr	nformati	on	•				RO	SRO
207	700	00		Isolation	n Conde	enser	1		K	1.03	In R	nportance ating	3.7	
Kno	ЭW	ledg	e of t	he physica	al conne	ction	s and/or					•		•
cau	ISE	e-effe	ect re	lationships	betwee	en		F	Reacto	or wat	ər leve)		
ISC)L/	ATIC	N C	ONDENSE	R and t	he fo	llowing:							
Que	es	tion												
At v	мh	at R	PV w	ater level i	s the op	perato	or directe	ed to	o clos	e the l	solatio	on Condens	ser DC	isolation
valv	ves	s, <u>ar</u>	d WI	<u>-1Y</u> ?										
_														
A. 160 in., to prevent water hammer of the piping.														
B. 160 in., to prevent automatic isolation.														
C.	1	80 i	n., to	prevent w	ater har	nmer	r of the p	ipin	g.					
D.	1	80 i	n., to	prevent au	utomatio	isola	ation.							
AN	S٧	VER	:	С										
RE	FE	REN	NCE(S):	EOPs			Su	pport	Proce	dure 1	1		
Exp	ola	inati	on:	A is inc for isola B is inc deals w C is cor D is inc pumps	orrect, a ting the orrect, a ith recir rect orrect, a A/E are	as this em. as the c pur as the secu	s is the t e level pe mps A/E e isolatio ired prior	ertai run n or r to	s for r ins to ning il n high initiati	iot initi initiatio ICs a flow p on.	iating on, an re initi precau	ICs above d the high f ated. tion is to er	160 inc Iow iso nsure re	hes, not lation ecirc
Ref	er	enc	es to	be	Nor	ne								
pro	vi	ded	duriı	ng exam:										
Lea Obj	irn jec	ing tive	•	02338										
Que	es	tion	Sou	rce	Bank				Mod	ified E	Bank		New	[X]
Que	es	tion	Cog	nitive	Mem	ory c	or Funda	me	ntal	[X]	Com	prehensio	n or	
Lev	el	•			Knov	vledg	je				Anal	ysis		
10 (CF	R P	art 5	5 Content:	55.	41 🗌	(b) (10)		55	.43 🗌				

······

Que	stion	#	30							1.0.00
Exa	minat	ion O	utline Cro	oss-refe	rence					
Lev	el	RO		Tier #	2	Gro	up # 1			-
Kno	wledg	ge an	d Ability I	Referen	ce Inform	nation			RO	SRO
209	001		Low Pre	essure C	ore Spray	/	K2.03	Importance	2.9	3.1
			System			· · · · ·		Rating		
Kno	wledg	e of e	lectrical p	ower su	oplies to t	he Ini	tiation logic			
	wing:						<u>`</u>			
Que	estion	•								
Give	en the	follow	ving:							
	12		C Panel D	C-D is d	eeneraize	ed due to	a nanel fau	lt		
	• Tv	vo (2)	minutes la	ater, drv	vell press	ure rises	to 3.6 psia			
							to ere pelg			
Bas	ed up	on the	ese conditi	ons, Iso	lation Cor	ndenser	(1)	will isolate A	ND	
Core	e Spra	ay pun	nps	(2)	_ will star	t.				
A.	(1)		01D and N	17010						
	(2)		UTB and P							
В.	(1) (2)	В NZ	01B and N	Z01C						
С.	(1) (2)	A NZ	01A and N	JZ01B						
	(1)	В						· · · •		
<u> </u>	(2)	NZ	01A and N	IZ01B						
ANS	SWER	l:	C							
REF	ERE	NCE(S	<u>s):</u>	RAP 9>	(F-3-d	RAP	В-7-е	_		
			A loss of	of DC-D	will cause	the A Is	olation Con	denser to autom	naticall	y isolate
			on a fal	se high	steam/coi	ndensate	flow signal	due to loss of p	ower t	o the
			isolation	n logic. I	However,	core spr	ay initiation I	ogic is provided	from	both
			DC-D a	nd DC-F	Core sp	oray syste	em I pumps	(NZ01A/C) initia	ation lo	gic is
			normall	y from L	C-D with	a redund	ant logic cir	cuit from DC-F.	Core	spray
			system	Il pump	s (NZ01B	D) initiat	ion logic is r	normally from D	C-⊢ wi	th a
Exp	lanati	ion:	redunda	ant logic	circuit fro	m DC-D	. Therefore,	system I and II	pump	initiation
			logic wi	ll be pov	vered fror	n DC-F,	and the prim	ary main pump	s will s	tart (A
			and B).							
			A is inc	orrect, a	s the bac	kup mair	pump in sy	stem I (NZ01C)	will no	ot start.
			B is inc	orrect, a	s the wro	ng IC isc	lation is give	en, and NZ01C	will not	t start.
			C is cor	rect						
			D is inc	orrect, a	s the wro	ng IC isc	lation is give	en.		
Ref	erenc	es to	be	Nor	ie					
pro	vided	durin	ig exam:							
Lea	rning		02030, 0	0302						
Obj	ective	•								

Question Source	Bank		Modifie	d Bank	New	X
Question Cognitive	Memory Knowled	or Fundamo Ige	ental	Compreh Analysis	nension or	X
10 CFR Part 55 Content:	55.41	(b) (7)	55.43			

Que	estion	#	31										
Exa	minat	ion O	utline Cr	oss-refe	erenc	e							
Lev	rel	RO		Tier #	ŧ (2	2	Grou	р#	1				
Kno	owledg	ge an	d Ability	Referen	ce In	formati	on					RO	SRO
211	000		Standb	y Liquid	Conti	rol Syste	m	K6.	03	lm Ra	portance ating	3.2	3.3
Knc mal	wledg functic	e of th on of th	he effect t he followi	hat a los ng will ha	s or ave o	n the	A.C	Pov	ver				
	etion					.191.							
Whi	ich of t	he fol	lowing 46	OV MCC	s ML	JST have	e pow	ər in	orde	r to inj	ect with SL	C Syst	em 1?
А.	1A	21											
В.	1A	21A											
C.	1A	22											
D.	1A	23											
Α.	1A21												
В.	1A21	A											
C.	1A22												
D.	1A23												
ANS	SWER	:	A										
REF	FEREN	ICE(S	5):	ABN-48	5, att.	5							
A is correct, as the SLC pump 1A and it's squib are powered from 1A21, and SLC pump 1B and it's squib are powered from 1B21. B is incorrect, as 1A21A and 1B21A power Recirc Pump and Core Spray valves ONLY. C is incorrect, as 1A22 and 1B22 power Old Radwaste equipment ONLY. D is incorrect, as 1A23 and 1B23 power Reactor Building and Office											A21, Spray DNLY.		
Ref	erence	es to	be	Nor	ie								
pro	vided	durin	g exam:										
Lea Obj	rning ective		10436	_									
Que	estion	Sour	се	Bank			M	odif	ied E	Bank		New	X
Que Lev	estion el:	Cogr	itive	Mem Know	ory o /ledg	r Funda e	menta	al)	<	Com Anal	prehensio ysis	n or	
10 0	CFR P	art 55	Content	: 55.	41 (b) (7)		55.4	3				

Qu	estion #	32							<u></u>
Exa	mination O	utline Cro	ss-refere	nce					
Lev	rel RO		Tier #	2	Group #	1			
Kn	owledge and	Ability R	eference	Information	on			RO	SRO
212	2000	Reactor	Protection	System	A3.0	06	Importance Rating	4.2	4.2
Abi	lity to monito	r automati	c operatio	n of the	Main tur	oine trip	Plant-Specif	ic	
RE	ACTOR PRC	TECTION	SYSTEM	including:					
Qu	estion:								
The	e plant was o	perating a	t 40% pow	er when th	ne MOISTU	RE SEF	PARATOR HI	-HI ala	rm is
rec	eived and rer	mains in fo	r 15 seco	nds.					
Dec	ad upon this	the read	or will	(4)	a				
bas	ea upon this	, the react	or will <u> </u>	(1)	, and				
uie		response		<u>(2)</u>	<u> </u> ·				
	(1) SCF	RAM							
	(2) Turk	oine Contr	ol Valves	-	CLOSE				11-
	Inte	rcept Valv	es		- (LOSED			Ń
А.	Reh	eat Stop \	/alves		OPEN				\sim
,	Вур	ass Valve	S		- 7	All open	initially; thrott	le clos	ed)to
_(control read	ctor	pressure			_,			
	(1) NO	F SCRAM							/
_	(2) Turk	oine Contr	ol Valves	7	OPEN	/			
в.	Inte	rcept Valv	es (alesa	(- (JPEN			
	Ken	leat Stop \	aives		UPEN				
		ass valves	5		<u> </u>	LUSEL	<u></u>		
	(1) SOF (2) Turk	naine Contr	ol Valvee	_		<u>۲</u>			
-		rcept Valw	es	- (- ()		
C.	Reh	eat Stop \	/alves						
	Byp	ass Valve	S		- A	ll open	initially: thrott	le clos	ed to
	control read	ctor	pressure			• · · · ·	, , , , , , , , , , , , , , , , , , ,		
	(1)NO	SCRAM		en ann ann e e			·····		
_	(2) Turt	oine Contro	ol Valves	-	OPEN-				
D.		rcept Valv	es	2	<u> </u>	PEN			
	Reh	eat Stop \	alves						
		ass valves	<u> </u>		- (LOSED)		
		<u>·</u>							
RE	-ERENCE(S): //		l owitch -	MAP P-1-a			A	ula ira a
		trip from		ar and aba	Cluation Will	cause a	a turbine trip.		Irdine
		Therefor	40% pow		will actu	ate an a	unicipatory so	Jiam.	
		A is inco	o. rrect. as th	ne reheat s	ston valves	also do	se on turhine	trin	
Exr	lanation:	B is inco	rrect. as th	ne reactor	will scram	and the f	Sc on turbine Nurbine will tri	n	
		C is corr	ect					۲	
		D is inco	rrect, as tl	ne reactor	will scram,	and the	reheat stop v	valves	will
		remain o	pen if the	turbine ha	s not trippe	d			
		NOTE: T	his transie	ent happer	ned in 2003				

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References to provided duri	o be ing exam:	None							
Learning Objective	01187								
Question Sou	urce	Bank		Mod	ified	Bank		New	X
Question Cog Level:	gnitive	Memory Knowled	or Fundame Ige	ental	X	Comp Analy	orehen vsis	ision or	
10 CFR Part	55 Content:	55.41	(b) (7)	55	5.43				

Que	estion	#	33										
Exa	minat	ion C	Outline Cr	oss-refe	eren	се							
Lev	el	RO		Tier #	#	2	Grou	р#	1				
Kno	owledg	ge an	d Ability	Referen	ce l	nformat	ion					RO	SRO
215	003		Interme (IRM) S	diate Ra System	ange	Monitor		K6.0)6	Imp Rati	ortance ng	3.2	3.4
Kno	wledg	e of t	he effect t	hat a los	s or					•			
mal	functic	on of t	the followi	ng will h	ave	on the	ΔΡ	ЗМ					
INT	ERME	DIAT	E RANGE	MONIT	OR	(IRM)	,						
SYS	SIEM:												
Que	estion	:											
Give	en the	follow	ving:										
Bos	 A I All Th IRI Be (4) 	olant IRMs e mo M 13 fore l LPR	startup is s are in Ra de switch takes a st RM 13 ca M channe 28M DOW	in progre ange 10 has just ep chan n be byp Is	bee ge to basso	n taken 5 40% ed, LPR	to RUN M strin	g 12-	17 fa	uils to "O'	' as indic	ated or	n all four
Des						<u></u>				g will be	received		
A.			WNSCAL	E alarm	ONL	<u>.Y.</u>							
B .			WNSCAL	E and R		BLOCK	alarms	ONL	Y.				
С.	LPRI	M DO	WNSCAL	E, IRM I	11-11	, and R	OD BLO	DCK a	alarr	ns ONL	Y .		
D.	LPRI		WNSCAL	E, IRM I	<u> - </u>	, ROD E	BLOCK	alarn	ns, a	Ind CHA	NNEL I I	nalf scr	am.
ANS	SWER	:	D				r				·····		
REF	EREN	NCE(S	S):	RAP G	-1-d		RAP	G-4-f			RAP G	-7-f	
Explanation: The candidate must recognize that 40% of Range 10 will cause an IRM HI-HI alarm on IRM 13. Must also determine that LPRM string 12-17 feeds APRM channels 3 and 7 (from Attachment 403-2). This combination will cause LPRM and APRM downscale alarms, Rod Block alarm, as well as a half-scram on System I due to IRM 13 upscale/APRM 3 downscale. Therefore: A is incorrect, as it is only one of four things that occur. B is incorrect, as it is only two of four things that occur. C is incorrect, as it is only three of four things that occur. D is correct. References to be													
pro	vided	durir	ng exam:		RM s	status inf	formati	on					
Ľ			-	_she	et								
Lea Obj	rning ective		10441	$\overline{\ }$			/						

Question Source	Bank		Mod	ified	Bank		New	X
Question Cognitive Level:	Memory Knowled	or Fundame Ige	ental		Com Anal	prehensio ysis	on or	X
10 CFR Part 55 Content:	55.41 (b) (6)			5.43				

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Que	es	tion	#	3	4										
Exa	am	ninat	tion	Ou	Itline Cr	oss-ref	eren	ce			<u></u>				
Lev	/el		RO			Tier	#	2 (Grou	ıp #	1				
Kno	ow	led	ge ai	nd	Ability	Refere	nce Ir	nformatio	n	_				RO	SRO
215	500)4			Source	Range	Moni	toring Sys	tem	K	3.02	ln R	nportance ating	3.4	3.4
Knc mal MO follc	ow Ifu NI	ledg nctio ITOI ving:	e of on of RING	the the S	e effect t e SOUR YSTEM	hat a lo CE RAI will hav	ss or NGE re on	the	Rea	acto	or ma	inual co	ontrol: Plant	: Speci	fic
Que	es	tion	:												
Giv	en	the	follo	wi	ng condi	tions:									
• • Wh	 IRMs in range 1 IRMs and SRMs are full in Which of the following will produce a rod block? 														
A.	1	RM	14 in	dia	cates 3 c	on 125 s	scale								·
В.	1	APR	M 7 i	nd	icates 1	on 150	scale						<u> </u>		
C.	5	SRM	24 i	nd	icates 10	0 cps				_					
D.	5	SRM	21 i	nd	icates 2	E5 cps			·						
	sv	VER		Г)			<u> </u>				<u></u>			<u> </u>
REI	FE	RE		S	:	l	H-7	-a							
Exp	Explanation:A is incorrect, would be true if not in range 1. B is incorrect. would be true if mode switch in RUN. C is incorrect, would be true if detector not full in D is correct.														
Ref	er	enc	es to	b	e	No	ne	·	·					-	
pro	vi	ded	duri	ng	exam:										
Lea Obj	irn jec	ning stive)	(00731, 1	0449									
Que	es	tion	Sou	rc	е	Banl	<		M	od	ified	Bank		New	[X]
Que Lev	es vel	tion :	Cog	ni	tive	Mem Know	iory c wledg	or Fundan ge	nenta	al	[X]	Com Anal	prehensio ysis	n or	
10 0	CF	RP	art 5	5 (Content	: 55.41 (b) (10)			55.43						

Que	estior	n #	35								
Exa	imina	tion C	utline Cro	ss-refer	ence						
Lev	<i>rel</i>	RO		Tier #	2	Grou	i p # 1				
Kno	owled	ge an	d Ability F	leference	e Informat	ion				RO	SRO
215	004		Source F	Range Mo	onitoring S	ystem	A1.01	ln Ra	nportance ating	3.0	3.1
Abil	ity to	predic	t and/or mo	onitor cha	anges in						
para	amete	ers ass	ociated wit	:h		Det	ector po	sition			
ope		I INE S	OURUE RA	ANGE ontrole ir	oludina		•				
	estion	<u>nina</u> 	STOTENIC		iciuulity.						
Dur	ina st	artun	when the r	eactor is	critical SE	RM date	otore ar	, initial	v withdraw		
	(1)	urup,	and SRM	period wi	(2) (2)		as the d	etector	s start mov	ina	1
				F - · · • • · · ·	INITIALLY					g	
								Ξ	1001		
Α.	(1) (2)	all : bec	SRMs are gome longe	greater th er	nan 1 E5 c	ps		ć			
в.	(1) (2)	all : bec	SRMs are gome short	greater th er	nan 1 E5 c	ps					
6	(1)	thre	e IRMs in	each RP	S system i	read 50	% on rar	nge 1			
<u> </u>	(2)	bec	ome longe	er							
D.	(1) (2)	thre bec	ee IRMs in come short	each RP er	S system	read 50	% on rar	nge 1			
ANS	SWEF	}: [D								
REF	ERE	NCE(S	5): I	RAP H-7	-a	[see d	uestion	#34]			
			As SRM	detector	s are initia	lly with	drawn, th	e mov	e into a hig	her flux	area of
			the core	causing	period to b	ecome	shorter.	Period	will becon	ne long	er/go
				only alle	tector with	drawal	is dictate	na me ad by ll	nign nux ai 3M indiceti	rea. on and	neriod
Ехр	lanat	ion:	will initia	liv ao sha	orter	arawar	is dictate	su by n	uw mulcau	on anu	penou
			B. is inco	orrect, de	tector with	drawal	is dictate	ed by II	RM indicati	on	
			C. is inco	orrect, as	period wil	l initiall	y becom	e short	er		
			D is corr	ect	··· .						
Ref	erenc	es to	be a oxemi	None							
hto.	rning	aurin	<u>y exam:</u>								
Obi	ective		10444								
Que	stion	Sour	ce	Bank		M	odified	Bank		New	
Que	stion	Cogr	itive	Memor	y or Fund	ament	al	Com	prehensio	n or	
Lev	el:		-	Knowle	edge			Anal	ysis		1/1
10 0	CFR P	art 55	Content:	55.41	l (b) (7)		55.43				

Que	esti	on #		36										
Exa	ımir	natio	n Ö	utline Cr	oss-ref	eren	се							
Lev	el	F	RO		Tier	ŧ	2	Gro	up #	ŧ <u>1</u>				
Kno	owle	edge	and	d Ability I	Referen	ice li	nformati	on					RO	SRO
215	005			Average Monitor, Monitor	e Power /Local F System	' Rar 'owe 1	ige r Range		A	1.03	In R	nportance ating	3.6	3.6
Abil para AVE MO MO	lity t ame ERA NIT NIT	o pre ters GE OR/l OR \$	edict ass POV _OC SYS	and/or m ociated w VER RAN AL POWI TEM cont	ionitor c ith oper IGE ER RAN trols inc	hang ating IGE Iudin	ges in i the g:	C	ontro	ol rod	block s	status		
Que	esti	on:												
Bas	• • sed (A pla The Read upon	ant s Moc ctor the	startup is i le Switch Power dro above, C driven in I	n progra is in RL ops, cau control F	ess IN Jsing Rods.	APRM 1		WNS	SCAL	E white	e light to ILI	.UMIN	ATE
B.	са	n be	driv	en in the	inward (direc	tion ONL	Y						
c .	ca	n be	driv	en in the	outward	dire	ction ON	ILY.						
D.	ca	n be	driv	en in the	inward		outward	dired	ction	s.				
	SWI	ER:		B										
REI	FER	ENC	E(S		RAP H	-7-a		[see	que	stion	#341			
Exp	olan	atio	n:	B is cor START possible	rect - w UP/REF e effects	ith A FUEL s but	PRM dov a withd withdrav	wnsca raw b v bloc	ale a lock ck wi	ind M is ap Il occ	ode sw plied. / ur for g	/itch not in A/C/D are ir given condit	ncorrec ions	t -other
Ref	ere	nces	to	be	Nor	ne								
pro	vide	ed d	urin	g exam:			···							
Lea Obj	ecti	ig ve		10444										
Que	esti	on S	our	ce	Bank	ζ			Mod	ified	Bank		New	X
Que Lev	estio vel:	on C	ogn	itive	Mem Knov	ory (vled	or Funda ge	amen	ital		Com Ana	nprehensio Iysis	n or	X
10 (CFR	Par	t 55	Content	: 55.	41	(b) (6)		55	.43				

.

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Questio	n #	37								
Examin	ation (Dutline Cr	oss-refe	rence						
Level	RO		Tier #	2	Grou	ıp #	1			
Knowle	dge ar	nd Ability	Referen	ce Inforn	nation				RO	SRO
215005		Averag	e Power	Range		A3.	07	Importance	3.8	3.8
		Monito	r/Local P	ower Rar	nge			Rating		
		Monito	r System							
Ability to	monit	or automa	tic opera	tions of th	he					
AVERA	GE PO	WER RAN	IGE		BE	S sta	itus			
	DR/LO	CAL POW	ER RAN	GE		0 0.0				
MONITO	DR SYS	STEM incl	uding:							
Questio	n:									
Given th	e follo	wing:								
• F	Reactor	r power is	70%							
• T	Total re	circ flow c	n panel 4	4F is 15.0) E4 gpm					
• 7	The rec	irc flow tra	ansmitter	in the "C	" recirc lo	op, w	hich fe	eds the Total R	lecirc I	Flow
i ii	ndicato	or on 4F, fa	ails to 0 (zero)						
Recirc fl	ow on	panel 4F v	will read	(1)	gp	m, r e	sulting	in a <u>(2)</u>	<u> </u>	
Δ (1)	12	.0 E4								
^. (2)	roc	d block								
B (1)	12	.0 E4								
(2)	ha	lf-scram								
c . (1)	13	.5 E4								
(2)	roc	d block								
D . (1)	13	.5 E4								
(2)	ha	lf-scram								
ANSWE	R:	A								
REFER	ENCE(S):	RAP G-	<u>5-f</u>						
		Only 5	of 10 rec	fire flow tr	ransmitter	s tee	d the 4	4F total recirc flo	w indi	cator,
		causing	g indicate	ed flow to	read 80%		nitial flo	$5W(15 \times .8 = 12)$). A 10	1% or
		greater	flow mis	match wi	III cause t	ne fio	w com	parator rod bloc	ck. The	eretore:
F undance	4	A IS CO	rrect	- 41-11	NOT				10	
Explana	ition:		correct, a	s this doe	es NOTre	SUIT	n a fio	w comparator ha	alt scra	am
			correct, a	S 13.5 ⊑4	+ gpm is c	niy a	10% (arop (this would	be co	rect if
			low trans		u ine 4r Lio only o	1001	drop	low indicator)	Trees	ut in a
		flow co	mnarato	S IO.O ⊑4 chalf sors	+ 15 Uniy a	1070	arop,	and this will NO	ritest	nina
Referen	cae to	he		inali SUIZ	w Man 2	12 1	2			
nereren	d duri	NC AVAM.	FUN	61-10-1-10	w wap, 2	JZ ".	<u>د</u>			
Larnin	<u>a aum</u> a	00210					I			
Ohiectiv	9 /P	00219								
		1								

Question Source	Bank		Modified	dified Bank New				
Question Cognitive Level:	Memory Knowled	or Fundame Ige	ental	Com Anal	prehensio ysis	on or	X	
10 CFR Part 55 Content:	55.41	(b) (6)	55.43					

Question #	38									
Examination O	utline Cro	ss-refere	nce							
Level RO		Tier #	2	Grou	p #	1				
Knowledge and	I Ability R	leference	Informati	ion				RO	SRO	
218000	Automat System	ic Depress	surization		K3.	02	Importance Rating	4.5	4.6	
Knowledge of th	e effect th	at a loss o	r							
malfunction of th	AUTON	IATIC	l have on	Abi	lity to	rapidly	y depressurize	the rea	actor	
the following:										
Question:										
Given the follow	ing:									
 A small b Drywell p All autom Drywell s All control RPV wat ADS is b ADS Tim ADS Tim ADS Tim MO other 	preak LOC pressure re prays wer pl rods are er level is eing bypa er A bypa er B bypa cal binding r actions w	A is in pro ose to 4 ps ations occu re initiated fully inser +20 inche ssed IAW ss switch i ss switch o vere taken	gress sig and dryw ted s and stal Level Res has been cannot be	esigne ell pres ble storatic taken f move	d ssure on to BY d fror	e is stat ′PASS n the A	ble at 1.5 psig	lue to		
A. initiate and	ALL 5 EN	/IRVs will c	pen.							
B. initiate but	ONLY C a	nd D EMF	Vs will op	oen.						
C. NOT initiate	e because	it is bypas	ssed.							
D. NOT initiate	e because	drywell pr	essure is	1.5 ps	ig.					
ANSWER: /	4									
REFERENCE(S):	RAP B-1-h	1	RAP	B-2-1	1	RAP B-	5-h		
 Drywell pressure signal for ADS seals in, and BOTH ADS timers must be in bypass in order to prevent ADS auto initiation. Therefore: A is correct B is incorrect, as ADS actuation will open all EMRVs, not just the ones on the North header C is incorrect, because it takes BOTH timers in bypass to inhibit ADS. D is incorrect, because the DW pressure signals to ADS seal in. 										
References to b	be	None								
provided during	g exam:	070								
Objective	10357,00	5379								

Question Source	Bank		Modi	fied	Bank		New	X
Question Cognitive Level:	Memory Knowled	or Fundame Ige	ental		Com Anal	prehensio ysis	on or	X
10 CFR Part 55 Content:	55.41	(b) (7)	55.	43				

Que	estion # 3	9							
Exa	imination Ou	utline Cr	oss-refere	nce					
Lev	el RO		Tier #	2	Grou	 p # 1			Tana
Kno	owledge and	Ability	Reference	Informa	tion	1/0.40		RO	SRO
223	002	Primary System Shut-of	/ Containm i/Nuclear S f	ent Isolat team Sup	on oply	K3.10	Rating	2.9	3.1
Knc mal ISC SUI follo	wledge of the function of th LATION SYS PPLY SHUT- owing:	e effect t e PRIM STEM/NI OFF will	hat a loss o ARY CONT JCLEAR S have on th	or AINMEN TEAM e	T Re	actor wate	r cleanup		
Que	estion:								
Bas	en the followi The plant RPV pres An I&C te RWCU sy RE04A h RWCU pl Filter byp Sed on the ab following acti	ng: t is shuto soure is ech caus ystem is as been ressure ass valv ove, the ions are	down 700 psig ses drywell j olates returned to is 140 psig re V-16-83 i RWCU sys required, ir	pressure service s OPEN stem SHC the stat	transm and dry DULD _ ted seq	itter RE04/ well press (1) uence, to	A to fail upscale ure is 1.2 psig and open V-16-1:	(2))
А. 	(1) have (2) Dep to approxim (1) NOT	e isolate ress DW ately 80 I have is	d / ISOLATIC psig colated	ON RESE	T pushl	outton on 4	IF, and reduce F		
D.	RESET nus	uce RW	on 4F	e io appi	oximate	ela an beld	, and depress D	vv 150	
C.	(1) have (2) Dep pressure iso approximate	e isolate ress DW plation k ely 80 ps	d / ISOLATIC eylock in A sig	N RESE B Battery	T pushl / Room	outton on 4 , and reduc	IF, reset the reduce RWCU press	undant ure to	: high
D.	(1) NO1 (2) Red RESET pus A/B Battery	l have is uce RW hbutton Room	olated CU pressur on 4F, and	re to appr reset the	oximate e redune	ely 80 psig dant high p	, depress DW IS pressure isolatior	OLAT n keylo	ION ock in
AN	SWER: [)							
RE	FERENCE(S)):	RAP D-3-	b	Proce	edure 420	Proced	ure 30	3
Exp	planation:	High p is 130 to caus	ressure iso psig. It take se an isolat	lation set es two (or ion. Ther	point fo ne-out-c efore:	r primary a of-two twice	and redundant is e) high drywell pi	olation	circuits e signals

	A is inco B is inco C is inco D is corre	rrect, as iso rrect, as the rrect, as iso ect	lation should redundant l lation should	d not have high pressi d not have	occurre ure trip occurre	ed. must be re ed.	eset also	·.			
References to provided duri	be ng exam:	None						·			
Learning Objective	00252		· · · · · · · · · · · · · · · · · · ·								
Question Sou	rce	Bank		Modified	Bank		New	X			
Question Cog Level:	nitive	Memory o Knowledg	r Fundame e	ntal	Com Anal	prehensio ysis	on or	X			
10 CFR Part 5	10 CFR Part 55 Content: 55.41 (b) (7) 55.43										

Que	stion	#	40										
Exa	mina	tion O	utline Cr	oss-ref	erenc	e			,				
Lev	el	RO		Tier a	#	2	Grou	<u>p # dr</u>	1			_	
Kno	wled	ge and	Ability	Referen	nce Ir	nformati	on					RO	SRO
223	002		Primary	Contai	nmen	t Isolatic	n	A4.	01	Imp	ortance	3.6	3.5
			System	/Nuclea	r Stea	am Supp	bly			Ra	ling		
A 1- 10			Shut-off										
the o	contro	nanua ol room	ny operat n:	e anu/o	r mor		Va	lve cl	osu	res			
Que	stion	:											
Give	en the	follow	ing:										
•	A plar	nt shut	down is ir	n progre	SS								
•	The d	rywell	is being p	ourged v	with a	ir							
•	I he N	lode S	witch is ir	1 HUN									
If no	war ie	e loet t		182 wh	ich o	f the follo	wina	isola	tion	valvesv	vill close?		
n pe		5 1031 0		102, 11			Jung	13014	uon	VUIVEO	viii 01000.		
Α.	Air S	upply	to DW (V	-28-42,	-43) (ONLY							
В.	DW	Vent/P	urge Valv	/es (V-2	7-1, ·	2, -3, -4) ONL	.Y					
С.	DW	Sump	Valves (V	/-22-28,	-29)	ONLY							
D.	DW	Equipr	nent Drai	n Valve	s V-2	2-1, -2)	ONLY	•					
ANS	SWEF	:	В										
REF	ERE	NCE(S	;):	RAP 10	0F-4-	k	RAP	C-4-	g, Al	BN-48	Inst. pwr 3024.10	restorat	ion
			Loss of	power	to VI	ICC 1B2	will r	esult	in d	eenergiz	ing PAIP	P-2, wł	nich
			causes	"CHRR	MS C	Channel	2" to I	ose p	owe	er. On a	loss of po	wer, al	l vent
			valves	for the c	lrywe	II and to	rus wi	ll isol	ate	on "Toru	s/DW Vei	าt & Pเ	irge HI
_	lonat		rad isol	ation", (כ-4-g	. No othe	er valv	/es a	re ai	tected.	Ineretore	•	
ГЕХР	lanat	ion:	B is the	orrect a	s trie	air supp	ny var	ves a	re n	ot anect	ea.		
			C is inc	orrect a	ans. as the	e sumn v	alves	areı	not a	ffected			
			D is inc	orrect. a	as the	e drain v	alves	are n	ot a	ffected (sump isol	ation v	alve
			isolatio	n on los	s of F	PAIPP pa	anels	is a c	omr	non mis	-conceptio	on.)	
Ref	erenc	es to	be	No	ne	•				1			,
pro	vided	durin	g exam:										
Lea	rning		00394										
Obj	ective				····	<u>.</u>	·						
Que	stion	Sour	ce	Bank	<u>ر</u>			/iodif	ied	Bank		New	[X]
Que	estion	Cogn	itive	Mem	ory c	or Funda	ament	tal		Comp	rehensio	n or	[X]
			0		vied				10		SIS		
10 C	JFK P	art 55	content	: 55	.41	(UT) (a)		- 55.4	43				

Question #	41								
Examination O	utline Cros	s-refere	nce						
Level RO		Tier #	2	Grou	p# 1				
Knowledge and	d Ability Re	ference	Informati	ion				RO	SRO
239002	Relief/Saf	ety Valve	S		K5.02	im Rat	bortance	3.7	3.8
Knowledge of th the following cor RELIEF/SAFET	e operation ncepts as th Y VALVES:	al implica ney apply	ations of to	Saf	ety func	tion of S	RV operat	ion	
Question:									
The Main Steam and to ensure th	n Safety Val nat peak RP	ves are c V pressu	lesigned t re will NC	to mitig)T exce	ate eed	(1) (2)	psig.		
A. (1) a Tu (2) 1,25	urbine Trip v 50	with ATW	'S					, <u>an</u> 18 1	
B. (1) an (2) 1,25	MSIV Closu	re							
C. (1) a Tu (2) 1,37	urbine Trip v 75	with ATW	'S						
D. (1) an M (2) 1,37	MSIV Closu 75	re	<u></u>		·····				
ANSWER:	D								
REFERENCE(S): U	FSAR 5.	2.2.4						
Explanation:	Safety val psig. They from isola turbine by A is incorn limit of 12 B is incorn C is incorn	lves are c y will not tion with pass valv rect, as th rect, as th rect, as th	designed open on a scram fai ves. There his is not a he pressu his is not a	to ensu any pre lure, fa efore: an isola re is th an isola	ire peak ssure tr ilure of ation, ar e steady ation	t pressur ansient e the EMR ad the pre y state pr	e does no except tho Vs, or failu essure is S ressure lin	t excee se resu ure of th SS pres	d 1,375 Ilting ne sure 250 psig
Defenses	D is corre	Ct							
provided during	be g exam:	None							
Learning Objective	00515, 010)28						- n	
Question Source	ce	Bank		M	odified	Bank		New	X
Question Cogn Level:	itive	Memory Knowled	or Funda Ige	amenta	al X	Comp Analy	orehensio sis	n or	
10 CFR Part 55	Content:	55.41	(b) (3)		55.43				

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Given the following:

- The plant is at 100% power and stable
- The feedwater LEVEL TRANSMITTER SELECTOR switch is in AUTO
- The "A" white light is LIT
- The "AUTO" white light is LIT
- The "B" white light is **OUT**
- The "C" amber light is OUT
- GEMAC "A" is indicating 165 inches
- GEMAC "B" is indicating 162 inches
- GEMAC "C" is indicating 164 inches
- Master FW level controller is in AUTO at 165 inches

If GEMAC "A" fails to 140 inches, what reference level will digital feedwater use to control RPV level?

A. 140 inches

- B. 160 inches
- C. 162 inches
- D. 164 inches

Question # 4	2			· · · · · ·			_	
Examination Ou	utline Cros	s-refere	ence					
Level RO		Tier #	2	Grou	p # 1			
Knowledge and	Ability Re	ference	Informat	ion			RO	SRO
259002	Reactor W System	Vater Lev	vel Contro		A1.01	Importance Rating	3.8	3.8
Ability to predict parameters asso REACTOR WAT SYSTEM control	and/or mor ciated with ER LEVEL s including	nitor cha operatir CONTF :	nges in ng the {OL	Rea	actor water	level		
Question:								
Given the followi	ng:							
 The plant The feeds The "A" w The "AUT The "B" w The "C" a GEMAC " GEMAC " GEMAC " Master Finish If GEMAC "A" fait RPV level? 	t is at 100% water LEVE white light is "O" white light white light is amber light "A" is indica "B" is indica "C" is indica W level cor ils to 1 <u>40 in</u>	b power EL TRAN s LIT ght is LI s OUT is OUT ating 165 ating 165 ating 164 htroller is nches, w	and stable SMITTEF 5 inches 2 inches 4 inches 5 in AUTO hat refere	at 165	CTOR swit	ch is in AUTO	e to cor	ntrol
A. 140 inches	···· <u>··</u> ······		<u></u>					
B. 160 inches	<u></u>		·					
C. 162 inches								
D. 164 inches			····_					
ANSWER:					<u> </u>			
REFERENCE(S)): R	AP J-8-0	<u> </u>	418.1				
Explanation:	A is incor therefore B is incor 160 inche C is corre indication D is incor transmitte	rect, as t it is trea rect, as a s ct. since will be u rect. If th ers failed	this level is ted as a B a failure of AUTO is used beca he level se I, C would	s diver AD sig all lev selecter use it i lector take o	gent from B nal el transmitte ed, this will i s the closet were in AUT ver.	and C Gemac ers will result in result in "B" trar to "C" FO and both A a	a defa asmitte and B	ault to r
References to b)e	None	, <u> </u>			<u> </u>		
provided during	y exam:							
Learning Objective	10446							

Question Source	Bank		Modifie	ed Bank	New	X
Question Cognitive Level:	Memory Knowled	or Fundar Ige	nental	Compreh Analysis	ension or	X
10 CFR Part 55 Content:	55.41	(b) (7)	55.43	3		

	suon	# 4	3										
Exa	minat	ion Ou	utline Cr	oss-refe	renc	e :	r						
Lev	el	RO		Tier #		2	Grou	p #	1				
Kno	wledg	je and	Ability I	Reference	ce in	Iformati	on					RO	SRO
261	000		Standby	/ Gas Tre	eatm	ient Sys	tem	K1.0	8	Impo Rati	ortance ng	2.8	3.1
Kno	wledge	e of the	e physica	l connec	tion	s and/o <mark>r</mark>							
caus	se-effe	ect rela	tionships	betweer	n ST	ANDBY	Pro	cess r	adiatio	n mo	nitorina s	sveter	h
GAS	S TRE	ATME	NT SYST	EM and	the			00001	ucian		into ing t	system	I
tollo	wing:							• • • • • • • • • • • • • • • • • • • •					
Que	estion:												
Give	en the	followi	ng:										
Whie (SG Rad	STANI ch ON TS) to	E of th a sub-	AS SELE e followin sequent l els?	ECT swite ng descri nigh alari	ch is ibes m cc	the respondition of	SYS 1	oositio of the TH Re	n Stand actor	oy Ga Buildi	s Treatm ng Ventil	nent Sy ation E	/stem Exhaust
A.	#1 SC	GTS w	ill remain	operatir	ng, a	nd #2 S	GTS w	ill auto	omatic	ally st	art		
В.	B. #1 SGTS will shutdown, then SGTS #1 and #2 will re-initiate												
c . †	#1 SC	GTS w	ill remain	operatin	na. a	nd #2 S	GTS w	ill rem	ain in	stand	by		
D.	#1 SC	GTS w	ill shutdo	wn then	re-in	itiate ar	nd #2 !	SGTS	will re	main	n standh)V	
ANS	WER		:									· · ·	
REF	EREN):	BAP 10	F-1-1	F	Proce	dure 3	330				
Explanation:On an automatic initiation of SGTS, the initiation signals are sealed in. Because of this, subsequent initiation signals will NOT put the SGTS through a re-initiation sequence. Therefore: A is incorrect because system 2 fan will secure after the initial initiation sequence, as long as system 1 fan develops required flow within a 2 to 3 minute time period. B is incorrect, as it will not go through a re-initiation sequence. C is correct									in. S ion 2 to 3				
Refe	erence	es to b	e	None	9 <i></i>	5010 0		go un				oquen	
prov	vided	during	exam:		-								
Leaı Obj∉	rning ective		10445	I					l.				
Que	stion	Sourc	е	Bank			M	odifie	d Ban	k		New	X
Que Leve	stion el:	Cogni	tive	Memo	ry o leda	r Funda e	imenta	tl 🛛	C	ompro	ehensio	n or	X
			Contont	EE A		- (h) (10)	<u> </u>	55.40	1 * 1		<u> </u>		

Question	#	44						·			
Examinati	on O	utline Cro	oss-refe	rence							
Level	RO		Tier #	2		Grou	р#	1			
Knowledg	e and	d Ability F	Reference	ce Info	rmati	on				RO	SRO
261000		Standby	Gas Tre	eatmer	nt Syst	tem	Ā4.	03	Importance Rating	3.0	3.0
Ability to m	nanua	lly operate	e and/or	monito	or in	Ear					
the control	room	n:				- Fai	I				
Question:											
Given the f	follow	ing:									
 A manu The ST All proc NO oth FIVE (5) m SGTS II or 	ual sta AND cedur ler ac inute ifice v	art of Stan BY GAS S e prerequi tions are t s later, SG /alve, V-28	dby Gas SELECT sites ha aken GTS I ori 3-28 will	s Treat switch ve bee fice va be	ment s i is in s n verif lve, V- (2)	Syster SYS II fied ar -28-24	n (SC posi d EF will	GTS) tion -1-9 be	is in progress is taken to the H. (1) and	AND p	osition
A. (1) (2)		DSED DSED		<u></u>							
B. (1) (2)		DSED <u>EN</u>		<u></u> .			<u></u>				
C . (1) (2)	OP CL(EN DSED									
D. (1) (2)	OP OP	EN EN									
ANSWER:		C									
REFEREN	CE(S	5):	Procedu	ire 330)	_					
Explanatio	on:	On SGT as soon valve wi Addition simultar A is inco B is inco C is corr D is inco establis	S start, as flow II OPEN ally, the neously, prrect, be rect prrect, be rect prrect, be	the oriil is esta as soc given but wil ecause ecause	fice va blishe on as f seque l not re V-28 the va the va V-28	Ive for d, will the se ence w esult in -24 wil alve lin -28 ca	the then lecte ll ha SG l be neup	selec close d trai ve SC TS fa open s are be op	eted train will initia e. The opposite t in system flow low GTS and RB HV/ an trip. Therefore backwards pen once system	ally OF rain or v clear AC in s : flow h	PEN, but ifice s. service nas been
Reference	s to	be	Non	e							
provided o	durin	g exam:									
Learning Objective		10445									

Question Source	Bank Mo			lified	Bank	New	X
Question Cognitive	Memory Knowled	or Funda Ige	mental	X	Compreh Analysis	ension or	
10 CFR Part 55 Content:	55.41	(b) (7)	55	5.43			

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and a second and a second and a second and a second and a second a second a second a second a second a second a

Que	stion	#	45									
Exa	minat	tion C	utline Cr	oss-refe	eren	ce						
Leve	el	RO		Tier #	ŧ	2	Grou	р#	1			
Kno	wledg	ge an	d Ability	Referen	ce lı	nformat	ion				RO	SRO
2620	001		A.C. Ele	ectrical [Distri	bution		K1.	01	Importance Rating	3.8	4.3
Knov caus ELE	wledg se-effe CTRI	e of tl ect rel CAL [ne physica ationships DISTRIBU	al conne s betwee TION ar	ction en A. nd th	is and/oi C. e followi	ng:	Em	ergen	cy generators (d	iesel/j	et)
Que	stion	:										2
Give	n the	follov	vina:		·							
• - • / • [The pl At time Bus 10	lant is e T=0 C is re	at 100% seconds, eading 37	power a Annunc 50 volts	nd st iator	teady ⁻ T-3-a, E	BUS 10	C VO	LTS L	O is received		
4160	ea upo OV bre	eaker	1C will trip	ons, ED o at time	'G # '	(2)		at tirr	le	<u>(1)</u> and		
А.	(1) (2)	T=0 T=:	0 seconds 3 seconds	1								
В.	(1) (2)	=T =: Τ=:	3 seconds 3 seconds	5								
C.	(1) (2)	T=: T=	3 seconds 10 second	ls								
D.	(1) (2)	T= T=	10 second 10 second	ls Is								
ANS	WER	:	D									
REF	EREN	NCE(S	S):	RAP T-	3-а		RAP	Т-4-а		[ref #3]		
Exp	lanati	ion:	For low be press breaked fast sta low volt A is inc actions B is inc condition C is inc D is condition	voltage sent for 1 r 1C will rt after 3 tage con orrect, b happen orrect fo on correct, a rrect	(<38 trip. sec oditio in 1 or the as EI	830 volts econds b For lo-lo conds an use the t 0 secon e low vol DG 1 will	s per R before t o voltag d brea imer st ds tage co l not fa	AP T he E le (0 ker 1 arts onditi st sta	-3-a), DG ge volts j C will upon i on, bu	the low voltage ets a fast start sig per RAP T-4-a), trip. Therefore, s receipt of the ala at is correct for 0 il 10 seconds	condit gnal, a the EE since t arm, ar voltag	ion must .nd DG will his is a nd both ne
Refe	erenc	es to	be	Nor	ie							
pro	/ided	durin	ig exam:									
Lea Obje	rning ective)	01086, 0	1087								

.

Question Source	Bank Modified Bank New						New	Х
Question Cognitive Level:	Memory Knowled	or Fundame ge	ental	Х	Comp Analy	orehensio sis	on or	
10 CFR Part 55 Content:	55.41	(b) (7)	55	.43				

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Questic	n #	46		[· · · · · · · · · · · · · · · · · · ·		
Examin	ation	Outline Cr	oss-ref	ere	nce								
Level	RO		Tier	ŧ	2	Grou	р#	1		_			
Knowle	dge al	nd Ability	Referen	ce	Informa	tion				RO	SRO		
262001		A.C. El	ectrical I	Dist	ribution		A2.	01	Importance Rating	3.4	3.6		
Ability to	o (a) pr	edict the ir	npacts o	of th	e followi	ng on							
the A.C.	ELEC	TRICAL D	ISTRIB	JTK	ON; and	(b)							
based o	based on those predictions, use procedures to Turbine/generator trip												
correct, control, or mitigate the consequences of those abnormal conditions or operations:													
those abnormal conditions or operations:													
Questic	on:												
Given th	ne follo	wing:											
• A pla	ant sta	rtup is in p	rogress	W	the intertail	Kx for	ed of	lassi					
• The	main g triggl k	jenerator r	las just i	Jee	n synchr d to tho d	onizea	O The	e gria					
	kor 1 A	aus nave	Deen Si	vite	u io ine /	Auxiliary	r i rai cod"	isionne	ers				
Bree	kor S1	A control	ontrol Sv switch is	"ar	ies die oon-flag	reu-nay rod"	yeu						
Brea	aker S1	B control	switch is	"ro	d-flanne	yeu 4"							
 Dreaker STD control switch is red-liagged Five (5) minutes later, the Main Turbine trips 													
- 1100	(0) 11		, 110 1010			ipo							
Which o	f the fo	llowing de	scribes	the	plant res	sponse,	ANC	what a	ctions are requ	uired?			
A. Rea	actor p nmenc	ower is ste ed.	eady at 2	25%	, and a p	plant sh	utdov	wn IAW	Procedure 203	3 must	be		
B. Rea	actor p	ower is les ed.	ss than 2	25%	, and a p	lant sh	utdov	vn IAW ມຈິ ໂມ ໃ	Procedure 203	3 must	be		
C. Re	actor p	ower is ste	adv at 2	25%) Sind a r	eactor:	(* terar	emusti	pe initiater IAV		-1		
D Re	actor n	ower is les	s than 2	5%	and a r	eactor 9	oran	n must k	pe initiated IAV				
ANSWE				.070	, and a r			muser			- 1.		
REFER	ENCE(<u>s):</u>	Proced	ure	337	ABN-	2						
HEFEHENCE(S): Procedure 337 ABN-2 A turbine trip under these conditions will result in a loss of 4160V buses 1/A and 1C, because S1B will NOT fast transfer due to a failure to reset the breaker (by leaving the switch in the red-flagged position.) Two recirc pumps will trip, requiring a reactor scram for multiple recirc pump trips IAW ABN-2. Therefore: Explanation: A in incorrect, an power will drep due to the lase of 0 regime pumps.										ses 1A the c os IAW			
		B is inc	orrect, a	is a	normal	plant sh	utdo	wn is N	OT appropriate)			
		C is inc	orrect, a	ıs p	ower will	drop d	ue to	the los	s of 2 recirc pu	mps			
		D is co	rrect	-		•			·	-			
Referen	ces to	be	Nor	ie									
provide	d duri	ng exam:											
Learnin Objectiv	g /e	10445											

Question Source	Bank		Mod	ified	Bank	New	X	
Question Cognitive Level:	Memory Knowled	or Fundan ge	nental		Compreh Analysis	ension or	X	
10 CFR Part 55 Content:	55.41	(b) (6)	55	i.43				

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Question #	4/									
Examination O	utilne Cros	s-reteren		Crow	n#1					
Level RU				Grou	p # [[DO	EPC		
Knowledge and	ADIIITY RE	terence	Informatic	<u>on</u>	10.01	Immentence	RU	SAL		
262002	(A.C./D.C.)	wer Supply	у 	A2.01	Rating	2.6	2.8		
Ability to (a) pre	dict the impa	acts of th	e following	g on						
the UNINTERRI	JPTABLE P	OWER S	SUPPLY							
(A.C./D.C.); and	(b) based o	on those	predictions	S,	Under voltage					
use procedures	to correct, c	control, of	r mitigate t	ne	Chaor Vollage					
consequences c	or mose abri	normal conditions of								
Ouestion:										
Degraded achlin	a from V/MC				uto Tranofo	r Switch has ro	aultod	in the		
following voltage	a supplied t	to the sw	ute vaor itch:		ulo mansie	Switch has les	suiteu			
ionowing vonage	es supplieu i		non.							
• VMCC 142	nower sunn!	v is 460 '	VAC							
 VMCC 1R2 	nower suppl	y is 250 '	VAC							
	pomor auppr	y 10 200								
Based upon the	above, the '	VACP-1	PWR XFF	R ala	rm on 9XF	will be (1))	, and		
we can continue	e operating v	vith this of	condition fo	or up f	o (2)) before a	plant	,		
shutdown is rea	uired.					<i>50.0.0</i> u	10.00114			
. (1) LIT		<u>_</u>								
A. (2) 7 da	ays									
B (1) LIT			·····							
D (2) 96 I	nours									
c (1) EX	FINGUISHE	D								
(2) 7 da	ays									
D (1) EX	TINGUISHE	D								
(2) 96	nours									
ANSWER:	B									
REFERENCE(S	6): R/	AP 9XF-	3-c							
	Normal po	wer sup	ply to VAC	P-1 A	TS is VMC	C 1B2. The swi	tch will	lauto		
	transfer at	: 70% sei	nsed voltag	ge (46	50 V X .7 =	322 VAC), there	etore, t	ne AT		
	will switch	to the al	ternate sol	urce,		. whenever the	SWITCH	I IS		
	aligned to		A2, the VA		PVVH XFt	-H alarm is rece	ived. I	ne		
Evolonction	normal po	wer supp	by must be	e resto	pred and Sr	Inted back to VI		02 .in +h -		
		iours, or		n snai		i in cola shutaov	vri witr	iin the		
		urs. Inis	dovo io lor	1-11(bon OG her					
	R is incorr	eci, as /	uays is 101	ngert	11a11 90 110L	113				
	C is incorr	u Vant dua t	o alarm no	nt in e	nd longer t	han 96 houre				
	Disincorr	ect due t	o alarm no	ot in	na ionger t	10018				
References to		None						·		
provided durin	a exam.									
Learning	01085	1				·				
Objective	01000									
							_	_		

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Question Source	Bank		Mod	lified	Bank	New	X
Question Cognitive Level:	Memory Knowled	or Fundar Ige	nental		Compreh Analysis	ension or	X
10 CFR Part 55 Content:	55.41	(b) (7)	5	5.43			

Que	stion #	48			·									
Exa	mination	Outline C	ross-refere	ence										
Leve	el <u>R</u>	0	Tier #	2	Grou	o # 1								
Kno	wledge	and Ability	Reference	Informat	tion				RO	SR				
2630)00	D.C. E	lectrical Dis	stribution		K4.02	Im <u>r</u> Rat	bortance	3.1	3.5				
Knov	wledge c	f D.C. ELE	CTRICAL	_	Bros	kor inte	rlocks r	hermissive	s hvn	955A				
DIST	FRIBUTI	ON design	feature(s) a	Ind/or	and	cross ti	es		.o, b)p					
inter	locks wh	ich provide	for the follo	owing:				<u> </u>						
Que	stion:			<u> </u>										
Give	n the fol	lowing:												
• 7	The plant	t is at 100%	power											
• E	3oth RW	CU pumps	are in servi	ce due to	high sul	fates								
• 4	A total los	ss of DC Di	stribution C	enter C (E	DC-C) od	curs								
The	RWCU S	System will												
		<u></u>		·										
A.	isolate,	and RWCU	pump A wi	ll trip										
B .	isolate,	and RWCU	pump B wi	ill trip										
C .	NOT isc	late, and R	nd RWCU pump A will trip											
ח	NOT isc	late and B	WCU num	B will trin)		— . <u></u> ——							
	WED.													
ANG		D	OPS 302	<u>/ 10c</u>	T									
REF	ERENC	E(S):	section 4	3										
		Onal	oss of DC-0	C all BWC		s will is	olate du	e to isolati	on logi	<u>с</u>				
		actuat	ion on loss	of DC-F (f	fed from	DC-C)	but brea	aker contra	ol now	er for				
		the BV		A comes	from DC	-C. so I	RWCUp	ump A bre	eaker o	anno				
		trio, B	WCU pumr	B will trin	, as its t	oreaker	control r	ower is D	C-B.					
		There	fore:		,		r							
Exp	lanation	: A is in	correct, as	RWCU pu	ump A ha	as no br	eaker co	ontrol pow	er					
		B is co	orrect	1	1			1						
		C is in	correct. as	RWCU iso	olates or	n low flo	w and h	igh NRHX	outlet	tem				
		signal	s due to los	s of DC-F	power.	and pur	np will n	ot trip		· · r				
		D is in	correct. as	RWCU is	olates o	n low flo	w and h	iah NRHX	outlet	temr				
		signal	s due to los	s of DC-F	power			J		- r				
Refe	erences	to be	None											
prov	vided du	ring exam:	:											
Lea	rnina	01127	10445											
	activa													
Obie	JOUYC						B							
Obje Que	stion Sc	ource	Bank	[(M	odified	Bank (New					
Obje Que	stion Sc	ource	Bank		M lamenta	odified	Bank Comr	rehensio	New					
Obje Que Que	stion Sc stion Co	ource ognitive	Bank Memor	y or Fund	amenta	odified	Comp Analy	prehensio	New n or					

Que	stion	#	49	<u> </u>		······				
Exa	minat	ion O	utline Cro	ss-refe	rence	··				
Leve	el	RO		Tier #	2	Grou	p # 1			······
Kno	wledg	ge an	d Ability R	eferenc	ce Information	tion	4		RO	SRO
2630	000		D.C. Elec	ctrical D	istribution		A3.01	Importance Rating	3.2	3.3
Abili ELE	ty to r CTRI	nonito CAL E	or automatic	c operat ION inc	tions of the luding:	D.C.	Meters, indicatin	dials, recorders, a g lights	alarms	, and
Que	stion	:								
The 8F/9 • L • L	C1 Ba F indi Line 1 Line 2	attery cate a (+) la (-) lai	Charger is as follows: mp is EXTI mp is BRIG	in servi NGUIS HTLY L	ce, and the HED .IT	"C" ba	ttery grou	nd indicating light	s on F	Panel
This C1 E	indica Battery	ates a / Cha	ground on rger will be	((<u>1)</u> , a 2) fo	nd the ' r these	GROUNE	DETECTED" re 3.	d light	on the
А.	(1) (2)	Lin LIT	e 1 (+)							
В.	(1) (2)	Lin LIT	e 2 (-)							
С.	(1) (2)	Lin EX	e 1 (+) TINGUISHI	ED						
D.	(1) (2)	Lin EX	e 2 (-) TINGUISHI	ED						
ANS	WER	: 1	C						<u> </u>	
REF	EREN	ICE(S	5): F	RAP U-4	4-f, pg. 2					
Exp	lanati	on:	When a lindicates ground p correspo the groun indicating the probl A is inco B is inco light will C is corre D is inco	oattery (that lin otential ndingly nd on th g lights ; em. The rrect, as rrect, as NOT be ect rrect, as	ground indi e's voltage l (complete burn bright are other line are ON whe erefore: s the ground s the wrong e lit s the wrong	cating I potenti y out). er, since Norm en there d detec line gro	ight goes al is appro The other e it's over al configu e is no pro ted light w bund is giv	dimmer or compli- baching (dimmer) line's indicating li- ration for the batt blem, and go OL rill NOT be lit ven, and the grou	etely c or is a ight wi isen d ery ch IT to ir nd del	out, that at ll ue to arger ndicate
Refe	erence	es to	be	Non	e	¥				
prov	<u>/ided</u>	durin	g exam:							
Leai Obje	rning ective		10446							

 $\overline{\ }$
Question Source	Bank		Mod	ified	Bank		New	X
Question Cognitive Level:	Memory of Knowledge	or Fundam ge	nental		Com Analy	prehensio /sis	on or	X
10 CFR Part 55 Content:	55.41	(b) (7)	55	.43				

Question # 5	50							
Examination Ou	utline Cross	-referen	nce					
Level RO	1	fier #	2	Grou	p# 1			
Knowledge and	Ability Ref	erence	Informati	on			RO	SRO
264000	Emergency (Diesel/Jet)	/ Genera)	ators		K3.01	Importance Rating	4.2	4.4
Knowledge of the malfunction of th GENERATORS the following:	e effect that e EMERGEI (DIESEL/JE	a loss o NCY T) will h	r ave on	Em	ergency co	ore cooling syste	ms	• • • • •
Question:								
Given the followi Drywell p Breaker S One (1) r Cooling W All other If no operator ac system and the B NZ01A and NZ0 A. trip due to B B. trip due to B C. run until die	ng: ressure is 3 S1A failed to ninute later, Vater Tempe equipment o tion is taken EDG? 3A will EDG trip on I EDG trip on I sel failure ou	.5 psig a close w the #1 E erature H perates , which o Hi Temp Hi Temp ccurs A	and rising then the M EDG Cooli High cond as design of the follo of the follo AND NZ AND NZ	Aain G ing Wa ition ned owing e 01C wi 01C wi 01C will a	enerator tr ter Pump explains th Il automat ill NOT au utomatical	ipped fails, causing an e response of th ically start tomatically start lly start	Engin e Core	e e Spray
D. run until die	sel failure o	ccurs, A	ND NZ01	C will I	IOT autor	natically start		
ANSWER: (
Explanation:): RA #1 EDG wi Temperatu 1C will dee automatica will NOT st A is incorre B is incorre C is correc D is incorre	<u>AP T-4-b</u> III fast st ure (ET) energize ally start tart due ect, as th ect, as th ect, as th ect, as N	art under trips are b , and the l when sys to interloc ne EDG w ne EDG w	these o bypass backup tem 1 k. The ill NOT ill NOT	conditions ed. When o CS main pressure c refore: trip on E ⁻ trip on E ⁻	 due to UV. Ther #1 EDG eventua pump (NZ01C) v trops below 100	efore, Illy fail will psig. I	Engine s, bus NZ03C
References to h		None		SIGH				
provided during	a exam:	110116						
Learning Objective	00303				L			

Question Source	Bank		Modified	Bank	New	[X]
Question Cognitive Level:	Memory Knowled	or Fundame Ige	ental	Compre Analysis	hension or	[X]
10 CFR Part 55 Content:	55.41	(b) (7)	55.43			

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Qu	iestio	n #	51										
Ex	amin	ation	Outline C	ross-ref	ierei	nce							
Le	vel	RO		Tier #	2	G	roup	# 1					
Kn	owle	dge a	and Ability	Referen	nce	Information	tion					RO	SRO
300	0000		Instrume	ent Air		-		G 2.1.	.23	Impo Ratin	rtance g	3.9	
Abi pla ope	ility to nt pro eratior	perfor cedure	rm specific es during di	system ar ifferent m	nd in odes	tegrated s of plant							
Que	estion	:											
• • • • • • • • • • • • • • • • • • •	The r 1-1 a 1-2 a 1-3 a A los Servi sed or Con Isola	e tolion ir com ir com ir com s of U: ce Air n the a firm C firm C	r is operatin pressor is t pressor is t pressor is a SS 1A1 occ pressure lo above condi DNLY 1-2 cc -2 and 1-3 /ers, pre-filt	ig at 100% he LEAD he LAG c available curs owers to 7 itions, what ompresso compress ers and p	% po comp 78 ps at ac or is r sors a	wer pressor sig ction is rec running IA are runnin filters IAW	quirec W Al g IAV M-3	1? 3N 35 V ABI -b, R(5, Loss N 35, CVR 2	s of In Loss	strumer of Instru T AIR f	nt Air Iment A PRESS	Nir.
D.	Veri	fy Ser	vice Air Val	ve, V-6S-	-2, is	isolated	AW I	M-2-b	, svc		JISCH	VLV CI	OSED
	SWER		В				26	MOL	NA 77	h	[rof #0]		
Exp	olanati	ion:	A is inco B is the C is inco D is inco	orrect, 1-2 correct ar prrect, pre prrect, pre	2 & 1 nswe essur	-3 are req er, IAW At re not low re not low	uired 3N-35 enou enou	to be 5. Igh fo Igh fo	r this	ing. action action	#21		
dur	ring ex	am:				<u> </u>					·]		
Lea Obj	arning jective		10453										
Qu	iestio	n So	urce	Bank			Мо	dified	Ban	ĸ		New	[X]
Qu Lev	iestio vel:	on Co	gnitive	Memor Knowle	y or edge	Fundame	ental		Co Ar	ompre nalysi	hensio s	on or	[X]
10 Co	CFR ntent	Part :	55	55.41	(b) (10)	5	5.43					

												3		
Qu	estior	n # 5	52											
Exa	amina	tion C	Dutline C	ross-refe	erence			- -						
Lev	/el	RO		Tier #	2	Gro	up #	1		_				
Kno	owled	lge an	d Ability	Referen	ce Inforr	natic	<u>n</u>		-			RO	SRC)
3000	000		Instrume	ent Air			K5	5.01		Impo Rati	ortance ng	2.5		
Kno	wledg	e of th	e operatic	onal implica	tions of th	he		_						
follo	wing o	concep	its as				Air	· Co	mpre	essors	;			
they	/ apply	to the	Instrume	nt Air:									_	_
Que	stion:													
Give	en the	followi	ng:											
•^	#3 air	compre	essor is o	ut of servic	e.									
6.	#1 air	compre	essor trips	6										
¥,v	#2 air	compr	essor doe	s NOT sta	rt.									
۰Ý	Instru	ment A	ir pressur	e is 52 psig	g and low	ering								
•	NO cc	ontrol ro	ods have i	moved.										
Bas	ed on	the ab	ove condi	tions, what	t action is	requi	red?							_
Α.	Scra	m the r	eactor im	mediately	AW ABN	-35, L	oss (of In	strun	nent A	Air			
В.	Pres	s the R	emote St	art switch f	or #1 air c	compi	resso	or IA	W al	arm r	esponse	M-5-a		
С.	Scra	m the r	eactor aft	er two or n	nore rods	move	in I/	W.	ABN-	-35, L	oss of In	strume	nt Air	
D.	Pres	s the R	emote St	art switch f	or #2 air o	compi	esso	or IA	W al	arm re	esponse	M-5-b		
ANS	WER:	A		······································							·			
REF	EREN	CE(S):		ABN-35		[ref #	<i>‡</i> 2]				[ref #3]			
Exp	lanatic	on:	A is the B is inco C is inco D is inco	correct ans prrect, Rem prrect, do n prrect, Rem	swer IAW lote Start ot wait for lote Start	ABN- switcl r rods switc	·35, i h is r to di h is r	nst. Iot u rift. Iot u	Air < used	: 55 p under under	sig. these co these co	ondition	าร.	
Refe	erence	s to be	provided	None					[re	ef prv	#2]			
duri	ng exa	im:			· · · · · · · · · · · · · · · · · · ·									
Leai Obje	rning ective		10450	······································										
Que	estior	n Sour	'ce	Bank			Nodi	fied	Ban	1 k []	X]	New		
Que Lev	estior /el:	n Cogi	nitive	Memory Knowled	or Funda Ige	amen	tal	[X]	C A	ompr nalys	ehensio is	n or		
10 (Cor	CFR F	Part 5	5	55.41	(b) (10)		55.	43						

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Question #	52								
Examination	Outline C	ross-refe	erence						
Level RO		Tier #	2	Group	# 1				
Knowledge a	nd Ability	Referen	ce Infor	mation				RO	SRO
300000	Instrume	nt Air			<5.01	Imp Rati	ortance na	2.5	
Knowledge of t following conce they apply to th	he operation epts as le Instrumer	nal implica	ations of t	he /	Air Co	mpressors	6	<u> </u>	1
Question:									
Given the follow #1-3 air cor #1-1 air cor #1-2 air cor Instrument NO control Based on the a A. Scram the B. Press the	ving: npressor is npressor trip npressor do Air pressure rods have n bove condit reactor imr Remote Sta	out of ser os bes NOT s is 52 psi noved. ions, wha nediately art switch	vice. g and low and low t action is IAW ABN for #1-1 a	ering required -35, Loss ir compre	l? s of In essor	strument /	Air n respons	se M-5-	<u>a</u>
C. Scram the	reactor after	er two or r	nore rods	move in	IAW	ABN-35, L	oss of In	strume	nt Air
D. Press the	Remote Sta	irt switch	for #1-2 a	ir compre	essor	IAW alarm	n respons	e M-5-	b
ANSWER:	A			T (101			1. (
Explanation:	A is the c B is inco C is inco D is inco	vorrect an rrect, Ren rrect, do r rrect, Ren	swer IAW note Start not wait fo note Start	ABN-35 switch is r rods to switch is	, inst. not u drift. s not u	Air < 55 p ised under ised under	[ret #3] sig. r these co r these co	onditior	าร.
References to b during exam:	e provided	None				[ref prv	#2]		
Learning Objective	10450								
Question Sou	ırce	Bank		Мо	dified	Bank [X]	New	
Question Cog Level:	gnitive	Memory Knowle	or Fund dge	amental	[X]	Compr Analys	ehensio is	n or	
10 CFR Part & Content:	55	55.41	(b) (10)	5	5.43				

Que	estic	n#	5	3			<u></u>				<u> </u>			
Exa	amin	ation	0	utline (Cross-	refe	rence							
Lev	vel	RO)		Tier	#	2	Grou	i p # 1					
Kno	owle	edge a	ano	d Abilit	y Refe	reno	ce Infor	matio	n				RO	SRO
400	000			Compo	nent Co	oling	g Water		G 2.4	.4	Impo	rtance	4.0	
			Ļ	System					<u> </u>		Ratin	g	<u> </u>	
Abil	ity to	recog	gniz	ze abnor	mal ind	icati	ons for s	ystem						
ope	raung	y para	am	arganev	and ah	norr	y-level nal onora	atina						
prod	cedui	res	GIII	ergency	and up	non	nai opere	ang						
Que	stion	 1:						<u> </u>						
The	plan	it is op	pera	ating at i	rated po	wer	when the	e follov	ving oc	curs:				
[•	•		2	•				-					
•	The	TBCC	W	"DISCH	PRESS	S LO	" alarm a	ictuate	S.					
•	The	TBCC	W	"SURGE	E TANK	LVL	_ HI/LO" a	annung	ciator al	larms				
•		BCCW	V p	umps ar	e runnir	ng.	• • •							
•	TBC	CW st	urg	e tank le	evel is c	onfir	med to b	e low						
W/b	at act	tion ie	r۵	nuired?										
	arac	101115	100	quireu :										
Α.	Scr	am the	e re	eactor a	nd exec	ute	ABN-1, F	Reactor	Scram	1				
В.	Cor	nmen	ce	a norma	l plant s	shut	down IAV	V proc	edure 2	03, P	lant Sh	nutdown		
C.	Per	form a	a ra	ipid pow	er redu	ctior	IAW pro	ocedure	e 202.1	, Pow	er Ope	erations		
n	Max	kimize	TE	BCCW fl	ow IAW	pro	cedure 3	809.1, 7	urbine	Build	ling Clo	osed Co	oling W	/ater
<u> </u>	Sys	tem												
ANS	WEF	<u>};</u>	<u>A</u>											
	ERE	NCE(S	<u>;):</u> T	A in the	ABN-2	0		RAP	Q-1-t			[ref #3]		
!_		_		A is the B is inco	orrect a	answ Scrai	m is requi	red						
Exp	lanat	ion:		C is inco	prrect, th	is ac	tion would	d be for	reduced	d cool	ing cap	ability.		
L				D is inco	orrect, th	is ac	tion would	d be for	reduced	l cool	ing cap	ability.		
Refe	erenc	es to	be	provideo	I No	ne				[r	ef prv #	#2]		
auri	ng e	(am:		0450										
Obje	ective)		10450										
Que	estic	on So	ur	ce	Bank	(N	lodified	d Bar	nk [X	[]	New	
Qu	estic	on Co	gn	itive	Mem	ory	or Fund	ament	al [X]	C	ompre	hensio	n or	
Lev	vel:	_	-		Knov	vied	lge			A	nalysi	S		
10	CFR	Part	55			44	(1-) (10)		EE 40	T				<u> </u>
Co	nten	t:			55.	41	(01) (0)		35.43					

Qu	estio	n #	54						_	
Exa	amina	ation	Outline (Cross-re	eference					
Lev	<u>/el</u>	RO		Tier #	2	Grou	p # 2			
Kne	owled	dge a	nd Abilit	y Refere	ence Info	rmatio	<u>1</u>		RO	SRO
2010	001		Control System	Rod Driv	ve Hydrauli	с	A1.06	Importance Rating	3.4	3.4
Abil para Roc	lity to amete d Drive	predic rs ass e Hydr	t and/or m ociated w aulic Syst	ionitor ch ith opera em contr	anges in ting the Co ols includir	ontrol ng:	HCU pre	ssure/level		
Que	estion:									
Give	en the	follov	/ing:							
• • Bas	React Alarm The lo	tor Pov 1 H-8-c bcal te	wer is 100 c, ACCUM st switch i bove, the	% ULATOF s depres alarm is (PRESS L sed for HC	.O/LEVE 2U 38-15 (1)	EL HI, com and the li	es in for HCU 38 ght remains ON	-15	
rod	scram	n time	will be	(2)						
Α.	(1) (2)	low slov	pressure wer							
В.	(1) (2)	hig slo	h water le wer	vel						
C.	(1) (2)	low the	pressure same							
D.	(1) (2)	hig the	h water le same	vel						
ANS	SWER:		A							
REF	EREN	ICE(S)	:	RAP H-8	B-c	[ref #	2]	[ref #3]		
Exp	lanatio	on:	If the lig due to I slower. A is the be slow B is inc C is inc D is inc	ow press correct a ver. orrect, it orrect, so orrect, it	out the ala sure. With I answer, CF is not due cram time v is not due	rm is du ower ac RD scrai to high l will be sl to high l	e to high k cumulator n pressure evel. ower. evel. and s	evel, if the light s pressure, scram e will be lower, sc scram time will be	tays of times cram ti e slow	n it is will be me will er
Refe	erence	s to b	e providec	I None	Э			[ref prv #2]		
duri	ng exa	am:			·					
Leai Obje	rning ective		02419, 1	0449						

Question Source	Bank		Mod	lified	Bank	[X]	New	
Question Cognitive Level:	Memory Knowled	or Fundamo Ige	ental		Com Anal	prehen ysis	ision or	[X]
10 CFR Part 55 Content:	55.41	(b) (6)	55	5.43				

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Qu	esti	ion #	55										
Exa	ami	nation	Outline	Cro	oss-ref	eren	се						
Lev	/el	RO			Tier #	2	Gr	oup	# 2				
Kno	owl	edge a	nd Abil	ity F	Referen	ice l	nformat	ion				RO	SRO
2020	001		Recirc	ulati	ion Syst	em		A	4.01	Imp Rati	ortance ng	3.7	-
Abil con	ity t trol	o manu room	ally oper	ate a	and/or m	onito	or in the	F	ecirc	pumps			
Que	estic	on:											
Give	en t Dur	ing pow	wing: er opera	tion,	the 'A' i	recirc	pump is	trippe	ed du	e to high v	vibration	valvo	
•	The	e 'A' rec	rc pump	disc	harge va	alve v	will NOT (close		e hauth a	sonarye	Vaive	
Wha	at is	the NE	XT requi	red a	action?							-	
Α.	Im	mediate	ely comm	ence	e a norm	nal pl	ant shutd	lown					
В.	CI	ose the	discharg	e va	lve from	its N	<u>//CC</u>						
С.	CI	ose the	pump su	ctior	n valve f	rom	Panel 3F						
D.	CI	ose the	pump di	scha	rge bypa	ass v	alve from	n Pan	el 3F				
ANS	SWE	R:	С										
REF	ER	ENCE(S):		BN-2		[re	f #2]			[ref #3]		
Exp	lana	ation:	A is in B is ir C is th D is ir	ncorr ncorr ne co ncorr	ect, plar ect, not prrect ar rect, clos	perfo swei se su	ormed un r, shut su iction valv	til suc ction e fro	uired tion v valve m par	yet. /alve is clo is next ac nel 3F is n	osed. ction IAW	/ ABN-: n.	2.
Refe duri	erer ing (ices to l exam:	e provid	ed	None					[ref prv	#2]		
Lea Obj	rnin ecti	ig ve	10450										
Qu	est	<u>ion So</u>	urce		Bank			Мос	lified	Bank [X]	New	
Qu Lev	est /el:	ion Co	gnitive		Memory Knowle	/ or l dge	Fundame	ental	[X]	Comp Analys	rehensio sis	n or	
10 Coi	CFI nte	R Part nt:	55		55.41	(b)	(10)	5	5.43	•			·

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Qu	estion #	56								
Exa	amination	Outline C	ross-re	ference						
Lev	vel RO		Tier #	2	Gro	<u># qı</u>	2	<u> </u>		
Kn	owledge a	nd Ability	Refere	ence Infor	matio	n			RO	SRO
202	002	Recircula	ation Flo	w Control		K6.	.01	Importance Rating	2.8	
Kno	wledge of t	he effect the	at a loss	or malfun	ction	+			1,,	L
of t	he following	will have o	n the Re	ecirculation	Flow	A.C	C. pov	ver		
Cor	ntrol System	n:								
Que	estion:									
Giv	en the follow	wing conditi	ons:							
	Distin		00/							
!	Plant is ope	erating at 10	JU% pow	LING						
	DCC-X con	nputer is OC								
	Power to th	e DCC-X co	omputer	fails						
			•							
Wh	at is the effe	ect on the R	lecircula	tion Flow C	Control	Syste	em?			
<u> </u>	Desire									
A.	Recirc flow	N lowers to	minimun	<u>n</u>				<u></u>		
В.	The recirc	pump scoo	p tubes	юскир						
<u>C.</u>	Control is	transterred	to the M	loore Static						
D.	Control is	transferred	to the Lo	ocal Manua	al Stati	ons				
	SWER:				[rof #	-01		Irof #01		
	-ERENCE(S		rrect re	<u>-u</u> circ flow re	mains	<u>∠]</u> annro	vima	tely the same		
		B is inco	rrect, ele	ectrical sig	nal loci	(up is	disal	bled: air lockup is	s not in	effect.
Exp	lanation:	C is the	correct a	answer, coi	ntrol is	trans	ferred	d to the Moore St	ations.	
L		D is inco	rrect, loc	cal manual	statior	ns are	e activ	ated manually.		
Ref	erences to t ing exam:	e provided	None	e				[ref prv #2]		
Lea	rning	00226								
Obj	ective	<u> </u>								
Que	estion Sou	rce	Bank		<u> </u>	lodif	ied B	ank [X]	New	
Que	estion Cog	nitive	Memo	ry or Fund	lament	al	[X]	Comprehensio	n or	
			Knowl	edge	<u> </u>			Analysis	<u> </u>	
1 10 (ULK Hall 2	o content:	55.4	I (D) (6)		- 55.4	13	1		

Que	estio	n #	57										
Exa	ımina	ation	Outline	Cross-r	efere	nce							
Lev	el	RO		Tier #	2	G	roup #	2				-	
Kno	owle	dge ai	nd Abilit	y Refer	ence	Informa	tion					RO	SRO
2140	000		Rod Po	sition Inf	ormati	ion Syste	m K	5.01		Impo Ratir	ortance ng	2.7	
Kno follo Pos	wledg wing ition	ge of th conce Informa	ne operati pts as the ation Syst	onal imp y apply f em:	lication to the	ns of the Rod	R	eed :	switc	hes			
Que	stion	:											
• • • • Wha A. B. C.	Plant A cor The F Upon Reac at has The The The	is con- ntrol roo tor pov Rod Co releas tor pov s occur rod is rod is reed s rod stu	ducting ro d is driver ver lowers ontrol swit se of the F ver remain red? uncouple at position witch has uck at pos	d swaps from po s as the i ch is rele Rod Cont ns stead d n "00" failed sition "39	at 90 osition rod is i eased trol sw y when	% power "48" to po inserted as the roo itch the roo n the Roo	d passe od posi I Contro	"38" es po tion ol sw	ositio displa /itch i	n "39" ay ind is rele	icates "f ased	olack-b	ack"
ANS	WER	:	С										
REF	ERE	NCE(S)		235		[re	əf #2]				[ref #3]	1	
Exp	lanati	ion:	A is inc B is inc C is the the pos D is inc	correct, re correct, the correct sition. correct, the	od is s ne rod answe he rod	till couple is still at er, if the r would ind	d (cha "38" (p eed sw dicate '	nge i ower itch '39".	in por r has is stu	wer). not co ıck/fai	Ied it wil	to low Il not in	er) dicate
Hefe duri	erenc na ev	es to b am:	e provide	□ Nor	ie				[re	et prv	#2]		
Lear	rning ective		00726	l									
Que	estio	n Sou	irce	Bank			Mod	ified	l Ban	ık		New	[X]
Que Lev	estio vel:	on Cog	gnitive	Mem Know	ory or /ledge	Fundam	ental	X	(C) A	ompro nalysi	ehensic is	on or	{X]
10 (Cor	CFR ntent	Part 5	55	55.	41 (b	o) (7)	55	.43	•				L

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Que	esti	on #	5	8												
Exa	imi	nation	0	utline (Cross	-refe	rence									
Lev	<u>el</u>	RO			Tie	r #	2	Gr	oup #	1 2						
Kno	owl	edge a	an	d Abilit	y Ref	eren	ce Info	rmat	ion					RO	S	RO
2150	001			Travers	ing In-	Core	Probe		K	4.01	li F	mpo Ratin	rtance g	3.4		
Kno feat for t	wle ure he f	dge of (s) and iollowin	Tra or g:	aversing interlock	In-Co (s) wł	re Pro nich p	obe desi rovide	ign	P	rimai	ry Cont	ainm	nent Iso	lation		
Que	stio	n:														
Give Whi The	en t ile a TIF	he follo in opera P purge	ato va	ng: r is insei Ilve shut	rting a s and	TIP i the T	nto the o	core,	a con	tainn	nent iso	olatic	n signa	al is rec	eive	∍d.
Α.	A. drive automatically shifts to reverse and withdraws the detector to the in-shield position and the shear value fires															
В.	drive automatically shifts to reverse and withdraws the detector to the in-shield position and the ball valve closes															
C.	sh wi	ear val thdraw	ve to	fires to c the in-sh	out the nield p	dete ositio	ctor cab n	le an	d seal	the	guide t	ube.	The de	tector (s not
D.	ba no	II valve t withd	cle rav	oses cut v to the i	ting th n-shie	e det Id pos	ector ca sition	ble ai	nd sea	aling	the gui	ide tı	ube. Th	e detec	tor	does
ANS	SWE	:R:	В													
REF	ER	ENCE(S	5):		Proce 312.9	edure	405.2,	[re	f #2]				[ref #3]			
Ехр	Explanation:A is incorrect, the shear valve is not used unless the ball valve fails. B is the correct answer, IAW 405.2. C is incorrect, the detector will withdraw before isolating the tube. D is incorrect, the detector will withdraw before the ball valve closes.															
Refe	eren	ices to	be	provided	A N	one		-			[ref	prv i	<i>‡</i> 2]			
	ing (exam:		10444												<u> </u>
Obj	ectiv	ve		10444												
Qu	est	ion So	ur	ce	Bai	nk	[X]		Moc	lified	Bank			New		
Qu	est	ion Co	gr	nitive	Me	mory	or Fun	dame	ental	[X]	Cor	npre	hensic	on or		
Lev	<u>/el:</u>					owled	dge				Ana	lysi	s			
10	CFI	R Part	55	5	5	5.41	(b) (7)		55	5.43						
Co	Sontent: 55.41 (b) (7) 55.43															

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New

Que	estio	n # 🕴	58											
Exa	ımina	ition (Outline	Cros	s-refe	erence								
Lev	rel	RO		Tie	er #	2	Gro	up #	12					
Kno	owled	lge ar	nd Abilit	y Re	feren	ce Infor	matio	on					RO	SRO
2150	001		Travers	sing Ir	n-Core	Probe		K	4.01		Imp Rati	ortance ng	3.4	
Kno feat	wledg ure(s)	e of Ti and o	raversing r interloc	ln-Co k(s) w	ore Pr /hich p	obe desig provide	jn	P	rimai	ry Co	ntain	ment Iso	lation	
	ation:	owing												
Giu	suon.	follow	ing:			<u> </u>								
GIVE	en ine	TOHOW	ing:											
Whi	le an i	operat	or is inse	rting a	a TIP i	into the co	ore, a	cont	tainn	nent i	isolat	ion signa	l is rec	eived.
The	TIP p	ourge v	alve	(1)		and the			(2)					
Α.	 (1) remains open (2) drive automatically shifts to reverse, withdraws the detector to the in-shield position and the ball valve closes. 													
В.	 (1) shuts (2) drive automatically shifts to reverse, withdraws the detector to the in-shield position and the ball valve closes. 													
C.	(1) (2)	rem she	ains ope ar valve i	n fires t	o cut t	he detect	or cal	ole a	nd s	eal th	ne gu	ide tube.		
D.	(1) (2)	shu she	ts ar valve t	fires t	o cut t	he detect	or cal	ole a	nd s	eal th	ne gui	ide tube.		
ANS	WER:		В					_						
REF	EREN	CE(S):		Proc 312.	edure 9	405.2,	[ref	#2]				[ref #3]		
Exp	Image: Size of the size													
Refe	erence	s to be	provide	d I	Vone					[re	ef prv	#2]		
duri	ng exa	am:	10444											
Obje	ective		10444											
Que	estio	n Sou	rce	Bank [X] Modified Bank				New						
Que Lev	estioı rel:	n Cog	nitive	Me Kr	emory	or Fund dge	amen	ital	[X]		ompr nalys	ehensio sis	n or	
10 (Cor	CFR I	Part 5	5		55.41	(b) (7)		55	.43			1		

	luestion # 59													
Question	#	59												
Examinat	tion	Outline C	ross-re	ferenc	e									
Level	RO		Tier #	2	G	roup	# 2							
Knowled	ge a	nd Ability	Refere	ence In	format	ion				RO	SRO			
219000		Torus/Su Mode	uppressio	on Pool	Cooling	g K	2.02	In R	nportance ating	3.1				
Knowledge following:	e of e	electrical po	wer sup	plies to	the	F	ump	S						
Question:														
Given the Contain T-2-e, Containme	 Containment Spray pump 51C and ESW pump 52C are in the Torus Cooling Mode T-2-e, MN BRKR 1D 86 LKOUT TRIP, is received Containment Spray/ESW pumps 													
A. 51C and 52C remain operating. 51A and 52A will be available as backups														
B. 51C a	ind 5	2C remain	operatin	g. 51D	and 52[D will	be av	vailable	as backups	3				
C. 51C a	ind 5	2C trip. 51.	A and 52	A will b	e availa	ble a	s bac	kups						
D. 51C a	ind 5	2C trip. 51	D and 52	2D will b	e availa	able a	s bad	kups						
ANSWER:		C												
REFERENC	E(S)	:	Proc. 34	1, Att. 6	i [re	f #2]			[ref #3]					
Explanatio	REFERENCE(S): Proc. 341, Att. 6 [ref #2] [ref #3] State 51/52 A and B are powered from bus 1C, 51/52 C and D are powered from bus 1D. [unlike Core Spray power supplies] A is incorrect, 51C 52C will trip. A is incorrect, 51C 52C will trip. B is incorrect, 51C 52C will trip and 51D 52D will have no power. C is the correct answer. D is incorrect 51D 52D will have no power													
References during exa	References to be provided None [ref prv #2] during exam:													
Learning Objective		10444												
Question	Sou	irce	Bank			Mod	dified	Bank		New	[X]			
Question Level:	Coç	gnitive	Memo Knowl	ry or Fi edge	undame	ental		Com Ana	iprehensio lysis	on or	[X]			
10 CFR P Content:	55	55.4	1 (b) (7)	55	5.43								

Question #	50								
Examination O	utline Cross	s-referer	ice						
Level RO		fier #	2 Gro u	ip# 2					
Knowledge and	Ability Ref	erence	nformation			RO	SRO		
223001	Primary Co Auxiliaries	ontainme	nt System and	A2.10	Importance Rating	3.6	3.8		
Ability to (a) pred the PRIMARY C AUXILIARIES; a use procedures consequences o operations.	dict the impa ONTAINME nd (b) based to correct, co f those abno	icts of the NT SYS ⁻ d on thos ontrol, or ormal cor	e following on TEM AND se predictions, mitigate the nditions or	High dryw	ell temperature				
Question:									
 The plant is of the supply be The 1-4 and RBCCW flow The DW TEM The STA has Based upon the you are required A. (1) 150 (2) Ente B. (1) 281 (2) Ente C. (1) 150 (2) Ente 	operating at preaker for N 1-5 Drywell v to the dryw MP HI alarm, s confirmed t above, Bulk to(2) deg. F r Primary Con deg. F r Primary Con deg. F	100% pc ICC 1A2 Cooling rell has b , C-8-h is the alarm drywell t <u>drywell t</u> <u>ntainment</u>	ower 3 has tripped or fans have been een maximized alarming and w a is valid temperature is a <u>Control ONLY</u> Control, AND so	n instantane verified rur vill NOT cle approximate	eous overcurren nning ear ely(1) ctor IAW ABN-1 plant shutdown IA	t anc W 203.	1		
D. (2) Ente Emergency [deg. F r Primary Cor Depressurizat	ntainment ion	Control, RPV Co	ontrol – No A	TWS, AND perfo	rm an			
ANSWER:									
REFERENCE(S)): RA	P C-8-h							
Inis alarm indicates bulk drywell temperature is above 150 deg. F. Actions listed are to enter Primary Containment Control, and commence an orderly plant shutdown IAW procedure 203,1. Therefore: A is incorrect because no mention of plant shutdown B is incorrect because the alarm is not indicative of approaching design temperature of 281 deg. Also, a scram is not required C is correct D is incorrect because the alarm is not indicative of approaching design temperature of 281 deg. Also, ED is not required References to be None									
provided during	exam:								
Learning 03000, 03002 Objective									

Question Source	Bank		Modified	Bank		New	Х
Question Cognitive Level:	Memory of Knowledg	or Fundame ge	ntal	Com Anal	prehensio ysis	on or	X
10 CFR Part 55 Content:	55.41	(b) (5)	55.43				

Qu	estio	n# 6	51									
Exa	mina	ation C	outline (Cross-ref	erence			<u> </u>				
Le	rel	RO		Tier #	2	Gr	oup #	2				
Kn	owled	dge an	d Abilit	y Referei	nce Info	rmat	ion				RO	SRO
233	000		Fuel Po	ol Cooling	/Cleanup		A3	.02	Im Ra	portance ting	2.6	
Abil	ity to r	monitor	automat	tic operatio	ons of the	Fuel	Pu	ımn	trin(s)			
Poc	l Cool	ling/Cle	anup inc	luding:	·······							
Que	stion:											
Giv	en the	followi	ng:									
•	Fuel F	Pool sys	stem is o	peration w	vith one p	ump i	running]				
•	The fu	looq ləu	filter key	lock switc	h in ORW	/ is in	the B	YPA	SS posit	ion		
•	G-7-a	, SKMF	SRG T	ANK LVL I	_O-LO, al	arm o	comes	in				
Whet will be the effect on the Fuel Deel Opeling eventeer?												
What will be the effect on the Fuel Pool Cooling system?												
Α.	The fuel pool makeup valve opens											
В.	The fuel pool pump trips on low flow											
C.	The	fuel po	ol pump t	trips on lov	v surge ta	ank le	evel					
D.	The	low sur	ge tank l	evel pump	trip is by	pass	ed					
ANS	WER:		>									
REF	EREN	ICE(S):		G-7-a, Pr 311	ocedure	[re	f #2]			[ref #3]		
			A is inc	orrect, ma	keup valv	ve is r	nanua	lly o	perated.	4,		
C .v.r	lonati		B is inc	orrect, low	flow trip	is by	passec	ł.	•			
схр	ianalle	on:	C is the	correct a	nswer, pu	imp tr	rips.					
			D is inc	orrect, low	tank leve	el pur	np trip	is n	ot bypas	sed.		
Refe duri	erence ng exa	es to be am:	provided	None					[ref pr	v #2]		
Lea	rning		08570, 1	0441								
Obj	ective		·									
Qu	estio	n Sour	'ce	Bank		i	Modi	fied	Bank	[X]	New	
Qu	estio	n Coai	nitive	Memor	Memory or Fundamenta			ental Comprehens			n or	[X]
Lev	vel:		-	Knowledge				Analy	vsis			
10	CFR	Part 5!	5									
Co	ntent	:		55.41	(b) (7)		55.	43				

Question # 62	estion # 62 amination Outline Cross-reference												
Examination Outline C	ross-refe	erence			_								
Level RO	Tier #	2	Group	# 2									
Knowledge and Ability	Referen	ce Inform	ation				RO	SRO					
245000 Main Tui	rbine Gene	erator and		<3.08	Import	ance	3.7	3.8					
Auxiliary	systems				Rating								
Knowledge of the effect th	at a loss o	r malfuncti	on l	Reactor	/Turbine pro	essure	contro	bl					
systems will have on the f	ator anu P ollowing:	uxillary		system									
Question:	onowing.			<u></u>									
Given the following:													
Given the following.													
The plant is operating	at 100% p	ower											
• A leak develops in the	vacuum s	ensing bell	ows for	"B" ma	in condens	er							
On control room panel	5F/6F, the	e indicated	vacuur	n for "B	" condense	r goes t	from 2	8.7 to					
12 in. Hg													
How will the main turbine respond?													
How will the main turbine respond?													
A. The turbine will NOT trip, the turbine bypass valves will NOT open													
B The turbine will NOT	trip, the tu	rbine bypa	ss valve		nen								
C The turbine will trip the	he turbine	hypass val			non								
D The turbine will trip, the	he turbine	bypass val	ves wil	lonen									
		Dypass val		open									
REFERENCE(S):	RAP Q-2-0	>	ref #21	·	ſr	ref #31							
A is inco	prrect, turbi	ine will trip.			I. k	0		· · · · · · · · · · · · · · · · · · ·					
Explanation B is inco	orrect, turbi	ine will trip.											
C is inco	prrect, the	bypass will	still op	en g <mark>r</mark> ea	ter than 10	in. Hg.							
D is corr	rect,.												
during exam:	None				[ret prv #2	<u>'</u>]							
Learning 10444.01	Learning 10444_01723												
Objective													
Question Source	Bank		Мо	dified E	Bank [X]	1	New						
Question Cognitive	Memory	or Funda	mental	[X]	Compreh	ension	or						
Level:	Knowled	dge			Analysis								
10 CFR Part 55	55 41	(b)(7)	5	5 4 2									
Content:	ontent: 55.41 (D) (7) 55.43												

	ootier	. н. и	20		· · · · ·							
	estion	#										
	amina		Jutiline U	ross-rete	erence							
Le	/el	RO		Tier #	2 G	roup	# 2					
Kn	owled	ge ar	nd Ability	Referen	ce Informa	tion				RO	SRO	
256	000		Reactor	Condensa	te system	G	2.1.2	28 In R	nportance ating	3.2		
Knc	wledge	e of th	e purpose	and funct	ion of major							
sys	tem co	mpon	ents and c	ontrols								
Que	stion:											
Cor	idensa	te sys	tem flow o	of 2400 gpr	n provides fo	or:						
		-		01	•							
	A Minimum flow through LD bostor AND pooling for SLAE condensors											
A.	A. Minimum flow through LP heater AND cooling for SJAE condensers											
В.	B. Maintaining LP Drain Cooler level AND cooling for steam packing exhauster											
c.	C. Minimum flow for Condensate pumps AND cooling for SJAE condensers and steam											
	packi	ng exi	nauster									
D.	Maint	aining	LP Drain	Cooler lev	el AND cool	ing for	SJA	E conde	ensers and	steam	packing	
	exnat	Ister										
	WER:		·		r	<u> </u>						
REF	EREN	;E(S):		FSAR,	[re	<u>er #2]</u>			[[ref #3]	<u></u>		
			A IS INCO	orrect, does	s not provide			neater	•			
Eve	Ionatio		C is the	orrect, does	s not provide	arain	coole	r level.			- line for	
схр	ianatio	ri.		correct and	swer, provide	es ior (alina f	conde	nsate p	bump min ti	ow, co	sing for	
			D is inco	rrect doe	provides co	drain	n Ola	r lovol	uensers.			
Ref	erences	to be	provided	None		ulail	00010	[ref r	rv #21			
duri	during exam:											
Lea	Learning 10435											
Obj	ective											
Qu	estion	Sou	rce	Bank		Мос	lified	Bank	[X]	New		
Qu	estion	Cog	nitive	Memory	ental	[X]	Com	prehensio	n or			
Lev	el:			Knowledge Analysis								
10	CFR P	art 5	5									
Coi	ntent:			55.41	(D) (4)	55	.43					

Qu	estio	า# (64										
Exa	amina	tion (Outline C	ross-ref	ference								
Le	<u>vel</u>	RO		Tier #	2	Grou	p# 2	2			<u></u>	T	
Kn	owled	lge ar	nd Ability	Refere	nce Infor	matior	l				RO	SRO	
259	001		Reactor I	Feedwate	er System		K1.08	8	Impo Ratir	ortance ng	3.6		
. Kr	nowled	ge of t	he physica	al connec	tions and/	/or							
cau	se-eff	ect rela	ationships		• • •		Read	tor wa	iter lev	el contr	ol svste	em	
bet	ween I	Reacto	or Feedwate	er Syster	m and the								
10110	wing.									· ·			
Que	estion:	f - 11 -											
Giv	en the	tollow	ing condition	ons:									
	Plant	s one	ating at 65	5% nowe	r								
.	Maste	r feed	water contr	roller in "	، AUTO" مو	etnoint is	: 163	5 in T	AF				
	Feedr	umn 1	A is runnir	na with ite	s flow cont	troller in	"AUT	О" О"	, 11				
•	Feedr	ump 1	B is runnir	ng with its	s flow cont	troller in	"MAN	1"					
•	The flo	ows in	the operat	ina feed	strings are	e equal		•					
Witl	/ith the Master feedwater controller selected to the "S" display, the adjustment knob is												
rota	stated in the COUNTER-CLOCKWISE direction.												
Wh	Nhat will occur?												
Α.	Read	tor lev	el setpoint	t is lower	ed, the A a	and B M	FRVs	will cl	ose				
В.	Read	tor lev	el setpoint	t is lower	ed, ONLY	the A M	IFRV	will clo	se				
C.	Read	tor lev	el setpoint	is raised	d, the A ar	d B MF	RVs w	ill ope	en				
D.	Read	tor lev	el setpoint	is raised	. ONLY th	ne A MF	RV wi	ill oper	 1				
ANS	SWER:		3						<u> </u>				
REF	EREN	CE(S):	F	Procedur	e 317	[ref #2	21		T	[ref #3]			
			A is inco	rrect, the	B MFRV	does no	t mov	e					
			B is the c	correct a	nswer, the	setpoin	t is lov	wered	and th	ne B MF	RV do	es not	
Ехр	lanatio	on:	move.										
				rrect, the	e setpoint i	s lowere	ed.						
Rofe	aranco	e to bo	D IS INCO	Inect, the	setpoint i	s lowere	<u>a.</u>	<u>г</u>	of not	<u>401</u>			
duri	ing exa	s 10 De 1m:	PIOVIDED					[re	a hta i	#∠]			
Lea Obi	rning ective		10447		<u> </u>								
Qu	estior	n Sou	rce	Bank	[X]	M	odifie	d Ban	k		New		
Que	estior		nitive	Memor	y or Fund	amenta		Ċ	ombre	hensio	n or	[X]	
Lev	el:	9		Knowle	edge			A	nalysi	S			
10	CFR F	Part 5	 5										
Cor	ntent:			55.41	(D) (7)		55.43						

Question #	65		······		<u> </u>						
Examination	Outline Cro	oss-referen	ce								
Level RC		Tier #	2 (iroup # 2							
Knowledge a	nd Ability F	Reference I	nformatior				RO	SRO			
272000	Radiatic	n Monitorin	g System	A1.01	lm Ra	portance ting	3.2	3.2			
Ability to predi parameters as RADIATION M including:	ct and/or m sociated wi IONITORIN	onitor chang th operating IG SYSTEN	ges in g the l controls	Lights	s, alarms, iated with	and indica normal of	itions peratio	ns			
Question:											
Given the follo The Plant Channel B Channel A Off-gas bypas A. open AN	wing condit s operating Off-gas rac Off-gas rac s valve V-7- D the Off-ga	tions: at 100% po diation moni diation moni -31 will as system w	ower tor failed do tor indicate rill isolate at	ownscale la s 1100 mr/l 1030	st shift nr at 1015	i hours					
B remain cl	nsed AND (Off-gas syst	em will isol	ate at 1030							
C. open AN	Off-gas s	vstem will N	OT isolate		<u> </u>						
D. remain cl	osed AND (Off-gas syst	em will NO	T isolate		· · · · · · · · · · · · · · · · · · ·					
ANSWER:	B	<u> </u>			<u> </u>						
REFERENCE	S):	BAP 10F-1	-c			1					
Explanation:	V-7-31 only opens on AOG isolation signal, not off gas isolation. Therefore: A is incorrect, as it will not open B is correct C is incorrect, as it will not open AND off gas will isolate D is incorrect, as off gas will isolate										
References to	be	None									
provided duri	ng exam:										
Learning Objective	00666										
Question Sou	rce	Bank		Modified	Bank		New	X			
Question Cog Level:	nitive	Memory Knowled	or Fundam ge	ental X	Comp Analy	orehensio sis	n or				
10 CFR Part 5	CFR Part 55 Content: 55.41 (b) (7) 55.43										

Que	estion	#	66									
Exa	mina	tion O	utline Cr	oss-refere	ence							
Lev		RO		Tier #	3	Grou	p #	1				
Kno	owled	ge an	d Ability	Reference	e Informat	ion					RO	SRO
2.1			Conduc	t of operat	ions		2.1.	.2	Im Rat	bortance ting	3.0	4.0
Knc	wledg	e of o	perator re	esponsibilit	ies during	all						
mod	des of	plant	operation	•								
Que	estion	: (-)	•		<u> </u>							
• Sind • • Whi	An RC The R ce leav 9/4/20 10/1/2 ich of t	D left s O had ving sl 004; 2004; the fol	shift work of d worked a hift, the Re 12 hours 12 hours lowing is a	on 9/1/200 all previous O has perf correct?	4 and was sly schedu ormed lice	s placed led day ense du	l in a s as ties a	a read	shift as ctor op ows:	ssignment perator un	til leav	ing shift
Α.	The	operat	tor's licens	se is inacti	ve on 10/1	/2004.						
В.	The o	operat	tor's licens	se is inacti	ve on 12/1	/2004.						
C.	The of main	operat tain ai	tor must s n active lid	tand at lea cense.	st 3 additi	onal 12	-hou	r shift	s befo	re 11/30/2	2004 to	
D.	The o main	operat tain a	tor must s n active lic	tand at lea cense.	st 4 additi	onal 12	-hou	r shift	s befo	re 12/31/2	2004 to	,
ANS	SWER	:	D									
REF	FEREN	NCE(S	S):	OP-AA-10 section 4.)5-102, 1							
A minimum of 7 8-hour shifts or 5 12-hour shifts per calendar quarter is required. Therefore: A is incorrect, as the license is still active B is incorrect, as the license is still active C is incorrect, as the requirement is per calendar quarter, not per running 3-month time frame D is correct												
Ref	erenc	es to	be	None								
pro	vided	durin	g exam:									
Lea Obj	rning ective											
Que	estion	Sour	се	Bank		M	odifi	ed Ba	nk		New	X
Question Cognitive				Memory	y or Funda	ndamental X Comprehensio			rehensio	n or		
	PED D	art 55	Contort				SE A	2	-maiy	515		
	/ II F	นเเป		.			JJ.4	U		1		

Que	stion	#	67										
Exa	mina	tion (Dutline Cr	oss-ref	erene	ce							
Lev	el	RO		Tier a	#	3	Gro	h dr	1				
Kno	wled	ge ar	nd Ability	Referen	ice Ir	nformat	ion					RO	SRO
2.1			Conduc	ct of ope	ratio	าร		2.	1.33	II F	mportance Rating	3.4	4.0
Abil	ity to i	recog	nize indica	ations fo	r sys	tem ope	rating						
para	amete	rs wh	lich are en	try-level	cond	ditions fo	or						
tech	nical	speci	fications.										
Que	estion	1											
Give	en the	follo	wing:										
• • Wha	 The Plant is at 100% power At 0700 on 10/1/04, unidentified leak rate was 2.2 gpm At 0300 on 10/2/04, unidentified leak rate is 4.7 gpm What action is required www Technical Specifications? 												
Α.	A. Place the reactor in the shutdown condition within 12 hours.												
B. Place the reactor is the cold shutdown condition within 30 hours.													
C.	Redu shuto the fo Ident	uce th down <u>ollowi</u> tify th	ne leak rat condition ing 24 hou e source c	e below within th irs. of leakag	the a le ne: le wit	llowable xt 12 ho hin 4 ho	e limit v urs an urs, o	with d be r be	in 8 l e in t in th	hours, he colo e shut	or place the d shutdown o down condit	reacto conditic ion with	r in the on within nin the
-	next	<u>12 h</u>	ours and b	<u>e in the</u>	cold	shutdow	/n con	ditic	n wit	hin the	e following 2	4 hours	S.
ANS	SWER	l:	D										
REF	ERE	NCE(S):	T.S. 3.	<u>3.D.3</u>								
Exp	Explanation:A is incorrect because this would be the action taken for loss of unidentified leak rate determination B is incorrect because this is the action to take if there are no T.S. LCO for the condition (LCO 3.0.A) C is incorrect, as this is the action for greater than 5 gpm UILR D is correct												
Refe	erenc	es to	be	TS	3.3								
prov	vided	duri	ng exam:										
Lea Obj	rning ective)	10451										
Que	stion	Sou	rce	Bank			Ν	lod	ified	Bank		New	X
Que Lev	estion	Cog	nitive	Mem	ory c	or Funda ae	ament	al	Х	Con	nprehensio	n or	
10 0	FR P	art 5	5 Content	: 55.	41	(b) (10)	<u> </u>	55	.43	1 - 110			

Question #	68								
Examination C	Jutline Cro	ss-referei	nce						
Level RO		Tier #	3	Grou	р#	1			
Knowledge an	d Ability R	eference	Informati	ion				RO	SRO
2.1	Conduct	of operation	ons		2.1.3	81	Importance Rating	4.2	3.9
Ability to locate and indications correctly reflect	control roo and to dete ing the des	m switche ermine tha ired plant	s / contro t they are lineup.	ls					
Question:									
If the 1-3 Air Co is operating as position AND th (2)	ompressor i the LAG co ne 1-1 Air C psig.	s operatin mpressor, ompresso	g as the L the 1-3 k r will start	EAD cocal set when	ompre lect sv air he	essor a witch w ader pi	nd the 1-1 Air ill be in the ressure reach	Comp (1) es	
A. (1) LL. (2) 90									
B. (1) LE. (2) 95	to locate control roc lications and to dete ly reflecting the des on: -3 Air Compressor i ating as the LAG con ating as the LAG con ating as the LAG con ating as the LAG con ating as the LAG con by polymersion (2) psig.) LEAD) 90) LEAD) 90) LEAD) 90) SELECT) 90) SELECT) 90) SELECT) 90) SELECT) 95 ER: D RENCE(S): (1) A is incon the 90 pi B is incon C is incon lag comp D is corr nces to be ed during exam: ng 10444 ive on Source on Cognitive								
Knowledge and Ability Reference Information RO 2.1 Conduct of operations 2.1.31 Importance Rating 4.2 Ability to locate control room switches / controls and indications and to determine that they are correctly reflecting the desired plant lineup. Rating 4.2 Question: If the 1-3 Air Compressor is operating as the LEAD compressor and the 1-1 Air Comp is operating as the LAG compressor, the 1-3 local select switch will be in the(1) position AND the 1-1 Air Compressor will start when air header pressure reaches (1) A. (1) LEAD (2) 95 C. (1) SELECT (2) 95 C. (1) SELECT (2) 95 A. (2) 95 (1) SELECT (2) 95 (1) SELECT (2) (2) 95 (2) 95 (2) A. is incorrect, as the select switch does not have LEAD as a position the 90 psig is for the 1-3 compressor to start when it is the lag compressor D is correct, as the select switch does not have LEAD as a position C is incorrect, as the select switch does not have LEAD as a position C is incorrect, as the select switch does not have LEAD as a position C is incorrect, as the select switch does not have LEAD as a position C is incorrect, as the select switch does not have LEAD as a position C is incorrect, as the s									
D. (1) SE (2) 95	1) LEAD 2) 90 1) LEAD 2) 95 1) SELECT 2) 90 1) SELECT 2) 90 1) SELECT 2) 90 1) SELECT 2) 95 VER: D Procedure 334, section 5.3								
ANSWER:									
REFERENCE(S	3):	Procedure section 5.3	334,						
Explanation:	A is inco the 90 ps B is inco C is inco lag comp D is corre	rrect, as th sig is for th rrect, as th rrect, as th pressor ect	ne select s ne 1-3 cor ne select s ne 90 psig	switch npress switch g is for	does i or to s does i the 1-	not hav start wh not hav 3 comp	e LEAD as a lien it is the lag lie LEAD as a pressor to star	position g comp position t when	n, and ressor n it is the
References to provided durin	be g exam:	None							
Learning Objective	cate control roc ions and to deta flecting the des ir Compressor i g as the LAG co ID the 1-1 Air C psig. LEAD 90 LEAD 95 SELECT 90 SELECT 95 D CE(S): A is inco the 90 pi B is inco C is inco lag comp D is corr s to be luring exam: 10444								
Question Sour	ce	Bank		M	odifie	d Ban	k	New	X
Question Cogr Level:	nitive	Memory Knowled	or Funda Ige	amenta	al X	Co Ar	omprehensio alysis	n or	
10 CFR Part 55	Content:	55.41	(b) (7)		55.43				

Que	estion	#	69								
Exa	mina	tion (Dutline Cr	oss-refe	rence						
Lev	el	RO		Tier #	3	Grou	ıp #	2			
Kno	wled	ge an	d Ability	Reference	e Inform	ation				RO	SRO
2.2			Equipm	ent conti	ol		2.2	.1	Importance Rating	3.7	3.6
Abil facii ass read Que Give	ity to p lity/inco ociate ctivity. estion en the A read NO co Initial SRM : SRM : SRM :	ctor si portfor d with follow ctor si pontrol SRM 21 = 4 22 = 4 23 = 5 24 = 5	m pre-stai g operating n plant equ wing: tartup is in rods have counts are 40 cps 45 cps 50 cps 55 cps	tup proc g those c ipment th progress been wit	edures for ontrols nat could a	the affect					
	ritical a	and a	dding hea	t to the c	oolant?						
R	Who		M 21 = 60	0 cps							
<u>c</u>	The	reacto	r is not cr	itical afte	r reaching	1 tho ⊥1°	6 dk		nce sten in the F	-CP	
	The	react	or is not or	itical afte	r the first	four con	rol ro	d arou	ins have been v	 vithdra	
								a giul	abs liave beell v	in u a	
REI	FERE	NCE(S):	Procedu step 6.2	ire 201, 4						
Exp	olanat	ion:	A is inc position B is inc notch v C is inc evaluat D is co	orrect, a 06 and orrect, a vithdrawa orrect, a red the di rrect	s 3 doublii 24 s greater t I betweer s the start screpancy	ngs only than 3 bu positior up must y and pro	requ it les: i 06 a stop ovide	ires no s than and 24 and R d furth	otch withdrawal I 4 doublings only eactor Engineer er instructions	oetwee y requi ing ha	en ires s
Ref	erenc	es to	be	Non	е						
pro	vided	duri	ng exam:						•••••		
Lea Obj	rning ective	e	10447								

Question Source	Bank		Modified	Bank		New	X
Question Cognitive Level:	Memory Knowled	or Fundame Ige	ntal	Com Anal	prehensio ysis	on or	X
10 CFR Part 55 Content:	55.41	(b) (1)	55.43				

Que	estion	# 7	70									
Eva	minat	$\frac{\pi}{100}$	utline Cro	se-refere	nce							
				Tier #	3	Grou	ın #	2				
Knr	wledg	ne and	L Ability F	Reference	Informati	ion					BO	SBO
22	Juica	je une	Fauinme	ent Control	Internation		22	13	Imp	ortance	3.6	3.8
			Equipting						Rat	ing		
Knc	wledg	e of ta	gging and	l clearance	e procedui	res						
Que	estion											
Whi	ich of t	he foll	owing is u	ised to ten	porarily F	REMO	/E c	eara	ance tags	of an "A	CTIVE'	,
clea	arance	withou	ut adding,	deleting o	r altering t	the tag	i type	e of a	any clear	ance poir	nt?	
	,								_			
Α.	Sub (Cleara	nce									
В.	Clear	ance l	Exception									
C.	Sub Clearance Clearance Exception Temporary Clearance Clearance Suspension NSWER: D EFERENCE(S): OP-MA-109-101 A is incorrect, plausible but not for this situation B is incorrect, plausible but not for this situation C is incorrect, plausible but not for this situation D is correct, clearance Suspension covers this situation											
D.	Clear	ance	Suspensio	on								
AN	SWER	: [D I									
REI	FEREN	b Clearance arance Exception mporary Clearance arance Suspension R: D ENCE(S): OP-MA-109-101 A is incorrect, plausible but not for this situation B is incorrect, plausible but not for this situation C is incorrect, plausible but not for this situation										
		Sub Clearance Clearance Exception Temporary Clearance Clearance Suspension VER: D RENCE(S): OP-MA-109-101 A is incorrect, plausible but not for this situation B is incorrect, plausible but not for this situation C is incorrect, plausible but not for this situation C is incorrect, plausible but not for this situation										
Evr	Janati	on.	vithout adding, or learance nce Exception prary Clearance nce Suspensio D CE(S): A is inco B is inco C is inco D is corre	orrect, plau	isible but i	not for	this	situa	ation			
-~⊦	nanau	011.	C is inco	orrect, plau	isible but	not for	this	situa	ation			
			D is cor	rect, Clear	ance Sus	pensio	n co	vers	this situa	ation		
Ref	erence	es to b	be	None								
pro	vided	during	g exam:									
Lea	rning	ľ	C&T less	on plan –	obj. #36							
	ective	_				<u> </u>						1
Que	estion	Sourc	e	Bank			lodif	fied	Bank		New	X
Que	estion	ination Outline Cross-reference RO Tier # 3 Group # 2 Iedge and Ability Reference Information Equipment Control 2.2.13 Importance 3.6 3.8 redge of tagging and clearance procedures tion: a df e following is used to temporarily REMOVE clearance tags of an "ACTIVE" in the following is used to temporarily REMOVE clearance tags of an "ACTIVE" in the following, deleting or altering the tag type of any clearance point? Sub Clearance Clearance Exception Temporary Clearance Clearance Suspension VER: D RENCE(S): OP-MA-109-101 A is incorrect, plausible but not for this situation B is incorrect, plausible but not for this situation C is incorrect, plausible but not for this situation D is correct, clearance Suspension covers this situation Ences to be Mone ded during exam: ing C&T lesson plan – obj. #36 tive Knowledge Memory or Fundamental X Knowledge										
Lev	el:			Knowle	dge					sis		
10 (CFR P	art 55	Content:	55.41	(b) (10)		55.4	43				

. . . .

Que	estion	#	71											
Exa	mina	tion O	utline Cr	oss-refe	ren	ce								
Lev	vel	RO		Tier #	· _	3	Gro	up #	2					
Kno	owled	ge and	d Ability I	Referen	ce Ir	nformat	ion						RO	SRO
2.2			Equipm	ent Cont	rol			2.	2.2		Impo Rati	ortance ng	4.0	3.5
Abil	ity to	manip	ulate the c	console d	conti	rols as								
requ	uired t	o oper	ate the fa	cility bet	wee	n shutd	own							
and	desig	nated	power lev	els.									<u> </u>	
Que	estior):												
Giv	en the	follow	ring:										-	
• • • •	The p The "I All pro The "I The "I The V en the	lant is B" Rec erequis B" MG B" MG VARM VARM	at 60% po irc loop is sites have Set Drive Set scoop LIGHT fo ecirc Pum	ower and idle, all been m Motor b o tube is r the "B" op STRT,	d sta othe et to reak at 1 Rec /NO	ble start th cer is sh 00% circ MG RM pus	loops e "B" ut Set ha hbutto	are Reci as jus	oper rc pu st illu depr	rating ump umina resse	in Al Ited d	JTO		
Α.	Evel RO Tier # 3 Group # 2 nowledge and Ability Reference Information 2 Importance RO SRO 2 Equipment Control 2.2.2 Importance 4.0 3.5 3.5 main pulate the console controls as quired to operate the facility between shutdown dedesignated power levels. 4.0 3.5 uestion: we the following: The plant is at 60% power and stable Facinc loops is idle, all other recirc loops are operating in AUTO All prerequisites have been met to start the "B" Recirc pump The "B" MG Set scoop tube is at 100%. The "B" MG Set scoop tube is at 100%. The "B" Recirc Pump STRT/NORM pushbutton is depressed the field breaker will close immediately, and the scoop tube will remain at 100%. the field breaker will close immediately, and the field breaker will close when the scoop tube passes through the 40% to 30% range. Step 8.3.14 & 15 VSWER: D EFERENCE(S): Procedure 301.2, step 8.3.14 & 15 A is incorrect, as the field breaker will not close if scoop tube position is beyond approximately 40%. B is incorrect, as the field breaker will not close if scoop tube position is beyond approximately 40%. EFERENCE(S): Procedure 301.2, step 8.3.14 & 15 Importance 10 correct, as													
В.	the f	ield br	eaker will	close im	med	diately, a	and th	e sco		tube	will st	art runni	ng bac	k.
C.	the s tube	scoop t passe	ube will s	tart runn the 60%	ing l 6 to	back, ar 50% rar	nd the nge.	field	brea	aker	will clo	ose whe	n the s	соор
D.	the s	scoop t	ube will s	tart runn the 40%	ing I	back, ar 30% rar	nd the	field	brea	aker	will clo	ose whe	n the s	соор
ANS	SWFF	2-				00/01/01	igo.							
REI	FERE	NCE(S	5):	Procedu step 8.3	ure 3	301.2, &15								<u></u>
Exp	olanat	ion:	A is included beyond B is included beyond C is included beyond D is cor	orrect, a approxin orrect, a approxin orrect, a approxin rect	s the mate s the mate s the mate	e field bi ely 40% e field bi ely 40% e field bi ely 40%	reaker reaker , plus reaker	will will the s will	not o not o sequ not o	close close ence close	if sco if sco is out if sco	oop tube oop tube t of orde oop tube	positio positio r positic	n is n is n is
Ref	erenc	es to	be	Non	e									
pro	vided	durin	g exam:											
Lea	rning		10447											
	ection	Sour		Bank				Modi	ified	Ban	k		New	Y
	astion	Cogn	itive	Memo)r\/ c	r Fund	amon	tal	X			ahoneio	nor	+
Lev	el:	Jugi		Know	ledo	ze i unu Je	unci	CGI	Л		nalvei	is		
10 0	wiedge and Ability Reference Information Equipment Control 2.2.2 ty to manipulate the console controls as irred to operate the facility between shutdown designated power levels. stion: an the following: The plant is at 60% power and stable The "B" Recirc loop is idle, all other recirc loops are operating in / All prerequisites have been met to start the "B" Recirc pump The "B" MG Set Drive Motor breaker is shut The "B" Recirc Pump STRT/NORM pushbutton is depressed . the field breaker will close immediately, and the scoop tube will the field breaker will close immediately, and the scoop tube will the scoop tube will start running back, and the field breaker will tube passes through the 60% to 50% range. the scoop tube will start running back, and the field breaker will tube passes through the 40% to 30% range. WER: D Freerences to be void approximately 40%, plus the sequence is c C is incorrect, as the field breaker will not close if s beyond approximately 40%. B is incorrect, as the field breaker will not close if s beyond approximately 40%. B is incorrect, as the field breaker will not close if s beyond approximately 40%. B is incorrect, as the field breaker will not close if s beyond approximately 40%. B is incorrect, as the field breaker will not close if s beyond approximately 40%. B is incorrect, as the field breaker will not close if s beyond approximately 40%. B is incorrect as the field breaker will		<u> </u>											

Que	estion #	72								
Exa	mination O	utline Cro	oss-referei	nce						
Lev	el RO		Tier #		Group #	ŧ				
Kno	wledge and	d Ability F	Reference	Information	on				RO	SRO
2.3		Radiatic	n Control		2.	3.10	Imp Rati	ortance ng	2.9	3.3
Abili leve expo	ity to perforr Is of radiationsure	n procedu on and gua	res to redu ard against	ce excess personne	ive I					
Que	estion:									
Give	en the follow You are ass You exposu The dose ra Your assign ninutes afte at action is r Monitor the Warn othe Wait for vo	ving: igned wor re limit is ite in the w ment will the r entering equired? e dose rate r workers, our exposu	k in a radia 100 mrem ork area is ake 90 min the work a the work a e on your E exit the are ire limit to b	tion area 30 mr/hr nutes to co re, your Es SRD, con ea, notify for pe reached	mplete. SRD beg tinue to v Rad Pro	ins to o vork	chirp/bee	эр.		
D.	Complete t	the work a	ssignment	exit the a	rea, notif	y Rad	Pro	ar rada		
ANS	SWER:	B								
REF	ERENCE(S		NGET Stu Guide, pg.	dy 109						
Exp	lanation:	A is inc B is cor C is inc D is inc	orrect, mus rect, orrect, mus orrect, due	t leave the t leave the to possibi	e area e area du lity of exc	e to u ceedin	nexpecte g limits	ed rad lev	els	
Ref	erences to	be	None							
pro	vided durin	ig exam:								
Lea Obj	rning ective	Rad Wor	ker training	j lesson pl	an, obj. 2	25, 31				
Que	estion Sour	ce	Bank		Moc	lified I	Bank 🗌		New	X
Que Lev	estion Cogr el:	nitive	Memory Knowled	or Funda dge	amental	X	Comp Analys	rehensio sis	n or	
10 (CFR Part 55	5 Content	: 55.41	(b) (12)	55	5.43				

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Que	estior	n #	73										
Exa	mina	tion O	utline Cr	oss-refe	erenc	e							
Lev	el	RO		Tier #	ŧ		Gro	up #	·				
Kno	wled	lge an	d Ability	Referen	ce In	formati	ion	_				RO	SRO
2.3			# 73 on Outline Cross RO e and Ability Re Radiation of radiation exp of radiation exp ion control / including the Radiation of radiation exp ion control / including the Radiation iting the Radiation indicates contar exit the RCA, yoo m a frisk of the left erection m one additional ve the left shoe a NOT alarm, exit the RCA MOT alarm, exit the RCA Mot alarm, exit the RCA NOT alarm, exit the RCA Mot alarm, exit the RCA B is incorre D is incorre D is incorre Rad Worke Source Cognitive		ol			2.	3.4	ln Ra	nportance ating	2.5	3.1
Kno	wledg	ge of ra	adiation e	xposure	limits	s and							
coni	tamin	ation c	ontrol / ir	cluding	perm	issible le	evels						
in e	xcess	of tho	se author	rized							<u>- </u>		
Que	estior	1:											
You alar In o	rder t	exiting nd indio o exit t	the Radia cates con he RCA,	ation Cor Itamination you mus	ntrol / on or st	Area (R(1 your le	CA) a ft sho	fter o be.	omp	leting a	plant tour.	The P	СМ
А.	Perf exit	orm a the RC	frisk of th A	e left sho	be us	ing a ha	nd he	əld fr	isker.	If NO	contaminat	ion is d	etected,
В.	Perf dete	Pl RO Tier wledge and Ability Refere Radiation Con Radiation Con Radiation Con wledge of radiation exposure amination control / including cess of those authorized stion: are exiting the Radiation Con stion: are exiting the Radiation Cons and indicates contamination Constant der to exit the RCA, you mute Perform a frisk of the left strexit the RCA Perform a frisk of your who detected, exit the RCA Perform one additional record RCA Remove the left shoe and p does NOT alarm, exit the R WER: C Kereice (S): NGET Guide 113/1 A is incorrect. recount one m RCA B is incorrect. recount one m RCA B is incorrect. D is incorrect. rences to be No ided during exam: No ining Rad Worker training stion Cognitive Mem stion Cognitive Mem Stion Cognitive Mem Stion Cognitive Mem Stion C	our whole	bod	y using a	a har	nd he	ld fris	sker. If	NO contan	nination	is	
С.	Perf RCA	Ination Outline Cros RO Iedge and Ability Re Radiation edge of radiation exponention control / incluses of those authorization: re exiting the Radiation and indicates conta er to exit the RCA, your reform a frisk of the I xit the RCA erform a frisk of your etected, exit the RCA erform one additiona CA emove the left shoe oes NOT alarm, exit //ER: C RENCE(S): 1 A is incorrecount o RCA B is incorrecount o RCA B is incorrecount o RCA B is incorrecount o RCA B is incorrecount o RCA B is incorrecount o RCA B is incorrecount o RCA B is incorrecount o RCA B is incorrecount o RCA B is incorrecount o RCA B is incorrecount o RCA <t< td=""><th>ount u</th><td>ising the</td><td>PCN</td><td>И. If t</td><td>he m</td><td>onitor o</td><td>loes NOT a</td><td>alarm, e</td><td>exit the</td></t<>			ount u	ising the	PCN	И. If t	he m	onitor o	loes NOT a	alarm, e	exit the
D.	Rem does	RO Tier ge and Ability Reference Radiation Cor ge of radiation exposur Radiation Cor ge of radiation control / including of those authorized ation control / including of those authorized i: xiting the Radiation Conditional reaction control / including point the RCA, you must the RCA, you must the RCA orm a frisk of the left slithe RCA porm a frisk of your who cted, exit the RCA orm one additional reaction powe the left shoe and part the RCA orm one additional reaction ione NOT alarm, exit the RCA powe the left shoe and part the RCA NGET Guide 113/1 A is incorrect. RecA pis incorrect. RecA pis incorrect. NGET ges to be No during exam: No a Source Ban Conditive Mer Conditive Mer	e and pe tit the RC	erforn CA	n one ac	dditio	nal re	e-cou	nt usin	g the PCM	. If the i	nonitor	
ANS	SWEF	RO /ledge and Abil Rad Rad ledge of radiation mination control cess of those aution tion: tre exiting the Rads s and indicates of er to exit the RCA Perform a frisk or A fish Perform a frisk or A fish Perform one add RCA Perform one add RCA Perform one add RCA Remove the left loes NOT alarm VER: C RENCE(S): anation: A is reco B is C is D is C is D is ences to be ded during exa ing Rad V tion Source tion Cognitive R Part 55 Cont								·			
REF	ERE	exiting the Radiation and indicates contaminand indicates contaminand r to exit the RCA, you not erform a frisk of the left it the RCA erform a frisk of your we tected, exit the RCA erform one additional received enve the left shoe an over th	NGET S Guide, 113/114	Study pg. 4	1				·				
Exp	lanat	ion:	A is inc recoun RCA B is inc C is co D is inc	correct. Il t one mo correct rrect, correct, s	F the ore tin	PCM all ne with t d not rer	arms the sa nove	, the ame shoe	prop moni	er proc tor, and	edure is to I if no alarn	exit the n then e	PCM, exit the
Ref	erenc	ledge of radiati mination contromess of those au tion: re exiting the F s and indicates er to exit the RCA Perform a frisk of Perform one ad RENCE(S): RENCE(S): A is recc RENCE(S): A is rect Institute Perform one ad RCA Perform one ad RCA Perform one ad RCA Remove the left Ioes NOT alarn VER: C RENCE(S): A is recc B is C is D is Ing Rad tion Source ion Cognitive R Part 55 Con		Nor	ne								
pro	vided	durin	g exam:										
Lea Obj	rning ective	9	Rad Wo	rker trair	ning le	esson pl	lan, c	bj. 3	6				
Que	stior	Sour	ce	Bank				Modi	fied	Bank		New	X
Que Lev	estion	Cogr	itive	Memo Know	ory o /ledg	r Funda e	amen	ital	Х	Com Anal	prehensio ysis	n or	
10 0	FR F	RO ge and Abili ge and Abili Radi le of radiation ation control of those auth ixiting the Radi ad indicates of o exit the RCA orm a frisk of be RCA orm one addi ove the left s NOT alarm, ic C NCE(S): A is reco ion: A is reco B is C is D is es to be during exar Rad V Source Cognitive	Content	: 55.	41 ((b) (12)		55	43				hr

Que	estion	#	73									
Exa	mina	tion C	Dutline Cr	oss-refe	rence							
Lev	el	RO		Tier #		Grou	р#					
Kno	wied	ge an	d Ability I	Reference	e Informat	tion					RO	SRO
2.3			Radiatio	on Contro			2.3	3.4	In R	nportance ating	2.5	3.1
Knc	wledg	Radia viedge of radiation amination control / cess of those auth stion: n the following: adiation levels in the Radiation levels in the Solo mrem teps 10,000 mrem TEDE 10,000 mrem TEDE 10,000 mrem TEDE 25,000 mrem TEDE 10,000 mrem TEDE 10,000 mrem TEDE 10,000 mrem TEDE anation: A is in B is in C is on prote anation: A is in B is in C is on popu ided during examination	adiation ex	kposure l	imits and							
con	tamina	ation (control / in	cluding p	ermissible	levels						
in e	xcess	of the	ose author	zed					·			
Que	estion	:	<u>. </u>	<u> </u>					· · · · ·	<u></u>		
Give	en the	follov	ving:									
•	A plar	nt tran	sient has	occurred		-						
•	Radia	tion le	evels in the	Reactor	r Building h	ave for	ced .	an ev	acuati	ion of the F	leactor	Building
•	The re	eactor	did NOT	scram du	ie to an elec	ctrical A	<u>i</u> w	s.				
•	All att	empts	s to insert o	control ro	ds from the	Contro	N Ro	oom l	nave b	een unsuc	cessful	
•	It is de	ecideo	d the Scrai	n Air Hea	ader must b	e vente	ed in	orde	er to in	sert contro	rods	
	-+ :- +4		VIRALIRA					. ما را س	مام بر مام	a a a a a a diti a		
vvn:	at is tr			mergenc	y exposure	limit all	owe	a uno		ese conditio	ons?	
Α.	2,00	Image RO wiedge and Abili Rad wiedge of radiation Rad wiedge of radiation Control cess of those aut Stion: In the following: Image adiation levels in Image all attempts to ins Image all attempts to ins Image anotion mem TED Image anation: Image anation: A is pop Image ided during exa Image ining Rad ided during exa Image aning Rad stion Source Image stion Cognitive Image										
В.	5,00	el RO wledge and Ability F Radiatio wledge of radiation examination control / incluster of those authorizes in the following: A plant transient has control / inclusted autor levels in the following: A plant transient has control / inclusted autor levels in the following: A plant transient has control / inclusted autor levels in the following: A plant transient has control / inclusted autor levels in the following: A plant transient has control / inclusted autor levels in the following: A plant transient has control / inclusted autor for the following: A plant transient has control / inclusted autor for the following: A plant transient for the following: A plant transient for the following: A plant transient for the following: A plant transient for the following: A plant transient for the following: A is inclusted be summer protectin and the following exam: A is inclusted be following: A is inclusted be sumeremode and the following ex	m TEDE									
C.	10,0											
D.	25,0	00 mr	em TEDE									
AN:	SWEF	}:	C									
RE	ERE	wledge of radiation amination contro- scess of those au stion: In the following: In	S):	RP-AA-2	203							
Exp	olanat	ion:	This sit valuable be surn protecti A is inc C is con D is inc populat	uation cc e properinised tha ng valua orrect as orrect as orrect, as orrect, as	evers emerg by. Since no t protecting ble property that is the that is the s that is the	jency e indicat large p / is 10 r Adminis federal	xpos ions oopu rem strat limit r life	sure l are latior TEDI ive D t savir	imits to given ons is in E (10,0 Hose Co ng or p	o an indivic of off-site d volved. Th 000 mrem). ontrol level rotecting la	lual to p ose, it (e limit f . Theref	orotect cannot or ore:
Ref	erenc	es to	be	Non	e							
pro	wiedge of radiat tamination contro xcess of those a estion: en the following: A plant transient Radiation levels The reactor did I All attempts to in It is decided the at is the MAXIMU 2,000 mrem TE 5,000 mrem TE 5,000 mrem TE 10,000 mrem T 25,000 mrem T SWER: C FERENCE(S): The value proposed of the proposed of the the proposed of the the proposed of the the proposed of the the proposed of the the proposed of the the the proposed of the the the the the the proposed of the the the the the the the the the the	ng exam:						<u> </u>				
Lea Obj	rning ective	RO ledge and Abili Radia edge of radiation nination control ess of those auth ion: the following: plant transient ha idiation levels in ie reactor did NC attempts to inset s decided the So s the MAXIMUN ,000 mrem TED ,000 mrem TED 0,000 mrem 0,000 mrem	Rad Wor	ker traini	ing lesson p	olan, ob	ij. 17	7				
Que	estion	Sou	rce	Bank		M	lodi	fied I	Bank		New	X
Que Lev	estion	Cog	nitive	Memo	ory or Fund ledge	lament	al	X	Com	prehensio vsis	on or	
10 0	CFR P	Part 5	5 Content	55.4	(b) (12)		55.	43				

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Qu	estior	า #	74									
Exa	amina	tion	Outline C	Cross-ref	erenc	ce						
Le	/el	RO		Tier #	3	G	roup	# C/	AT 4			
Kn	owled	ge a	nd Ability	Referen	ice Ir	nformat	tion				RO	SRO
							G	2.4.6	3	Importance Rating	3.1	
Knc stra	wledg tegies	e syn	ptom base	ed EOP mi	tigatio	on						
Que	estion:											
failu	ire of v	vhich	of the folic	wing com	oner	nt(s)?		<u> </u>				
<u>A.</u>	Iorus	s to D	rywell vac	uum break	ers							
<u>B.</u>	Stand	dby g	as treatme	nt system				<u></u> -				<u>-</u>
С.	Reac	tor bu	uilding to T	orus vacu	um br	eakers						
D.	Conta	ainme	ent spray p	umps								
ANS	SWER:		D							······································		
REF	EREN	CE(S)	<u>. </u>	EOP base	S	[re	f #2]			[ref_#3]		
Ехр	lanatio	n:	A is inco B is inco C is inco D is the	orrect, pos orrect, pos orrect, pos correct an	sible sible \ sible swer.	pressure ventilatio pressure	e relief on pat e relief	path h. f path	I.			
Refe duri	erence ng exa	s to b m:	e provided	None					[ret	f prv #2]		
Lea Obje	rning ective		09546									
Qu	estior	ι Soι	irce	Bank	[X	(]	Mod	lified	Bank	(New	
Qu Lev	estior /el:	n Cog	nitive	Memory Knowle	or Fidge	undame	ental	[X]	Co An	mprehensio alysis	n or	
10 (Coi	CFR F	Part 5	5	55.41	(b)	(10)	55	5.43				

Que	esti	on #	7	75											
Exa	ımiı	nation	Ōι	utline Cr	oss-ref	eren	ice								
Lev	el	RC)		Tier a	#	3	Gro	oup #	ŧ 4					
Kno	owle	edge a	nd	Ability	Referen	ice I	nformat	ion						RO	SRO
2.4				Emerge	ency Pro	ced	ures / Pla	an	2.	.4.31		Imp Rati	ortance ng	3.3	3.4
Knc	wle	dge of	ar	nunciato	ors, alarr	ns, a	and	-							
indi	cati	ons / a	nd	use of th	ne respo	onse	instruction	ons.							
Que	esti	on:													
Giv	en t	he follo	wi	ng:											
• • • Wh	A s Cor Cor Dry Cor	mall LC ntainme ntainme well pr ntainme ction o	DC ent ent es: ent	A is in pr Spray S Spray P sure is 10 Spray S urs as a 1	rogress system 1 2ump 51 0 psig at YSTEM result of	is ir A ar nd d I 1 Fi this	n the Dry nd ESW f ropping s LOW LO alarm?	well Pump slowly alari	Spray 52A y m (B-	y mo are 2-a)	de opera is rec	ating eive	d		
Α.	To	orus Sp	ra	y Valve V	/-21-18	auto	matically	clos	es.						
В.	Co	ontainn	ner	nt Spray	Pump 5	1A a	utomatic	ally t	rips.						
C.	Co	ontainn	ner	nt Spray	Pump 5	1A n	nust be n	nanu	ally t	rippe	ed.				
D.	Co	ontainn	ner	nt Spray	System	1 au	utomatica	ally sh	hifts t	ο Το	rus C	oolin	g mode.		
AN	SW	ER:	17	4											
RE	FER	ENCE	(S)):	RAP B	-2-a							1		
Exp	olan	ation:		A is con B is inc C is inc D is inc power 1	rrect orrect, a orrect, a orrect, a to logic (as 5 ⁻ as R as ai (DC-	1A only tr AP direc utomatic ·F)	rips c ts sta shift	on over arting to To	erloa addi orus (d or l itiona Coolir	ow E I pun ng wi	W press nps as re Il only oc	(.6 psi quired cur on	g) loss of
Ref pro	ere vid	nces te ed dur	o k ing	be g exam:	Nor	ne									
Lea Obj	rni ect	ng ive		10444											
Que	esti	on Soi	irc	e	Bank	ζ –			Mod	ified	Ban	k		New	X
Que Lev	esti el:	on Co	jni	itive	Mem Knov	ory vled	or Fund ge	amei	ntal		Co An	ompi alys	ehensio is	n or	X
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Questic	on #	S01									
Examin	ation	Outline C	ross-refe	rence							
Level	SR	0	Tier #	1	Gi	roup	#1				
Knowle	edge al	nd Ability	Reference	ce Info	rmation					RO	SRO
295003		Partial power	or Compl	ete Los	ss of AC	A	A2.04	lm Ra	portance ting		3.7
Ability to they ap	o deter oly to F	mine and i Partial or C	nterpret t omplete	he follo Loss of	wing as AC pow	er S	ystem	lineups	3		<u></u>
Questio	n:										
Given th	ne follo	wina:						<u></u>			
The	reacto	r is at 100	% power								
 Mair 	n break	er 1A trips	s as a res	ult of a	1A bus f	ault.					
One mir	nute af	er the trip	of Bus 1/	A, what	USSs w	ill be	energiz	zed and	d what acti	on is re	equired?
			 	<u> </u>							
	ILY US	S 1A1 and	d 1A2 will	be ene	ergized. F	Reene	ergize 1	A3 IA	N ABN-46	, Loss	of USS
	3	0 1 4 0	1440 1	1							
	1LY US	5 1 A2 an	a 1A3 Will	be ene	ergized. I	Reene	ergize 1		N ABN-44	, Loss	of USS
		S 141 and	1 1 A 2 will	he end	araized	Roon	oraizo	14214		5 1 000	oflige
C. 1A	2			De ene	sigizeu	Neen	ergize), LUSS	01033
	S 1A1,	1A2 and	1A3 will b	e energ	gized. Ch	neck f	or relay	v targe	ts at main	breake	r 1A
D. IAV	V S-2-0	e, MN BR	(R 1A 86	LKOUT	TTRIP.		-	Ŭ			
ANSWE	R:	В	1		_						
REFERE	NCE(S):	S-2-e		[re	f #2]			[ref #3]	<u> </u>	
		A is inc	correct. 1	A1P bre	eaker ope	ens ar	nd 1A1	will no	t be energ	ized by	the
Explana	tion:	B is the	e correct a	answer	. Both 1A	2 and	d 1A3 v	vill be e	energized	bv the	EDG
-		C is inc	correct. 1/	A1 will i	not be er	nergiz	ed by t	he ED	G		
		D is inc	correct. 1/	A1 will i	not be er	nergiz	ed by t	he ED(G		
Referen	ces to b	oe provide	d Non	e				[ref pr	v #2]		
			1007	<u> </u>		<i></i>	l				
	e e	01086, (1087								
Question	n Sourc	;e	Bank			Mod	ified Ba	ank		New	<u> </u>
Question # S01 Examination Outline Cross-reference Group # 1 Level SRO Tier # 1 Group # 1 Knowledge and Ability Reference Information Partial or Complete Loss of AC AA2.04 Importance 295003 Partial or Complete Loss of AC AA2.04 Importance Rating Ability to determine and interpret the following as they apply to Partial or Complete Loss of AC power System lineups System lineups Question: Given the following: System lineups System lineups • The reactor is at 100% power Main breaker 1A trips as a result of a 1A bus fault. One minute after the trip of Bus 1A, what USSs will be energized and what action is • One minute after the trip of Bus 1A, what USSs will be energize 1A3 IAW ABN-46, Log 1A3 B. ONLY USS 1A1 and 1A2 will be energized. Reenergize 1A1 IAW ABN-44, Log 1A1 C. ONLY USS 1A1 and 1A3 will be energized. Reenergize 1A2 IAW ABN-45, Log 1A2 D. USS 1A1, 1A2 and 1A3 will be energized. Check for relay targets at main breat IAW S-2e, MN BRK 1A 86 LKOUT TRIP. ANSWER: B C REFERENCE(S): S-2-e [ref #2] [ref #3] A is incorrect. 1A1 will not be energiz		<u>or</u>									
220010			Knowl	edge	in au moint			Analy	sis		
10 CFR	Part 55	Content:	55.4	11		5	5.43 (b) (5)		······	

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		0										
Exa		Outline C	ross-reter	ence	Crow						- 808-00	
Lev			Defense	2	Group	<u> </u>	2			PO	CD/	
259	0001	Reacto	or Feedwat	ter		G 2.	1.7	Impo Batir	ortance		4.4	
Abil ope cha inte	ity to evalu rational ju racteristics rpretation	uate plant dgments b s, reactor b	performan ased on op behavior, a	ce and ma perating nd instrum	ke nent				<u> </u>	J		
Que	estion:	•										
The	e plant is o	perating at	t 90% pow	er with the	following	, cor	ndition	s:				
•	Power Feedw	ascensior ater pump	n using rec os 'A', 'B' a	irculation f nd 'C' are	flow is in in service	prog e	ress.					
One	e minute la	ter Feedw	ater Pump	'C' trips a	nd the fo	llowi	ng ala	irms ar	e reçeive	ed:		
•	FEED FEED	pump tr Pump ol	lIP C, (J-1- . C, (J-2-f)	f)								
Wh	ich one of	the followi	ng actions	is required	d?							
	Manually	scram the	e reactor IA	W ABN-1	. Reactor	Scr	am.					
Α.	ivianualiy				,			`				
А. В.	Restart t	he 'C' Fee	dwater pur	np IAW J-	1-f, Feed	Pun	np Trip	J.				
A. B. C.	Restart t	he 'C' Fee a rapid po	dwater pur wer reduct	np IAW J- ion IAW 20	1-f, Feed 02.1, Pow	Pun ver C	np Trip Operat	ion.				
A. B. C. D.	Restart t Perform Take ma	he 'C' Fee a rapid po nual contr Abnormal (dwater pur wer reduct ol of feedw Condition.	np IAW J- ion IAW 20 ater and r	1-f, Feed 02.1, Pow estore RF	Pun ver (PV le	np Trip Operat evel IA	ion. W ABI	N-17, Fe	edwate	ər	
A. B. C. D.	Restart t Perform Take ma System	he 'C' Fee a rapid po nual contr Abnormal (C	dwater pur wer reduct ol of feedw Condition.	np IAW J- ion IAW 20 ater and r	, 1-f, Feed 02.1, Pow estore RF	Pun ver (PV le	np Trip Dperat evel IA	ion. W ABI	N-17, Fe	edwate	ər	
A. B. C. D. ANS	Restart t Perform Take ma System / SWER: ERENCE(he 'C' Fee a rapid po nual contr Abnormal (C S):	dwater pur wer reduct ol of feedw Condition. J-1-f, H- 17	np IAW J- ion IAW 20 ater and r 7-e, ABN-	1-f, Feed 02.1, Pow estore Rf	Pun ver (PV le	np Trip Operat evel IA	ion. W ABI	N-17, Fe	edwate	er	
A. B. C. D. ANS REF	Restart t Perform Take ma System / SWER: ERENCE(S	he 'C' Fee a rapid po nual contro Abnormal (C S): A is inc B is inc C is th D is inc	dwater pur wer reduct ol of feedw Condition. J-1-f, H- 17 correct, scra correct, C fe e correct an correct, feed	np IAW J- ion IAW 20 rater and r 7-e, ABN- am not required pump ca swer, power d control do	1-f, Feed 02.1, Pow estore RF [ref #2] ired, reduction er reduction es not have	Pun ver (PV le l ction esta n is i	np Trip Dperat evel IA in pow rted du require be pla	ion. W ABI ver is ac le to pui d actior ced in r	N-17, Fe [ref #3] ction. mp OL. n. nanual.	edwate	ər	
A. B. C. D. ANS REF Exp	Restart t Perform Take ma System SWER: ERENCE(Danation: erences to ing exam:	he 'C' Fee a rapid po nual contr Abnormal (C S): A is ind B is ind C is th D is ind be provide	dwater pur wer reduct ol of feedw Condition. J-1-f, H- 17 correct, scra correct, scra correct, c fee e correct an correct, feed ed None	np IAW J- ion IAW 20 rater and r 7-e, ABN- am not required swer, powe d control do	1-f, Feed 02.1, Pow estore Rf [ref #2] ired, reduc annot be r er reduction es not hav	Pun ver C PV le ction esta n is i ve to	np Trip Dperat evel IA in pow rted du require be pla	ver is ac te to pui d actior ced in r	N-17, Fe [ref #3] ttion. mp OL. n. manual. #2]	edwate	∍r	
A. B. C. D. ANS REF Exp Lea Obj	Restart t Perform Take ma System SWER: ERENCE(lanation: erences to ing exam: rning ective	he 'C' Fee a rapid po nual contro Abnormal (C S): A is ind B is ind C is th D is ind be provide	dwater pur wer reduct ol of feedw Condition. J-1-f, H- 17 correct, scra correct, C fe e correct an correct, feed ed None	np IAW J- ion IAW 20 rater and r 7-e, ABN- am not requised pump c swer, powe d control do	1-f, Feed 02.1, Pow estore RF [ref #2] ired, reduction es not have	Pun ver (>V le l ction esta n is i ve to	np Trip Dperat evel IA in pow rted du require be pla	ver is ac le to pur d actior ced in r ref prv	N-17, Fe [ref #3] ction. mp OL. n. nanual. #2]	edwate	∍r	
A. B. C. D. ANS REF Exp Ref dur Lea Obj Que	Restart t Perform Take ma System / SWER: ERENCE(Clanation: erences to ing exam: rning ective estion Sou	he 'C' Fee a rapid po nual contra Abnormal (C S): A is ind B is ind C is th D is ind be provide 10450	dwater pur wer reduct ol of feedw Condition. J-1-f, H- 17 correct, Scra correct, C fe e correct an correct, feed ad None	np IAW J- ion IAW 20 rater and r 7-e, ABN- am not required pump ca swer, powe d control do	1-f, Feed D2.1, Pow estore Rf [ref #2] ired, reductiones not hav	Pun ver (>V le ction esta n is i ve to	in pow rted du require be pla	ver is ac ver is ac d action ced in r ref prv	N-17, Fe [ref #3] ption. mp OL. n. manual. #2]	edwate	ər	
A. B. C. D. ANS REF Exp Ref dur Lea Obj Que	Perform Take ma System / SWER: ERENCE(Clanation: erences to ing exam: rning ective estion Sources	he 'C' Fee a rapid po nual contro Abnormal (C S): A is ind B is ind C is th D is ind be provide 10450	dwater pur wer reduct ol of feedw Condition. J-1-f, H- 17 correct, scra correct, C fe e correct an correct, feed e correct feed None Bank	np IAW J- ion IAW 20 rater and r 7-e, ABN- am not required pump cr swer, power d control do e y or Funda	1-f, Feed 02.1, Pow estore RF [ref #2] lired, reduction es not hav es not hav	Pun ver (>V le ction esta n is i ve to	in pow rted du require be pla	ver is ac le to pui d actior ced in r ref prv	N-17, Fer [ref #3] ction. mp OL. n. manual. #2] chension s	edwate New or	ər	
Que	stion	#	S03									
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Exa	minat	ion (Dutline Ci	oss-refe	erenc	e						
Lev	el	SR)	Tier #	# -	1 GI	roup	# 1				
Kno	wled	ge ar	d Ability	Referen	ice In	formation					RO	SRO
2950	006		SCRAN	Л			A	A2.03	ln R	nportance ating		4.2
Abili they	ity to c apply	deterr / to S	nine and/o CRAM:	or interpr	et the	e following a	as R	eacto	r watei	r level		
Que	stion:											
Give • • If let	en the Plant a Digital A leak ft UNC	follov at 100 Fee deve CORF	wing: D% power d Level Tr elops in th RECTED , I	ansmitte e variabl how will	r Sele e leg the pl	ection on 41 for the "A" ant respon	= is in level i d and	AUT(nput t what) o Digiti actions	al Feed s are requi	red?	
A .	Leve	l will	lower lead	ling to a	scran	n. Execute	ABN-	1, Rea	actor S	cram		<u>.</u>
В.	Leve Read	l will tor S	rise leadir cram	ng to a tu	irbine	trip. Execu	te AB	N-10,	Turbin	ne Trip and	ABN-1,	
C.	Leve setpo	I Trai pint I/	nsmitter S AW proced	election dure 317	will a Feed	utomatically Iwater Syst	/ swap em	o to th	e "B" le	evel input.	Adjust th	e level
D.	Leve IAW	l Trai proce	nsmitter S edure 202	election , Power (will su Opera	ubstitute 16 ation	0 in. f	or inp	ut to D	igital Feed	. Monitor	level
ANS	WER:		В									
REF	EREN	CE(S):	ABN	710	20	00-OF	PS-30	24.24	[ref #3	8]	
Ехр	lanatic	on:	For val goes d instrum feed A is ind B is co C is ind D is ind	riable leg own. Sin hents will correct. In rrect. correct, c correct, c	g leak ice "A I shov ndica digital digital	actual leve and "C" s lower leve ted level wi feed will no feed will no	I goes hare s al and II drop ot see ot see	s up, f same not re b, cau this a this a	or refe variabl ssult in sing ac s an e s an e	rence leg l e and refe an error s ctual level t rror. rror.	eak actu rence leg ignal to c to rise	al level both igital
Refe	erence	s to t	e provide	d Nor	ne				[ref r	orv #2]		
duri	ng exa	im:	-							_,		
Lear Obje	earning 10450 Objective											
Que	stion	Sourc	e	Bank			Mod	ified E	Bank	[X]	New	
Que	stion	Cogn	itive Level	: Memo Know	ory or rledge	Fundamen	tal	[X]	Com Anal	prehensioı ysis	n or	
10 C	FR Pa	rt 55	Content:	55.	.41		5	5.43	(b) (5)			

Que	estic	n #	S04	·									
Exa	min	ation	Outline Cr	oss-refe	erenc	e							
Lev	el	SR	0	Tier #	¥	1	Grou	ıp #	1				
Kno	wie	dge a	nd Ability	Referen	ice In	formati	on					RO	SRO
2950	019		Partial of Instrum	or Comp ent Air	lete l	loss of		G	2.1.3 [.]	i In Ra	nportance ating		3.9
Abili india refle	ity to catio	o locato ons and g the c	e control ro d to determ lesired plar	om swit ine that nt lineup	ches, they	control are corr	s and ectly						
Que	stio	n:											
Give	en th	ne follo	wing condi	tions:	<u></u>		<u> </u>						
• • Bas Con	Plar Insti ed c	it is op rument on the a Room	erating at 1 air header above conc ?	00% pc pressu	ower re Iow which	vers to 3 of the fe	30 psig ollowin	ig ai	ctions	can b	e performe	d from	the
											007 1 1		
A .		Vent V	alves can l	be open	ed fro	om pane	911F,	IAV	v Prod	ceaure	e 307, Isola		ndenser
		Makei	in valves ca	an he or	Perate	d from	5F/6F	IAV	V SP-	11 Al	ternate Pre	ssure (Control
В.	Sv	stems.	Isolation C	Condens	ers.					, /			
C.	Of Of	gas O Gas S	utlet valves System.	can be	oper	ned from	10XF	, IA'	W Pro	cedur	e 325, Air E	Extracti	on and
	MF	RVsc	an be oper	ated by	placi	ng their	contro	llers	s in M	AN on	5F/6F, IAV	V SP-2	, Feed
Ľ	an	d Cono	densate Sy	stem.		<u>-</u>							
ANS	SWE	R:	В										
REF	ERI	ENCE(S	S):	ABN-3	5		[[ref #	2]			[ref #3]		
Exp	A is incorrect. Vent valves fail closed B is the correct answer. Accumulators provide operating pressure C is incorrect. Outlet valves fail closed D is incorrect, MFRVs lockup. Can be operated after placing in local												
Refe	eren	ces to	be provide	d No	ne					[ref p	orv #2]		
duri	ing e	exam:						_					
Lea Obj	rnin ectiv	g ve	00666										
Que	estio	n Sour	ce	Bank			N	lodi	fied B	ank	[X]	New	
Que	estio	n Cogr	nitive Level	: Mem Knov	ory oi vledg	r Fundar e	nental		[X]	Com Anal	prehension ysis	or	
10 0	CFR	Part 55	5 Content:	55	.41			55	i.43	(b) (5)			

0	estion	#	S05							<u> </u>		
Eva	minet	" ion (Jutline Cro	se-refer	anco							
		SR		Tier #	1	Grou	in #	11				
Kn	owled		d Ability B	eference	Informa	tion	<u> </u>	<u> </u>			BO	SBO
295	021	ye ai		Shutdown	Cooling			2 01	In	nortance	35	36
				onacaom	ocomig				B	ating	0.0	
Abi	lity to c	deteri	mine and/or	interpret	the follov	ving as						ـــــــــــــــــــــــــــــــــــــ
the	apply	to LC	SS OF SH	UTDÓWN		NG:	He	acto	r water	r neatup/co	oldown	rate
Que	estion	:										<u></u>
Giv	en the	follo	wina:									
•	The pl	lant is	s shutdown									
•	Shutd	own (Cooling loop	os A and	B are in s	ervice						
•	At 9:3	0 AM	, all RBCCV	N is lost,	reactor pr	ressure	is 4 ⁻	l psi	g			
•	At 9:5	0 AM	, reactor pre	essure is	70 psig							
Bas	sed up	on th	e above, the	e heatup	rate is ap	proxima	ately	•••				
<u> </u>						· <u> </u>						
<u>A.</u>	28 de	<u>∋g.</u> ⊢ −	per nour			·····						<u> </u>
В.	35 de	eg. F	per hour									
С.	84 de	eg. F	per hour							<u> </u>		
D.	105 (deg. I	F per hour									
AN	SWER	:	C									
RE	FERE	NCE(S):	Steam ta	bles					[ref #3]		
			At 70 ps	ig, satura	tion temp	erature	is 3	15 de	eg. At 4	41 psig, sat	uration	
			tempera	ture is 28	7.9 deg.	The pla	nt ha	is he	ated u	p 28.1 degr	rees in	a 20-
			minute p	eriod.	4			~~ ~				_
			At 70 ps	ia, satura	tion temp	erature	IS 31	02.9 The	deg. A	it 41 psia, s	aturatio	on Noteline
				ncia tha	proximate regult will	ty 200 ha ann	uey. rovir	natol	10101e,	n me canu	20-mir	listakes
Exc	olanati	on:	paig ioi period. T	Cherefore		be app		nate	y 55 u	egreesina	20-1111	lute
			A is inco	rrect bec	ause it wa	as not fa	actor	ed fo	or a on	e-hour peri	od.	
			B is inco	rrect, as	the wrong	values	wer	e de	termine	ed (did not	conver	t psig to
			psia) and	d it was n	ot factore	d for a	one-	hour	period	I. `		
			C is corr	ect								
			D is inco	rrect, as	the wrong	g values	wei	e de	termin	ed (did not	conver	t psig to
<u> </u>			psia.)						- <u></u>			
Ref	erenc	es to	be	Stean	n tables							
pro	vided	duri	ng exam:						<u> </u>			
	irning		00026, 00)042								
	ective		L							 _		
Que	estion	Sou	rce	Bank		<u> </u>	lodi	fied	Bank		New	<u> </u>
Que	estion	Cog	nitive	Memor	y or Fund	dament	al		Com	prehensio	n or	X
Lev				Knowle	edge					<u>ysis</u>		
10 0	CFR P	art 5	5 Content:	55.41			55.4	43	(b) (2)			

							_				<u> </u>			
Que	estion	#	S06	·										
Exa	minat	tion C	Dutline Cr	oss-ref	eren	ce								
Lev	el	SRC)	Tier	#	1	Grou	ıp #	1					· · · · · · · · · · · · · · · · · · ·
Kno	owled	ge an	d Ability	Referen	ice l	nformat	ion						RO	SRO
2950	024		High Di	ywell Pr	ressi	ure		G	2.4.5	50	Impo Ratir	rtance		3.3
Abil	ity to v	verify	system al	arm setp	point	s and op	erate							
con	trols in	dentifi	ed in the a	alarm re	spor	ise mani	ual.							
Que	estion:													
The	plant	is at	100% pow	er wher	the	following	g even	ts o	ccur:					
T =	0 min Drywe	utes; ell pre	ssure rise	s to 3.7	psig									
•	Drywe	ell terr	perature i	s 140 de	eg. F	-								
τ=	1 min	ute;												
• • Whi	 Core Spray Main pump B (N201B) & Core Spray Booster pump B (N203B) are the ONLY Core Spray pumps running All other systems responded as designed Which of the following actions is required based on the above conditions? 													
Α.	Start	NZO	1A & NZ03	BA IAW	SP-1	, Primar	y Cont	ainr	nent	initia	tions	and iso	lations	
В.	Start	NZO	1D & NZ0	3D IAW	SP-	1, Primar	y Con	tain	ment	initia	tions	and iso	lations	
C.	Secu	ire EI	OG #1 & #	2 locally	IAW	/ proced	ure 34	1, E	merg	ency	Dies	el Gene	rators	
D.	Maxi	mize	Drywell C	ooling IA	W F	Primary C	Contair	me	nt Co	ontrol				
ANS	WER:		A			·								
REF	EREN	CE(S)):	RAP B	-1-e.		SP-1					[ref #3]		
Ехр	REFERENCE(S): [RAP B-1-e, SP-1] [ref #3] A is the correct answer. NZ01A & NZ03A should have started and must be manually started B is incorrect, SP-1 directs one main and one booster in each system. 1D/3D are the same system as 1B/3B. C is incorrect, EDGs need to remain running D is incorrect drywell cooling not required at 3.2 psig.													
Refe	erence	s to b	e provideo	I Nor	ne		1			Ire	f prv i	#2]		
duri	ng exa	<u>am: _</u>			-						1- /			
Lea Obje	earning 10450													
Que	stion	Sourc	e	Bank			N	lodi	fied E	Bank			New	[X]
Que	stion	Cogni	tive Level:	Memo	ory o	r Fundan	nental	1	[X]	Co	mpre	nension	or	
L				Know	ledg	e				An	alysis	;		
10 C	FR Pa	rt 55	Content:	55.	.41			55	.43	(b) (5)	j)			

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Que	stio	า #	S07										
Exa	mina	tion C	utline Cr	oss-refe	erenc	e							
Leve	el	SRC)	Tier #	ŧ	1	Gro	up ‡	ŧ <u>1</u>				
Kno	wlec	lge an	d Ability I	Referen	ce In	format	ion					RO	SRO
2950)25		High Re	eactor P	ressu	ire		G	2.1.	28 In Ra	nportance ating		3.3
Knov syst	wledg em c	ge of tl ompor	ne purpose ients and	e and fu controls	nctio	n of ma	ijor						
Que	stion	:											
A pla	ant tr	ansier	t resulted	in the fo	ollowi	ng:					<u>. , ,u , e.</u>		
• F • F • I • I Base	Reac Reac C "A C "B ed or	tor wa tor pre " cond " stear n the a	ter level dr ssure spik ensate ret n line D/P bove cond	opping ing to 1 urn line reachin litions, h	to 10 060 p D/P r g 300	0 in. ab osig for reaching 0% for 3 rill the p	ove T 2.5 se g 500° 35 sec olant re	AF f econ % fo cond	or 5 ds. r 25 s. ond?	seconds	S. S.		
Α.	IC ",	A" isola	ates ONL	1. Enter	RPV	Contro	I – No	AT	WS.				
В.	IC "I	B" isola	ates ONL)	. Enter	Prim	ary Cor	ntainm	nent	Cont	rol.			-
C .	IC "/	A" initia	ates and IC	C "B" iso	lates	. Enter	RPV	Con	trol –	No AT	WS.		
D.	IC "	B" initia	ates and I	C "A" iso	lates	. Enter	Prima	arv C	Conta	inment	Control.		
ANS	WER	:	С										
REF	EREN	VCE(S)	:	RAP C-	-3-b		[ref a	#21			[ref #3]		
Expl	anati	on:	Hi flow occurs A is inco B is inco C is the D is inco	is set at orrect. E orrect. A correct orrect. E	3009 BIC is IC ir answ BIC is	% susta solates nitiates ver. Bot solates	ined f	or 2	7 or r ate th	nore se nen B IC	conds befo	re isola	tion
Refe durir	renco 1g ex	es to b am:	e provided	Nor	ie					[ref p	orv #2]		
Lear Obje	ning ctive		02030										
Ques	Question Source Bank [X] Modified Bank New												
Ques	stion	Cogni	tive Level:	Memo Know	ry or ledge	Fundar	nental			Com Analy	prehension /sis	or	[X]
10 C	FR P	art 55 (Content:	55.	41			55	5.43	(b) (5)			

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Que	stion	#	S08				*	• •							
Exa	minat	tion (Dutline Cro	ss-refere	enc	e			_			<u> </u>			
Lev	el	SRO	D	Tier #	1		Gro	up #	•	1					
Kno	wled	ge ar	nd Ability F	leference	e Int	ormati	on							RO	SRO
2950)26		Suppres	sion Pool	Hiç	gh Wate	er	E/	A2.	01	In	nportanc	ce		4.2
			Tempera	ature				_			R	ating			
Abili	ity to c	deter	mine and in	terpret the	e fo	llowing	as					") 1	1:		
tney	appi	/ 10 5	uppression	Pool Hig	n vv	ater		5	hbb	bres	ISION H	2001 000	ung		
	stion:	ure					<u> </u>		_						
Give	on the	follo	wing condit	ions:											
		101101		10113.											
•	RPV v	vater	level is 75	in. TAF											
•	Drvwe	ell pre	ssure is 1.2	2 psig											
•	Torus	temp	erature is 9	97 deg. F											
•	ALL a	utom	atic actuati	ons and i	nitia	itions h	ave o	occur	rec	k					
Bas	ed on	the a	bove condi	tions, whi	ich	one of t	the fo	llowi	ng	act	ions s	atisfies /	ALL	the	
requ	uireme	ents c	of 2000-EM	G-3200.0	2, F	rimary	Cont	ainm	en	t Co	ontrol	?			
0.00	ration		numna												
Ope	eraung	ALL	. pumps												
A.	for O	NE c	ontainment	spray sy	ster	n in the	e Tori	us Co	ooli	ng	mode				·······
В.	for O	NE c	ontainment	spray sy	ster	n in the	Dry	vell S	Spr	ayı	mode				
C.	for B	отн	containme	nt spray s	syst	ems in t	the T	orus	Ċc	olir	ng mo	de			
D.	for B	отн	containme	nt spray s	syst	ems in t	the D	rywe	ell S	Spra	ay mo	de			
ANS	WER:		A		<u> </u>				-	•					
REF	EREN	CE(S):	EOP SP-	25		[ref	#2]				[ref :	#3]		
		<u>}</u>	All autor	matic actu	Jatio	ons and	initia	ations	s h	ave	occu	rred inclu	udes	s two r	main CS
1			pumps r	unning											
			A is the	correct a	nsw	er, limit	ted to	4 cc	ore	spi	ay an	d/or con	tainr	ment s	spray
Exp	lanatio	on:	pumps of	on the To	rus	at one t	time	!	·I						
1				prrect, dry	we	i spray	not r	equir not "	ed	ma	ra tha	n 1 coro	opr		1/or
			C IS INCO	nent enra	15 V D	unning Impe o	n the	Tor	uli Ie 4	o te	ne tim	11 4 CUIE 10	shu	ayan	10
			D is inco	orrect dry	wel	l sprav	not r	equir	red	. 0		ю.			
Refe	erence	es to l	be provided	None				5 9 611			[ref r	orv #2]			
duri	ng exa	am:													
Lea	rning		00446												
Obje															
Que	stion	Sour	ce	Bank				Modi	ifie	d B	ank	<u> </u>		New	[X]
Que	stion	Cogn	itive Level:	Memory	/ or dae	Fundan	nenta	11			Com	iprehensi weis	ion d	or	[X]
		nt EE	Contenti		uge			55	5 14	2 1 /		ysis			
	/F M M'č	11 L DD	Content:	00.4	• 1		1	- 55		2 I (U) (0)	1			

- . _-

Que	estion	#	S09								
Exa	minat	ion O	utline Cro	oss-refere	nce						
Lev	/el	SRC		Tier #	1	Group	# 2				ł
Kno	owledg	ge an	d Ability F	Reference	Informat	ion			RO	SRO	}
295	015		Incompl	ete Scram			G 2.4.6	Importance Rating	3.1	4.0 1 2/2	
Knc stra	wledg tegies	e of sy	mptom ba	ised EOP n	nitigation			NIS NO	BID	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
Que	estion:						1,	WATE NY	~	, alon	
Giv • • • • • • • • • • • • • • • • • • •	en the The pl 12 rod All AP IRMs i Torus Reacte Conde ing the at is th	follow ant so s did RMs a ndica Temp or Pre or wat ensate e next e requ	rammed f NOT move are downs te 50% of erature is ssure is b er level is 3 minutes uired actio	rom 100% e into the c cale range 6 82 degree eing mainta being mainta s reactor po n?	power sore s and ste ained bet ntained be	ady ween 85 etween 1 s to 6%.	M	or product of the pro	Poul Seed &	ves turner ves turner turn	1 dago mener 2 Crocum
A.	Term belov	inate v 2%.	and preve	ent all inject	tion excer	ot boron	and CRD u	until reactor por	ver dr	ops	
В.	Main	tain R	PV water	level betwe	en 138 8	<u>1/5 in.</u>	IAF but as	s low as possib	einti	he band.	
С.	l erm belov	iinate v 30 ii	and preve n. TAF.	nt all inject		ot boron	and CRD (until KPV water	level	arops	
D.	Main	tain R	PV water	level betwe	en 138 8	k 175 in.	TAF with r	no restrictions.			- wo
ANS	SWER:		С								A
REF	EREN	CE(S)		EMG-3200).01B	[ref #2]		[ref #3]			1
Ехр	olanatio	on:	A is corrition condition B is incondetermine C is the D is incondetermine	rect for leve ns orrect due ned correct an orrect due ned	el/power to overrid swer. to overrid	issues, b e dealing le dealing	out this doe g with powe	es not meet leve er above 2% or er above 2% or	el/pow canno canno	er ot be ot be	
Ref	erence	s to b	e provided	EOPs	w/o entry	conditio	ns [r	ef prv #2]			}
duri	ing exa	im:									l
Lea	rning	1	10450						i	and	
		- v	other	losand	urm	T	•	Guter 3 l	209	<u> </u>	J

Question Source	Bank		Mod	ified	Bank	[X]	New	
Question Cognitive Level:	Memory or Knowledge	Fundament	al	_	Comp Analy	orehens /sis	ion or	[X]
10 CFR Part 55 Content:	55.41		5	5.43	(b) (5)			

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Que	stion	#	S10											
Exa	minat	tion O	utline Cro	ss-refer	renc	e								
Lev	el	SRO		Tier #	ĺ	2	Gr	oup #	1			<u></u>		
Kno	wled	ge and	d Ability R	eferenc	e In	formati	ion						RO	SRO
2150	004		Source F	Range M	lonit	or		A	2.02		lm Ra	portance ting		3.7
Abil	ity to (a) pre	dict the im	pacts of	the	followin	ig on							
the	Sourc	e Ran	ge Monitor	and (b)	bas	ed on th	hose							
prec	diction	s, use	procedure	es to cori	rect,	control	l, or	SI	RM i	nop	o con	dition		
miti	gate th	ne con	sequences	s of thos	e ab	normal								
ope	ration	s:	<u> </u>						·					
Que	stion:													
Give	en the	follow	ing conditi	ons:										
	D													
•		de sw	itch in "Sta	artup"										
•		21 byp	assed											
		22 mo		s piaceo		ERIOL)							
•		VIS IN I	ange 4											
Bas	ed on	the at	ove condi	tions, ro	d wit	thdrawa	al							
А.	CAN 7-a, F	continu ROD BI	Le without fu _OCK	urther act	tion(s	s); the S	RM F	Rod Bl	ock i	s by	/pass	ed at IRM F	Range 3,	IAW H-
В.	CANI 8, IAV	VOT co V H-7-a	ontinue with a, ROD BLC	out furthe DCK	er ac	tion(s); t	he S	RM Re	od Bl	lock	will N	IOT clear u	ntil IRM	Range
C.	CAN Att. 2	contini 01-2, F	ue without fi Pre-Critical (urther act Checkoff	tion(s	s); only 2	2 SRI	VIs are	req	uire	d to b	e operable	for Start	up, IAW
D.	CAN	NOT co	ontinue with	out furthe	er ac	tion(s); p	olant	proce	dure	s wi		r allow a St	artup wi	th only 2
	opera	ible SF	IMs, IAW A	t. 201-2,	Pre-	Critical (Chec	koff	-					
ANS	WER:		в	01 11 7			Traf	#01						
REF	CREN	UE(3):	Planing S	201, FI-7	<u>-a</u>	itah in P			1000	on		Pod Block		
			A is incor	rect. Rod	Bloo	ck will no	ot cle	ar unt	ises il IRN	ап Л Ra	ande	ROU DIUCK.		
			B is the c	orrect an	swer	, Startup	o can	not co	ntinu	Je.	ango	0		
Exp	lanatic	on:	C is incor	rect. only	2 S	RMs are	e requ	uired to	o be	оре	rable	for Startup	, IAW At	t. 201-2,
			Pre-Critic	al Check	off, b	out Rod I	Block	will n	ot cle	ear	until I	RM Range	8 or swit	ich to
				E, rods co root plan	ould	not be n	nove	d to co	ontin	ue v	vith st	artup	orabla (
Refe	erence	s to be	provided	None	ir hic		S VVIL		wat		ref n	rv #21	Jerable (
duri	ng exa	<u>im:</u>								'		• • • •		
Lear Obje	earning 03002 bjective													
Que	stion 9	Source)	Bank				Modi	fied	Bar	nk	[X]	New	
Que	stion (Cognit	ive Level:	Memor Knowle	y or edge	Fundan	nenta	al	· .		Comp Analv	rehension	or	[X]
10 C	FR Pa	rt 55 C	content:	55.4	1			55	.43	(b)	(5)			

Que	estion	#	S11									_	
Exa	minat	ion O	utline Cro	oss-refer	enc	e							
Lev	rel	SRO		Tier #	1	=	Gro	oup #	1 2				
Kn	owled	lge ar	nd Ability	Refere	nce	Infor	matio	on				RO	SRO
295	032		High See	condary (Cont	ainmer	nt	E	A2.0	1	Importance	e	3.8
			Tempera	atures							Rating		
Abi	ity to c	leterm	ine and/or	rinterpret	t the	followi	ing as	S .					
they	y apply	to Hi	gn Second	lary Cont	ainn	nent			rea t	emp	erature		
Ter	nperau	ures	·····				··						
Que	estion:		·										
Giv	en the	tollow	ing:										
Λ fi	ra in th	o roor	stor buildin	a haa aa	r	from +	ho 51	1' 000	votio	n to	the 75' alors	tion Th	~
	wing t	empo	raturas ha	iy nas sp ve been i	reac	a nonn i arted to	the J	l ele Init S	valic	n io	Ine /S eleva	uon. m	9
	, wing t	onhe	1410100 114		epu			June C	uhe	1 1130	· · ·		
•	51' RV	VCU F	MP RM (\	NEST) in	dica	ites 22	5 dec	ι. F	フか	ex S	sif 0 (\$96) \$		
•	75' DE	EMIN N	AULT ind	licates 22	0 de	a. F			x st	al 2	8) 8)		
•	75' PF	RECO	AT TANK i	ndicates	230	dea. F	: _	~///~	~ 040	in Go	0)		
•	95' IS(o col	ND (NORT	H) indica	tes	200 [°] de	g.F		n sy	e x			
			,	,			Ŭ	7 /"	here p	m			
Wh	ich of t	he foll	lowing acti	ions is re	quire	ed base	ed on	the	abov	/e co	nditions?		
	· · · · · · · · · · · · · · · · · · ·												
Α.	Scrai	m the	reactor IA	W RPV C	onti	rol – No	o ATV	<u>vs</u> c	NL	(
В.	Scrar	m the	reactor IA	W RPV C	onti	rol – No	o ATV	VS A	ND	Eme	rgency depre	ssurize	IAW
	Emer	rgency	/ Depressu	urization									
C.	Moni	tor are	ea tempera	atures IAV	N S	econda	iry Co	ontai	nme	nt Co	ontrol and cor	nmence	а
	shutc	lown I	AW proce	dure 203	, Pla	Int Shu	tdow	n Oairt				<u> </u>	
D.	initiat	ione e	RBHVAU,	start SG	121	AVV SP	′-49, °	Cont	irma	tion	of Secondary	Contair	ment
				<u>, 15</u>								<u> </u>	<u></u>
REE	FREN		<u> </u>	EMG-320	0 1	1 800	[rof	#21			[rof #	21	
		<u>u (</u> 0).	Aisthe	correct a	nsw/	er	[10]	<u>"~</u>]				<u>'</u>	
_			B is inco	prrect. ED	not	reauire	ed bu	it pla	usib	le.			
Exp	lanatio	n:	C is inco	prrect. ad	ditio	nal acti	ion re	auire	ed.				
			D is inco	prrect, no	t rea	uired.							
Refe	erence	s to be	provided	EMG	320	0.11 S	CC			ſr	ef prv #2]		
duri	ng exa	<u>m:</u>									· ····		
Lea	rning		10450		_	_							
Obj	ective											1	
Que	stion S	Source	•	Bank				Modi	fied	Banl	([X]	New	
Que	stion (Cognit	ive Level:	Memory	or l	Fundan	nenta	1	[X]	C	omprehensio	n or	
10.0					age		<u> </u>		40		nalysis		
100	лгп ма	ri 35 C	oment:	1 55.41				- 55	.43	1 (D) (51 I		

.

Que	estion	# 5	612												
Exa	minat	ion Ou	utline Cro	oss-refe	erenc	e									
Lev	el	SRO		Tier #	¥ 1		Grou	h dr	2						
Kno	owledg	ge and	Ability F	Referen	ce In	formatio	on						RO	SR	80
2950	036		Seconda	ary Con	tainm	ent High	า	G	2.4.6	5	Impo	rtance]	4.0)
16.00			Sump/W	ater Le		-					Ratin	g	<u> </u>	L	
Kno	wieag	e sym	otom base	ed EOP	mitig	ation		1							
	etion:							<u> </u>		_					
Give	on the	followi	na.			<u> </u>								-	
		1011011	ng.												
•	Plant i	s at 10	0% powe	er											
•	The To	orus de	evelops a	leak											
•	Torus	water	level is 14	46 in.											
•	Rx Blo	lg SW	Corner R	oom wa	ater le	vel is 24	l in. a	nd r	ising						
•	Rx Blo	ig NW	Corner R	oom wa	ater le	vel is 12	2 in. a	nd s	stead	у					
								<i></i>							
Bas	ed on	the ab	ove cond	itions, v	vhat e	quipmei	nt is a	atteo	ted a	ind w	nat pi	oceaur	es are		
requ	required?														
	Core	Snrav	system 1	numps		availah	le er	nter	Prima	arv C	ontair	ment C	Control	·	
B	Core	Spray	system 2	P numps		' availab	le er	nter	Seco	ndan	V Con	tainmer	nt Cont	rol	
<u>C</u>	Cont	ainmar	t Sprav s	evetom	1 num		avai	lahlu		er Pr	imary	Contai	nment	Con	trol
<u> .</u>	Cont	ainmer	nt Spray s	system ($\frac{1}{2}$ pun	ips NOT	avai	lable	\rightarrow ent	er Se	cond	ary Cor	tainme	ent	
D.	Cont	rol	n opray s	system	r pun	ipa no i	avai		, 011		500110				
ANS	WER:	E	3	<u> </u>	· · ·				-						
REF	EREN	CE(S):		EOP ba	ases		[ref #	2]				[ref #3]			
			A is inco	orrect, C	Core S	Spray sy	s 1 p	ump	ARE	ava	ilable,	PCC is	NOT	ente	red.
			B is the	correct	answ	ver, Core	e Spra	ay s	ys 2 p	oump	s are	NOT av	vailable	, SC	CC
Exp	lanatio	on:	IS enter	red.	_		_								~-
			C is inc	orrect, (Conta	inment S	Spray	sys	i 1 pu	mp A	ARE a	vailable	, PCC	is N	01
			entered	arraat (Conto	inmont (Saray		. 0 mi	mn A		voilabla			
Rofe	erence	s to be	D IS INC		$\frac{2011a}{Pe}$		condit	Sys tion	s <u>z pu</u>	linp P	f nrv ±	201			
duri	ing exa	am:	Provideo		1 G VV/	o enuy (unun			100	· P· · ·	· • 1			
Lea	rning		03082												
Obj	ective					<u>, </u>									
Que	stion	Source	•	Bank				lod	ified E	Bank	[X]	New		
Que	estion	Cogniti	ive Level:	Memo	ory or	Fundam	nental		[X]	Co	mprei	nension	or		
				Know	/ledge)			40		alysis	·			
1 10 C	лы Ра	irt 55 C	ontent:	55	.41			5t	0.43	(D) (5)	1			

Question #	S13												
Examination	Outline Cros	ss-referenc	:e										
Level SR	0	Tier #	2 Grou	p # 1									
Knowledge a	nd Ability R	eference In	formation			RO	SRO						
209001	Low Pres	sure Core S	Spray	G 2.1.31	Importance Rating		3.9						
Ability to locat indications an reflecting the o	e control roo d to determin desired plant	m switches, ne that they lineup	controls and are correctly										
Question:													
Given the follo Core Spra MN BRKR Two (2) m What is the st	wing condition y Booster pu 1D 86 LOCH inutes later, of atus of the E	ons: mp NZ03A <out trip<br="">drywell pres DGs and the</out>	breaker is racl annunciator is sure reaches e Core Spray s	ked out for received a psig. Systems one	epairs • minute after tl	ne abo	ve						
conditions occ	conditions occur?												
A. EDG 1 id	ling, EDG 21	fast start, 1/	A & 1D Mains	on, 3D Boos	ter on								
B. EDG 1 &	2 idling, 1B	& 1C Mains	on, 3B & 3C E	Boosters on									
C. EDG 1 id	le, EDG 2 fa	st start, 1A	& 1B Mains or	, 3B Booste	ron								
D. EDG 1 &	2 idling, 1A	& 1D Mains	on, 3D Boost	er on									
ANSWER:	D												
REFERENCE(S):	Г-2-е	proc.	341									
Explanation:	A is inco B is inco C is inco D is the hi dw pre	rrect, EDG : rrect, 1B/1C rrect, EDG : correct answess and 3D	2 does not fas 2 & 3B/3C are 2 does not fas ver, EDGs hav will start becau	t start. on the non-r t start. re idle start s use 3A cann	bowered bus. signal and 1A/1 ot start.	ID will	start on						
References to during exam:	be provided	None		[1	et prv #2]								
Learning Objective	10450												
Question Sour	ce	Bank	N	lodified Ban	k	New	[X]						
Question Cog	nitive Level:	Memory or Knowledge	Fundamental		comprehension nalysis	or	[X]						
10 CFR Part 5	5 Content:	55.41	ľ	55.43 (b)	(2)								

Que	estio	n #	S14					-					
Exa	min	ation	Outline Cr	oss-refer	enc	e							
Lev	el	SR	<u> </u>	Tier #		2	Gro	oup #	1				
Kno	owle	dge al	nd Ability I	Referenc	e In	format	ion			<u> </u>		RO	SRO
211(000		Standby	/ Liquid C	ont	rol Syst	em	A2.	.04	Impo Ratin	rtance g		3.4
Abil	ity to	o (a) pr	edict the in	npacts of	the	followin	ng on						
the	Stan	idby Li	quid Contro	ol System	sys	stem; ar	nd (b)) .					
bas	ea o	n these	e prediction	is, use pr	oce	dures to	0 Ant	Ina	dequ	late systel	m flow		
thos	eci,	alfund	i, or muyai	e ine con pratione:	iseq	luences	5 01						
							<u> </u>						
		1. onder::	ordore the l			liquid et a	lace			t Droc a alu	00 Th		
the Sobse	STAN ervec	NDBY L I: BON II	IQUID CON	ITROL key	/lock	(in the F		5YS 2	oositi	on. The foli	lowing c	ondition	s are
•	PUM	PDISC	CH PRESS (reater tha	n Ri	x pressu	re (P	anel 4F	3				
•	Squil	b contir	uity meter b	ehind 4F	read	ls 4.2 m/	A for s	system	, 2				
•	RŴĊ	CU syst	em is in serv	vice	-		-						
Liqu	iid po	ison is											
Α.	Inje	cting, is	solate the R	eactor Wa	ter (Cleanup	syste	m, IAW	/ proc	edure 303			
В.	NO	T inject	ing, place L	IQUID CO	NTF	ROL keyl	ock to	the Fl	RE S	YS 1 posit	ion, IAW	SP-22	
C .	Inje	cting, v	erify Standb	y Liquid C	ontr	ol tank l	evel le	owering	g and	monitor re	actor po	wer, IA	W SP-22
D.	NO IAW	T inject / SP-22	ing, place Ll	QUID CO	NTF	ROL keyl	ock to	OFF	and th	nen back to	FIRE S	YS 2 po	osition,
ANS	SWE	R:	В										
REF	ERE	NCE(S):	EOP SP	22		G-1	-b, G-2	2-b		[ref #3]		
Expl	lanat	tion:	A is inco B is the VALVE directs S C is inco D is inco does not	prect, liqui correct an OPEN alai System 1 to prect, liqui prrect, liqui t re-fire the	d pa swe ms o be d pa d pa e sai	pison is n r, Squib are not i initiated pison is n pison is i uib valve	not inji valve n. Co l. not inji njectir	ecting. did NC ntinuity ecting. ng but	DT fire mete placir	e and FLON er shows so ng the keylo	V ON ar quib did ock back	nd SQU not fire, to syst	IB SP-22 em 2
Refe	erend	es to l	pe provided	None) 					[ref prv #	‡2]		
duri	ng e	xam:	-										
Lear Obje	rning ectiv	l e	10450										
Que	stior	n Sourc	ce	Bank				Modifi	ed B	ank		New	[X]
Que	stior	n Cogn	itive Level:	Memor Knowle	y or dae	Fundan	nenta	N		Compreh Analvsis	nension	or	[X]
10 C	FR F	Part 55	Content:	55.4	1			55.4	43 (b) (5)			<u>_</u>

Question #	S15									
Examination	Outline Cro	ss-referer	nce							
Level SI	OF	Tier #	2 G r	oup	<u># 1</u>			- <u></u>		
Knowledge a	and Ability R	eference	Information						RO	SRO
218000	Automati System	c Depress	urization	G	i 2.1.	28 I F	mpo Ratin	rtance g		3.3
Knowledge o	f the purpose	and functi	on of major							
system comp	onents and c	ontrols.					· ••	<u> </u>		<u></u>
Question:								·····		
Following a p	lant transient	, plant con	ditions are as	s follo	ws:					
The react	or is at 8% po	ower								
MSIVs an										
 neactor µ Torus ten 										
Torus lev										
The Automat										
A. operatin	g as designed	d, initiate	Standby Liqu	d Co	ntrol,	IAW S	5P-22			
B. NOT op psig, IA	erating as des	signed, pla ol – w/ATV				tadilize		v press		
C. NOT op w/ATWS	erating as des	signed, op	en all 5 EMR	√s, IA	W Ei	nergei	ncy D)epress	surizatio	n –
D. operatin Control	g as designed – w/ATWS	d, place El	MRVs to MAN	l until	RPV	' press	ure i	s 920 p	sig, IAV	V RP
ANSWER:	D									
REFERENCE	(S):	EOP flowc	harts B-:	3-g				[ref #3		
	Fluctuati	ing pressu	re indicates c	ycling	g EMF	RVs.				
	A IS Inco	rrect, ADS	working, but	no re	equire	ement	to inje		j. Naction	for
Explanation:		MRVs	working and	stabl	iiizing	press	ure s	SWIDIN	action	101
		prrect. ADS	working, ED	not r	eauir	ed for	these	e condi	tions.	
	D is the	correct an	swer, reduce	to 92	0 psi	g IAW	RPV	Contro	$v = w/A^2$	rws
References to	be provided	EOP fl	owcharts			[ref	prv ‡	<i>‡</i> 2]		
during exam:									·	
Learning	10450									
Question Sou		Bank		Mod	ified	 Bank	IX	1	New	
Question Cor	nitive Level:	Memory	or Fundamen	al			nprel	ension	or	
anostion oof		Knowled	ge			Ana	lysis			
10 CFR Part 5	5 Content:	55.41		5	5.43	(b) (5))			

Exa		010							
1	mination Ou	utline Cr	oss-refere	ence					
Leve	el SRO		Tier #	2	Group #	1			
Kno	wledge an	d Abilit	y Refere	nce Inforr	mation			RO	SRO
2120	000	RPS			A2	.06	Importance Rating	4.1	4.2
Abilit the F pred mitig conc	ty to (a) pred RPS system lictions, use gate the cons ditions or ope	dict the ir ; and (b) procedul sequence erations	npacts of t based on res to corre es of those	the followin those ect, control e abnormal	ig on I, or Hiç	jh Rea	ctor Power		
Que	stion:				I				
Give	n the followi	ina:		······					<u> </u>
follov • F • F	wing condition Reactor pow Reactor leve	ons: er is 45% l is 160 in	% n. TAF and	d steady		-	-		
	MSIVs are of		zo paig						
• r • £	SP-16 and 1 PRMs are c	8 have N scillating	I OT been o g at 35 wat	orderėd tts/cm² pea	ak to peak				
 Base to 	SP-16 and 1 PRMs are c ed upon the	above in	IOT been o g at 35 wat formation,	ordered tts/cm ² pea and as the	ak to peak e Unit Supe	ervisor,	your next priorit	ty shou	ıld be
 Base to 	PRMs are of PRMs are of PRMs are of upon the Bypass MS	above in	IOT been of at 35 wat formation, solations I	ordered tts/cm ² pea and as the AW SP-16	ak to peak e Unit Supe	ervisor,	your next prìorit	ty shou	ıld be
 Base to A. 	BP-16 and 1 PRMs are c ed upon the Bypass MS Terminate a	above in IV lo-lo is	IOT been of g at 35 wat formation, solations I and the solations I and the solations I and the solations I and the solations I and the solation sol	ordered tts/cm ² pea and as the AW SP-16 on IAW SP-	ak to peak e Unit Supe -17	ervisor,	your next priori	y shou	ıld be
 Base to A. B. C. 	Bypass MS Bypass MS Bypass RB	Above in No scillating above in IV lo-lo is and preve CCW iso	IOT been of g at 35 wat formation, solations I, ent injectic lations IAV	ordered tts/cm ² pea and as the AW SP-16 on IAW SP- W SP-18	ak to peak e Unit Supe -17	ervisor,	your next priorit	y shou	ıld be
 Base to A. B. C. D. 	Bypass MS Bypass MS Terminate a Bypass RB Initiate Liqu	above in IV lo-lo is and preve CCW iso	IOT been of g at 35 wat formation, solations I ent injection lations IAV n IAW SP-	ordered tts/cm ² pea and as the AW SP-16 on IAW SP- N SP-18 22	ak to peak e Unit Supe -17	ervisor,	your next priorit	y shou	ıld be
 Base to A. B. C. D. 	Bypass MS Bypass MS Terminate a Bypass RB Initiate Liqu	Above in above in IV Io-Io is and preve CCW iso id Poison	IOT been of g at 35 wat formation, solations I, ent injection lations IAV n IAW SP-	ordered tts/cm ² pea and as the AW SP-16 on IAW SP- N SP-18 22	ak to peak e Unit Supe -17	ervisor,	your next prìorit	y shou	ıld be
 Base to A. B. C. D. ANS[*] REFI 	Bypass MS Terminate a Bypass RB Terminate a Bypass RB Initiate Liqu WER:	above in No scillating above in No lo-lo is and preve CCW iso id Poison	IOT been of g at 35 wat formation, solations I ent injection lations IAV n IAW SP- EOP bas	ordered tts/cm ² pea and as the AW SP-16 on IAW SP- W SP-18 22	ak to peak e Unit Supe -17 [ref #2]	ervisor,	your next priorit	ly shou	ıld be
 Base to A. B. C. D. ANS^T REFI Explana 	Bypass MS Terminate a Bypass RB Terminate a Bypass RB Initiate Liqu WER: [] ERENCE(S):	A lis inc A lis inc A lis inc A lis inc A lis inc A lis inc A lis inc D lis co	IOT been of g at 35 wat formation, solations I ent injection lations IAV n IAW SP- EOP bas on of power s, since	ordered tts/cm ² pea and as the AW SP-16 on IAW SP- N SP-18 22 es er operatio wer oscillat Dscillation T	ak to peak e Unit Supe -17 [ref #2] ns should t tions of the Fhreshold)	ake pro magni	your next priorit	all othe	ıld be
 Base to A. B. C. D. ANS' REFI Explanation Explanation Reference during 	BP-16 and 1 PRMs are c ed upon the Bypass MS Terminate a Bypass RB Initiate Liqu WER: [ERENCE(S): anation:	A is inc B is inc above in IV Io-Io is and preve CCW iso id Poison Mitigati actions damag A is inc D is co provide	IOT been of g at 35 wat formation, solations I ent injection lations IAV n IAW SP- EOP bas on of powe s, since powe correct . correct . correct, . correct, . correct, . correct, . correct, .	ordered tts/cm ² pea and as the AW SP-16 on IAW SP- N SP-18 22 es er operatio wer oscillat Dscillation T	ak to peak e Unit Supe -17 [ref #2] ns should t tions of the Fhreshold)	ake pro magni	your next priorit	all othe	ıld be

Question Source	Bank	Mod	ified B	ank		New	[X]
Question Cognitive Level:	Memory or Knowledge	Fundamental		Comp Analy	orehension vsis	or	[X]
10 CFR Part 55 Content:	55.41	5	55.43 (b) (5)				

Qu	estio	n #	S17											
Exa	min	ation (Dutline Cr	oss-ref	eren	ce								
Lev	<u>rel</u>	SR	<u> </u>	Tier #	#	2	Gro	up #	2			,		
Kne	owle	dge ar	nd Ability	Referen	ice l	nformati	ion						RO	SRO
201	002		Reacto	r Manua	I Co	ntrol Sys	tem	A2	.02		mportan Rating	се		3.3
Abi	lity to	(a) pr	edict the ir	npacts c	of the	e followin	g on			_				
the	Read	ctor Ma	anual Cont	trol Syste	em s	system; a	Ind							
(b)	base	d on th	nese predio	ctions, u	se p	rocedure	es to	Rc	d dri	ift alaı	rm			
cor	rect,	contro	l, or mitiga	te the co	onse	quences	of							
tho	se m	alfunct	ions or op	erations										
Question:														
The	The plant is operating at 100% Power and the following conditions exist:													
	• F c	ROD D	RIFT alarr	n is rece	eived	and rod	10-3	5 mo	ves o	out to	position 4	18 w	ithout	
	• 4	All atte	mpts to ins	sert the c	contr	ol rod ar	e uns	ucce	ssful					
	• 1	nvestir	nation reve	als NO	knov	vn cause	for th	e fail	ure					
			jadon love			in oudoo			are					
Bas	sed o	n the a	above cond	ditions, v	vhicł	n of the f	ollowi	ng ac	tion	is req	uired?			
Α.	Fui	ly inse	rt all contro	ol rods w	vithin	8 hours	IAW	proce	edure	ə 203,	Plant Sh	utdo	wn	
В.	Be	in shu	tdown con	dition wi	thin	12 hours	IAW	Tech	Spe	ecs				
C.	Be	in cold	shutdown	conditio	on w	ithin 30 h	nours	IAW	Tech	n Spe	cs			
D.	Be	in shu	tdown con	dition wi	thin	48 hours	IAW	Tech	Spe	ecs				
ANS	SWE	₹:	D											
REF	ERE	NCE(S):	Tech S	pecs	6	ABN	-6			[ref	#3]		
			A is inc	correct, c	corre	ct for CF	RD rela	ated	prob	lem fo	or normal	shut	tdown	•
	_	_	B is inc	correct, c	orre	ct if inop	contr	ol ro	d and	d 3.2./	A not met			
Exp	lanat	ion:	C is inc	correct, c	corre	ct placin	g in c	old si	hutde	own if	3.0.A not	t me	t.	
			D is the	e correct	ans	wer, IS	3.2.B.	4, ca	innot	be m	loved by (drive	e or so	ram
D -6			pressu	re.	- 0					1				
dur	ereno ing e	es to l' xam:	be provide		n Sp . 3.2	B.4				[ref	prv #2]			
Lea Obj	rning ectiv	e	10447											
Que	estior	o Sourc	e .	Bank		[X]	1	Nodif	ied E	Bank			New	
Que	estior	n Cogn	itive Level	Memo Know	ory o leda	r Fundan e	nental			Cor	nprehensi Ivsis	ion d	or	[X]
10 0		Part 55	Content:	55	.41	·		55.	43	(b) (1))			

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Question #	S18									
Examination (Dutline Cro	ss-referer	nce							
Level SR	2	Tier #	2	Gro	up # 🗄	2				
Knowledge ar	nd Ability R	eference	Informat	ion					RO	SRO
241000	Reactor/	Turbine Pr	essure		G2.4	.21	Im	portance		4.3
Ka anda da a afri	Regulatin	ng System					Ra	ting		
Knowledge of a	ne paramet	ers and log	gic used i	10						
	us of safety	Tunctions								
Given the follo	wing:							····		
Given the folio	wing.									
The plant is	s operating a	at 100% p	ower.							
• The main t	urbine trips.									
All Turbine	Bypass Val	ves fail to	open.							
All other sy	stems funct	ion as des	igned.							
						0	1			
Which of the fo	llowing corr	ectly desc	ribes the	plant	respon	se?				
A. Reactor s	crammed or	n high neu	tron flux							
B. All FMRV	s open and	safety valv	es may o	nen						
C. Isolation of	condensers	isolate on	high stea	m flo	w					
D. The trans	ient causes	a violation	of the M	CPR	safetv li	mit				
ANSWER:	B									
REFERENCE(S):	Tech Spec	3.1	[ref	#2]			[ref #3]		
	A is inco	rrect, antic	patory s	cram	-					
	B is the o	correct and	swer, .							
Explanation:	C is inco	rrect, IC w	rill not iso	late u	inder th	ese	condit	ions beca	use rec	pirc
	pumps w	vill trip on l	ni pressur	re.		·	11			
References to	U IS INCO	None	-H Should		exceed	ITS	Init.	ny #21		
during exam:	se provided	None					liei h	v #∠j		
Learning	02314	!								
Objective										
Question Sour	се <u> </u>	Bank			Modifie	d Ba	ank	[X]	New	
Question Cogn	itive Level:	Memory	or Fundar	nenta	I		Comp	rehension	or	[X]
	Cantanta	Knowled	ge				Analy	SIS		
10 CFR Part 55	Content:	55.41			55.43		u) (1)			

Que	estion	# 5	S19										
Exa	minat	ion O	utline Cr	oss-refe	erenc	e							
Lev	rel	SRO		Tier #	ŧ (3	Grou	ıp #	1		_, <u>,</u> ,		
Kno	owledg	ge and	I Ability	Referen	ce In	formatio	on	-r~		·		RO	SRO
2.1			Conduc	t of ope	ration	IS		2.	1.12	Imp Rat	ortance	2.9	4.0
Abi	ity to a	apply to	echnical	specifica	tions	for a sy	stem						
Que	estion												
You A.	Overal Pilot co Pilot co are re notify Be in	Il batte ell volt ell spe equirec Plant COLE	ery voltag age while cific grav d to Enginee	e while o e on Floa rity (temp ring ON	Don Flo at Cha Deration LY.	oat Char arge: ure corre 30 hours	ge: ected):	y an 128 :	5 vol 2. 1.	ts 15 volts 175 [<i>s</i> w		
し. 	lest	all bat	ery cells		ge al	na speci	tic gra	<u>avity</u>	<u>.</u>				
<u>υ.</u>		mence	an equa	uizing ch	arge	on the "	B" Sta	atior	Batto	ery.			
	SWER	: !	3	<u> </u>	7 4 4					·			
RE	FEREN	ICE(S):	1.5. 3.7 4.7.B.1	′.A.4; .d		634.2	2.00	2		OP-OC	-100	
Exp	olanati	on:	A is inc B is co C is inc D is inc	correct re rrect correct fo correct fo	adinç or wee or s/g	gs are ou ekly surv <1.190 (ut of s veilland (would	pec ces d be	corre	ect for ≥1	1.190 but	≤1.205	5)
Ref	erence	es to b	be	T.S	. sect	ion 4.7							
pro	vided	during	g exam:	<u></u>									
Lea Obj	rning ective		10451										
Que	estion	Sourc	e	Bank			M	lod	fied	Bank		New	X
Que Lev	estion el:	Cogn	itive	Mem Know	ory o /ledg	r Funda e	ment	al		Comp Analy	rehensio sis	n or	X
10 (CFR Pa	art 55	Content	: 55.	41			55	.43	(b) (2)			

Question)# {	S20										
Examina	tion O	utline Cro	ss-refer	ence								
Level	SRO		Tier #	3	Gr	oup #	1					
Knowled	ge and	Ability R	eferenc	e Infor	mation						RO	SRO
2.1		Conduct	of opera	tions		2.	1.23		Imp Rat	ortance ing	3.9	4.0
Ability to	perforn	n specific s	system a	nd inte	egrated							
plant proc	cedures	s during di	fferent m	odes d	of plant							
operation	·				<u> </u>							
Question	1:											
In accordance with HU-AA-101, Human Performance Tools and Verification Practices, which of the following is the correct method to verify the position of a valve that will be throttled? The PERFORMER and VERIFIER will(1) locate and identify the valve, AND the(2) will physically touch or point at the correct valve prior to manipulation.												
correct value prior to manipulation.												
1 . (2)	perf	former						<u></u>				
B. (1) (2)	con veri	currently fier		r								
C. (1) (2)	inde perf	ependently former	1									
D. (1) (2)	inde veri	ependently fier	,									
ANSWEF	}:	D										
REFERE	NCE(S):	HU-AA-1	01								
Explanat	REFERENCE(S): HU-AA-101 A is incorrect, as the two must independently locate and identify the valve, and the performer does NOT physically touch or point to it prior to manipulation Explanation: B is incorrect, as the two must independently locate and identify the valve C is incorrect, as the performer does NOT physically touch or point to it prior to manipulation D is incorrect, as the performer does NOT physically touch or point to it D is correct											
Referenc	es to	be	None)				T^{-}				
provided	durin	g exam:							. <u> </u>			
Learning Objective	e	C&T less	on plan -	- obj. 2	24							
Question	Sour	ce	Bank			Mod	ified	Ban	k		New	X
Question Level:	l Cogn	itive	Memo Knowl	ry or F edge	undame	ental	Х	Co Ar	omp naly	rehensio sis	n or	
10 CFR F	Part 55	Content:	55.4	1		55	.43	(b) (5)			

Que	estion	# S	521										
Exa	minati	ion Ou	Itline Cr	oss-refe	rence		<u> </u>						
Lev	el	SRO		Tier #	3	Gro	oup #	CAT	2				
Kno	wledg	e and	Ability	Reference	e Infor	mation				RO	SRO		
				. <u></u>			G 2	2.2.29	Importance Rating		3.8		
Kno	wledge	e of SF	RO fuel h	andling r	espons	ibilities.			······································				
Que	stion:												
Whi	Which of the following would be a refueling error IAW procedure 205, Reactor Refueling?												
А.	A. A Fuel Assembly is discovered to be mis-located in the core after performing the following fuel move												
В.	A Fue	el Asse	embly is	discovere	d to be	mis-loca	ted in	the spe	nt fuel pool				
C.	The f	uel mo	ve work	sheet is d	iscover	ed to be	n erro	r prior t	o the next mov	/e			
D.	A Fue the g	el Asse rapple	embly is	discovere	d to be	mis-orie	nted in	the co	re upon unlatc	hing an	d raising		
ANS	WER:	A											
REF	EREN	CE(S):		Procedu	re 205	[ref	#2]		[ref #3]			
Exp	lanatio	n:	A is the B is inc C is inc D is inc	e correct a correct,no correct no correct, no	answer. t an err t an err ot an er	or in the f or until fu ror until b	uel po el is m ridge i	ol. hoved a is move	nd placed inco	orrectly.			
Ref duri	erence ing exa	s to be m:	provide	d None	Э			[!	ref prv #2]				
Lea Obj	rning ective		1129										
Que	estion §	Source		Bank	[X	(]	Modif	ied Ban	k 📃	New			
Que	estion (Cogniti	ve Level	: Memor Knowl	ry or Fu edge	ndamenta	al		Comprehension Analysis	n or	[X]		
10 0	10 CFR Part 55 Content: 55.41 55.43 (b) (7)												

											····		
Que	estior	า #	S22										
Exa	mina	tion C	utline Cr	'oss-i	referer	nce							
Lev	el	SRC)	Tie	er #	3	Gr	oup ‡	# C	AT 2			
Kno	owled	lge an	d Ability	Refe	rence	Informat	tion					RO	SRO
								G	i 2.2.	22	Importance Rating		4.1
Kno safe	wledg ety limi	e of lim its.	iting condi	tions f	or oper	rations an	d						
Que	estion	:											
Giv	en the	e follov	ing cond	itions	:								
• • Wh:	 Reactor is at 100% power MCPR is determined to be 1.08 What action is required IAW Technical Specifications? 												
Α.	The	reacto	r shall be	shute	down i	mmediate	ely						
В.	The	reacto	r shall be	place	ed in c	old shutd	lown	in 30	hou	rs			
C.	Retu	urn MC	PR withir	n limit	s in 2 h	nours or l	be sh	nutdo	wn in	1 36 I	nours		
D.	Retu	ırn MC	PR within	n limit	s in 2 ł	nours or l	be in	cold	shute	dowr	n in 36 hours		
ANS	WER	:	A			····							
REF	EREN	ICE(S)	:	T.S.	2.1, se	ect. 6	[ref	#2]			[ref #3	1	
Exp	lanati	on:	A is con B is inc C is inc require D is inc	rrect, correc correc d. correc	for any t, plau t, plau t, plau	y safety li sible for sible for sible for	imit v violat violat	iolati ion o tion o tion o	on. f LC(f stea	ວ but ady s ady s	t not for safet state LCO, bu state LCO.	/ limit. t cold sl	hutdown
Refe	erence	es to b	e provide	1 1	Vone] [r	ef prv #2]		
duri	ng ex	am:	-										
Lea Obje	rning ective		10451				,						
Que	stion	Source	9	Ba	nk			Mod	ified	Bank	([X]	New	
Que	stion	Cogni	ive Level	: Me Kn	mory o owled	or Fundaı ge	menta	al		C	omprehensior nalysis	or	[X]
10 C	OCFR Part 55 Content: 55.41 (letter) (num) 55.43 (b) (2)												

Question	# 5	S23		÷								
Examinat	ion O	utline Cr	oss-refe	renc	e							
Level	SRO		Tier #		3	Gro	up #	3				
Knowledg	je and	I Ability	Reference	ce in	format	ion					RO	SRO
2.3		Radiatio	on Contro	ol			2.	3.1	lm Ra	portance ting	2.6	3.0
Knowledg	e of 10	CRF 20) and rela	ted f	acility							
radiation c	ontrol	requiren	nents.									
Question												
 nvestigation reveals the following conditions: General area radiation of 120 mrem/hour Smearable contamination of 100 dpm/100 cm² beta-gamma Which of the following posting(s) should be applied to this area? 												
A. Radiation Area ONLY												
B. Conta	amina	tion Area	ONLY					<u></u>				
C. High	Radia	tion Area	ONLY	\sum								
D. High	Radia	tion Area	AND Co	ontan	qination	Area	a					
ANSWER	: (C /										
REFEREN	ICE(S):	NGET S Guide	Study	/		<u> </u>					
Explanati	on:	A is inte B is inte C is co than 10 D is inte	correct, a correct, as rrect, as 000 mren correct, a	s a C s a C a Hig n/hr s a C	ladiatio Contami gh Radi Contami	n Are nation ation inatio	a cai n Are Area <u>n Are</u>	nnot e ea is e grea ea is e	exceed above 10 ter than above 1	100 mrem/ 000 dpm/1 1 100 mrem 000 dpm/1	/hr 00 cm² 1/hr, bu 00 cm²	2 It less 2
Reference provided	es to l durin	be g exam:	Non	e								
Learning Objective								<u></u>				
Question	Sourc	ce	Bank				Mod	ified	Bank		New	X
Question Level:	Cogn	itive	Memo Know	ory o rledg	r Fund Je	amer	ntal	X	Com Anal	prehensio ysis	n or	
10 CFR P	art 55	Content	t: 55.4	41 🗍			55	.43	(b) (4)			

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Qu	estion	#	S24										
Exa	aminat	tion C	Outline C	ross-re	efere	nce							
Le	/el	SRC)	Tie	r #	1	Grou	p #	1				
Kn	owled	ge an	d Ability	Refere	ence	Informa	ation	r			RO	SRO	
								G 2.	.4.38	Importance Rating		4.0	
Abi em or a	lity to t ergenc acting a	ake a xy pla as em	ctions cal n, includir iergency (lled for ng (if re coordir	in th quire ator.	e facility ed)suppc	orting						
Que	estion:						•••						
The	e plant	is at	100% pov	ver wh	en th	e followi	ng even	ts occ	our:				
At (• •)810: All off- The gr EDG ² EDG 2	-site p enera I stari 2 fails	ower is lo tor trips a ts and its to start	ost nd the output	reac brea	tor scrar ker close	ms es and s	upplie	es pow	er to its respec	tive bu	IS	
At (●	 EDG 2 fails to start At 0813: EDG 2 fails to emergency start from the control room 												
At ()828: EDG 2 respec	2 is st ctive t	arted loca	ally and	l it ou	ıtput bre	aker is c	losed	l and it	supplies powe	r to its		
Wh con	at is th ditions	e LA ' IAW	TEST time EP-OC-1	e that a 11, En	a clas nerge	sificatio ency Cla	n declar ssificatio	ation on and	can be d PARs	made based o ?	on the a	above	
Α.	0825												
В.	0828											·	
C.	0840												
D.	0843					`		-			•		
ANS	SWER:		С										
REF	EREN	CE(S)	:	EP-O	C-10	10	Iref #	2]		[ref #3]			
Exp	lanatio	on:	From tir 15 minu take 15 then 15 A is inco B is inco C is the D is inco	me that ites to c minute minute prrect, t prrect, r correct prrect.c	condi declar s for t s to n his is not ba c ansv	itions are re and the the classi nake the the time ased on e wer, this is he limit b	present en 15 mir fication o classifica it takes f mergenc s the time ut would	to me outes t ategor tion. or the y start of limit fit 15 r	et an E o notify ry to be condition not wo to decla min, fro	AL the emergent NJSP/OEM. In met [from 0810 ons to occur. orking. are the event. m the 0828 time	cy direc this cas to 0825	tor has ie it will 5] and	
Refe duri	erence ing exa	s to b m:	e provide	d El	P-00	-1010			[r	ef prv #2]	•		
Lea Obj	rning ective		08908										

Question Source	Bank	Modif	Iodified Bank			New	[X]
Question Cognitive Level:	Memory or Knowledge	Fundamental		Comp Analy	rehension sis	or	[X]
10 CFR Part 55 Content:	55.41	55.	. 43 (t) (5)			

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Que	stion #	S25							
Exa	mination O	utline Cros	s-referer	nce					
Lev	el SRO		Tier #	3 G I	oup# (AT 4			
Knowledge and Ability Reference Information								RO	SRO
					G 2.4.	16 Ir R	nportance lating	3.0	4.0
Kno	wledge of E	OP implem	entation h	ierarchy and					
000	rdination with	n other sup	port proce	edures.		.			
Que	stion:								
A tra	ansient has i ditions:	resulted in a	a primary	system disch	arge to th	e conta	inment with	the fol	lowing
•	Torus Pressure is 32 psig and rising slowly						/ly		
•	Torus Level is								
•	H2 Conc	H2 Concentration is 1.7%							
••	CHRRM	S reads		2,000) R/Hr				
•	All contro	ol rods are f	fully inser	ted					
Wha	at action is r	equired?							
Α.	Vent the To	rus through V-28-17 IAW SP-32.							
В.	Vent the D	Drywell through V-23-21, V-23-22 IAW SP-33.							
С.	Vent the D	∋ Drywell through V-27-3, V-27-4 IAW SP-34.							
D .	Vent the D	rywell throu	gh V-23-1	13, V-23-14 I	AW SP-36	S.			
ANS	WER:	C							
REF	ERENCE(S):	P	rimary Co	ontainment C	ontrol	[ref #2]		[ref #3]
Explanation: A is income B is income C is correct D is income			rect, but would be correct for level <348 in. rect, but would be correct for level between 348 and 461 in. ect rrect, but would be correct if CHRRMS is above 20,000 R/hr						
References to be provided			EOP flo	EOP flow charts w/o entry [ref prv #2]			prv #2]		
during exam: condition				ons					
Leai Obje	rning ective	10450							
Question Source		•	Bank		Modified	Bank	[X]	New	
Question Cognitive Level:		ive Level:	Memory or Fundamental Knowledge		tal	Comprehension Analysis		or	[X]
10 C	FR Part 55 C	Content:	55.41		55.43	(b)(5)			

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