# $\rho = \frac{\rho}{\rho}$ Initial submittal of the written examination

FOR THE DAVIS-BESSE INITIAL EXAMINATION - MARCH 2002

EXAMINATION OUTLINE CROSS-RI	ÉEEDENCE.	Tier #			SRO
EAAMINATION OUTLINE CROSS-R	ECHECUTE TO THE NAME OF THE S.	<u></u>		1	1
	CFERENCE:	Group #		1	1
		K/A#		000-00	05-AK1.03
		Importance F	Rating	3.2	3.6
Proposed Question: 1				- <del> </del>	
See Attached					
See Attached					
Proposed Answer: See attached					
Explanation (Why the distractors are incorrec	t):				<del></del>
b./d. Negative reactivity from xenon is add		oolouluti			
c. A stuck control rod uses a different reacti					
				Reference Attack	hed:
Cech. Spec. 3.1.1.1			(	Attach if not	
Fechnical Reference(s): Fech. Spec. 3.1.1.1 DB-NE-06201 DB-NE-06202			(		
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Tech. Spec. 3.1.1.1  DB-NE-06201  DB-NE-06202  Proposed references to be provided to applicant done  Description of the	Г-256-03К		( p	Attach if not previously provi	ided)
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EXAMINATION OUTLINE Proposed Question: 1	E CROSS-REFERENCE:	Tier # Group #	1	SRO 1
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Proposed Question: 1			1	1
Proposed Question: 1		K/A#	000-00	05-AK1.03
Proposed Question: 1		Importance Rating	3.2	3.6
• `				
See Attached				
Proposed Answer: See	attached			
Explanation (Why the distractor	s are incorrect):			
b./d. Negative reactivity from	xenon is added in the SDM	calculation.		
	ifferent reactivity worth curv		ctivity worth of the	control rods
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Technical Reference(s):				
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Tech. Spec. 3.1.1.1			(Attach if not	
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Technical Reference(s): Tech. Spec. 3.1.1.1 DB-NE-06201 DB-NE-06202 Proposed references to be provid None  Learning Objective (As available Question Source:	e): OLC-BAT-256-03K Bank # Modified Bank #	(Note	(Attach if not previously provi	ded)
Tech. Spec. 3.1.1.1  DB-NE-06201  DB-NE-06202  Proposed references to be provid  None  Learning Objective (As available	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundament Comprehension or Ana	(Note	(Attach if not previously provi	ded)

The reactor was at 100% power. A reactor trip occurred 30 minutes ago. The most reactive control rod failed to insert and has been determined to be immovable.

How is the shutdown margin (SDM) effected by the following reactivity effects?

- a. Xenon will increase the SDM; the stuck control rod will lower the SDM.
- b. Xenon has no effect on the SDM; the stuck control rod has no effect on the SDM.
- c. Xenon will increase the SDM; the stuck control rod has no effect on the SDM.
- d. Xenon has no effect on the SDM; the stuck control rod will lower the SDM.

Answer:

a.

		Level:		RO	SRO
		Tier #		1	$\frac{1}{1}$
<b>EXAMINATION OUTLINE C</b>	ROSS-REFERENCE:	Group #	<del></del>	1	1
		K/A#			5/017-AK3.
		Importance Rat	ing	2.5	3.1
Proposed Question: 2 See Attached	-11		<del></del>	·	
Proposed Answer: See atta	cnea 				
<ul> <li>Explanation (Why the distractors at</li> <li>a. RCP 2-2 is powered from A b</li> <li>b. A sheared shaft would cause at</li> <li>d. A loss of seal injection would</li> </ul>	us. 1 lower than normal amp r	_			
Technical Reference(s):				Reference Att	
DB-OP-02515  Proposed references to be provided	to applicants during exam	ination:		previously pro	
		ination:			
Proposed references to be provided None					ovided)
Proposed references to be provided None  Learning Objective (As available): Question Source:	OPS-GOP-115-01K  Bank #  Modified Bank #			reviously pro	ovided)
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Proposed references to be provided None  Learning Objective (As available): Question Source: OLC-6531  Question History  Question Cognitive Level:	OPS-GOP-115-01K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.41	X	(Note cha	reviously pro	ovided)
Proposed references to be provided None  Learning Objective (As available): Question Source: OLC-6531  Question History  Question Cognitive Level: 10 CFR Part 55 Content:	OPS-GOP-115-01K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.417 55.43 1 question):	X	(Note cha	reviously pro	ovided)
Proposed references to be provided None  Learning Objective (As available): Question Source: OLC-6531  Question History  Question Cognitive Level: 10 CFR Part 55 Content:  Comments (Why is it an upper leve	OPS-GOP-115-01K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.417 55.43 1 question):	X	(Note cha	reviously pro	ovided)
Proposed references to be provided None  Learning Objective (As available): Question Source: OLC-6531  Question History  Question Cognitive Level: 10 CFR Part 55 Content:  Comments (Why is it an upper leve	OPS-GOP-115-01K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.417 55.43 1 question):	X	(Note cha	reviously pro	ovided)
Proposed references to be provided None  Learning Objective (As available): Question Source: OLC-6531  Question History  Question Cognitive Level: 10 CFR Part 55 Content:  Comments (Why is it an upper leve	OPS-GOP-115-01K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.417 55.43 1 question):	X	(Note cha	reviously pro	ovided)
Proposed references to be provided None  Learning Objective (As available): Question Source: OLC-6531  Question History  Question Cognitive Level: 10 CFR Part 55 Content:  Comments (Why is it an upper leve	OPS-GOP-115-01K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.417 55.431  1 question):	X	(Note cha	reviously pro	ovided)
Proposed references to be provided None  Learning Objective (As available): Question Source: OLC-6531  Question History  Question Cognitive Level: 10 CFR Part 55 Content:  Comments (Why is it an upper leve	OPS-GOP-115-01K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.417 55.431  1 question):	X	(Note cha	reviously pro	ovided)

#### ORIGINAL

## Question: 2

- The plant is operating at 100%.
- Chemistry is conducting a chemical shock procedure on the RCS System in preparation for an outage.

## The following conditions are observed:

- Annunciator alarm 6-5-A, MONITOR SYSTEM TRBL, is received.
- RCP 2-2 indicates 450 amps.
- RCP 1-1 indicated 260 amps.

Which one of the following statements would explain the listed conditions?

- a. RCP 2-2 is undergoing a flow oscillation due to the RCS chemistry excursion.
- b. RCP 1-1 has sheared shaft.
- c. RCP 2-2 is experiencing mechanical friction.
- d. RCP 1-1 has experienced a seal failure.

Answer:

The following plant conditions exist:

- The plant is operating at 100%.
- Annunciator Alarm 6-5-A, MONITOR SYSTEM TRBL, is received.
- RCP 2-2 indicates 450 amps.

Which one of the following statements would explain the listed conditions?

- a. B Bus voltage is low.
- b. RCP 2-2 has a sheared shaft.
- c. RCP 2-2 upper motor bearing is failing.
- d. MU 66B has failed closed.

Answer:

		Level:	RO	SRO
		Tier #	1	1
<b>EXAMINATION OUTLINE</b>	ROSS-REFERENCE:	Group #	1	1 1
		K/A#	BW/F	9-EK3.4
-		Importance Rating	3.8	3.8
P. 10 4' 1		1 mportante reading		1 3.0
Proposed Question: 3				
See Attached				
Proposed Answer: See att	tached			
Explanation (Why the distractors	are incorrect):		<del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>	
a. Two SROs required to deviat	te from procedure.			
b./ d. Do not have to wait if dir	•	'		
Technical Reference(s):			Reference Attac	ched:
DB-OP-01003			(Attach if not	
,			previously prov	ided)
None  Learning Objective (As available)  Question Source:	: OPS-GOP-300-06K  Bank #  Modified Bank #	(Note c	hanges or attach p	parent)
	New	<u>X</u>		
Question History	Previous NRC Exam Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamer Comprehension or Ar	ntal Knowledge X nalysis		
10 CFR Part 55 Content:	55.41 <u>.10</u> 55.43			
Comments (Why is it an upper lev	el question):			
N/A	1			
14/11				

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The reactor and all four RCPs were tripped from 100% power due to a loss of cooling water. Both AFPTs tripped on overspeed. The secondary side Reactor Operator:

- a. CAN start the MDFP immediately, if he/she announces his/her intended action in accordance with Specific Rule 4, SG Level Setpoints.
- b. CAN NOT start the MDFP until Step 4.8, Check for SFRCS Actuation, is reached in DB-OP-02000.
- c. CAN start the MDFP immediately with permission from the Unit Supervisor and the Shift Manager.
- d. CAN NOT start the MDFP until directed to use Attachment 1, Guidelines for Restoring Feedwater.

Answer:

	******************	Level:	RO	SRO
		Tier #	1	1
EXAMINATION OUTLINE CR	OSS-REFERENCE:	Group #	1	1
		K/A#	000-02	24-AK3.01
		Importance Rating	4.1	4.4
Proposed Question: 4				•.
See Attached				
				***************************************
Proposed Answer: See attach	ned 			
Explanation (Why the distractors are	incorrect):			
a. This scenario is not a loss of bo	ron.			
b. Specific Rule 1 actions are only	required if count rate is	increasing.		
c. E2 and F2 are de-energized on a	an ATWS, not stuck con	trol rods.		
Technical Reference(s):			Reference Attac	shad
DB-OP-02000			(Attach if not	lieu
			previously prov	ided)
			proviously prov	idea)
Proposed references to be provided to None	o applicants during exam	nination:		
Learning Objective (As available):	OPS-GOP-303-05K			}
Question Source: OLC-4416	Bank # Modified Bank # New	(No	te changes or attach	parent)
Question History	Previous NRC Exam			
1995 Quiz	Previous Quiz / Test	X		}
Question Cognitive Level:	Memory or Fundamer Comprehension or An		<del></del>	
10 CFR Part 55 Content:	55.41 <u>.10</u> 55.43			
Comments (Why is it an upper level of	question):			
Question requires analyzing condition	and applying the correct	ct actions to ensure sh	utdown margin is ma	aintained.

and the second

#### **ORIGINAL**

#### Question: 4

Immediately following a reactor trip, the following conditions exist:

- CRD trip breakers open
- NI power is  $1 \times 10^{-6}$  amps
- Control Rod 3-1 100% withdrawn
- Control Rod 3-3 100% withdrawn

Which one of the following identifies the procedure flowpath for this situation?

- a. Immediately enter DB-OP-02510, Loss of Reactor Coolant System Boron, and initiate immediate boration per Step 4.1.2.
- b. Immediately enter DB-OP-02516, CRD Malfunctions, and attempt to insert Safety Group 3.
- c. Enter DB-OP-02000, RPS, SFAS, SFRCS, or SG Tube Rupture, and at Step 3.2, Reactivity Control, momentarily de-energize E2 and F2.
- d. Enter DB-OP-02000, RPS, SFAS, SFRCS, or SG Tube Rupture; and at Step 4.1 commence boration to 2100 ppmB.

Answer:

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Immediately following a reactor trip, the following conditions exist:

- CRD trip breakers open
- NI power is  $1 \times 10^{-6}$  amps and lowering
- Control Rod 3-1 100% withdrawn
- Control Rod 3-3 100% withdrawn

Which one of the following identifies the correct action for this situation in accordance with DB-OP-02000, RPS, SFAS, SFRCS, or SG Tube Rupture?

- a. Route to DB-OP-02510, Loss of Reactor Coolant System Boron, at the completion of the Supplementary Actions.
- b. Initiate emergency boration until adequate shutdown margin is restored in accordance with Specific Rule 1, Reactivity Control.
- c. Momentarily de-energize E2 and F2 in accordance with the Immediate Actions.
- d. Commence boration to achieve acceptable shutdown margin in accordance with the Supplementary Actions.

Answer:

d.

		Level:		RO	SRO
	CROSS-REFERENCE:	Tier#	<del></del>	1	I
EXAMINATION OUTLINE CROSS		Group #		1	1
		K/A#			6-AK3.04
		Importance Ra	ating	3.5	3.7
Proposed Question: 5					
See Attached					
Proposed Answer: See attached					
Explanation (Why the distractors are inco	orrect):				
b. Seal injection is not required because	se RCPs are off.				
c. Adequate SDM exists without addir	ng additional boron.				
d. HPI and LPI pumps can be started a	and run for up to one	e hour without co	oling wate	r if needed.	
Technical Reference(s):					·hed·
	ocedure Discussion	1		(Attach if not	neu
				previously prov	ided)
	-GOP-123-02K ank # Iodified Bank #		(Note cha	anges or attach j	parent)
Question Source: B	ank #	X	(Note cha	anges or attach p	parent)
Question Source:  B M N  Question History  Pr	ank # Iodified Bank #		(Note cha	anges or attach p	parent)
Question Source:  B M N  Question History  Pr Question Cognitive Level:  M	ank # Iodified Bank # ew revious NRC Exam	ental Knowledge		anges or attach p	parent)
Question Source:  B M N  Question History  Pr  Question Cognitive Level:  M C  10 CFR Part 55 Content:  55	ank # Iodified Bank # ew revious NRC Exam revious Quiz / Test Iemory or Fundame	ental Knowledge		anges or attach p	parent)

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Following a loss of all CCW pumps, a makeup pump can be operated for up to one hour without cooling water in order to:

- a. allow post-trip pressurizer level recovery.
- b. provide seal injection since CCW is lost to the RCPs.
- c. ensure a boron injection flowpath is available to maintain shutdown margin  $\geq 1\% \Delta K/K$  until xenon can add adequate negative reactivity.
- d. prevent the need to start HPI pumps and LPI pumps since CCW essential headers are NOT available.

Answer:

a.

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				RO		SRO
		Tier#		1		
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #		1	1	
		K/A#			W/E05-	
		Importance R	ating	4.2		
Proposed Question: 6						
See Attached						
Proposed Answer: See a	ttached					
Explanation (Why the distractors	s are incorrect):					
a./c. Cannot use both injection	n lines with suction aligned t	o the MU tank.				
b. MU flow limited to < 250 g event.	gpm unless piggybacked from	n LPI. Procedur	e does not	piggyback	for an	overco
Technical Reference(s):				Reference .		ed:
DD OD 02000			(	(Attach if r	not	
DB-OP-02000						
				previously	provide	ed)
Proposed references to be provide	led to applicants during exan	nination:	Ţ	previously	provide	ed)
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Proposed references to be provid None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:	Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.413 55.43	Xntal Knowledge	(Note cha			
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During an overcooling event, pressurizer level lowers to four inches. RCS inventory should be maintained by running both makeup pumps with suction from the:

- a. makeup tank at maximum flow through both makeup injection lines.
- b. BWST at maximum flow through both makeup injection lines.
- c. makeup tank with flow limited to 250 gpm through each makeup injection line.
- d. BWST with flow limited to 250 gpm through each makeup injection line.

Answer:

d.

		Level:	RO	SRO
		Tier #	1	1
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #	1	1
		K/A#		051-GEN 2.4.8
		Importance Rating	3.0	3.7
Proposed Question: 7				
See Attached				
See Mached				
Proposed Answer: See at	tached			
Explanation (Why the distractors	are incorrect):			
a./c. Immediate actions are per	formed first on a reactor trip	<b>3</b> .		
			A -4!	
b. Specific Rule 6 for loss of D	of ous is performed prior to	routing to Supplementa	iry Actions.	
Technical Reference(s):			Reference Atta	ached:
DB-OP-01003			(Attach if not	
			previously pro	vided)
Proposed references to be provide	ed to applicants during exam	ination:		
None				
Learning Objective (As available	)· OPS-GOP-300-05K			
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Question Source:	Bank # Modified Bank #		shancas an attack	
	New	X	changes or attach	( parent)
Question History	Previous NRC Exam			
	Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamer	ntal Knowledge X		
Question Cognitive Ecvel.	Comprehension or An			
	F		<del>-</del>	
10 CFR Part 55 Content:	55.4110			
	55.43			
Comments (Why is it an upper lev	vel question):			

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## The following plant conditions exist:

- A reactor startup is in progress.
- An electrical problem has caused a loss of D2 Bus and D1 Bus.
- The auxiliary boiler has tripped and condenser pressure is increasing.
- The MDFP has tripped.

#### Place the following in the correct hierarchy of performance:

- 1. DB-OP-02518, High Condenser Pressure
- 2. DB-OP-02000, Immediate Actions
- 3. DB-OP-02000, Supplementary Actions
- 4. DB-OP-02000, Specific Rules
- 5. DB-OP-02521, Loss of AC Bus Power Sources
- a. 5, 2, 3, 4, 1
- b. 2, 3, 4, 1, 5
- c. 5, 1, 2, 4, 3
- d. 2, 4, 3, 1, 5

#### Answer:

d.

	Level:		RO	SRO
	Tier #		1	1
S-REFERENCE:	Group #		1	1
	K/A#		000-0	057-AA2.11
	Importance Ra	ating	2.9	3.0
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ank # Modified Bank #	<u>X</u>	(Note ch	nanges or attach	n parent)
		_X		
tion):				
	S-GOP-141-08A. Bank # Modified Bank # Vervious NRC Exam Previous Quiz / Test Memory or Fundament Comprehension or Ar 5.414 5.43	SS-REFERENCE:  Tier # Group # K/A# Importance Ra  correct):  upplied from Panel YBU. Loss of Y2  splicants during examination:  S-GOP-141-08A  Bank # Modified Bank # Jew  Previous NRC Exam Previous Quiz / Test  Memory or Fundamental Knowledge Comprehension or Analysis  5.414 5.43	Tier # Group # K/A# Importance Rating  Forrect):  Implied from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and the provided from Panel YBU. Loss of Y2, Y4, or Yes a correct and Yes	Tier # 1 Group # 1 K/A# 000-0 Importance Rating 2.9  Reference Att (Attach if not previously proplicants during examination:  S-GOP-141-08A Bank # Modified Bank # (Note changes or attach lew X Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y

The second of th

A loss o	of will cause MFPT 2 to be driven to zero speed.
a. I	Essential Panel Y2
b. I	Essential Panel Y4
c. I	Panel YBU
d.	Non-Essential Panel YBR
Answer	
c.	

. ..

•

		Level:	RO	SRO
		Tier #	1	1
EXAMINATION OUTLINE CR	OSS-REFERENCE:	Group #	1	1
		K/A#		A06-GEN 2.4.5
		Importance Rating	2.9	3.6
Proposed Question: 9				
See Attached	·			
Proposed Answer: See attack	ned			
Explanation (Why the distractors are	incorrect):			
a./c./d. Control Room Evacuation	procedure and the Fire Pr	rocedure do not take pri	ority over DB-OI	2-02000 IAW
DB-OP-01003.				
Technical Reference(s):			Reference Atta	achad:
DB-OP-01003			(Attach if not	iched;
<b>33</b> 37 37333			previously pro	vided)
			proviously pro	Videa
Dues and information to be married to	annlianta durina avam			
Proposed references to be provided to	applicants during exam	manon.		
None				
Learning Objective (As available):	OPS-GOP-119-05K			
Question Source:	Bank #			}
	Modified Bank #	(Note	changes or attach	parent)
	New	. <u>X</u>		
Question History	Previous NRC Exam			
Question Tristory	Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamen Comprehension or An			
	Comprehension of An	alysis	_	
10 CFR Part 55 Content:	55.41 .10			
	55.43			
Comments (Why is it an upper level of	question):			
Comments (why is it all upper level of	question).			



Direction provided in DB-OP-02000, RPS, SFAS, SFRCS Trip, or SG Tube Rupture, takes priority over abnormal procedures with the exception of:

- a. DB-OP-02508, Control Room Evacuation and DB-OP-02519, Serious Control Room Fire.
- b. DB-OP-02501, Serious Station Fire and DB-OP-02519, Serious Control Room Fire.
- c. DB-OP-02508, Control Room Evacuation and DB-OP-02529, Fire Procedure.
- d. DB-OP-02501, Serious Station Fire and DB-OP-02529, Fire Procedure.

Answer:

b.

		Level:	RO	SRO
	CROSS-REFERENCE:	Tier #	1	1
<b>EXAMINATION OUTLINE</b>		Group #	1	1
		K/A#	000-07	4-EK2.06
		Importance Rating	3.5	3.6
Proposed Question: 10				
See Attached				
Proposed Answer: See at	tached		· · · · · · · · · · · · · · · · · · ·	
•				
Explanation (Why the distractors	·	• • •		
<ul><li>a./b. DB-OP-02000 directs cool</li><li>c. DB-OP-02000 directs coold</li></ul>				
Technical Reference(s): DB-OP-02000			Reference Attac (Attach if not previously prov	\ <u> </u>
Learning Objective (As available Question Source:	Bank #			
	Modified Bank # New	X (Note c	hanges or attach	parent)
Question History	Previous NRC Exam Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundame Comprehension or Ar	ntal Knowledge X		
10 CFR Part 55 Content:	55.41 <u>.8</u> 55.43			
Comments (Why is it an upper lev	/el question):			
	•			

- "

The following plant conditions exist:

- The plant was at 100% power.
- Adequate subcooling margin has been lost due to a small break loss of coolant accident.
- There is NO makeup OR HPI flow available.

Which one of the following is the correct response to these conditions?

Fully open the AVVs to cooldown the RCS at:

- a. 100°F/hour until CFTs begin to empty.
- b. 100°F/hour until LPI flow has been established.
- c. the maximum attainable rate until CFTs begin to empty.
- d. the maximum attainable rate until LPI flow has been established.

Answer:

d.

		Level:	RO	SRO
		Tier#		1 310
<b>EXAMINATION OUTLINE CR</b>	OSS-REFERENCE:	Group #	<del>j</del>	<del></del>
		K/A#	BW/I	E03-EA2.02
		Importance Ratin		4.0
Proposed Question: 11		11	5	
-				
See Attached				
Proposed Answer: See attach	ed			
Explanation (Why the distractors are	incorrect):			
b. SG tube stresses are caused by t	emperature differences	between the SG tube	es and shells.	
c. Heat input from the RCPs is onl	y a concern during a la	ck of heat transfer ev	ent.	
d. RCPs would not cavitate until a	-			
d. RCF3 would not cavitate until a	1035 Of all RC3 lifetito	ny in the RC3 loops	nau occurreu.	
Technical Reference(s):			Reference Atta	ached:
DB-OP-02000 Technica	l Basis Document		(Attach if not	
			previously pro	vided)
None				
Learning Objective (As available): (	OPS-GOP-304-05K			
Question Source:	Bank #			
<b>~~~~~~</b>	Modified Bank #	(N	lote changes or attach	n parent)
	New	_X_		
O TYP				
Question History	Previous NRC Exam Previous Quiz / Test			
		<del></del>		
Question Cognitive Level:	Memory or Fundame	ntal Knowledge X		
	Comprehension or Ar			
	·			
10 CFR Part 55 Content:	55.413			
	55.43			
7			<del></del>	
Comments (Why is it an upper level of	uestion).			

Which one of the following explains why the reactor coolant pumps are tripped following a loss of adequate subcooling margin?

- a. Prevent possible uncovering the core.
- b. Reduce tension stresses on the steam generator tubes.
- c. Reduce the heat input into the RCS.
- d. Prevent damage to the RCPs due to cavitation.

Answer:

a.

Proposed Question: 12 See Attached Proposed Answer: See attached Explanation (Why the distractors are incorrect):	Group # K/A# Importance Ratin		<del></del>
See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):	1		
See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):	Importance Katin	2	00-076-AK2.0
See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):		g 2.6	5
Proposed Answer: See attached  Explanation (Why the distractors are incorrect):			
Explanation (Why the distractors are incorrect):			
•			
b. CTMT RAD HI is an indication of an RCS leak.			
c. SFAS CTMT RAD HI is an indication of an RCS leak.			
d. VAC SYS DISCH RAD HI is an indication of an SG to	ibe leak.		
Proposed references to be provided to applicants during exame None	mination:		
Learning Objective (As available): OPS-GOP-135-01K			
Learning Objective (As available). OF 3-GOF-133-01K			
Question Source:  Bank #  Modified Bank #  New	(r	ote changes or a	ttach parent)
Question Source: Bank # Modified Bank #	<u>X</u>	ote changes or a	ttach parent)
Question Source:  Bank #  Modified Bank #  New  Question History  Previous NRC Exam	Xental KnowledgeX		ttach parent)
Question Source:  Bank # Modified Bank # New  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundame	Xental KnowledgeX		ttach parent)

Which one of the following annunciators, if alarming, is a symptom of high activity in the Reactor Coolant System and <u>requires</u> entry into DB-OP-02535, High Activity in the Reactor Coolant System?

- a. LETDOWN RAD HI (2-1-A)
- b. CTMT RAD HI (4-1-A)
- c. SFAS CTMT RAD CH TRIP (5-1-A)
- d. VAC SYS DISCH RAD HI (9-4-A)

Answer:

a.

		Level:	RO	SRO
		Tier #	1	1
<b>EXAMINATION OUTLINE</b>	ROSS-REFERENCE:	Group #	1	†
		K/A#	000-05	5-EA1.02
		Importance Rating	4.3	4.4
Despessed Overtions 12		<u> </u>	<del></del>	-L
Proposed Question: 13				
See Attached				
Proposed Answer: See att	ached			
Explanation (Why the distractors	are incorrect):			
a./b./d. These electrical trips are	bypassed when the SBOI	OG is manually started from	m the Control Ro	om.
•	••	•		
Technical Reference(s):			Reference Attac	ched:
DB-OP-06334			(Attach if not	
			previously prov	ided)
			proviously prov	idea)
Proposed references to be provided None	d to applicants during exan	nination:		
Learning Objective (As available)	: OPS-SYS-406-10K			
Question Source:	Bank #	X		
ORQ-0953	Modified Bank #		hanges or attach	parent)
•	New			,
Question History	Previous NRC Exam			
1996 Exam	Previous Quiz / Test	X		
Question Cognitive Level:	Memory or Fundame	ntal Knowledge		
<u> </u>	Comprehension or A			
	-			
10 CFR Part 55 Content:	55.417			
	55.43			
Comments (Why is it an upper leve	el question):			
Must recognize that starting the SI	BODG from the Control Ro	oom bypasses several elect	trical trips.	

The Station Blackout Diesel Generator (SBODG) has been started from the Control Room and loaded on D2 Bus following a station blackout. The SBODG then automatically trips.

Determine which one of the following caused the trip.

- a. Negative phase sequence
- b. Reverse power
- c. Transformer DF8 overcurrent
- d. Ground overcurrent

Answer:

EWARATRIA DECAL ATION THIS	CDACC DESERVACE	Tier#		1	
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group # K/A#		1 000 0	)62-AA2.
		Importance R	ating	2.8	02-AA2.0
Proposed Question: 14				.1	<del></del>
See Attached					
·					
Proposed Answer: See a	ttached				
Explanation (Why the distractors	s are incorrect):				
a. Credit is not taken for the M	MDFP in safety analysis for a	seismic event.			
b. Curbs on the entrances to the	he AFP rooms prevent flood	ng.			
d. Curbs on the entrances to the	ne HVSG rooms prevent floo	oding.			
			]	previously pro	vided)
	led to applicants during exan	nination:			
Learning Objective (As available	e): OPS-GOP-111-02K	nination:			
None		nination:	(Note cha	anges or attach	parent)
None  Learning Objective (As available	e): OPS-GOP-111-02K Bank # Modified Bank #		(Note cha	anges or attach	parent)
None  Learning Objective (As available Question Source:	e): OPS-GOP-111-02K  Bank #  Modified Bank #  New  Previous NRC Exam	X		anges or attach	parent)
None  Learning Objective (As available Question Source:  Question History	e): OPS-GOP-111-02K  Bank #  Modified Bank #  New  Previous NRC Exam  Previous Quiz / Test  Memory or Fundame	X		anges or attach	parent)
Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.414	X		anges or attach	parent)
Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.414	X		anges or attach	parent)
Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.414	X		anges or attach	parent)
None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:	Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.414	X		anges or attach	parent)
Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.414	X		anges or attach	parent)
Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.414	X		anges or attach	a parent)
Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.414	X		anges or attach	parent)

 $(x_1, x_2, \dots, x_n) = (x_1, x_2, \dots, x_n)$ 

The plant is at 100% power. A seismic event occurs causing a Service Water System break in the TPCW header.

Action is required within three hours to isolate the service water break to prevent:

- a. flooding of the MDFP.
- b. flooding of the AFPs.
- c. loss of ultimate heat sink inventory.
- d. loss of high voltage switchgear buses.

Answer:

		Level:	RO	SRO
	CDACC DEPENDING	Tier#	1	1
EXAMINATION OUTLINE CROSS-REFERENCE		Group #	2	2
		K/A# Importance Rating		038-EA1.27
	<del></del>	Importance Kating	g 3.9	3.9
Proposed Question: 15				
See Attached				
Proposed Answer: See a	attached			
Explanation (Why the distractors	s are incorrect):			
a. 1025 signal cannot be read	on the TBV controllers.			
b. 995 signal is only present w	when the reactor is tripped.			
d. 870 signal is only present w				
Technical Reference(s):			Reference Atta	ached:
DB-OP-06401			(Attach if not	
			previously pro	vided)
	~~~~			
Proposed references to be provid	ed to applicants during exam	nination:		
None				
Learning Objective (As available	e): OPS-SYS-515-04K			
Question Source:	Bank #			
	Modified Bank #	(Note changes or attach parent)		
	New	_X_		
Question History	Previous NRC Exam			
	Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamer	ntal Knowledge X		
	Comprehension or Ar	nalysis		
10 CFR Part 55 Content:	55.41 .4	<del></del>		
To CIRT art 33 Contont.	55.43			
Comments (Why is it an upper le	vel question):			

The following plant conditions exist:

- A plant shutdown is in progress due to an SG tube rupture.
- Steam flow is being transferred from the turbine to the Turbine Bypass Valves (TBVs).

is.

- Steam generators are on low level levels.
- Megawatt demand is 220 MWE.

The measured variable display for the TBVs shows the pointer below the carat. This indicates that the TBVs are set to control header pressure at the \_\_\_\_\_ psig setpoint.

- a. 1025
- b. 995
- c. 920
- d. 870

Answer:

## Level: RO SRO Tier# **EXAMINATION OUTLINE CROSS-REFERENCE:** Group # 2 K/A# 000-059-AA2.04 Importance Rating 3.2 Proposed Question: 16 See Attached Proposed Answer: See attached Explanation (Why the distractors are incorrect): a./c./d. Shall not drain contaminated water to circ water, the settling basin, or Training Building Pond. Technical Reference(s): Reference Attached: DB-OP-02531 (Attach if not previously provided) Proposed references to be provided to applicants during examination: None Learning Objective (As available): OPS-GOP-131-11K Question Source: Bank # Modified Bank # (Note changes or attach parent) New Question History Previous NRC Exam Previous Quiz / Test Question Cognitive Level: Memory or Fundamental Knowledge X Comprehension or Analysis 10 CFR Part 55 Content: 55.41 55.43 Comments (Why is it an upper level question):

Answer:

b.

The following plant conditions exist:

A plant shutdown and cooldown is in progress due to an 80 gallon per minute steam generator tube leak.

The Technical Support Center has determined the need to drain the condenser

hotwell.

	not well.
The ho	otwell drains will be routed to in order to reduce hotwell level.
a.	the Circulating Water System
b.	Condensate Polishing Demin Holdup Tanks
c.	any of the settling basins
d.	Training Building Pond

		Level:		RO	SRO
		Tier#		1	1
EXAMINATION OUTLINE	E CROSS-REFERENCE:	Group #		2	2
		K/A#			1-GEN 2,1.30
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Importance Rat	ing	3.9	3.4
Proposed Question: 17					
See Attached					
Proposed Answer: See a	attached				
Explanation (Why the distractor	s are incorrect):				
a. Output breakers will not op	oen on successful SCW runba	ack.			
b. Low load limit is not in eff	ect when in track.				
d. FW and reactor will be mat	tched during the runback.				
Technical Reference(s):				Reference Attach	ed:
DB-OP-02016				(Attach if not	
				previously provid	led)
Learning Objective (As available	e): OPS-SYS-512-02K				
Question Source:	Bank # Modified Bank # New		(Note ch	anges or attach pa	arent)
Question History	Previous NRC Exam Previous Quiz / Test				
Question Cognitive Level:	Memory or Fundamer Comprehension or Ar		<u>X</u>		
10 CFR Part 55 Content:	55.41 <u>.7</u> 55.43				
Comments (Why is it an upper le	evel question):				
Must recognize the turbine trans	fers to manual on an SCW ru	inback, and the tur	bine in n	nanual places the	ICS in track.

The following plant conditions exist:

- The reactor was initially at 40% power.
- A loss of both stator cooling water pumps caused a plant runback.

Which one of the following actions would have to be taken to clear annunciator 14-6-D, ICS IN TRACK?

- a. Reclose the turbine generator output breakers ACB 34560 and ACB 34561.
- b. Adjust reactor power to clear the ULD low load limit.
- c. Transfer turbine control to ICS AUTOMATIC.
- d. Adjust feedwater flow to match reactor power.

Answer:

c.

EXAMINATION OUTLINE CROSS-REFERENCE:	Level: Tier #	RO	SRO
	~	1	1
	Group #	2	2
	K/A#		4-AK3.02
Proposed Question: 18	Importance Rating	3.4	3.7
See Attached			
Proposed Answer: See attached	<del></del>		
Explanation (Why the distractors are incorrect):			
a. If RFR is abnormal, then SFRCS is manually actuated.			
c./d. MDFP is only started if the AFPs are unavailable.			
Technical Reference(s):		Reference Attac	hed:
DB-OP-02000 Technical Bases		(Attach if not	
		previously prov	ided)
Learning Objective (As available): OPS-GOP-303-05K  Question Source: Bank #  Modified Bank #	(Note ch	anges or attach p	parent)
New		·	
Question History Previous NRC Exam Previous Quiz / Test			
Question History Previous NRC Exam			
Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamenta			

s de la

The following plant conditions exist:

- The reactor was initially at 50% power with MFPT 1 out of service.
- Following an MFPT 2 control system failure, the reactor tripped on high RCS pressure.
- AFW started on low SG levels.
- MFPT 2 is running on the low speed stop.

What action should be taken NEXT based on these conditions?

- a. Place MFPT 2 speed in manual and control steam generators on low level limits to balance steam loads.
- b. Initiate AFW flow and isolation of both SGs to replace the malfunctioning MFW System.
- c. Start the MDFP in the AFW mode and shutdown the AFPTs in preparation for trip recovery.
- d. Start the MDFP in the MFW mode and shut down the AFPTs to conserve water in the condensate storage tanks.

Answer:

b.

		Level:		RO	SRO
		Tier #		1	1
<b>EXAMINATION OUTLINE</b>	CROSS-REFERENCE:	Group #		2	2
		K/A#			04-EK1.3
		Importance Ra	ating	4.0	4.0
Proposed Question: 19					
See Attached					
Proposed Answer: See at	ttached	<del></del>			
Explanation (Why the distractors	s are incorrect):		<del></del>	<del></del>	
a. DB-OP-02000 Immediate A	ŕ	to symptom chec	ks.		
c./d. Feed and bleed cooling is		• •		-1-	
Technical Reference(s):				Reference Attac	
DB-OP-02000				(Attach if not	:neu:
DD-01 02000				previously prov	ided)
				providuoty pro.	idea)
None  Learning Objective (As available					
	Bank #				
Question Source: ORQ-0098	Bank # Modified Bank # New	<u>X</u>	(Note ch	anges or attach	parent)
Question History 1998 Exam	Previous NRC Exam Previous Quiz / Test	X			
Question Cognitive Level:	Memory or Fundamer		_ <u>X</u>		
	Comprehension or Ar	nalysis			
10 CFR Part 55 Content:	55.41 <u>.10</u> 55.43				
Comments (Why is it an upper le	vel auestion):				

# ORIGINAL

Quest	ion: 19
	The reactor has tripped.
	Both MFPTs AND both AFW pumps are tripped.
	MUP 1-2 is disassembled for maintenance.
MU/I	IPI cooling should be initiated
a.	immediately.
b.	when the "check for lack of heat transfer" step is reached in the procedure
c.	when Tavg exceeds 600°F if feedwater is NOT restored.
d.	when Thot exceeds 600°F even if feedwater is restored.
4	
Answ	er:
a.	

The following plant conditions exist:

- The reactor has tripped due to a loss of MFW.
- Both AFW pumps tripped on overspeed.
- The standby makeup pump failed to start.
- MDFP is out of service for maintenance.

MU/HPI cooling should be initiated . .

- a. immediately upon entry in DB-OP-02000
- b. after completion of the Immediate Actions in DB-OP-02000
- c. when Step 4.10, Check for Lack of Heat Transfer, is reached in the Supplementary Actions of DB-OP-02000
- d. when the first Thot indication reaches 600°F

Answer:

b.

		Level:		RO	SRO
DV AND AMERICAN OXIDE THE	CDOCC DEFENDENCE	Tier#		1	_
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #		2	
•		K/A#			58-GEN
		Importance R	ating	3.4	T
Proposed Question: 20					
See Attached					
Proposed Answer: See at	ttached				~ <del>~~~~</del>
Explanation (Why the distractors	are incorrect):				·
a./b. Loss of D1P/DAP does n	,	As or letdown co.	alerc		
			01013.		
c. CCW pump will continue to	rull il control power is lost	•			
m 1 ' ln c ()		<del> </del>	·····	C	
Technical Reference(s): DB-OP-02537				eference Attac Attach if not	ched:
DB-01-02337			•	reviously prov	idad)
			Pi	eviously prov	lucu)
•	ed to applicants during exan	nination:			
None		nination:			
None  Learning Objective (As available	): OPS-SYS-137-04K	nination:			
None  Learning Objective (As available	e): OPS-SYS-137-04K Bank #	nination:	(Note char	nges or attach	parent)
None  Learning Objective (As available	): OPS-SYS-137-04K	nination:	(Note char	nges or attach	parent)
None  Learning Objective (As available Question Source:	Bank # Modified Bank # New	nination:	(Note char	nges or attach	parent)
None  Learning Objective (As available Question Source:	Bank # Modified Bank # New Previous NRC Exam	nination:	(Note char	nges or attach	parent)
None  Learning Objective (As available Question Source:	Bank # Modified Bank # New	nination:	(Note char	nges or attach	parent)
None  Learning Objective (As available Question Source:  Question History	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame			nges or attach	parent)
None  Learning Objective (As available Question Source:  Question History	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test			nges or attach	parent)
None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundames Comprehension or Ar			nges or attach	parent)
None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundames Comprehension or An			nges or attach	parent)
None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundames Comprehension or Ar			nges or attach	parent)
None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.41			nges or attach	parent)
None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.41			iges or attach	parent)
None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.41			nges or attach	parent)
None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.41			nges or attach	parent)
None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.41			nges or attach	parent)
None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.41			ages or attach	parent)
Proposed references to be provided None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level)	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.41			nges or attach	parent)
None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.41			nges or attach	parent)
None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.41			nges or attach	parent)

The reactor was at 100% when a loss of D1P and DAP occurred.

DB-OP-02537, Loss of D1P and DAP, directs the verification of CCW containment isolation OPEN:

- a. to verify cooling water is available to the CRDMs.
- b. to verify cooling water is available to both letdown coolers.
- c. because CCW Pump 1 has lost control power.
- d. because seal injection is lost to two RCPs.

Answer:

d.

	<del></del>	Level:		RO	SRO
		Tier #		1	1
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #		2	2
		K/A#			60-AA1.02
		Importance Rat	ing	2.9	3.1
Proposed Question: 21					
See Attached					
Proposed Answer: See att	ached				
Explanation (Why the distractors	are incorrect):				
b/c. SI filters are in the FH are	a				
d. Main station exhaust fans	do not auto ston on high ra	diation			
Technical Reference(s):				Reference Atta	ached:
DB-OP-06412				Attach if not	
			1	previously pro	vided)
Learning Objective (As available) Question Source:	: OPS-SYS-109-07K Bank #				
	Modified Bank # New	<u></u>	(Note cha	inges or attach	parent)
Question History	Previous NRC Exam Previous Quiz / Test				
Question Cognitive Level:	Memory or Fundame Comprehension or A		<u>X</u>		
10 CFR Part 55 Content:	55.41 <u>.11</u> 55.43				
Comments (Why is it an upper leve	el question):				
		•			
		**			

The plant is at 100% power.

- Maintenance is in progress on Seal Injection Filter 1.
- A leaking Seal Injection Filter isolation valve has led to high airborne radioactivity.

Which one of the following ventilation systems will automatically shutdown?

- a. The Fuel Handling Ventilation System
- b. The Radwaste Area Ventilation System
- c. The Containment Purge Ventilation System
- d. The Main Station Exhaust System

Answer:

a.

		Level:	RO	SRO
		Tier #	1	1 1
<b>EXAMINATION OUTLINE</b>	CROSS-REFERENCE:	Group #	2	1
		K/A#	000-00	01-AA2.04
		Importance Rating	4.2	4.3
Proposed Question: 22				
See Attached				
Proposed Answer: See a	ittached			
Explanation (Why the distractors	•			
	nd will create a mismatch bet		-	
	e a mismatch between SG he	•	)wer.	
d. SG/Rx demand will only re	educe feedwater in this scena	irio.		
				•
Technical Reference(s):	***************************************		Reference Atta	chad:
DB-OP-02516			(Attach if not	cned:
01 02310			previously prov	vided)
			previously prov	nacaj
D 1 C 1 1				
Proposed references to be provide	ed to applicants during exan	nination:		
None				
Learning Objective (As available	e): OPS-GOP-116-02K		<del></del>	<del>~~~~~~~~~</del>
Question Source:	Bank #	Χ		
OLC-4488	Modified Bank #		changes or attach	parent)
	New		U	
Question History	Previous NRC Exam	X		
1998 NRC Exam	Previous Quiz / Test	<u>A</u>		
0 1 0 1 1				
Question Cognitive Level:	Memory or Fundames Comprehension or Ar			
10 CFR Part 55 Content:	55.416			
	55.43			
Comments (Why is it an upper le	vel question):			
• • •	•		*!*!*-	
Must diagnose the failure from the	ie information given and det	termine the correct action	to mitigate.	
		•		

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### The following plant conditions exist:

- Tave is 584°F and rising.
- Main feedwater flow is rising.
- Reactor power is 92% and rising.
- Neutron error is 2% in the "IN" direction.
- Rod index is 293% and rods are moving out.
- RCS pressure is 2170 psig and rising.
- Diamond panel OUT COMMAND red light is lit.
- Turbine header pressure is 870 psig and stable.
- Generator output is 880 MWE and rising.

### The operator should:

- a. put Feedwater Loop Demand HAND/AUTO stations in HAND and reduce feedwater flow.
- b. put the turbine in MANUAL and reduce megawatts.
- c. depress and hold the ROD STOP button.
- d. place the SG/RX Demand HAND/AUTO station in HAND and reduce the demand.

Answer:

c.

# RO Level: SRO Tier# **EXAMINATION OUTLINE CROSS-REFERENCE:** 2 Group # 2 K/A# BW/E02-EK1.1 Importance Rating 3.6 Proposed Question: 23 See Attached Proposed Answer: See attached Explanation (Why the distractors are incorrect): The power supply light being lit indicates power is available. Normal post-trip SG level is 40 inches. Instrument air drops post-trip; minimum pressure is 75 psig. Technical Reference(s): Reference Attached:\_ DB-OP-02000 (Attach if not previously provided) Proposed references to be provided to applicants during examination: None Learning Objective (As available): OPS-GOP-303-02K **Question Source:** Bank # Modified Bank # (Note changes or attach parent) New Question History Previous NRC Exam Previous Quiz / Test Question Cognitive Level: Memory or Fundamental Knowledge Comprehension or Analysis .10 10 CFR Part 55 Content: 55.41 55.43 Comments (Why is it an upper level question): Must analyze various parameters and determine if an SFRCS actuation is required.

Following a reactor trip, which one of the following would require the initiation of AFW flow and isolation of both steam generators?

- a. NNI X AC power supply indicating light is lit.
- b. Both SG levels indicate 40 inches.
- c. Instrument air header pressure indicates 91 psig.
- d. ICS HAND/AUTO station indicating lights are off.

Answer:

d.

## Level: RO SRO Tier# **EXAMINATION OUTLINE CROSS-REFERENCE:** Group # $\overline{2}$ K/A# BW/A04-GEN 2.4.7 Importance Rating 3.1 3.8 Proposed Question: 24 See Attached Proposed Answer: See attached Explanation (Why the distractors are incorrect): a./c. Turbine Trip AB directs tripping the reactor. b. Turbine Trip AB directs manually initiating SFRCS. Technical Reference(s): Reference Attached: DB-OP-02500 (Attach if not previously provided) Proposed references to be provided to applicants during examination: None Learning Objective (As available): OPS-GOP-101-06K **Question Source:** Bank # OLC-4909 Modified Bank # (Note changes or attach parent) New **Question History** Previous NRC Exam X 1999 NRC Exam Previous Quiz / Test Question Cognitive Level: Memory or Fundamental Knowledge Comprehension or Analysis 10 CFR Part 55 Content: 55.41 .10 55.43 Comments (Why is it an upper level question): Must analyze data on plant conditions, determine appropriate AB actions and comprehend resulting status of plant.

E SHOW WAS A PROPERTY.

The following sequence of events has occurred:

- The main turbine tripped at 35% reactor power.
- Main Stop Valve 1 failed to close.
- Main Control Valve 4 failed to close.

After completion of the appropriate steps of DB-OP-02500, Turbine Trip, the plant status will be:

- a. reactor power at 28%, steam generator level control on low level limits, and steam generator pressure control on TBVs.
- b. reactor power at 0%, steam generator level control on low level limits, and steam generator pressure control on the MSSVs.
- c. reactor power at 28%, steam generator level control on auxiliary feedwater, and steam generator pressure control on TBVs.
- d. reactor power at 0%, steam generator level control on auxiliary feedwater, and steam generator pressure control on the MSSVs.

Answer:

d.

## Level: RO SRO Tier# 2 **EXAMINATION OUTLINE CROSS-REFERENCE:** Group # 000-009-EK2.03 K/A# Importance Rating 3.0 3.3 Proposed Question: 25 See Attached Proposed Answer: See attached Explanation (Why the distractors are incorrect): Tsat for 125 psig is 353°F. Tsat for 210 psig is 392°F. Tsat for 400 psig is 448°F. Technical Reference(s): Reference Attached: DB-OP-02000 (Attach if not previously provided) Proposed references to be provided to applicants during examination: Steam Tables Learning Objective (As available): OPS-GOP-308-04K Question Source: Bank # OLC-4062 Modified Bank # (Note changes or attach parent) New Question History Previous NRC Exam X 1997 NRC Exam Previous Quiz / Test Question Cognitive Level: Memory or Fundamental Knowledge Comprehension or Analysis 10 CFR Part 55 Content: 55.41 55.43 Comments (Why is it an upper level question): Must use steam tables to determine correct saturation pressure for a 100°F temperature change.

A plant transient is in progress. Plant conditions are as follows:

- All RCPs are tripped.
- Incore thermocouples indicate 900°F.
- RCS pressure is 200 psig.
- Both SGs are unisolated and pressures are approximately 815 psig.

In accordance with DB-OP-02000, RPS, SFAS, SFRCS Trip, or SG Tube Rupture, Step 9.13, the operator is directed to induce heat transfer from the RCS to the SGs by rapidly lowering BOTH SG pressures to achieve a 100°F step decrease in secondary Tsat.

Which one of the following SG pressures corresponds to this new Tsat condition?

- a. 125 psig
- b. 210 psig
- c. 300 psig
- d. 400 psig

Answer:

c.

		Level:		RO	SRO
·		Tier #		1	1
EXAMINATION OUTLINE	E CROSS-REFERENCE:	Group #		2	1
		K/A#	-,:		0-011-EK2.02
		Importance R	ating	2.6	2.7
Proposed Question: 26					
See Attached					
Proposed Answer: See a	attached			<del></del>	
Explanation (Why the distractor	s are incorrect):		· · · · · · · · · · · · · · · · · · ·		<del></del>
-	c valves will have a minimal	effect on discha	rge head		
_	and will have a minimal effe		_		
	not containment isolation va				
•					
			<del> </del>	<del></del>	
Technical Reference(s):				Reference A	
DB-OP-06011			•	Attach if no	
			ŀ	previously p	rovided)
None  Learning Objective (As available	e): OPS-GOP-309-04K				
Question Source: OLC-4579	Bank # Modified Bank # New	_X	(Note cha	nges or atta	ch parent)
Question History 1996 NRC Exam	Previous NRC Exam Previous Quiz / Test	_X_			
Question Cognitive Level:	Memory or Fundamer Comprehension or Ar		_X		
10 CFR Part 55 Content:	55.41 <u>.3</u> 55.43				
Comments (Why is it an upper le	evel question):	-	<del> </del>		
					•

9. sq

The following plant conditions exist:

- A LOCA is in progress.
- BWST level is 8 feet and decreasing.
- HPI is running and required to be in operation by DB-OP-02000, RPS, SFAS, SFRCS Trip or SG Rupture.

Which one of the following is the reason for closing the HPI recirc valves (HP-32 and HP-31) when placing HPI into the piggyback mode?

- a. Prevent depletion of the containment emergency sump.
- b. Increase the discharge head of the HPI pumps.
- c. Increase the HPI injection flow rate.
- d. Ensure containment integrity is maintained.

Answer:

a.

	<del></del>	Level:	RO	SRO
		Tier#	1	- 1
EXAMINATION OUTLINE	E CROSS-REFERENCE:	Group #	2	2
		K/A#		022-AK3.07
		Importance Rating	3.0	3.2
Proposed Question: 27				
See Attached				
Proposed Answer: See a	attached			
Explanation (Why the distractor	s are incorrect):	<del></del>		
a. This action is only required	l if MUPs are not piggyback	ed from LPI.		
b. MUP 2 is only injecting the	rough the normal makeup lin	ie.		
	closed to increase injection			
	J			
Technical Reference(s):	~~~~		Reference Atta	ached:
DB-OP-02000			(Attach if not	acticu
			previously pro	vided)
			Lancer and Lan	, , , , , , , , , , , , , , , , , , , ,
None		· · · · · · · · · · · · · · · · · · ·		
Learning Objective (As available			· · · · · · · · · · · · · · · · · · ·	
Question Source:	Bank # Modified Bank #	(Not	e changes or attach	norant)
	New	X	ic changes of attact	parent)
Question History	Previous NRC Exam			
	Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamen	ntal Knowledge		
	Comprehension or Ar	nalysis X	-	
10 CFR Part 55 Content:	55.41 .3			·
to CFR Fait 33 Content.	55.43			
Comments (Why is it an upper le	vel question):			
Must recognize the MU System	lineup for MU/HPI cooling a	and determine MU inje	ction lines are sepa	rated.
		ď	•	
	•			

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### The following plant conditions exist:

- A loss of all main and auxiliary feedwater has occurred.
- AFTER makeup/HPI cooling has been initiated in accordance with DB-OP-02000, RPS, SFAS, SFRCS Trip, or SG Tube Rupture, Makeup Pump 1 trips due to an electrical fault.

Which one of the following is the correct response to the loss of MU Pump 1?

- a. Throttle MU 32 and MU 6419 to limit injection flow to 250 gpm per makeup line.
- b. Close MU 6421 to prevent runout of Makeup Pump 2.
- c. Open MU 6406 to ensure minimum recirc flow is available for Makeup Pump 2.
- d. No action is required since MU 6409 is closed, separating the makeup injection lines.

Answer:

d.

		Level:	RO	SRO
		Tier#	1	1
EXAMINATION OUTLINE C	ROSS-REFERENCE:	Group #	2	$\frac{1}{2}$
		K/A#		0-025-AK1.01
		Importance Rating		4.3
Proposed Question: 28		······································	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
See Attached	<del></del>		····	
Proposed Answer: See atta	ched			
Explanation (Why the distractors as	re incorrect):			
a. MU pumps provide boron inje	ection flowpath in Mode 4	•		
b. Both RCS loops are operable	in Mode 4.			*
d. Only one ECCS loop is requir		· 1		
Technical Reference(s):		· · · · · · · · · · · · · · · · · · ·	Reference A	
Tech. Specs. 3/4.4.2			(Attach if no previously p	
None  Learning Objective (As available):	OPS-GOP-434-01K		•	
Question Source:	Bank #		<del> </del>	
Question Source.	Modified Bank # New	(N	ote changes or atta	ich parent)
Question History	Previous NRC Exam Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamer Comprehension or An			
10 CFR Part 55 Content:	55.41 <u>.8</u> 55.43			
Comments (Why is it an upper level	l question):	<del></del>		
Must determine the plant is in Mode		a. Spec.		

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### The following plant conditions exist:

- Plant heatup is in progress.
- RCS temperature is 210°F.
- RCS pressure is 250 psig.
- Loop 2 RCPs are running.
- DH Train 2 is aligned in the decay heat mode.
- DH Train 1 is aligned in the LPI mode.
- A leak develops in the Decay Heat System requiring DH Pump 2 to be stopped and DH 12 DH NORMAL SUCTION ISOLATION, to be closed.

### Which one of the following Tech. Specs. should be entered?

- a. 3.1.2.2 for an inoperable boron injection flowpath.
- b. 3.4.1.2 since less than two coolant loops are operable.
- c. 3.4.2 for an inoperable DHR relief valve, DH 4849.
- d. 3.5.3 since only one ECCS subsystem is operable.

Answer:

c.

		Level: Tier#		RO 1	SRO
<b>EXAMINATION OUTLINE</b>	CROSS-REFERENCE:	Group #		$\frac{1}{2}$	
		K/A#			-032-AA2.(
	·	Importance Rati	ing	3.9	4
Proposed Question: 29					
See Attached					
Proposed Answer: See att	nched				
Explanation (Why the distractors a	are incorrect):				
a. NI l is de-energized.					
b. NR NI 3-1 is not on scale.					
c. Annunciator comes in when	SRNIs are initially energiz	ed.			
				٠.	
Technical Reference(s):				eference At	
DB-OP-02505			•	Attach if not	
			pr	eviously pr	ovided)
Proposed references to be provided None	d to applicants during exan	nination:			
•		nination:			
None			Note chan	ges or attac	ch parent)
None  Learning Objective (As available)	: OPS-GOP-105-04K  Bank #  Modified Bank #		Note chan	ges or attac	sh parent)
None  Learning Objective (As available)  Question Source:	: OPS-GOP-105-04K  Bank #  Modified Bank #  New  Previous NRC Exam	(		ges or attac	h parent)
None  Learning Objective (As available)  Question Source:  Question History	: OPS-GOP-105-04K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame	(		ges or attac	ch parent)
None  Learning Objective (As available)  Question Source:  Question History  Question Cognitive Level:	: OPS-GOP-105-04K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.412 55.43	(		ges or attac	ch parent)
None  Learning Objective (As available):  Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	: OPS-GOP-105-04K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.412 55.43  el question):	ntal Knowledge	<u>X</u>		ch parent)
Learning Objective (As available): Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level)	: OPS-GOP-105-04K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.412 55.43  el question):	ntal Knowledge	<u>X</u>		h parent)
Learning Objective (As available): Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level)	: OPS-GOP-105-04K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.412 55.43  el question):	ntal Knowledge	<u>X</u>		h parent)
Learning Objective (As available): Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level)	: OPS-GOP-105-04K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.412 55.43  el question):	ntal Knowledge	<u>X</u>		ch parent)
Learning Objective (As available): Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level)	: OPS-GOP-105-04K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.412 55.43  el question):	ntal Knowledge	<u>X</u>		h parent)
Learning Objective (As available): Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level)	: OPS-GOP-105-04K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.412 55.43  el question):	ntal Knowledge	<u>X</u>		ch parent)

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The following plant conditions exist:

- The plant is at 50% power.
- RPS Channel 2 was de-energized for maintenance.
- A loss of Y1 led to a loss of second RPS channel and a reactor trip.

Which one of the following Nuclear Instruments (NI) can be used to monitor reactor power 15 minutes after the reactor trip?

- a. NI 1, SOURCE RANGE LOG COUNT RATE
- b. NR NI 3-1, INTERMEDIATE RANGE Recorder
- c. Annunciator 5-5-E, SUR ROD WITHDRAW INHIBIT
- d. NI 5875A, SOURCE RANGE Gamma-Metrics Channel 2

Answer:

d.

DB-OP-02000 (Attac	1 3 000-056- 3.1	3.4
Proposed Question: 30  See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  Saturation temperature for 1670 psig is 612°F.  b. Since SCM is less than 20°F, incore temperature is used to determine SCM.  c./d. Tave or Tcold are not used to determine SCM.  Technical Reference(s):  DB-OP-02000  Refer (Attaprevious Proposed references to be provided to applicants during examination:  Steam Tables  Learning Objective (As available): OPS-GOP-304-01K  Question Source:  Bank #  Modified Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam  Previous Quiz / Test	3 000-056- 3.1 ence Attache	AK1.03 3.4
Proposed Question: 30  See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  Saturation temperature for 1670 psig is 612°F.  b. Since SCM is less than 20°F, incore temperature is used to determine SCM.  c./d. Tave or Tcold are not used to determine SCM.  Technical Reference(s):  DB-OP-02000 References to be provided to applicants during examination:  Steam Tables  Learning Objective (As available): OPS-GOP-304-01K  Question Source:  Bank #  Modified Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam  Previous Quiz / Test	a.l	3.4
Proposed Question: 30  See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  Saturation temperature for 1670 psig is 612°F.  b. Since SCM is less than 20°F, incore temperature is used to determine SCM.  c./d. Tave or Tcold are not used to determine SCM.  Technical Reference(s):  DB-OP-02000 (Attaction previous Proposed references to be provided to applicants during examination:  Steam Tables  Learning Objective (As available): OPS-GOP-304-01K  Question Source:  Bank # Modified Bank # New X  Question History Previous NRC Exam Previous Quiz / Test	a.l	3.4
See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  Saturation temperature for 1670 psig is 612°F.  b. Since SCM is less than 20°F, incore temperature is used to determine SCM.  c./d. Tave or Tcold are not used to determine SCM.  Technical Reference(s):  DB-OP-02000 (Attac previous Tables  Proposed references to be provided to applicants during examination:  Steam Tables  Learning Objective (As available): OPS-GOP-304-01K  Question Source:  Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam  Previous Quiz / Test	h if not	 x^**⊧-
See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  Saturation temperature for 1670 psig is 612°F.  b. Since SCM is less than 20°F, incore temperature is used to determine SCM.  c./d. Tave or Tcold are not used to determine SCM.  Technical Reference(s):  DB-OP-02000 (Attac previous Tables  Proposed references to be provided to applicants during examination:  Steam Tables  Learning Objective (As available): OPS-GOP-304-01K  Question Source:  Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam  Previous Quiz / Test	h if not	 x^**⊧-
Explanation (Why the distractors are incorrect):  Saturation temperature for 1670 psig is 612°F.  b. Since SCM is less than 20°F, incore temperature is used to determine SCM.  c./d. Tave or Toold are not used to determine SCM.  Technical Reference(s):  DB-OP-02000  Refer (Attar previous NRC Exam Previous Quiz / Test  Refer (Note changes Previous Quiz / Test	h if not	 x^**⊧-
Explanation (Why the distractors are incorrect):  Saturation temperature for 1670 psig is 612°F.  b. Since SCM is less than 20°F, incore temperature is used to determine SCM.  c./d. Tave or Toold are not used to determine SCM.  Technical Reference(s):  DB-OP-02000  Refer (Attar previous NRC Exam Previous Quiz / Test  Refer (Note changes Previous Quiz / Test	h if not	 x^**⊧-
Saturation temperature for 1670 psig is 612°F.  b. Since SCM is less than 20°F, incore temperature is used to determine SCM.  c./d. Tave or Tcold are not used to determine SCM.  Technical Reference(s):  DB-OP-02000 (Attator)  Proposed references to be provided to applicants during examination:  Steam Tables  Learning Objective (As available): OPS-GOP-304-01K  Question Source:  Bank #  Modified Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam  Previous Quiz / Test	h if not	 x^**⊧-
b. Since SCM is less than 20°F, incore temperature is used to determine SCM.  c./d. Tave or Tcold are not used to determine SCM.  Technical Reference(s):  DB-OP-02000  (Attator previous Proposed references to be provided to applicants during examination:  Steam Tables  Learning Objective (As available):  OPS-GOP-304-01K  Question Source:  Bank #  Modified Bank #  New  New  New  Previous NRC Exam  Previous Quiz / Test	h if not	 x^**⊧-
c./d. Tave or Tcold are not used to determine SCM.  Technical Reference(s):  DB-OP-02000  Refer DB-OP-02000  (Attatory  Proposed references to be provided to applicants during examination:  Steam Tables  Learning Objective (As available): OPS-GOP-304-01K  Question Source:  Bank # Modified Bank # Modified Bank # New  X  Question History  Previous NRC Exam Previous Quiz / Test	h if not	 x^**⊧-
Technical Reference(s):  DB-OP-02000  Refer (Attar previous Proposed references to be provided to applicants during examination:  Steam Tables  Learning Objective (As available): OPS-GOP-304-01K  Question Source:  Bank # Modified Bank # Modified Bank # New X  Question History  Previous NRC Exam Previous Quiz / Test	h if not	 x^**⊧-
DB-OP-02000 (Attar previous DB-OP-02000) (Att	h if not	 x^**⊧-
Proposed references to be provided to applicants during examination:  Steam Tables  Learning Objective (As available): OPS-GOP-304-01K  Question Source: Bank # (Note changes New X  Question History Previous NRC Exam Previous Quiz / Test	h if not	 x^**⊧-
Steam Tables  Learning Objective (As available): OPS-GOP-304-01K  Question Source: Bank #		
Question Source:  Bank # Modified Bank # New X  Question History  Previous NRC Exam Previous Quiz / Test	<u> </u>	<del></del>
Modified Bank # (Note changes New X	<del></del>	
Previous Quiz / Test	or attach par	ent)
Ouestion Cognitive Level: Memory or Fundamental Knowledge		
Comprehension or Analysis X		
10 CFR Part 55 Content: 55.41		
Comments (Why is it an upper level question):		
Must determine which temperature instrument to use and calculate subcooling margin.		

## The following plant conditions exist:

- The plant was at 100% power.
- A loss of off-site power occurred 10 minutes ago.
  - RCS pressure is 1670 psig.
  - Average incore temperature is 600°F.
  - RCS hotleg temperature is 594°F.
  - RCS average temperature is 572°F.
  - RCS coldleg temperature is 550°F.

Which one of the following is the correct subcooling margin for the above plant conditions?

- a. 12°F.
- b. 18°F.
- c. 40°F.
- d. 62°F.

Answer:

a.

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		Level: Tier#		SRO
EVAMINATION OUTLINE	DOCC DESERVABLOS.		1	1 1
EXAMINATION OUTLINE C	ROSS-REFERENCE:	Group #	3	3
		K/A#		3-GEN 2.4.39
		Importance Rating	3.3	3.1
Proposed Question: 31				
See Attached				
Proposed Answer: See atta	sched	******************************		
Explanation (Why the distractors a	re incorrect):			
a. Sandusky County is not on th				
b. Carroll Township and Erie Co	. •	v rinadown		
d. Sandusky County, Carroll To	-		_	
Technical Reference(s):		<del></del>	Reference Attac	had:
RA-EP-02010			(Attach if not	nea:
			previously provi	الماما
			previously provi	.ded)
		·		<del></del>
None  Learning Objective (As available):  Question Source:	OPS-GOP-603-05K Bank #			
Question Source.	Modified Bank # New	(Note o	changes or attach p	oarent)
Question History	Previous NRC Exam Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamer Comprehension or Ar	ntal Knowledge X		
10 CFR Part 55 Content:	55.41 <u>.10</u> 55.43			
Comments (Why is it an upper leve	l question):			

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1.00

Due to an RCS leak, the Shift Manager directs the spare Reactor Operator to make Emergency Plan notifications using the 4-Way Ringdown Phone.

Which one of the following combinations identifies who will be notified?

- 1. Sandusky County Sheriff
- 2. Ohio Highway Patrol
- 3. Lucas County Sheriff
- 4. Carroll Township Police
- 5. Ottawa County Sheriff
- 6. Erie County Sheriff
- a. 1, 3, and 5
- b. 2, 4, and 6
- c. 2, 3, and 5
- d. 1, 4, and 6

Answer:

c.

EXAMINATION OUTLINE CROSS-REFERENCE:    Tier #   1   3   3   3   3   3   3   3   3   3		<del></del>	Level:	RO	SRO
### SEAMINATION OUTLINE CROSS-REFERENCE:    Group #   3   BW/A07-AA1.2     Importance Rating   2.8   3.0     Proposed Question: 32   See Attached				<del></del>	
Proposed Question: 32  See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  b. EDG rooms, AFP rooms, and BWST tunnel do not contain SSD equipment.  c. EDG rooms and BWST tunnel do not contain SSD equipment.  d. AFP rooms do not contain SSD equipment.  Technical Reference(s):  RA-EP-02880  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-605-16K  Question Source:  Bank # Modified Bank # New  Modified Bank # Modified Bank # New  Modified Bank # M	<b>EXAMINATION OUTLINE</b>	E CROSS-REFERENCE:	<del>1</del>	I	
Proposed Question: 32  See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  b. EDG rooms, AFP rooms, and BWST tunnel do not contain SSD equipment.  c. EDG rooms and BWST tunnel do not contain SSD equipment.  d. AFP rooms do not contain SSD equipment.  Technical Reference(s):  RA-EP-02880  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source:  Bank #  Modified Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam  Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X  Comprehension or Analysis					
Proposed Question: 32  See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  b. EDG rooms, AFP rooms, and BWST tunnel do not contain SSD equipment.  c. EDG rooms and BWST tunnel do not contain SSD equipment.  d. AFP rooms do not contain SSD equipment.  Technical Reference(s):  RA-EP-02880 (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source: Bank # (Note changes or attach parent)  New   X (Note changes or attach parent)  New   Yervious Quiz / Test   Yervious Quiz / Test    Question Cognitive Level: Memory or Fundamental Knowledge   X (Comprehension or Analysis   10 CFR Part 55 Content:   55.41					
See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  b. EDG rooms, AFP rooms, and BWST tunnel do not contain SSD equipment.  c. EDG rooms and BWST tunnel do not contain SSD equipment.  d. AFP rooms do not contain SSD equipment.  Technical Reference(s):  RA-EP-02880  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source:  Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam  Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X  Comprehension or Analysis	Proposed Ouestion: 32				_ <del></del>
Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  b. EDG rooms, AFP rooms, and BWST tunnel do not contain SSD equipment.  c. EDG rooms and BWST tunnel do not contain SSD equipment.  d. AFP rooms do not contain SSD equipment.  Technical Reference(s):  RA-EP-02880  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source:  Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam  Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X  Comprehension or Analysis  10 CFR Part 55 Content:  55.41  7	•				
Explanation (Why the distractors are incorrect):  b. EDG rooms, AFP rooms, and BWST tunnel do not contain SSD equipment.  c. EDG rooms and BWST tunnel do not contain SSD equipment.  d. AFP rooms do not contain SSD equipment.  Technical Reference(s):  RA-EP-02880  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source:  Bank #  Modified Bank #  New  New  New  New  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source:  Bank #  Modified Bank #  New  New  New  New  New  New  New  Ne	<del></del>	1 1			
b. EDG rooms, AFP rooms, and BWST tunnel do not contain SSD equipment.  c. EDG rooms and BWST tunnel do not contain SSD equipment.  d. AFP rooms do not contain SSD equipment.  Technical Reference(s):  RA-EP-02880  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source:  Bank #  Modified Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge  Comprehension or Analysis  10 CFR Part 55 Content:  55.41  7	Proposed Answer: See a	ıttached 		<del></del>	
c. EDG rooms and BWST tunnel do not contain SSD equipment.  d. AFP rooms do not contain SSD equipment.  Fechnical Reference(s):  RA-EP-02880  Proposed references to be provided to applicants during examination:  None  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source:  Bank #  Modified Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam  Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X  Comprehension or Analysis  10 CFR Part 55 Content:  55.41  .7	Explanation (Why the distractors	s are incorrect):			
d. AFP rooms do not contain SSD equipment.  Technical Reference(s):  RA-EP-02880  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source:  Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam  Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X  Comprehension or Analysis  10 CFR Part 55 Content:  S5.41  7	b. EDG rooms, AFP rooms, a	and BWST tunnel do not con	tain SSD equipment.		
d. AFP rooms do not contain SSD equipment.  Technical Reference(s):  RA-EP-02880  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source:  Bank #  Modified Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X  Comprehension or Analysis  10 CFR Part 55 Content:  55.41  -7	c. EDG rooms and BWST tun	mel do not contain SSD equi	ipment.		
Technical Reference(s):  RA-EP-02880  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source:  Bank # Modified Bank # Modified Bank # New X  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge Comprehension or Analysis  10 CFR Part 55 Content:  S5.41  7			•		
RA-EP-02880  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source: Bank # (Note changes or attach parent)  New X					
RA-EP-02880  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source: Bank #					
RA-EP-02880  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source: Bank # (Note changes or attach parent)  New X					
RA-EP-02880  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source: Bank #					
RA-EP-02880  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source: Bank # (Note changes or attach parent)  New X					
RA-EP-02880  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source: Bank # (Note changes or attach parent)  New X  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge X  Comprehension or Analysis  10 CFR Part 55 Content: 55.417	m .1 .1 .1 n (.)			D C	
Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source: Bank # (Note changes or attach parent)  New X  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental KnowledgeX Comprehension or Analysis  10 CFR Part 55 Content: 55.417					ched:
Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-605-16K  Question Source: Bank #	KA-DI -02000			•	ided)
Learning Objective (As available): OPS-GOP-605-16K  Question Source: Bank # (Note changes or attach parent) New				proviously prov	ided)
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Modified Bank # (Note changes or attach parent)  New  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge Comprehension or Analysis  10 CFR Part 55 Content: 55.417	Learning Objective (As available	e): OPS-GOP-605-16K			
Modified Bank # (Note changes or attach parent)  New  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge Comprehension or Analysis  10 CFR Part 55 Content: 55.417	Ouestion Source:	Bank #			
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Comprehension or Analysis  10 CFR Part 55 Content: 55.417	Otion Consisting Laurely				
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55.43	10 CFR Part 55 Content:				
		55.43			
55.43		Comprehension or Ar 55.41			
				<del> </del>	

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Which of the following are the three areas that affect Safe Shutdown Systems that are covered by RA-EP-02880, Internal Flooding?

- 1. Service Water Pump Room
- 2. Emergency Diesel Generator Rooms
- 3. Component Cooling Water Pumps Room
- 4. Auxiliary Feedwater Pump Rooms
- 5. Emergency Core Cooling Systems Room
- 6. Borated Water Storage Tank Pipe Tunnel
- a. 1, 3, and 5
- b. 2, 4, and 6
- c. 1, 2, and 6
- d. 3, 4, and 5

Answer:

a.

Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-432-02A  Question Source: Bank #			Level:	<del></del>	RO	SRO
Evaluation   Comprehension or Analysis   Comprehension or Compre			Tier#		2	2
Importance Rating	<b>EXAMINATION OUTLINE</b>	CROSS-REFERENCE:			-1	. 1
Proposed Question: 33 See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect): a. None of these are used to monitor DNBR. b. Quadrant power tilt is not used to monitor DNBR. c. Axial power imbalance and reg. rod position are not used to monitor DNBR.  Technical Reference(s): Tech. Spec. 3.2.5  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-432-02A Question Source:  Bank # Modified Bank # New X  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X Comprehension or Analysis  10 CFR Part 55 Content:  55.41 55.43 2.			L			
See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  a. None of these are used to monitor DNBR.  b. Quadrant power tilt is not used to monitor DNBR.  c. Axial power imbalance and reg. rod position are not used to monitor DNBR.  Technical Reference(s): Tech. Spec. 3.2.5  (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-432-02A  Question Source:  Bank #	<del> </del>		Importance R	ating	4.2	4.6
Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  a. None of these are used to monitor DNBR.  b. Quadrant power tilt is not used to monitor DNBR.  c. Axial power imbalance and reg. rod position are not used to monitor DNBR.  Technical Reference(s):  Tech. Spec. 3.2.5  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-432-02A  Question Source:  Bank # Modified Bank # Modified Bank # New  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X Comprehension or Analysis  10 CFR Part 55 Content:  55.41 55.43 2.2	Proposed Question: 33					
Explanation (Why the distractors are incorrect):  a. None of these are used to monitor DNBR.  b. Quadrant power tilt is not used to monitor DNBR.  c. Axial power imbalance and reg. rod position are not used to monitor DNBR.  Technical Reference(s):  Tech. Spec. 3.2.5  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-432-02A  Question Source:  Bank # (Note changes or attach parent)  New X (Note changes or attach parent)  New Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X Comprehension or Analysis  10 CFR Part 55 Content: 55.41 .5 .5 .543 .2 .2	See Attached					
Explanation (Why the distractors are incorrect):  a. None of these are used to monitor DNBR.  b. Quadrant power tilt is not used to monitor DNBR.  c. Axial power imbalance and reg. rod position are not used to monitor DNBR.  Technical Reference(s):  Tech. Spec. 3.2.5  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-432-02A  Question Source:  Bank # (Note changes or attach parent)  New X (Note changes or attach parent)  New Y (Note changes or attach parent)  New (Note changes or attach parent)  Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X (Comprehension or Analysis)  10 CFR Part 55 Content: 55.41 .5 .5 .53 .2 .2	Duamaged Augustan Con att				<del></del>	<del></del>
a. None of these are used to monitor DNBR. b. Quadrant power tilt is not used to monitor DNBR. c. Axial power imbalance and reg. rod position are not used to monitor DNBR.  Technical Reference(s): Tech. Spec. 3.2.5  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-432-02A  Question Source:  Bank # Modified Bank # Modif			<del> </del>			
b. Quadrant power tilt is not used to monitor DNBR.  c. Axial power imbalance and reg. rod position are not used to monitor DNBR.  Technical Reference(s): Tech. Spec. 3.2.5  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-432-02A  Question Source:  Bank # Modified Bank #		·				
c. Axial power imbalance and reg. rod position are not used to monitor DNBR.  Technical Reference(s): Tech. Spec. 3.2.5  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-432-02A  Question Source: Bank # Modified Bank # Modified Bank # Modified Bank # Modified Bank # New X  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge Comprehension or Analysis  10 CFR Part 55 Content:  55.41 55.43 2.	a. None of these are used to mo	onitor DNBR.				
Technical Reference(s):  Tech. Spec. 3.2.5  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available):  DPS-GOP-432-02A  Question Source:  Bank # Modified Bank # Modified Bank # New  X  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X Comprehension or Analysis  10 CFR Part 55 Content:  55.41 55.43 2.2	b. Quadrant power tilt is not use	ed to monitor DNBR.				
Tech. Spec. 3.2.5  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-432-02A  Question Source: Bank # (Note changes or attach parent)  New New	c. Axial power imbalance and r	eg. rod position are not use	ed to monitor Di	VBR.		
Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-432-02A  Question Source: Bank # (Note changes or attach parent)  New X  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental KnowledgeX Comprehension or Analysis  10 CFR Part 55 Content: 55.415  55.432	Tachnical Deference(c):					ached:
Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-432-02A  Question Source: Bank #					•	
Learning Objective (As available): OPS-GOP-432-02A  Question Source: Bank #						• • • •
Question Source:  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental KnowledgeX Comprehension or Analysis  Memory of St. 415 55.432	Tech. Spec. 3.2.5  Proposed references to be provided	d to applicants during exan	nination:		previously pro	vided)
Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X Comprehension or Analysis  10 CFR Part 55 Content:  55.415 55.432	Tech. Spec. 3.2.5  Proposed references to be provided None		nination:		previously pro	vided)
Comprehension or Analysis  10 CFR Part 55 Content:	Tech. Spec. 3.2.5  Proposed references to be provided None	: OPS-GOP-432-02A Bank # Modified Bank #	nination:	(Note o		
55.43	Tech. Spec. 3.2.5  Proposed references to be provided None  Learning Objective (As available):	: OPS-GOP-432-02A  Bank #  Modified Bank #  New  Previous NRC Exam	nination:	(Note o		
Comments (Why is it an upper level question):	Proposed references to be provided None  Learning Objective (As available): Question Source:	: OPS-GOP-432-02A  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamen	Xntal Knowledge			
	Tech. Spec. 3.2.5  Proposed references to be provided None  Learning Objective (As available): Question Source:  Question History  Question Cognitive Level:	: OPS-GOP-432-02A  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundames Comprehension or Au  55.415	Xntal Knowledge			
	Tech. Spec. 3.2.5  Proposed references to be provided None  Learning Objective (As available): Question Source:  Question History  Question Cognitive Level:	: OPS-GOP-432-02A  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.415	Xntal Knowledge			
	Tech. Spec. 3.2.5  Proposed references to be provided None  Learning Objective (As available): Question Source:  Question History  Question Cognitive Level:	: OPS-GOP-432-02A  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.415	Xntal Knowledge			
	Proposed references to be provided None  Learning Objective (As available): Question Source:  Question History  Question Cognitive Level:	: OPS-GOP-432-02A  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.415	Xntal Knowledge			
	Tech. Spec. 3.2.5  Proposed references to be provided None  Learning Objective (As available): Question Source:  Question History  Question Cognitive Level:	: OPS-GOP-432-02A  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.415	Xntal Knowledge			

Which of the following are monitored to ensure the minimum DNBR is maintained in accordance with Tech. Spec. 3.2.5?

- 1. Axial Power Imbalance
- 2. Quadrant Power Tilt
- 3. Regulating Rod Groups Insertion Limits
- 4. RCS Hot Leg Temperature
- 5. RCS Pressure
- 6. RCS Flow
- a. 1, 2, and 3
- b. 2, 4, and 5
- c. 1, 3, and 6
- d. 4, 5, and 6

Answer:

d.

# Level: RO SRO Tier# 2 **EXAMINATION OUTLINE CROSS-REFERENCE:** Group # 1 K/A# 001-A4.15 Importance Rating 3.1 3.1 Proposed Question: 34 See Attached Proposed Answer: See attached Explanation (Why the distractors are incorrect): a./c. Rods will insert when Tave is reduced. b. Tave reduction adds positive reactivity. Technical Reference(s): Reference Attached: DB-OP-06902 (Attach if not previously provided) Proposed references to be provided to applicants during examination: None Learning Objective (As available): OLC-BAT-229-01K Question Source: Bank # Modified Bank # (Note changes or attach parent) New Question History Previous NRC Exam Previous Quiz / Test Question Cognitive Level: Memory or Fundamental Knowledge Comprehension or Analysis 10 CFR Part 55 Content: 55.41 55.43 .6 Comments (Why is it an upper level question): Must determine the reactivity added and how Group 7 is affected.

The following plant conditions exist:

- The plant is at 100% at the end of core life.
- Tave is being reduced from 582°F to 576°F in accordance with DB-OP-06902, Power Operations.

In response to the Tave reduction, Group 7 rods will automatically:

- a. withdraw due to the addition of positive reactivity.
- b. insert due to the addition of negative reactivity.
- c. withdraw due to the addition of negative reactivity.
- d. insert due to the addition of positive reactivity.

Answer:

d.

	· · · · · · · · · · · · · · · · · · ·	Level:	RO	SRO
		Tier #	2	2
EXAMINATION OUTLINE CI	CROSS-REFERENCE:	Group #	1	1
		K/A#	003-K	
·		Importance Rating	3.0	3.0
Proposed Question: 35				
See Attached				
Proposed Answer: See attac	hed	<del></del>	<del></del>	
Explanation (Why the distractors are	e incorrect):			
b. SR temperature high gives alar	m only.			
c. SR flow low gives alarm only	•			
	atautina intautuul			
d. Seal cooler CCW flow low is a	starting interiock.			
	•		<b>.</b> "	
Technical Reference(s): DB-OP-02515			Reference Attack (Attach if not	ched:
DB-OP-02523			previously prov	ridad)
DD-01-02323			previously prov	viucu)
	o applicants during exan	nination:		·
Proposed references to be provided to None  Learning Objective (As available):		nination:		
None		nination:		
None  Learning Objective (As available):	OPS-SYS-304-07K  Bank #  Modified Bank #		te changes or attach	parent)
None  Learning Objective (As available):	OPS-SYS-304-07K Bank #		te changes or attach	parent)
None  Learning Objective (As available):  Question Source:	OPS-SYS-304-07K  Bank # Modified Bank # New  Previous NRC Exam		te changes or attach	parent)
None  Learning Objective (As available):	OPS-SYS-304-07K  Bank #  Modified Bank #  New		te changes or attach	parent)
None  Learning Objective (As available):  Question Source:	OPS-SYS-304-07K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test	(No		parent)
None  Learning Objective (As available):  Question Source:  Question History	OPS-SYS-304-07K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamen	(No		parent)
Learning Objective (As available): Question Source: Question History Question Cognitive Level: 10 CFR Part 55 Content:	OPS-SYS-304-07K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.417	(No		parent)
Learning Objective (As available): Question Source: Question History Question Cognitive Level: 10 CFR Part 55 Content:	OPS-SYS-304-07K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.417	(No		parent)
Learning Objective (As available): Question Source: Question History Question Cognitive Level: 10 CFR Part 55 Content:	OPS-SYS-304-07K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.417	(No		parent)
Learning Objective (As available): Question Source: Question History Question Cognitive Level: 10 CFR Part 55 Content:	OPS-SYS-304-07K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.417	(No		parent)
None  Learning Objective (As available):  Question Source:  Question History  Question Cognitive Level:	OPS-SYS-304-07K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.417	(No		parent)
None  Learning Objective (As available):  Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	OPS-SYS-304-07K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.417	(No		parent)
Learning Objective (As available): Question Source: Question History Question Cognitive Level: 10 CFR Part 55 Content:	OPS-SYS-304-07K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.417	(No		parent)
None  Learning Objective (As available):  Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	OPS-SYS-304-07K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.417	(No		parent)

CC 4100, Seal Cooling CCW Return from RCP 1-1, will automatically close if RCP 1-1:

1.01.

- a. seal cooler CCW pressure is HIGH.
- b. seal return temperature is HIGH.
- c. seal return flow is LOW.
- d. seal cooler CCW flow is LOW.

Answer:

a.

	·	Level:	RO	SRO
		Tier #	2	2
EXAMINATION OUTLINE CF	ROSS-REFERENCE:	Group #	1	1
		K/A#		K6.07
	<del></del>	Importance Ratio	ng 2.7	2.8
Proposed Question: 36				
See Attached				
Proposed Answer: See attack	hed			
Explanation (Why the distractors are	e incorrect):			
a. MU 32 would close due to pres	surizer level increasing.			
b. MU 19 would not be affected.	•			
d. RCS pressure would not reach	the PORV setnoint			
Technical Reference(s):			Reference Att	ached:
DB-OP-06006			(Attach if not	
			previously pro	ovided)
Learning Objective (As available): Question Source:	OPS-SYS-106-03K  Bank #  Modified Bank #  New	(I	Note changes or attack	n parent)
Question History	Previous NRC Exam Previous Quiz / Test			·
Question Cognitive Level:	Memory or Fundamer Comprehension or Ar		<u>x</u>	
10 CFR Part 55 Content:	55.41 <u>.3</u> 55.43			
Comments (Why is it an upper level of	question):		***************************************	
Must determine how a loss of letdow	n affects the RCS.			

The following plant conditions exist:

- The plant is at 100% power.
- All systems in a normal lineup.
- A leak in Letdown Cooler 1 has caused MU 2B, Letdown Isolation Valve, to automatically close.

Which one of the following automatic actions would occur as a result of MU 2B closing?

- a. MU 32, Pressurizer Level Control, would continuously cycle open and closed.
- b. MU 19, RCP Seal Injection Flow Control, would continuously cycle open and closed.
- c. RC 2, Pressurizer Spray Valve, would continuously cycle open and closed.
- d. RC 2A, PORV, would continuously cycle open and closed.

Answer:

c.

		Level:		RO	SRO	
EWARDA TION OUT INCODOS DECENT		Tier#		2	2	
EXAMINATION OUTLINE CF	ROSS-REFERENCE:	Group #		1	1	
		K/A#	4:	015-K 2.6		
Proposed Question: 37 See Attached		Importance Ra	ating	2.0	2.9	
Proposed Answer: See attack	hed	<del></del>		<del></del>		
Explanation (Why the distractors are a./b. NI-3 is reading correctly.	incorrect):	<del></del>				
d. If voltage was high, NI-4 would	indicate low.					
Technical Reference(s): DB-OP-03006				Reference Atta Attach if not	ched:	
DB-OF-03000			,	reviously prov	vided)	-
Proposed references to be provided to	o applicants during exam	ination:				
None	0					
Learning Objective (As available):	OPS-SYS-502-03K					
Question Source: OLC-6762	Bank # Modified Bank # New	_X_	(Note cha	nges or attach	parent)	
Question History 1996 NRC Exam	Previous NRC Exam Previous Quiz / Test	_X				
Question Cognitive Level:	Memory or Fundamen Comprehension or An		<u> </u>			
10 CFR Part 55 Content:	55.41 <u>.2</u> 55.43 <u>.6</u>					
Comments (Why is it an upper level	question):					
Must determine which NI is abnorma		y.				

tim en k

W.

The reactor has tripped, and all control rods have inserted. Nine minutes after the trip, the following plant conditions exist:

- Intermediate Range, NI-3, indicates a power level decrease of one decade every three minutes.
- Intermediate Range, NI-4, indicates a power level decrease of one decade every nine minutes.
- NI-3 currently reads 8 x 10<sup>-10</sup> amps decreasing. NI-4 currently reads 6 x 10<sup>-8</sup> amps decreasing.

Which one of the following explains the reason for the response of the intermediate range nuclear instruments?

- Compensating voltage on NI-3 is set too high. a.
- Compensating voltage on NI-3 is set too low. b.
- Compensating voltage on NI-4 is set too low. c.
- Compensating voltage on NI-4 is set too high. d.

Answer:

c.

		<del></del>		<del></del>			
		Level:	RO	SRO			
		Tier #	2	2			
EXAMINATION OUTLINE CR	OSS-REFERENCE:	Group # 1 1 1 1 K/A# 022-K4.04					
·				4.04			
		Importance Rating	2.8	3.1			
Proposed Question: 38							
See Attached							
Proposed Answer: See attach	ed			<del></del>			
Explanation (Why the distractors are	incorrect):			<del></del>			
a. CACs are designed for accident	•						
b. CRD vent fans will not provide		is lost					
[		13 1031.					
c. CTMT recirc fans are for mixing	g air in CTMT.						
Technical Reference(s):			Reference Atta	ched:			
DB-OP-06402			(Attach if not	oned			
22 01 00 102			previously prov	.idad)			
			previously prov	rided)			
			· · · · · · · · · · · · · · · · · · ·				
Proposed references to be provided to	applicants during exam	nination:					
•							
None							
	<del></del>						
Learning Objective (As available): (	OPS-SYS-102-05K						
Question Source:	Bank #						
<b>**********</b>	Modified Bank #	(No	ote changes or attach	parent)			
	New	X	<b>3</b>	,			
Question History	Previous NRC Exam						
	Previous Quiz / Test						
Overtion Counities I and	Manager and Donaldson and	-4-1 V1-1 V					
Question Cognitive Level:	Memory or Fundamen		<del></del>				
	Comprehension or Ar	larysis					
10 CFR Part 55 Content:	55 A1 2						
10 CFR Part 33 Content:	55.413						
	55.435						
Comments (Why is it an upper level q	uestion):		;				
Comments (why is it all upper level q	uestion).						

**4** 1 1 8

A control rod drive ventilation fan should be started whenever:

- a. only one containment air cooler is available for cooling containment.
- b. component cooling water is lost to the control rod drive motors.
- c. the containment recirc fans are NOT running.
- d. the Control Rod Drive System is capable of rod withdrawal.

## Answer:

d.

Proposed Question: 39 See Attached Proposed Answer: See at	CROSS-REFERENCE:	Tier#	2	SRO
Proposed Question: 39 See Attached Proposed Answer: See at	Causs-reference:			2
See Attached Proposed Answer: See at		Group #	1	$\frac{2}{1}$
See Attached Proposed Answer: See at		K/A#	003-A2	
See Attached  Proposed Answer: See at		Importance Rating	2.5	2.8
Proposed Answer: See at				<u></u>
Explanation (Why the distress	tached			<del></del>
Explanation (Why the distractors				<del></del>
a. Boron concentration is not h	igh enough to affect RCP se	als.		
b. BWST water is maintained h	igh enough to not affect RC	P seals.		
c. Letdown flow will not affect	seal return flows.			
Гесhnical Reference(s):			Pofowan a Au 1	
DB-OP-02000		,	Reference Attache Attach if not previously provide	
earning Objective (As available):	OPS-SYS-105-05K			
earning Objective (As available): Question Source:	OPS-SYS-105-05K  Bank #  Modified Bank #  New	(Note char	nges or attach par	ent)
Question Source:	Bank # Modified Bank #	(Note char	nges or attach par	ent)
Question Source:	Bank # Modified Bank # New Previous NRC Exam	X	nges or attach par	ent)

The following plant conditions exist:

- The reactor tripped.
- Two control rods failed to insert.
- Boration from the BWST is in progress in order to establish adequate shutdown margin.
- All other post-trip responses are normal.

Twenty minutes after boration has been established, RCP seal return flow annunciators begin to alarm because:

- a. high boron concentration is affecting the RCP seal face clearances.
- b. high makeup tank level and pressure are affecting seal return flows.
- c. low seal injection water temperature from the BWST is affecting the RCP seal face clearances.
- d. high letdown flow rates are affecting seal return flows.

Answer:

b.

		Level:	RO	SRO	
		Tier#	2	2	
<b>EXAMINATION OUTLINE</b>	CROSS-REFERENCE:	Group #	<u> </u>	1	
		K/A#	056-A2	2.04	
		Importance Rating	2.6	2.8	
Proposed Question: 40			<del></del>	- <del></del>	
See Attached					
Proposed Answer: See at	tached				
Explanation (Why the distractors	are incorrect):				
b. Rapid shutdown required if	flow is greater than availab	le pump capacity.			
c. Runback starts at four feet in	n the D/As.				
d. Only need to throttle CD279	96 if pressure is low.				
Technical Reference(s):			Reference Attac	ched:	
DB-OP-06221			(Attach if not	,	
			previously prov	ided)	
Proposed references to be provide None	ed to applicants during exan	nination:			
Learning Objective (As available	): OPS-SYS-205-15K				
Question Source:	Bank #				
	Modified Bank #	(Note changes or attach parent)			
	New	_X_		<del> </del>	
Question History	Previous NRC Exam				
·	Previous Quiz / Test				
Question Cognitive Level:	Memory or Fundame Comprehension or Ar	ntal Knowledge <u>X</u> nalysis			
10 CFR Part 55 Content:	55.41 <u>.4</u> 55.43 <u>.5</u>				
Comments (Why is it an upper lev	vel question):				

The following plant conditions exist:

- The plant is at 75% power.
- All systems are in a normal lineup.

Which one of the following is the correct action if Condensate Pump 1 would trip?

- a. Start the standby condensate pump to maintain flow less than 3.5 MPPH per pump.
- b. Start a rapid plant shutdown to maintain deaerator levels at 8 feet.
- c. Monitor the automatic ICS runback to 55% power.
- d. Throttle CD 2796, Condensate Pump Discharge Pressure Control Valve, to maintain discharge pressure greater than 190 psig.

Answer:

a.

		Level:		RO	SRO
		Tier#		2	2
EXAMINATION OUTLINE CRO	DSS-REFERENCE:	Group #		1	1
1		K/A#	<del></del>	059-K	
		Importance R	ating	2.9	2.9
Proposed Question: 41					
See Attached					
Proposed Answer: See attache					<del></del>
					·····
Explanation (Why the distractors are i	•				
a. 40" is setpoint if SCM is adequated to 40" is setpoint if using A FW	.e.				
b. 49" is setpoint if using AFW.					
d. 240" is max. level for SGTR.					
					•
					,
				<del></del>	·
Technical Reference(s):				Reference Attac	hed:
DB-OP-02000			(	Attach if not	
			ŗ	previously prov	ided)
Proposed references to be provided to	applicants during exam	ination:			
None	approving during ordain				
None					
		•			
Learning Objective (As available): O	PS-GOP-301-04K				
Question Source:	Bank #				
	Modified Bank #		(Note cha	nges or attach	parent)
	New	_X_			
Question History	Previous NRC Exam				
Queen manage	Previous Quiz / Test				
Overtion Coordina Level	Manager on Providence	tal Vasculadas		<del></del>	
Question Cognitive Level:	Memory or Fundament Comprehension or An		X		
			<del></del>		
10 CFR Part 55 Content:	55.41				ļ
	55.435				
Comments (Why is it an upper level qu	restion).				
	•	ttr. on h			}
Must recognize SCM is inadequate and	a determine SG level re	equired by SR 4.			}
					}
					}
					l
					j

The following plant conditions exist:

- Makeup/high pressure injection cooling is in progress due to a loss of all feedwater.
- Subcooling margin is 5°F.

The motor driven feed pump is started in the main feedwater mode.

Steam generator levels should be maintained at:

- a. 40 inches.
- b. 49 inches.
- c. 124 inches.
- d. 240 inches.

Answer:

c.

	·····	Level:	RO	SRO
		Tier#	2	2
<b>EXAMINATION OUTLINE C</b>	ROSS-REFERENCE:	Group #	1	1
		K/A#	059-A	1.07
		Importance Rating	2.5	2.6
Proposed Question: 42				
See Attached				
Proposed Answer: See attac	ched	<del></del>		
Explanation (Why the distractors ar	•			
a. 3900 RPM is the LSS setpoint				
c. 4600 RPM is the RFR setpoint				
d. 5300 RPM is the HSS setpoint				
Technical Reference(s): DB-OP-02532			Reference Attac (Attach if not	
			previously prov	rided)
None  Learning Objective (As available):  Question Source:	OPS-SYS-524-04K Bank #			
Question Source.	Modified Bank # New	(Note	changes or attach	parent)
Question History	Previous NRC Exam Previous Quiz / Test			
	rievious Quiz/ Test			
Question Cognitive Level:	Memory or Fundamer Comprehension or Ar	ntal Knowledge X nalysis	-	
10 CFR Part 55 Content:	55.41 <u>.4</u> 55.43			
Comments (Why is it an upper level	question):			
Commonts (why is it all upper level	quodionj.			
			•	

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The following plant conditions exist:

- The plant is at 100% power.
- All systems are in a normal lineup.

A loss of ICS DC power occurs. Prior to any operator action, the speed of BOTH main feed pumps will go to:

- a. 3900 RPM.
- b. 4400 RPM.
- c. 4600 RPM.
- d. 5300 RPM.

## Answer:

b.

	<del></del>	Level:	RO	SRO
		Tier#	2	2
<b>EXAMINATION OUTLINE</b>	CROSS-REFERENCE:	Group #	1	1
		K/A#	061-K	2.02
		Importance Rating	3.7	3.7
Proposed Question: 43				
See Attached				
Proposed Answer: See at	tached			
Explanation (Why the distractors	are incorrect):			
b. F13 does not power MDFP	auxiliaries.			
c./d. C2 does not power the M	DFP.			
•				
				•
			•	
Technical Peteronas(s):		<del></del>	Dof	ahad-
Technical Reference(s): DB-OP-02000			Reference Atta (Attach if not	спеа:
DB 01 02000			previously pro	vided)
			previously pro	videa
Learning Objective (As available				
Question Source:	Bank # Modified Bank # New	(Note	changes or attach	parent)
Question History	Previous NRC Exam		<del></del>	
Question 1110101)	Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamer Comprehension or Ar	ntal Knowledge X	_	
10 CFR Part 55 Content:	55.41 <u>.4</u> 55.43			
Comments (Why is it an upper lev	vel question):	- <del> </del>		
, , , , , , , , , , , , , , , , , , ,	• /			

The following plant conditions exist:

- A loss of offsite power has occurred.
- Both AFPTs tripped.

The motor driven feed pump can be started if 4160 VAC Bus \_\_\_\_\_ and 480 VAC Motor Control Center \_\_\_\_ are re-energized.

a. D2; F71

b. D2; F13

c. C2; F71

d. C2; F13

Question: 43

Answer:

a.

		Level:	RO	SRO
		Tier#	2	2
EXAMINATION OUTLINE CR	OSS-REFERENCE:	Group #	1	1
		K/A#		<b>A</b> 2.04
		Importance Rating	3.3	3.3
Proposed Question: 44				
See Attached				
			<del></del>	
Proposed Answer: See attack	ned			
Explanation (Why the distractors are	incorrect):			
a. Stopping the dilution pump doe	s not terminate the relea	se.		
c./d. The release should be terminate	ated.			
Technical Reference(s):			Reference Att	nohod:
DB-OP-03011			(Attach if not	acned:
DB-01-03011			•	
			previously pro	(vided)
Proposed references to be provided to	applicants during exan	nination:		
•				
None				
				i
Lagraina Objective (As available)	ODC CVC 111 10V		<del></del>	
Learning Objective (As available):	OF5-515-111-10K			<del></del>
Question Source:	Bank #			
	Modified Bank #		changes or attack	n parent)
	New	<u>X</u>		
Question History	Previous NRC Exam			
Question History	Previous Quiz / Test			,
	11011003 Q0127 1030			
Question Cognitive Level:	Memory or Fundamer	ntal Knowledge X		
	Comprehension or Ar	nalysis	<del></del>	}
	<del></del>	<del></del>	<del></del>	
10 CFR Part 55 Content:	55.4113			
	55.434			
		<del></del>		
Comments (Why is it an upper level of	question):			
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The following plant conditions exist:

- A miscellaneous waste monitor tank release is in progress.
- RE 1878B, Miscellaneous Radwaste Monitor RE, is inoperable.
- Annunciator 7-1-D, MISC WST SYS OUT RAD HI, alarms due to a WARN alarm on RE 1878A.

#### The release:

- a. should be terminated by stopping the dilution pump from the Control Room.
- b. should be terminated by closing WM 1876, Misc Liquid Wst Disch Iso VIv, from the Radwaste Control Panel.
- c. can continue if four-hour grab samples are taken by Chemistry.
- d. can continue with both RE 1878A and RE 1878B inoperable with Radiation Protection Manager approval.

#### Answer:

b.

		Level:	RO	SRO
		Tier#	2	2
EXAMINATION OUTLINE	E CROSS-REFERENCE:	Group #	1	1
		K/A#	071-K	
		Importance Rating	2.1	2.8
Proposed Question: 45				
See Attached				
Proposed Answer: See a	attached	<del></del>	<del></del>	<del></del>
Troposed Answer. See a				
Explanation (Why the distractor	s are incorrect):			
a./c. Radiation problem is not	in containment.			
b. 4-way ring down circuit is	for notifications.			
Technical Reference(s): HS-EP-02240			Reference Atta (Attach if not	iched:
N3-EP-02240			previously pro	vidad)
			previously pro	videdj
Proposed references to be provide				
None  Learning Objective (As available	e): OPS-GOP-606-01K			
Question Source:	Bank # Modified Bank # New	(Note	changes or attach	parent)
Question History	Previous NRC Exam		<del></del>	
Question History	Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamer Comprehension or Ar	ntal Knowledge X	_	
10 CFR Part 55 Content:	55.41 <u>.11</u> 55.43 <u>.4</u>			
Comments (Why is it an upper le	evel question):			
•				

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1. 网络安拉兰女女 不完全情况

A General Emergency has been declared due to a waste gas decay tank rupture.

Which one of the following would be used to obtain data for an Off-Site Dose Assessment Nomogram?

- a. RE 4597AA, Containment Atmospheric Radiation Monitor, and the 4-way ring down circuit.
- b. RE 4598AA, Station Vent Radiation Monitor, and the 4-way ring down circuit.
- c. RE 4597AA, Containment Atmosphere Radiation Monitor, and the Meteorological Tower.
- d. RE 4598AA, Station Vent Radiation Monitor, and the Meteorological Tower.

Answer:

d.

		Level:		RO	SRO
		Tier#		1 2	2
<b>EXAMINATION OUTLINE CRO</b>	SS-REFERENCE:	Group #		<del></del>	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		K/A#		072-K1	1
		Importance R	ating	3.3	3.5
	<del></del>	1 mportante a			<u> </u>
Proposed Question: 46					
See Attached					
Proposed Answer: See attache	:d				
Explanation (Why the distractors are in	ncorrect):			· · · · · · · · · · · · · · · · · · ·	<del></del>
b./d. CREVS and station EVS do no	ot auto start.				
c. FH ventilation is tripped by RE 8	446 and RF 8447				
Technical Reference(s): DB-OP-02009			<del></del>	Reference Attac (Attach if not previously provi	
Learning Objective (As available): O	PS-SYS-606-06K				
Question Source: OLC-5623	Bank # Modified Bank # New	_X_	(Note ch	nanges or attach p	parent)
Question History 2001 Quiz	Previous NRC Exam Previous Quiz / Test	<u>_x</u> _			
Question Cognitive Level:	Memory or Fundamer Comprehension or Ar		_X		
10 CFR Part 55 Content:	55.41 <u>.7</u> 55.43 <u>.4</u>				

Which one of the following will automatically occur upon receipt of Annunciator 9-3-A, UNIT VENT RAD HI?

- a. The Control Room Normal Ventilation System will shut down.
- b. The Control Room Emergency Ventilation System will start up.
- c. The Fuel Handling Ventilation System will shut down.
- d. The Station Emergency Ventilation System will start up.

Answer:

a.

<b>EXAMINATION OUTLINE</b>				RO	SRO
	CDOSS DEPENDANCE	Tier#		2	2
	CAUSS-REFERENCE:	Group #		1	1
		K/A#		013-A4.	
Droposed O		Importance	Rating	4.3	4.4
Proposed Question: 47		•			
See Attached					
Proposed Answer: See at	tached				
Explanation (Why the distractors	are incorrect):		<del></del>		
b. HPI cannot exceed PT limits	when RCS temperature is	>352°F.			
c. Interlock is not in effect whe	n DH 11 and 12 are closed				
d. Tech. Spec. limit is not a cor					
_	omeo pressurize icyer	s iow during	neatup.		
Forhalin D. C.					
Fechnical Reference(s):				Reference Attache	.d.
Fechnical Reference(s): DB-OP-06900				Reference Attache (Attach if not	d:
Technical Reference(s): DB-OP-06900				(Attach if not	
Technical Reference(s):  DB-OP-06900  Proposed references to be provided  None	to applicants during examin	nation:		Reference Attache (Attach if not previously provide	
DB-OP-06900 Proposed references to be provided	OPS-SYS-506-02K Bank #	nation:		(Attach if not previously provide	d)
DB-OP-06900 Proposed references to be provided Jone Learning Objective (As available):	OPS-SYS-506-02K	nation:		(Attach if not	d)
Proposed references to be provided from the prov	OPS-SYS-506-02K  Bank #  Modified Bank #  New	-		(Attach if not previously provide	d)
DB-OP-06900 Proposed references to be provided Jone Learning Objective (As available):	OPS-SYS-506-02K  Bank #  Modified Bank #	-		(Attach if not previously provide	d)
Proposed references to be provided  Jone  Learning Objective (As available):  Puestion Source:	OPS-SYS-506-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test		(Note cha	(Attach if not previously provide	d)
DB-OP-06900 Proposed references to be provided None Rearning Objective (As available): Puestion Source:	OPS-SYS-506-02K  Bank #  Modified Bank #  New  Previous NRC Exam  Previous Quiz / Test  Memory or Fundamenta	X Knowledge	(Note cha	(Attach if not previously provide	d)
DB-OP-06900 Proposed references to be provided Jone Description Objective (As available): Duestion Source:  uestion History  uestion Cognitive Level:	OPS-SYS-506-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamenta Comprehension or Analy	X Knowledge	(Note cha	(Attach if not previously provide	d)
Proposed references to be provided  Jone  Learning Objective (As available):  Puestion Source:	OPS-SYS-506-02K  Bank #  Modified Bank #  New  Previous NRC Exam  Previous Quiz / Test  Memory or Fundamenta	X Knowledge	(Note cha	(Attach if not previously provide	d)

During a plant heatup, SFAS low pressure trips are reset at an RCS pressure of 1650 psig to:

- a. prevent an SFAS channel from reaching the automatic block reset prior to resetting the low pressure trip.
- b. ensure an inadvertent HPI actuation does not cause RCS pressure to exceed the reactor vessel pressure-temperature limit.
- c. prevent the SFAS pressurizer heater interlock bistable from de-energizing pressurizer heaters.
- d. ensure an inadvertent HPI actuation does not cause pressurizer level to exceed the maximum Tech. Spec. limit.

Answer:

a.

<del></del>		Level:	RO	SRO
		Tier #	2	2
<b>EXAMINATION OUTLINE C</b>	CROSS-REFERENCE:	Group #	1	1
		K/A#	056-K	. 1
		Importance Rating	2.6	2.6
Proposed Question: 48			<del></del>	~- <del></del>
See Attached				
Proposed Answer: See atta	nched			<del></del>
Explanation (Why the distractors a	re incorrect):			
a./b./d. MFPT receives sealing s				
anona. Hill I loodivos souting s	tom grand steam.			
· . • •				
Technical Reference(s):			Reference Atta	iched:
OS-010			(Attach if not	
OS-012A			previously pro	vided)
Proposed references to be provided	to applicants during exam	nination:	<del></del>	<del></del>
-	. to approved daring often			
None				
			· · · · · · · · · · · · · · · · · · ·	
Learning Objective (As available):	OPS-SYS-205-13K			
Question Source:	Bank #			
	Modified Bank #	(Note cl	hanges or attach	parent)
	New	<u>X</u>	-	- •
Question History	Previous NRC Exam			
Question History	Previous NRC Exam Previous Quiz / Test			
		. 1 **		
Question Cognitive Level:		ntal Knowledge X		
	Comprehension or A	liarysis		
10 CFR Part 55 Content:	55.414			
	55.43			
Comments (Why is it an upper leve	el question):			

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Which of the following components receive seal water from the Condensate System?

- 1. Main feed pump shaft seal
- 2. Main feed pump turbine shaft seal
- 3. Main feed pump booster pump shaft seal
- 4. Main feed pump turbine drain pump shaft seal
- a. 1, 2, and 3
- b. 2, 3, and 4
- c. 1, 3, and 4
- d. 1, 2, and 4

## Answer:

c.

EXAMINATION OUTLIN			RO	SRO
	F CDOCC DEEDS	Tier #	2	2
	E CROSS-REFERENCE:	Group #	1	$+\frac{1}{1}$
		K/A#	017-K	3.01
P		Importance Rating	3.5	3.7
Proposed Question: 49				
See Attached				•
Proposed Answer: See a	attached			
Explanation (Why the distractor	S are incorrect):			
b. Do not use That if RCS flo				
c./d. Do not throttle MU/HPI	until SCM regained.			
OB-OP-02000 roposed references to be provide	ed to applicants during exami	nation:	Reference Attach (Attach if not previously provid	
OB-OP-02000 Proposed references to be provide Jone		nation:	(Attach if not	led)
Technical Reference(s): DB-OP-02000 Proposed references to be provided Hone Learning Objective (As available)	): OPS-GOP-305-02K	nation:	(Attach if not	led)
OB-OP-02000 Proposed references to be provide Jone earning Objective (As available)	): OPS-GOP-305-02K Bank #		(Attach if not previously provid	led)
OB-OP-02000  Troposed references to be provide  Tone  Tearning Objective (As available)	D: OPS-GOP-305-02K  Bank #  Modified Bank #	(Note ch	(Attach if not	led)
OB-OP-02000  roposed references to be provide  lone  earning Objective (As available)  uestion Source:	Bank # Modified Bank # New		(Attach if not previously provid	led)
OB-OP-02000  roposed references to be provide  lone  earning Objective (As available)  uestion Source:	Bank # Modified Bank # New Previous NRC Exam	(Note ch	(Attach if not previously provid	led)
OB-OP-02000 Proposed references to be provide Jone  earning Objective (As available) Puestion Source:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test	(Note cha	(Attach if not previously provid	led)
OB-OP-02000  roposed references to be provide fone  earning Objective (As available) uestion Source:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamenta	(Note ch	(Attach if not previously provid	led)
OB-OP-02000 Proposed references to be provide Ione Pearning Objective (As available) Puestion Source:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test	(Note ch	(Attach if not previously provid	led)
OB-OP-02000  roposed references to be provide  fone  earning Objective (As available)  uestion Source:  uestion History	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamenta Comprehension or Anal	(Note ch	(Attach if not previously provid	led)
OB-OP-02000  roposed references to be provide fone  earning Objective (As available) uestion Source:  uestion History  uestion Cognitive Level:	D: OPS-GOP-305-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamenta Comprehension or Anal	(Note ch	(Attach if not previously provid	led)

The following plant conditions exist:

- Makeup/high pressure injection cooling is in progress due to a loss of all feedwater.
- The Safety Parameter Display System has failed.
- Auxiliary feedwater has been restored to SG2.

To induce primary to secondary heat transfer, lower \_\_\_\_\_.

- a. SG2 saturation temperature 50°F lower than average incore temperature
- b. SG2 saturation temperature 50°F lower than Loop 2 hotleg temperature
- c. makeup/HPI flow to raise average incore temperature 50°F higher than SG2 saturation temperature
- d. makeup/HPI flow to raise Loop 2 hotleg temperature 50°F higher than SG2 saturation temperature

Answer:

a.

		Level:		RO	SRO
		Tier#		2	2
EXAMINATION OUTLINE CR	OSS-REFERENCE:	Group #		2	2
		K/A#		033-K1	
		Importance Rati	ng	2.5	2.7
Proposed Question: 50 See Attached					•
Proposed Answer: See attack	ned				
Explanation (Why the distractors are	incorrect):	<del></del>			
a./c. SFP pumps are not capable o	f being powered from EI	OG and/or SBODO	3.		
	0.1				
d. DHP 2 does not have power.					
	ū				
Technical Reference(s):			R	leference Attach	ned·
DB-OP-02527				Attach if not	icu
			,	reviously provid	ded)
			P.	ioviously provid	acu)
	·		<del></del>		
Proposed references to be provided to	o applicants during exam	ination:			
None					j
					ł
			<del></del>	<del> </del>	
Learning Objective (As available):	OPS-GOP-127-09K				
Question Source:	Bank # Modified Bank # New	<u></u> (	Note char	nges or attach p	arent)
Question History	Previous NRC Exam Previous Quiz / Test				
Question Cognitive Level:	Memory or Fundamer Comprehension or An		<u>x</u>		
10 CFR Part 55 Content:	55.41 <u>.4</u> 55.43 <u>.7</u>				
Comments (Why is it an upper level of	question):				
Must determine what pumps are avai	lable to provide cooling	to the SFP.			
					ļ

# The following plant conditions exist:

- The reactor vessel has been defueled.
- A loss of offsite power occurs.
- EDG 1 starts and energizes C1 Bus.
- D1 Bus locks out.

Which one of the following methods can be used for cooling the Spent Fuel Pool (SFP)?

- a. Energize C2 Bus from C1 Bus and restart SFP Pump 1.
- b. Align Decay Heat Pump 1 to the SFP and start Decay Heat Pump 1.
- c. Energize D2 Bus from the SBODG and restart SFP Pump 2.
- d. Align Decay Heat Pump 2 to the SFP and start Decay Heat Pump 2.

Answer:

b.

		Level:	R	O	SRO
		Tier#		2	2
EXAMINATION OUTLINE CRO	SS-REFERENCE:	Group #		2	2
***		K/A#		002-A	
	<del>*************************************</del>	Importance Rati	ng	4.3	4.4
Proposed Question: 51					
See Attached					
Proposed Answer: See attache	ed .				
Explanation (Why the distractors are in	ncorrect):				
a. Increasing C/D rate will make he	ad bubble bigger.				
c. Water needed to replace the head	bubble.				
d. Increasing SG steaming will incre	ease C/D rate.				
Technical Reference(s):			Def	erence Atta	oched:
DB-OP-06903				ach if not	iciieu
			•	iously pro	vided)
			1	7 1	•
Learning Objective (As available): O					
Question Source:	Bank # Modified Bank # New	<u></u> (	Note change	es or attach	parent)
Question History	Previous NRC Exam Previous Quiz / Test				
0 4 0 4 7 4					
Question Cognitive Level:	Memory or Fundamer Comprehension or Ar		<u>x_</u>		
10 CFR Part 55 Content:			<u>x</u>		
	55.4114 55.43		<u>x</u>		
10 CFR Part 55 Content:  Comments (Why is it an upper level qu	55.41	nalysis			
10 CFR Part 55 Content:	55.41	nalysis			
10 CFR Part 55 Content:  Comments (Why is it an upper level qu	55.41	nalysis			
10 CFR Part 55 Content:  Comments (Why is it an upper level qu	55.41	nalysis			
10 CFR Part 55 Content:  Comments (Why is it an upper level qu	55.41	nalysis			
10 CFR Part 55 Content:  Comments (Why is it an upper level qu	55.41	nalysis			
10 CFR Part 55 Content:  Comments (Why is it an upper level qu	55.41	nalysis			
10 CFR Part 55 Content:  Comments (Why is it an upper level qu	55.41	nalysis			

# The following plant conditions exist:

- The plant tripped due to a loss of offsite power.
- A plant cooldown is being performed to comply with Tech. Specs.
- RCS hotleg temperature is 550°F.
- RCS coldleg temperature is 518°F.
- RCS pressure is 1400 psig.
- Pressurizer level is increasing.
- Computer Point T012, Reactor Vessel Head Vent Temperature, indicates 586°F.

# Which one of the following actions should be taken?

- a. Increase cooldown rate to lower reactor vessel head vent temperature.
- b. Increase RCS pressure to restore subcooling margin.
- c. Increase letdown flow to lower pressurizer level.
- d. Increase SG steaming rate to enhance natural circ flow.

#### Answer:

Ъ.

	<del></del>	Level:	<del> </del>	RO	SRO	)
		Tier#		2		2
EXAMINATION OUTLINE C	ROSS-REFERENCE:	Group #		2		2
		K/A#		006-I	₹5.01	
	<del></del>	Importance R	ating	2.8		3.3
Proposed Question: 52						
See Attached						
See Attached	····		<del></del>			
Proposed Answer: See attac	ched					
Explanation (Why the distractors ar	re incorrect):					
a./c. Level transmitters are not ve	ented.					
d. Reference leg density decrease	es.					
ar account to grant y more and						
		,				
Technical Reference(s):			,	Reference Atta	ached:	
DB-OP-02000				Attach if not	acnea	
22 01 0200				previously pro	wided)	÷
			,	previously pro	vided)	
Proposed references to be provided	to applicants during exam	nination:				
•	11 0					
None						
		<del> </del>			· - · ·	<del> </del>
Learning Objective (As available):	OPS-SYS-301-04K	<del> </del>	<del> </del>			
Question Source:	Bank #	_X_				
ORQ-1607	Modified Bank #		(Note cha	inges or attach	parent)	)
-	New		,	· ·	•	
			<del></del>		<del></del>	
Question History	Previous NRC Exam	<del></del>				1
	Previous Quiz / Test					
Question Cognitive Level:	Memory or Fundamen	ntal Knowledge				
Question Cognitive Level.	Comprehension or Ar		X			-
10 CFR Part 55 Content:	55.4114					
10 011(144122 00.000.00	55.43					İ
Comments (Why is it an upper level	l question):					
,	•	affact on lovel	ndication			
Must determine the effect temperate	are has on density and the	effect ou level I	nuivation.			
						į
						Į
						}

A small break LOCA has occurred resulting in a plant trip. The following plant conditions exist:

- Incore thermocouples read 580°F and steady.
- RCS pressure is 1400 psig and steady.
- All equipment has operated as designed.
- Average CAC suction temperature is 173°F.

Which one of the following explains Annunciator 3-3-F, CF TK 1 LVL HI, being lit?

- a. Increased containment PRESSURE has resulted in increased differential pressure across the CFT 1 level transmitter.
- b. Increased containment TEMPERATURE has resulted in decreased CFT 1 level indicator reference leg density.
- c. Increased containment PRESSURE has resulted in decreased differential pressure across the CFT 1 level transmitter.
- d. Increased containment TEMPERATURE has resulted in increased CFT 1 level indicator reference leg density.

Answer:

b.

		Level:	RO	SRO
		Tier#	2	2
<b>EXAMINATION OUTLINI</b>	E CROSS-REFERENCE:	Group #	2	2
		K/A#	011-7	44.04
		Importance Rating	3.2	2.9
Proposed Question: 53 See Attached				
				<del></del>
	attached 			
Explanation (Why the distractor				
a./b./c. Immediate action for pro-	essurizer instrument failure i	s to place MU 32 in HAN	ID and control n	nakeup flow.
		•		
Technical Reference(s):			Reference Atta	ached:
DB-OP-02514			(Attach if not	
			previously pro	vided)
			proviously pro	videa)
Learning Objective (As available	e): OPS-SYS-104-18K			
Question Source:	Bank # Modified Bank #	(Note o	changes or attach	parent)
	New	_X_		
Question History	Previous NRC Exam			
•	Previous Quiz / Test			
Overtion Comitive Levels	Manager and Transfer and			
Question Cognitive Level:	Memory or Fundames Comprehension or Ar			
		<u> </u>		
10 CFR Part 55 Content:	55.41			
= ======	55.435			i.
				<del></del>
Comments (Why is it an upper le	evel question):			
Must analyze plant conditions an	nd determine immediate actio	ons.		
		****		
		:		

### The following plant conditions exist:

- The plant is at 100% power.
- MU 32, MAKE FLOW CONTROLLER, is opening.
- Temperature compensated pressurizer level has taken a STEP DROP to 150 inches.
- BOTH uncompensated pressurizer level instruments indicate 145 inches.
- The selected pressurizer temperature indicates 350°F.

# Which one of the following actions should be taken IMMEDIATELY?

- a. Select the alternate pressurizer temperature instrument.
- b. Select an alternate temperature compensated pressurizer level instrument.
- c. Close MU 2B, Letdown Isolation Valve.
- d. Place MU 32 in HAND and obtain desired makeup flow.

Answer:

d.

EXAMINATION OUTLINE C	ROSS-REFERENCE:	Tier #		2	SRO
COLDINE C	ACOS-REPERENCE:				2
		Group #		2	2
		K/A# Importance R	Ontin ~	012-A	
Proposed Question: 54		importance R	Cating	2.9	3.
See Attached					
Proposed Answer: See attac	ched		<u> </u>		
Explanation (Why the distractors ar	e incorrect)		<del> </del>		
b. The flux/delta flux/flow trip is					
c. High flux trip is not bypassed.	oj puoded.				
d. High flux trip is reduced to 4.5	0/ when in CDDD				
Technical Reference(s): DB-OP-06403  Proposed references to be provided to lone	o applicants during exami	nation:	(.	eference Attach Attach if not reviously provid	- <u></u>
OB-OP-06403 Proposed references to be provided to Jone earning Objective (As available):			p	Attach if not	led)
DB-OP-06403 Proposed references to be provided to	OPS-SYS-502-24K  Bank #  Modified Bank #		p	Attach if not reviously provid	led)
OB-OP-06403 Proposed references to be provided to None Rearning Objective (As available): (Ouestion Source:	OPS-SYS-502-24K  Bank #  Modified Bank #  New  Previous NRC Exam	X X	p	Attach if not reviously provid	led)
Proposed references to be provided to lone  Learning Objective (As available): (Duestion Source:	OPS-SYS-502-24K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamenta	X X	(Note chan	Attach if not reviously provid	led)
Proposed references to be provided to lone  Learning Objective (As available): (Duestion Source:  Luestion History  Luestion Cognitive Level:	DPS-SYS-502-24K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamenta Comprehension or Analy  55.416	X X	(Note chan	Attach if not reviously provid	led)

t design source of the second

Question: 54 The following plant conditions exist: A plant shutdown and cooldown is in progress. RCS pressure is 1620 psig. RCS temperature is 460°F. Group 1 Control Rods are withdrawn. The lower detector for power range NI 6 fails high. The NI failure will . cause RPS Channel 1 to trip on high flux a. cause RPS Channel 1 to trip on flux/delta flux/flow b. have no effect since RPS Channel 1 is in shutdown bypass c. have no effect since a single detector failure does NOT exceed the high flux trip setpoint d.

Answer:

of 104.75%

a.

		Level:		RO	SRC	)
		Tier#		2		2
EXAMINATION OUTLINE CR	OSS-REFERENCE:	Group #		2		2
		K/A#			A2.04	
		Importance R	ating	2.5		2.6
Proposed Question: 55						
See Attached						
See Attached			<del></del>	· · · · · · · · · · · · · · · · · · ·		**************************************
Proposed Answer: See attach	ned					
Explanation (Why the distractors are	incorrect):	<del> </del>				<del></del>
a./b./d. MU 32 loses power to the E/	P hooster which causes	sluggish control				
and all the delicate power to all en	- COODIO MINON COURSE		•			
			<del></del>			· •
Technical Reference(s):				Reference Att	ached:	<del></del>
DB-OP-02532				(Attach if not	-	
				previously pro	ovided)	
Day and a few and to be a marided to	1:					
Proposed references to be provided to	applicants during exam	ination:				
None						
			· 			
Learning Objective (As available): (	OPS-SYS-507-01K					
Question Source:	Bank #	X				
ORQ-1648	Modified Bank #		(Note ch	anges or attacl	h parent)	1
	New					
Ougstine History	Previous NRC Exam				<del></del>	
Question History	Previous Quiz / Test	<del></del>				
Question Cognitive Level:	Memory or Fundamer	ntal Knowledge	<u>X</u>			
	Comprehension or Ar	alysis				
			<del></del>	<del></del>		
10 CFR Part 55 Content:	55.417					
	55.43					
G (VIII					<del></del>	
Comments (Why is it an upper level of	question):					

### The following plant conditions exist:

- The plant is at 100% power.
- The fuse supplying NNI AC power to the pressurizer level HAND/AUTO station, LIC RC14, blows.

## Which one of the following describes the affect?

- a. MU 32 will fail open.
- b. MU 32 may NOT respond to control from the HAND/AUTO station.
- c. MU 32 may respond sluggishly.
- d. MU 32 will fail to mid-position.

#### Answer:

c.

EXAMINATION OUTLINE Proposed Question: 56 See Attached	CROSS-REFERENCE:	Tier # Group # K/A#		2 2	SRO 2
Proposed Question: 56	CROSS-REFERENCE:			2	
•		K/A#			2
•				029-A	1.03
•		Importance	Rating	3.0	3.3
See Attached					
Proposed Answer: See at	ttached				
Explanation (Why the distractors	are incoment).				
	•	•			
b./c./d. With only the purge fan	running, pressure will drop i	n containment	causing refue	ling canal lev	el to rise.
		•			
		-			
Technical Reference(s):					ahadi.
				eference Attac	ched
			(A	Attach if not	
			(A		
DB-OP-06503  Proposed references to be provide	d to applicants during exam	ination:	(A	Attach if not	
Technical Reference(s): DB-OP-06503  Proposed references to be provide None  Learning Objective (As available)		ination:	(A	Attach if not	
DB-OP-06503  Proposed references to be provide  None  Learning Objective (As available)	: OPS-SYS-109-08K		(A	Attach if not	
OB-OP-06503  Proposed references to be provide  None  Learning Objective (As available)  Question Source:	: OPS-SYS-109-08K Bank #	ination:	pi	Attach if not reviously prov	rided)
OB-OP-06503  Proposed references to be provide  None  Learning Objective (As available)  Question Source:	: OPS-SYS-109-08K		pi	Attach if not	rided)
Proposed references to be provide None  Learning Objective (As available)  Question Source:  DLC-4753	: OPS-SYS-109-08K  Bank #  Modified Bank #  New		pi	Attach if not reviously prov	rided)
Proposed references to be provide None  Learning Objective (As available)  Question Source:  DLC-4753	: OPS-SYS-109-08K  Bank # Modified Bank # New  Previous NRC Exam		pi	Attach if not reviously prov	rided)
OB-OP-06503  Proposed references to be provide  None  Learning Objective (As available)  Question Source:	: OPS-SYS-109-08K  Bank #  Modified Bank #  New	_X_	pi	Attach if not reviously prov	rided)
Proposed references to be provide None  Learning Objective (As available)  Question Source:  DLC-4753  Question History  999 NRC Exam	: OPS-SYS-109-08K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test	_X	(Note chan	Attach if not reviously prov	rided)
OB-OP-06503 Proposed references to be provide Hone Pearning Objective (As available) Puestion Source: PLC-4753 Puestion History Page NRC Exam	: OPS-SYS-109-08K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundament	XXal Knowledge	(Note chan	Attach if not reviously prov	rided)
Proposed references to be provide None  Learning Objective (As available) Question Source: DLC-4753  Question History 999 NRC Exam  Question Cognitive Level:	: OPS-SYS-109-08K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test	XXal Knowledge	(Note chan	Attach if not reviously prov	rided)
OB-OP-06503 Proposed references to be provide Hone Pearning Objective (As available) Puestion Source: PLC-4753 Puestion History Page NRC Exam	: OPS-SYS-109-08K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundament	XXal Knowledge	(Note chan	Attach if not reviously prov	rided)

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## The following plant conditions exist:

- Plant is in Mode 6.
- Fuel handling operations are in progress.
- Containment Equipment Hatch is installed.
- The inner door of the personnel hatch is closed.
- A start of the Containment Purge System on containment is attempted.
- The CTMT purge exhaust fan starts. The CTMT purge supply fan fails to start.
- The CTMT purge exhaust fan fails to automatically trip.

The refueling canal level will	and the spent fuel pool level will	
--------------------------------	------------------------------------	--

- increase; decrease a.
- b. decrease; increase
- c. increase; not change
- d. not change; increase

Answer:

a.

		Level:	RO	SRO
		Tier#	2	2
EXAMINATION OUTLINE C	ROSS-REFERENCE:	Group #	2	2
		K/A#	039-K	1.05
		Importance Rating	2.5	2.6
Proposed Question: 57				
See Attached				
Proposed Answer: See atta	iched			
Explanation (Why the distractors a	re incorrect):		<del></del>	
a. FW flow stays constant since	reactor power and steam	flow remain the same.		
b./c. TBVs control at 870 psig si	ince the reactor does not to	rin		
Technical Reference(s):			Reference Atta	ched:
DB-OP-02500			(Attach if not	
			previously pro-	vided)
None  Learning Objective (As available):	OPS-GOP-101-05K			
Question Source:	Bank #			
Question Source.	Modified Bank #	Note	changes or attach	parent)
	New	_X_	Ben o	P
Question History	Previous NRC Exam Previous Quiz / Test			
		. 1 77 1 1		
Question Cognitive Level:	Memory or Fundame Comprehension or A		-	
	Comprehension of Al	iiaiyəiə <u>A</u>		
10 CFR Part 55 Content:	55.414			
	55.43			
	1			
Comments (Why is it an upper leve	•			
Must determine how a turbine trip a	affects reactor power and	the affect on TBVs and f	eedwater.	

The following plant conditions exist:

- The plant is at 22% power.
- A plant startup is in progress.

The main turbine trips on low lube oil pressure.

Which of the following is the expected response for feedwater control and steam pressure control?

- a. Feedwater flow decreases.
   Turbine bypass valves control pressure at 870 psig.
- b. Feedwater flow remains constant.

  Turbine bypass valves control pressure at 995 psig.
- c. Feedwater flow decreases.Turbine bypass valves control pressure at 995 psig.
- feedwater flow remains constant.
   Turbine bypass valves control pressure at 870 psig.

Answer:

d.

		Level:	RO	SRO
EXAMINATION OUTLINE	CDOSS DEFEDENCE.	Tier # Group #	2 2	
EARMINATION OUTLINE	2 CROSS-REPERENCE.	K/A#	L	K3.01
		Importance Rating	2.5	2.
Proposed Question: 58 See Attached				
Proposed Answer: See a	attached			
Explanation (Why the distractor	s are incorrect):			
a. Flash tank normally has po	sitive pressure.			
b. High circ. water temperatu	re would not increase off-gas	s flow.		
d. Steam flow is higher becau	se of the high condenser pres	ssure.		
Technical Reference(s): DB-OP-02518  Proposed references to be provided None		nination:	Reference Att (Attach if not previously pro	
Learning Objective (As available	e): OPS-GOP-118-07K			
Question Source:	Bank # Modified Bank # New	(Note	changes or attacl	n parent)
Question History	Previous NRC Exam Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamer Comprehension or Ar		<del>-</del>	
·			-	
Question Cognitive Level:	55.414 55.43		-	
Question Cognitive Level:  10 CFR Part 55 Content:	55.41 55.43 evel question):	nalysis <u>X</u>		
Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper le	55.41 55.43 evel question):	nalysis <u>X</u>		
Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper le	55.41 55.43 evel question):	nalysis <u>X</u>	-	

### The following plant conditions exist:

- LP condenser pressure has increased from 2.2" to 3.7" HgA.
- HP condenser pressure has increased from 4.3" to 5.3" HgA.
- Reactor power is at 102%.
- Off-gas flow (FI-1002) is off scale high.

Based on the above information, the cause of the increasing condenser pressure is

- a. positive pressure in the flash tank
- b. high circulating water temperature
- c. PCV 1061, Vacuum Control Valve, open
- d. high total steam flow

Answer:

c.

		Level:	RO	SRO
EXAMINATION OUTLIN	E CDOSC DEFENDANCE	Tier #	2	2
EXAMINATION OUTLIN	E CROSS-REFERENCE:	Group #	2	2
		K/A# Importance Rating	064-K	
Proposed Question: 59		Importance Rating	3.6	3.9
See Attached				
	attached			
Explanation (Why the distractor	·	1		
a. Load does not increase wh				
	or if the EDG is not paralleled			
d. Isochronous-droop switch	does not effect the hydraulic	governor.		
			Reference Attac	ched:
Technical Reference(s): DB-OP-06316  Proposed references to be provid None	led to applicants during exam	nation:	Reference Attac (Attach if not previously prov	
DB-OP-06316  Proposed references to be provided None		nation:	(Attach if not	
DB-OP-06316  Proposed references to be providence  None  Learning Objective (As available)			(Attach if not	ided)
DB-OP-06316  Proposed references to be provid  None  Learning Objective (As available  Question Source:	e): OPS-SYS-406-09K  Bank #  Modified Bank #	(Note	(Attach if not previously prov	ided)
DB-OP-06316  Proposed references to be provided None  Learning Objective (As available Question Source:	e): OPS-SYS-406-09K  Bank #  Modified Bank #  New  Previous NRC Exam	(Note	(Attach if not previously prov	ided)
DB-OP-06316  Proposed references to be provided None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:	e): OPS-SYS-406-09K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundament	(Note	(Attach if not previously prov	ided)
DB-OP-06316  Proposed references to be provided None  Learning Objective (As available Question Source:  Question History  Question Cognitive Level:  0 CFR Part 55 Content:	Previous NRC Exam Previous Quiz / Test  Memory or Fundament Comprehension or Ana  55.41	(Note	(Attach if not previously prov	ided)
DB-OP-06316  Proposed references to be providence.	Previous NRC Exam Previous Quiz / Test  Memory or Fundament Comprehension or Ana  55.417  55.437	al KnowledgelysisX	(Attach if not previously prov	ided)

and the second of the second o

The following plant conditions exist:

- The plant is at 100% power.
- An undervoltage on 4160 VAC Bus D1 occurs.
- EDG 2 starts and energizes D1 bus.

Five minutes later, the electronic governor for EDG 2 loses power.

Which one of the following actions is required to return the operating parameters for EDG 2 to normal?

- a. Stop non-essential loads to return EDG 2 load to less than 2600 KW.
- b. Raise the generator voltage to return EDG 2 power factor to .8.
- c. Lower engine speed to return EDG 2 to 60 Hertz.
- d. Place the governor in the isochronous mode with the isochronous-droop switch.

Answer:

c.

		Level:	RO	SRO
DWAREN AT ON ONTH IND OR	OCC PERRONNEL	Tier#	2	2
EXAMINATION OUTLINE CR	OSS-REFERENCE:	Group #	2	2
		K/A#	073-K5	
Proposed Question: 60		Importance Rating		3.1
See Attached				
Proposed Answer: See attack	ned			
Explanation (Why the distractors are	incorrect):			
a. EVS is aligned to the MPRs if a	nn FH accident occurs in	CTMT.		
c. FH vent. is required to be stoppe	ed.			
d. CREVS is started on an FH acc	ident in CTMT.			
·				
Technical Reference(s):			Reference Attac	
DB-OP-02530			(Attach if not	
			previously provi	ded)
Proposed references to be provided to None  Learning Objective (As available):				
Question Source:	Bank # Modified Bank # New	(Note ch	anges or attach p	parent)
Question History	Previous NRC Exam Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamer Comprehension or An			
10 CFR Part 55 Content:	55.41 <u>.10</u> 55.43 <u>.7</u>			
Comments (Why is it an upper level of	question):			
Must determine correct actions based	on plant and equipment	conditions.		
				1

#### The following plant conditions exist:

- The plant is in Mode 6.
- The core is being off-loaded to the Spent Fuel Pool (SFP).
- Essential 480 VAC Bus F1 is out of service.
- Fuel handling personnel report a fuel assembly has been damaged in the SFP.
- A HIGH alarm is received on RE 8446 and RE 8447, Fuel Handling Exhaust System REs.

#### Which one of the following actions should be taken?

- a. Realign EVS Train 1 to the mechanical penetration rooms.
- b. Evacuate all of the Radiologically Restricted Area (RRA).
- c. Verify the Fuel Handling Ventilation System is running.
- d. Start Control Room EVS Train 1.

Answer:

b.

		Level:	RO	SRO
EXAMINATION OF	TLINE CROSS-REFERENCE:	Tier#	2	2
PARIMINATION OU	I LINE CKOSS-REFERENCE:	Group #	2	2
		K/A#	075-k	
<b>D</b> 12		Importance Rating	2.6	2.7
Proposed Question: 61				
See Attached				
D 1 4				
Proposed Answer:	See attached			
Explanation (Why the dis	stractors are incorrect):			
a./b. BUSWP is power				
d. EDG 2 is stopped du	e to high CCW temperature.			
				•
T. 1 . 1			<del></del>	
Technical Reference(s):			Reference Atta	ched:
DB-OP-02521			(Attach if not	<del></del>
DB-OP-02511			previously prov	rided)
				,
	provided to applicants during exami	<del></del>		
None				
Learning Objective (As av	railable): OPS-GOP-111-03K			
Question Source:	Bank #			
	Modified Bank #	(Note ch	anges or attach	narant)
	New	X	anges of attach	parent)
O 41 TT1 1		<del></del>		
Question History	Previous NRC Exam			
	Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundament	al Vnoviladas	· · · · · · · · · · · · · · · · · · ·	
(	Comprehension or Ana			
	Comprehension of Alia	lysis <u>X</u>		
10 CFR Part 55 Content:	55.4110		·····	
To office the 33 contont.	55.43 .5			
	35.43			
Comments (Why is it an up	mer level question).			
	· ·			
Must analyze electrical bus	ses available and determine how to	power the BUSWP.		
				1
		•		

The following plant conditions exist:

- The plant is at 100% power.
- Service Water Pump (SWP) 3 is out of service.
- A loss of off-site power occurs.
- SWP 2 fails to start.
- CCW Loop 2 temperature has risen to 130°F.
- DB-OP-02000 actions have been performed.

Which one of the following actions should be performed to start the Backup Service Water Pump (BUSWP) in place of SWP 2?

- a. Energize D2 bus from the SBODG, and start the BUSWP.
- b. Energize D2 bus from C1 bus, and start the BUSWP.
- c. Energize C2 bus from C1 bus, and start the BUSWP.
- d. Energize C2 bus from EDG 2, and start the BUSWP.

Answer:

c.

		Level:	RO	SRO
EXAMINATION OUTLIN	E CROSS-REFEDENCE.	Tier#	2	2
	- SKOOD-REFERENCE:	Group # K/A#	2	2
		Importance Rating	079-A2.0	
Proposed Question: 62		importance Rating	2.9	3.
See Attached	·•			
Proposed Answer: See	attached			
Explanation (Why the distracto	rs are incorrect):	•		
a. SA 10920 does not contro	I IA pressure.			
c. Air dryers would not be is				
d. AVV air would not be isol		•		
Technical Reference(s):			Reference Attached	 1.
OS-19B		·	(Attach if not	1:
		•	previously provided	4)
earning Objective (As available	e): OPS-SYS-602-12K  Bank #  Modified Bank #	(Note cha	nges or attach parer	
	New	X	nges or attach parei	nt)
uestion History	Previous NRC Exam Previous Quiz / Test			
uestion Cognitive Level:	Memory or Fundamenta	l Knowledge		
	Comprehension or Anal	ysis X		
OCFR Part 55 Content:	55.414 55.43			
	55.414 55.43			
omments (Why is it an upper lev	55.414			
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omments (Why is it an upper lev	55.414			
mments (Why is it an upper lev	55.414			
O CFR Part 55 Content:  Omments (Why is it an upper levust analyze what SA 6445 isolated)	55.414			
mments (Why is it an upper lev	55.414			

The following plant conditions exist:

- The reactor has been tripped due to a loss of TPCW.
- The Emergency Instrument Air Compressor (EIAC) is running.
- Both Station Air Compressors (SAC) are locked out.

Which one of the following describes the effect that SA 6445, IA/SA Crosstie, inadvertently closing would have?

- SA 10920, Discharge Pressure Control Valve, would be isolated and unable to control IA
- Atomizing air to the auxiliary boiler would be isolated. b.
- The air dryers would be isolated, and moisture would accumulate in the IA System. c.
- Control air to the atmospheric vent valves would be isolated. d.

Answer:

b.

		Level:	RO	SRO
		Tier#	2	2
<b>EXAMINATION OUTLINE CR</b>	ROSS-REFERENCE:	Group #	$\frac{1}{2}$	$\frac{\overline{2}}{2}$
		K/A#	086-k	
		Importance Rating	2.6	2.9
Proposed Question: 63		1		
See Attached			<del></del>	<del></del>
Proposed Answer: See attack	hed			
Explanation (Why the distractors are	incorrect):			
b. Sprinkler heads are fused and a	ctuate by heat.			
c./d. The ten-minute time delay is	•			
Technical Reference(s): OS-47B			Reference Atta (Attach if not previously pro	
None				
	OPS-SYS-601-03K  Bank #  Modified Bank #  New	(Note	changes or attach	parent)
Question Source:	Bank # Modified Bank #		changes or attach	ı parent)
Question Source:  Question History	Bank # Modified Bank # New Previous NRC Exam	ntal Knowledge	changes or attach	parent)
Learning Objective (As available): Question Source: Question History Question Cognitive Level: 10 CFR Part 55 Content:	Bank # Modified Bank # New Previous NRC Exam Previous Quiz / Test Memory or Fundamen	ntal Knowledge	changes or attach	ı parent)
Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or Ar  55.41	ntal Knowledge	changes or attach	parent)
Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level of	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.41	ntal Knowledge	_	
Question Source:  Question History  Question Cognitive Level:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.41	ntal Knowledge	_	
Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level of	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.41	ntal Knowledge	_	
Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level of	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.41	ntal Knowledge	_	
Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level of	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.41	ntal Knowledge	_	
Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level of	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.41	ntal Knowledge	_	
Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level of	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.41	ntal Knowledge	_	
Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level of	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.41	ntal Knowledge	_	
Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level of	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.41	ntal Knowledge	_	
Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level of	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or Ar  55.41	ntal Knowledge	_	

A local fire detector in Room 318, EDG 1 Room, fails and sends an actuation signal to the Fire Suppression System.

Which one of the following describes the response of the Room 318 Fire Suppression System?

- a. The sprinkler pipe fills with water. The sprinkler heads do not actuate.
- b. The sprinkler pipe fills with water.
  The sprinkler heads actuate immediately.
- c. A ten-minute time delay starts to fill the sprinkler pipe. The sprinkler heads actuate immediately.
- d. A ten-minute time delay starts to fill the sprinkler pipe. The sprinkler heads do not actuate.

Answer:

a.

EXAMINATION OUTLINE CROSS-REFERENCE:  Tier # Group # K/A# Importance Rating	₹0	SRO
K/A#	2	2
	3	3
Importance Rating	078-K4	
	3.2	3.5
Proposed Question: 64		
See Attached		
Proposed Answer: See attached		-
Explanation (Why the distractors are incorrect):		
SA 2008 fails closed at 90 psig.		
SA 6445 fails closed at 95 psig.		
IA 2043 full closed at 70 psig.		
IA 2044 full closed at 60 psig.		
1A 2044 full closed at 60 psig.		
		- ;
	· · · · · · · · · · · · · · · · · · ·	
	erence Attacl	ned:
(Au	ach if not	•
prev	iously provi	ded)
None  Learning Objective (As available): OPS-SYS-602-07K		
		-
Question Source: Bank # X OLC-3528 Modified Bank # (Note change		
OLC-3528 Modified Bank # (Note change New	es or attach p	arent)
	• • • • • • • • • • • • • • • • • • • •	
Question History Previous NRC Exam X		
1997 Exam Previous Quiz / Test		
Question Cognitive Level: Memory or Fundamental Knowledge X		
Comprehension or Analysis		
Comprehension of Analysis		
10 CFR Part 55 Content: 55.41		
10 CFR Part 55 Content: 55.41 55.43		
10 CFR Part 55 Content: 55.41 55.43		
10 CFR Part 55 Content: 55.41		
10 CFR Part 55 Content: 55.41 55.43		, , , , , , , , , , , , , , , , , , ,
10 CFR Part 55 Content: 55.41 55.43		V
10 CFR Part 55 Content: 55.41 55.43		
10 CFR Part 55 Content: 55.41 55.43		
10 CFR Part 55 Content: 55.41 55.43		

The following plant conditions exist:

- The plant is at 100% power.

- Instrument air pressure is 99 psig and decreasing.

Which of the following describes the correct sequence of events if instrument air pressure continues to decrease?

- 1. IA 2043, TURBINE BLDG BACK PRESSURE CONTROL VALVE, goes full closed.
- 2. IA 2044, AUX BLDG INSTRUMENT AIR CONTROL VALVE, goes full closed.
- 3. SA 2008, STATION AIR HEADER BACK PRESSURE REGULATOR, goes full closed.
- 4. SA 6445, IA/SA CROSSTIE SOLENOID, goes full closed.
- a. 2,1,4,3
- b. 2,4,3,1
- c. 4,2,3,1
- d. 4,3,1,2

Answer:

đ.

(A	eference Attach	3.6 ed:
K/A# Importance Rating  Ref. (A	3.2	ed:
Re (A	eference Attach	3.6 ed:
Ro (A	eference Attach	ed;
(A pr	ttach if not	
	eviously provid	ed)
ation:		
	-	
X (Note chang	ges or attach par	ent)
Knowledge		
•		
ains.		
ly 	al KnowledgelysisX	lysis <u>X</u>

The following plant conditions exist:

PZR PORV outlet temperature
 PZR quench tank level
 PZR quench tank temperature
 255°F
 10.0 ft.
 215°F

Assume PZR quench tank level and temperature control are in AUTOMATIC. Which one of the following is correct?

- a. Quench tank recirculating pump started on HIGH TEMPERATURE caused by the leaking PORV, and level is automatically being controlled by draining to the RC DRAIN TANK.
- b. Quench tank recirculating pump started on HIGH LEVEL caused by the leaking PORV, and level is automatically being controlled by draining to the CONTAINMENT SUMP.
- c. Quench tank recirculation pump started to reduce HIGH TEMPERATURE caused by the leaking PORV, and level is automatically being controlled by draining to the CONTAINMENT SUMP.
- d. Quench tank recirculating pump started to reduce HIGH LEVEL caused by the leaking PORV, and level is automatically being controlled by draining to the RC DRAIN TANK.

Answer:

a.

		Level:		RO	SRO
}		Tier #		2	2
EXAMINATION OUTLINE CRO	DSS-REFERENCE:	Group #		3	3
		K/A#		041-A4.	
		Importance R	ating	3.0	3.1
Proposed Question: 66					
See Áttached					
Proposed Answer: See attache	ed 				
Explanation (Why the distractors are i	incorrect):				
b. ICS does not lose power.					
c./d. Instrument air compressor is p	owered from D2 bus.				
i instrument un compressor is p	owered from D2 bus.				
		· · · · · · · · · · · · · · · · · · ·		···	
Technical Reference(s):			R	Leference Attach	ied:
DB-OP-06201				Attach if not	
			•	reviously provid	led)
			P	reviously provid	
Proposed references to be provided to	applicants during exam	ination:			į
None					
TVOICE					
Learning Objective (As available): C	PS-SYS-512-06K				
Question Source:	Bank #	X			
ORQ-0105	Modified Bank #		(Note cha	nges or attach pa	arent)
ond one	New		(11000 0110	ages or access p	
Question History	Previous NRC Exam		• •		
2000 Requal Exam	Previous Quiz / Test	<u>X</u>			
Outstien Comition I and		4-1 IZ			
Question Cognitive Level:	Memory or Fundamen Comprehension or An		X		
	Comprehension of An	aiysis			}
10 CFR Part 55 Content:	55.414				
To CI RT art 33 Contont.	55.43				
				<del> </del>	
Comments (Why is it an upper level qu	uestion):				
		naratad			
Must analyze plant conditions to deter	mme 1 d v s cannot de o	peraieu.			j
					}
					j
					ŀ

#### The following plant conditions exist:

- The plant was at 100% power.
- A complete loss of off-site power occurred approximately ten minutes ago.
- EDGs have started and loaded as required.
- The Station Blackout Diesel Generator has been started and is supplying Bus D2.

Which of the following conditions will prevent the turbine bypass valves from controlling SG pressures?

- 1. The MSIVs (MS 100 and MS 101) have closed.
- 2. All four circ. water pumps have tripped.
- 3. Instrument air pressure has been lost.
- 4. ICS power has been de-energized.
- a. 1, 2
- b. 1, 4
- c. 2, 3
- d. 3, 4

Answer:

a.

		Level:		I DO	1 5 17 ( )
		Tier #	····	RO 2	SRO
<b>EXAMINATION OUTLINE</b>	CROSS-REFERENCE:	Group #		3	3
		K/A#		045-2	
		Importance R	ating	3.3	3.3
Proposed Question: 67		<del></del>			
See Attached					
See Attacheu		<del> </del>			
Proposed Answer: See att	tached			· · · · · · · · · · · · · · · · · · ·	
Explanation (Why the distractors	are incorrect):				
a./b./c. Turbine will not trip un	less >80% @ two minutes.				
Technical Reference(s):			D	-6	
				eference Atta	ched:
			(1	Attach if not	
Technical Reference(s): DB-OP-02016  Proposed references to be provided	d to applicants during exam	ination:	(1		
DB-OP-02016 Proposed references to be provided None		ination:	(1	Attach if not	
DB-OP-02016  Proposed references to be provided  None		ination:	(1	Attach if not	
		ination:	pi	Attach if not	vided)
DB-OP-02016  Proposed references to be provided None  Learning Objective (As available):	: OPS-SYS-215-15K Bank # Modified Bank #		pi	Attach if not reviously prov	vided)
DB-OP-02016 Proposed references to be provided None Learning Objective (As available): Question Source:	: OPS-SYS-215-15K  Bank # Modified Bank # New  Previous NRC Exam	Xtal Knowledge _	pi	Attach if not reviously prov	vided)
Proposed references to be provided None  Learning Objective (As available): Question Source:	: OPS-SYS-215-15K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamen	Xtal Knowledge _	(Note char	Attach if not reviously prov	vided)
Proposed references to be provided from the Proposed References to	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamen Comprehension or And  55.414 55.43	Xtal Knowledge _	(Note char	Attach if not reviously prov	vided)

## The following plant conditions exist:

- The plant was at 100% power.
- Both stator cooling water pumps tripped.
- Two minutes later, the plant is at 50% power.

# Which of the following annunciators will be in alarm?

- 1. 14-6-D, ICS IN TRACK
- 2. 16-1-F, STAT-CLNT LOSS TURB TRIP
- 3. 16-1-G, STAT-CLNT LOSS T-G RNBK
- 4. 16-2-F, STAT-CLNT INLET FLOW LO
- a. 1, 2, 3
- b. 1, 2, 4
- c. 1, 3, 4
- d. 2, 3, 4

#### Answer:

c.

		Level:	RO	SRO
EXAMINATION OUT IN	JE CDOSS PRESENTATION	Tier #	3	3
EXAMINATION OUTLIN	NE CROSS-REFERENCE:	Group #		† ·
		K/A#	GEN 2	.1.19
D 10		Importance Rating	3.0	3.0
Proposed Question: 68				
See Attached				
Proposed Answer: See	attached			<del></del>
Explanation (Why the distractor	ors are incorrect):			
a. Must average SG steam a	nd water temperatures.			
b. Must average SG steam as				
d. DAAS does not provide S				
a. Dinks does not provide S	o shell temperatures.			
				•
Technical Reference(s):			Reference Attach	ad:
DB-OP-06903			(Attach if not	icu
			previously provid	led)
			. , ,	····
Learning Objective (As available				
Question Source:	Bank # Modified Bank # New	(Note	changes or attach pa	rent)
uestion History	Previous NRC Exam Previous Quiz / Test			
uestion Cognitive Level:	Memory or Fundamenta Comprehension or Anal	ıl Knowledge X		
OCFR Part 55 Content:	55.41 <u>.4</u> 55.43			
omments (Why is it an upper lea	vel question):			
omments (Why is it an upper lev	vel question):			
10 CFR Part 55 Content:	55.414	ysis		

 $(\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{i},\sigma_{$ 

The following plant conditions exist:

- The plant has tripped due to a major steam leak.
- SG 1 is dry.
- Safety Parameter Display System (SPDS) is not functioning.

In order to determine SG tube to shell differential temperature:

- a. SG 1 outlet temperature (TI 614) can be substituted for the average SG shell temperature.
- b. SG 1 downcomer (TI SP8B) temperature can be substituted for the average SG shell temperature.
- c. Average SG shell temperature can be provided from the Plant Process Computer (PPC).
- d. Average SG shell temperature can be provided from the Data Acquisition Analysis System (DAAS).

Answer:

c.

	<del></del>	Level:	·····	RO	SRO
		Tier#		3	3
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #		1	
		K/A#	<del></del>	GEN	2.1.27
		Importance Ra	ting	2.8	2.9
Proposed Question: 69		~ <del></del>		.h	
]	•				
See Attached					
Proposed Answer: See a	ttached				
Explanation (Why the distractors	s are incorrect):			<del></del>	
b./c./d. The only high rad signal	that auto starts EVS is from	the FH area.			
					•
	<del></del>			<del></del>	<del></del>
Technical Reference(s):				Reference Atta	ached:
DB-OP-06504				Attach if not	
			ţ	reviously pro	vided)
Proposed references to be provid	ed to applicants during even	ination:			
• •	ed to applicants during exam	imation.			
None					
Learning Objective (As available	e): OPS-SYS-109-01K				
Question Source:	Bank #				
	Modified Bank #		(Note cha	nges or attach	parent)
	New	X			-
O	D : NDOD		<del></del>		
Question History	Previous NRC Exam	<del></del>			
	Previous Quiz / Test				
Question Cognitive Level:	Memory or Fundamer	ntal Knowledge	X		
	Compréhension or Ar				
	<u> </u>				
10 CFR Part 55 Content:	55.4111				
	55,437				
	1				
Comments (Why is it an upper le	vel question):				
		-			

250 °C

Question: 69

The station EVS automatically starts on a high radiation signal \_\_\_\_\_\_.

a. in the fuel handling area

b. in the radwaste area

c. from the Containment Purge System radiation monitor when purging the mechanical penetration rooms

d. from the Containment Purge System radiation monitor when purging containment.

Answer:

a.

EXAMINATION OUTLINE		Tier#		SRO
EXAMINATION OUTLINE			3	3
	CROSS-REFERENCE:	Group #		<u>-</u>
		K/A#	GEN 2	.2.33
		Importance Rating	2.5	2.9
Proposed Question: 70		•		
See Attached				
Proposed Anguana	. 1 1			
Proposed Answer: See a	ttached			
Explanation (Why the distractors	are incorrect):			
a./c. Performed by a different				
d. Performed under a work ord	ier.			
				•
Technical Reference(s):				
Technical Reference(s): DB-SC-03271		. ***	Reference Attacl	ned:
Technical Reference(s): DB-SC-03271			(Attach if not	<u></u>
Technical Reference(s): DB-SC-03271				<u></u>
Technical Reference(s): DB-SC-03271  Proposed references to be provide None	ed to applicants during exam		(Attach if not	<u></u>
DB-SC-03271  Proposed references to be provide None  Learning Objective (As available)	D: OPS-SYS-501-02K  Bank #  Modified Bank #	ination:	(Attach if not	ded)
DB-SC-03271  Proposed references to be provided None  Learning Objective (As available)  Question Source:	): OPS-SYS-501-02K Bank #	ination:	(Attach if not previously provide	ded)
DB-SC-03271  Proposed references to be provided None  Learning Objective (As available)  Question Source:	Bank # Modified Bank # New  Previous NRC Exam	ination:	(Attach if not previously provide	ded)
DB-SC-03271  Proposed references to be provide	Bank # Modified Bank # New	ination:	(Attach if not previously provide	ded)
Proposed references to be provided None  Learning Objective (As available) Question Source:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test	ination:  (Note	(Attach if not previously provide	ded)
DB-SC-03271  Proposed references to be provided None  Learning Objective (As available)  Question Source:	Bank # Modified Bank # New  Previous NRC Exam	ination:  (Note X al Knowledge X	(Attach if not previously provide	ded)
Proposed references to be provide None  Learning Objective (As available) Question Source:  Question History  Question Cognitive Level:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundament Comprehension or Ana	ination:  (Note X al Knowledge X	(Attach if not previously provide	ded)
DB-SC-03271  Proposed references to be provide None  Learning Objective (As available)  Question Source:	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundament	ination:  (Note X al Knowledge X	(Attach if not previously provide	ded)

After the reactor has been refueled, DB-SC-03271, Control Rod Drive (CRD) Program Verification, is performed to ensure \_\_\_\_\_.

- a. CRD breakers receive trip signals from RPS
- b. CRD power cables are correctly connected
- c. CRD sequence fault circuitry operates properly
- d. CRD motors have cooling water connected

Answer:

	<del></del>	Level:	RO	SRO
		Tier#	3	3
EXAMINATION OUTLINE CROS	S-REFERENCE:	Group #		
•	•	K/A#	GEN 2	
		Importance Rating	g 3.3	3.9
Proposed Question: 71				
See Attached				
Daniel Annual Constitution			· · · · · · · · · · · · · · · · · · ·	
Proposed Answer: See attached	<del></del>			
Explanation (Why the distractors are inco	orrect):			
a. AFW is controlling SG level				
c. Pressurizer level setpoint will be be	low the normal post	trin setnoint		
	iow the normal post	-trip sciponit.		
d. The bias will cause TBVs to close.				
Technical Reference(s):			Reference Atta	ched:
DB-OP-02000			(Attach if not	·····
			previously prov	vided)
	· ·	-		•
D			<del></del>	<del></del>
Proposed references to be provided to ap	plicants during exan	ination:		
None				
			<del></del>	
Learning Objective (As available): OPS	G-GOP-306-06A			
•	ank #			
	Iodified Bank #	(N	lote changes or attach	parent)
N	íew 	X		
Question History P	revious NRC Exam			
•	revious Quiz / Test			
		. 1 72	<del></del>	
	femory or Fundamer comprehension or Ar		<del></del>	
	omprehension of Ar	1a1y515	<b></b>	
10 CFR Part 55 Content: 55	5.4110			
	5.435			
	~ <del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>	<del>, , , , , , , , , , , , , , , , , , , </del>		
Comments (Why is it an upper level ques	tion):			
Must analyze plant conditions and determ	nine the reason for th	ne overcooling.		
		-		
				:
				1

<del>-</del>-

e s September 1

#### The following plant conditions exist:

- The plant was at 5% power following a startup from a two-week maintenance outage.
- A malfunction of a startup feedwater control valve has led to an SFRCS actuation on low SG level.
- All systems responded normally.
- Ten minutes after the reactor trip, RCS temperature and SG pressures are slowly decreasing.

Which one of the following would be the correct mitigation strategy for this event?

- a. Manually control MFW control valves and MFW pumps since RFR was NOT armed.
- b. Manually initiate AFW flow and isolation of both SGs due to secondary steam demand exceeding primary heat production.
- c. Lower pressurizer level setpoint to minimize the makeup flow into the RCS.
- d. Manually control turbine bypass valves due to the 125 psig bias added to the steam header pressure setpoint.

Answer:

		Level:	RO	SRO
TIV. 1 T. 1		Tier#	3	3
EXAMINATION OUTLINE CROSS-REFERENCE:		Group #		
		K/A#		V 2.4.26
		Importance Ratin	g 2.9	3.3
Proposed Question: 72				
See Attached				
Proposed Answer: See attach	ed			
Explanation (Why the distractors are	incorrect):			
a. Cannot replace the US without a	un un-to-date physical			
b. SM cannot be part of the Fire Br				
d. FS cannot be part of the Fire Bri	=			
Technical Reference(s):			D.C.	.,
NT-OT-07007			Reference Att (Attach if not	
			previously pro	-
			providuoty pro	, videa,
Learning Objective (As available): O	PS-GOP-501-05K  Bank #  Modified Bank #			
	New	(No	ote changes or attach	ı parent)
Question History	Previous NRC Exam Previous Quiz / Test			· · · · · · · · · · · · · · · · · · ·
Question Cognitive Level:	Memory or Fundament Comprehension or Ana	tal Knowledge		
	55.41 <u>.10</u> 55.43 <u>.5</u>			
Comments (Why is it an upper level qu	estion):			
fust determine manning requirement b	•	determine how to m	onlogo on individual	•
and an administration of	and on plant mode and	a dolominic now to r	chiace an individual	l <b>.</b>
		•		
		:	-	

where the second second second

The following plant conditions exist:

- The plant is at 100% power.

The Shift Manager is notified that the on-duty Field Supervisor, who is also the Fire Brigade Captain, failed the required two-year physical due to the spirometer test.

Which of the following actions can be taken to replace the Field Supervisor/Fire Brigade Captain?

- a. The Field Supervisor can take the Unit Supervisor position. The Unit Supervisor can take the Field Supervisor position and Fire Brigade Captain position, if qualified.
- b. The Field Supervisor can remain in the Field Supervisor position. The Shift Manager can become the Fire Brigade Captain, if qualified.
- c. The Field Supervisor can remain in the Field Supervisor position. A spare Equipment Operator III can become the Fire Brigade Captain, if qualified.
- d. The Field Supervisor can remain in the Field Supervisor position and the Fire Brigade Captain Position for up to two hours while waiting for a replacement to be called in.

Answer:

RA-EP-01500 (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-601-03K  Question Source: Bank # (Note changes or attach parent)  New New  Question History Previous NRC Exam  Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge  Comprehension or Analysis	EXAMINATION OUTLIN				
Proposed Question: 73 See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect): a. Cannot make PARs. b. Cannot classify. c. Cannot downgrade.  Technical Reference(s): RA-EP-01500  RA-EP-01500  RA-EP-01500  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)	EVAMINATION OF ITIL	TE CDOCC DESERVE	L	3.	3
Proposed Question: 73 See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect): a. Cannot make PARs. b. Cannot classify. c. Cannot downgrade.  Technical Reference(s): RA-EP-01500  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)	EXAMINATION OUTLINE CROSS-REFERENCE:				
Proposed Question: 73 See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect): a. Cannot make PARs. b. Cannot classify. c. Cannot downgrade.  Technical Reference(s): RA-EP-01500 Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-601-03K Question Source:  Bank # Modified Bank # Modifie					
See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect): a. Cannot make PARs. b. Cannot classify. c. Cannot downgrade.  Technical Reference(s): RA-EP-01500  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Cearning Objective (As available): OPS-GOP-601-03K Question Source:  Bank # Modified Bank # New  Modifi	Draman d Out of the GO		Importance Rating	3.3	3.1
Explanation (Why the distractors are incorrect):  a. Cannot make PARs.  b. Cannot classify.  c. Cannot downgrade.  Technical Reference(s):  RA-EP-01500  RA-EP-01500  RA-EP-01500  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Restriction:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Restriction:  (Attach if not previously provided)  Proposed reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Reference Attached:  (Attach if not previously provided)  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Reference Attached:  (Attach if not previously provided)					
Explanation (Why the distractors are incorrect):  a. Cannot make PARs.  b. Cannot classify.  c. Cannot downgrade.  Technical Reference(s):  RA-EP-01500  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-601-03K  Question Source:  Bank # Modified Bank # New  Modified Bank # Modified Bank # Modified Bank # New  Modified Bank # Modified Bank # Modified Bank # New  Modified Bank # Modifie	See Attached				
a. Cannot make PARs. b. Cannot classify. c. Cannot downgrade.  Technical Reference(s):  RA-EP-01500  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  Reference Attached: (Attach if not previously provided)  Reference Attached: (Attach if not previously provided)	Proposed Answer: See	attached			
b. Cannot classify. c. Cannot downgrade.  Technical Reference(s):  RA-EP-01500  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-601-03K  Question Source:  Bank # Modified Bank # Modified Bank # Modified Bank # New X  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge Comprehension or Analysis  0 CFR Part 55 Content:  55.4110	Explanation (Why the distractor	ors are incorrect):			
C. Cannot downgrade.  Technical Reference(s): RA-EP-01500  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reserved.  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reserved.  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Reference Attached: (Attach if not previously provided)	a. Cannot make PARs.				
Technical Reference(s):  RA-EP-01500  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-601-03K  Question Source:  Bank # Modified Bank # New  Modified Bank # New  New  Modified Bank # New  Modified Bank # New  Reference Attached: (Attach if not previously provided)  (Attach if not previously provided)  Provious None  Question Source:  Question History  Previous NRC Exam Previous Quiz/Test  Question Cognitive Level:  Memory or Fundamental Knowledge Comprehension or Analysis  0 CFR Part 55 Content:  S5.41	b. Cannot classify.				
(Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-601-03K  Question Source: Bank # (Note changes or attach parent)  New X (Note changes or attach parent)  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge X Comprehension or Analysis  0 CFR Part 55 Content: 55.41	c. Cannot downgrade.				
Acearning Objective (As available): OPS-GOP-601-03K  Question Source:  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X Comprehension or Analysis  O CFR Part 55 Content:  DO CFR Part 55 Content:  Memory or Fundamental Knowledge X Comprehension or Analysis	RA-EP-01500				ched:
New X  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge X Comprehension or Analysis  0 CFR Part 55 Content: 55.41	Proposed references to be provi	ded to applicants during exam	ination:	-	rided)
Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X  Comprehension or Analysis  0 CFR Part 55 Content:  55.41	Proposed references to be provi None Learning Objective (As availab	le): OPS-GOP-601-03K	ination:	-	vided)
Comprehension or Analysis  0 CFR Part 55 Content: 55.41	Proposed references to be provi None Learning Objective (As availab	le): OPS-GOP-601-03K  Bank #  Modified Bank #	(Note o	previously prov	
	Proposed references to be provi None Learning Objective (As availab Question Source:	le): OPS-GOP-601-03K  Bank #  Modified Bank #  New  Previous NRC Exam	(Note o	previously prov	
	Proposed references to be provi None  Learning Objective (As availab)  Question Source:  Question History	Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundament	(Note of	previously prov	

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Which of the following actions can be performed by a Reactor Operator during the implementation of the Emergency Plan?

- 1. Off-site dose assessment
- 2.
- Classification of the event
  Protective action recommendation
  Downgrade of the event
  State and counties notifications
  NRC notifications 3.
- 4.
- 5.
- 6.
- 1, 3, 5 a.
- 2, 4, 6 b.
- 2, 3, 4 c.
- 1, 5, 6 d.

Answer:

d.

	<del></del>	Level:	RO	SRO
		Tier#	1	1
<b>EXAMINATION OUTLINE C</b>	<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>		2	1
		K/A#		29-EA2.05
	~~~	Importance Rating	3.4	3.4
Proposed Question: 74				
See Attached				
Proposed Answer: See atta	ached	<del></del>	<del></del>	
<del></del>				<del></del>
Explanation (Why the distractors a b. RCS heats up because MFW)	•			
<u>-</u>	· ·			
c. RFR will not actuate until < 2	-			
d. System flow would not excee	d the capacity of the MFV	V System.		
			previously prov	vided)
Proposed references to be provided	to applicants during exam	nination:		
None Learning Objective (As available):	OPS-GOP-302-02K  Bank #  Modified Bank #	(Note	changes or attach	parent)
None  Learning Objective (As available):  Question Source:	OPS-GOP-302-02K  Bank #  Modified Bank #  New		changes or attach	parent)
None  Learning Objective (As available):  Question Source:	OPS-GOP-302-02K  Bank #  Modified Bank #  New  Previous NRC Exam	(Note	changes or attach	parent)
None  Learning Objective (As available):  Question Source:  Question History	OPS-GOP-302-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test	(Note	changes or attach	parent)
None  Learning Objective (As available):  Question Source:  Question History	OPS-GOP-302-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame	(Note	changes or attach	parent)
None  Learning Objective (As available):  Question Source:  Question History	OPS-GOP-302-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test	(Note	changes or attach	parent)
None  Learning Objective (As available):  Question Source:  Question History  Question Cognitive Level:	OPS-GOP-302-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame	(Note	changes or attach	parent)
Learning Objective (As available): Question Source: Question History Question Cognitive Level: 10 CFR Part 55 Content:	OPS-GOP-302-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or A:  55.412_ 55.43	(Note	changes or attach	parent)
Learning Objective (As available): Question Source: Question History Question Cognitive Level: 10 CFR Part 55 Content: Comments (Why is it an upper leve	OPS-GOP-302-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or A:  55.412	ntal Knowledge	changes or attach	parent)
Learning Objective (As available): Question Source: Question History Question Cognitive Level: 10 CFR Part 55 Content: Comments (Why is it an upper leve	OPS-GOP-302-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or A:  55.412	ntal Knowledge	changes or attach	parent)
Learning Objective (As available): Question Source: Question History Question Cognitive Level: 10 CFR Part 55 Content: Comments (Why is it an upper leve	OPS-GOP-302-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or A:  55.412	ntal Knowledge	changes or attach	parent)
Learning Objective (As available): Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper leve	OPS-GOP-302-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or A:  55.412	ntal Knowledge	changes or attach	parent)
Learning Objective (As available): Question Source: Question History Question Cognitive Level: 10 CFR Part 55 Content: Comments (Why is it an upper leve	OPS-GOP-302-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or A:  55.412	ntal Knowledge	changes or attach	parent)
Learning Objective (As available): Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper leve	OPS-GOP-302-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or A:  55.412	ntal Knowledge	changes or attach	parent)
Learning Objective (As available): Question Source: Question History Question Cognitive Level: 10 CFR Part 55 Content: Comments (Why is it an upper leve	OPS-GOP-302-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or A:  55.412	ntal Knowledge	changes or attach	parent)
. •	OPS-GOP-302-02K  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundame Comprehension or A:  55.412	ntal Knowledge	changes or attach	parent)

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The following plant conditions exist:

- The plant was initially at 100% power.
- The main turbine tripped due to high vibrations.
- The reactor failed to trip.
- Efforts to de-energize Buses E2 and F2 from the Control Room have been UNSUCCESSFUL.

Which one of the following describes the response of the Main Feedwater Control Valves (MFCVs) in ICS automatic control?

- a. MFCVs move in the closed direction due to ICS being in TRACK.
- b. MFCVs move in the open direction due to the RCS heatup.
- c. MFCVs move in the closed direction due to RAPID FEEDWATER REDUCTION.
- d. MFCVs move in the open direction due to excessive steam flow through the MS Safety Valves.

Answer:

a.

EXAMINATION OUTLINE CROSS-REFERENCE:  Tier # 1 Group # 1 K/A# BW/A Importance Rating 3.6  Proposed Question: 75 See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect): a. Loss of NNI/ICS AB will route to DB-OP-02000. c. NNI not affected if power source transfers. d. YBU will power NNI on a loss of YAU.	1 1 A02-AA2.1 4.0
K/A#   BW/A   Importance Rating   3.6	A02-AA2.1
Proposed Question: 75  See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  a. Loss of NNI/ICS AB will route to DB-OP-02000.  c. NNI not affected if power source transfers.	
Proposed Question: 75  See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  a. Loss of NNI/ICS AB will route to DB-OP-02000.  c. NNI not affected if power source transfers.	4.0
See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  a. Loss of NNI/ICS AB will route to DB-OP-02000.  c. NNI not affected if power source transfers.	
Proposed Answer: See attached  Explanation (Why the distractors are incorrect):  a. Loss of NNI/ICS AB will route to DB-OP-02000.  c. NNI not affected if power source transfers.	
Explanation (Why the distractors are incorrect):  a. Loss of NNI/ICS AB will route to DB-OP-02000.  c. NNI not affected if power source transfers.	
<ul><li>a. Loss of NNI/ICS AB will route to DB-OP-02000.</li><li>c. NNI not affected if power source transfers.</li></ul>	
c. NNI not affected if power source transfers.	
Proposed references to be provided to applicants during examination:  (Attach if not previously prov	/ided)
None	
Learning Objective (As available): OPS-GOP-132-01K	
Learning Objective (As available): OPS-GOP-132-01K	parent)
Learning Objective (As available): OPS-GOP-132-01K  Question Source: Bank # (Note changes or attach p	parent)
Learning Objective (As available): OPS-GOP-132-01K  Question Source:  Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam	parent)
Learning Objective (As available): OPS-GOP-132-01K  Question Source: Bank # (Note changes or attach page of the page of	parent)
Learning Objective (As available): OPS-GOP-132-01K  Question Source: Bank # (Note changes or attach page of the page of	parent)
Learning Objective (As available): OPS-GOP-132-01K  Question Source:  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge Comprehension or Analysis  Memory of Fundamental Knowledge Source:  Memory or Fundamental Knowledge Comprehension or Analysis  Memory of Fundamental Knowledge Source:   parent)	

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## The following plant conditions exist:

- The plant is in Mode 3.
- The following annunciators are received:
  - ICS/NNI 118 VAC PWR TRBL (14-2-D)
  - ICS INPUT MISMATCH (14-4-E)
  - ICS INPUT TRANSFER (14-4-F)
  - NNI X AC power light is out

Which one of the following is the proper procedure to be FIRST utilized?

- a. DB-OP-02000, RPS, SFAS, SFRCS Trip, or SG Tube Rupture
- b. DB-OP-02532, Loss of NNI/ICS Power
- c. DB-OP-02537, Loss of D1P and DAP
- d. DB-OP-02541, Loss of YAU

Answer:

		Level:	RO	SRO
		Tier #	1	
EXAMINATION OUTLINE CRO	OSS-REFERENCE:	Group #	1	
		K/A#		0-027-AK2.03
		Importance Rating	2.6	
Proposed Question: 76				
See Attached				
See Attached				·
Proposed Answer: See attache	ed			
Explanation (Why the distractors are	incorrect):			
a. Indicated pressurizer level does	not go below 40 inches	which is the low leve	el cutoff for pressu	rizer heaters.
c./d. Indicated pressurizer level dec	reases, which sends an	open signal to MU3	2.	
c., d. Indicated pressurizer level det	,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	op o.g vo o.		
Technical Reference(s):			Reference A	
DB-OP-02513			(Attach if no	
			previously p	provided)
	1 1	• • • • • • • • • • • • • • • • • • • •		
Proposed references to be provided to	applicants during exam	nination:		
None				
Learning Objective (As available): (	OPS-GOP-113-03K			
Question Source:	Bank #			
	Modified Bank #		lote changes or atta	ach parent)
	New	X		
Question History	Previous NRC Exam			
Question History	Previous Quiz / Test			
		<del></del>		<del></del>
Question Cognitive Level:	Memory or Fundame		<del></del>	
	Comprehension or A	nalysis <u>X</u>	<u></u>	
10 CFR Part 55 Content:	55.41 <u>.7</u>			
	55.43			
Comments (Why is it an upper level of	mestion).			
` • • • • • • • • • • • • • • • • • • •			1 1 .	
Must recognize temperature compens	ation failing low causes	s indicated level to de	ecrease and determ	ine how the low
level affects MU32 and pressurizer he	eaters.			

Question: 76
The plant is at 100% power with all systems normal. The selected pressurizer temperature instruments fails low.
The instrument failure causes MU32 to and pressurizer heaters
a. open; to de-energize
b. open; are NOT effected
c. close; to de-energize
d. close; are NOT effected
Answer:

		Level:		RO	SRO
EN A BAUDI A TEXADA O LUTTI YAYE	CDOCC PERENTIAN	Tier#		1	
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #		2	
		K/A#	· · ·		033-AK3.02
		Importance 1	Rating	3.6	
Proposed Question: 77					
See Attached					
	****				
Proposed Answer: See a	ittached				
Explanation (Why the distractors	s are incorrect):				
a. SUR not effected by NI 3 f	ailure.				
-		50/ 1 /1 3	TT C '1		
	g above 5% if initially below	5% when the r	ni fails.		
d. Bypassing RPS will not ren	nove the loss of NI signal.				
I					
· · · · · · · · · · · · · · · · · · ·	- Markey	- T-MET			
Technical Reference(s):				Reference Att	ached:
DB-OP-02505				(Attach if not	
				previously pro	ovided)
					,
Proposed references to be provid	ed to applicants during exam	ination:			
None					
Learning Objective (As available	e): OPS-GOP-105-03K				
Question Source:	Bank #	, <u></u> ,			
OLC-3407	Modified Bank #	X	(Note of	hanges or attacl	noront)
OLC-5407	New		(Note CI	nanges of anaci	i parent)
Question History	Previous NRC Exam				
1996 Quiz	Previous Quiz / Test	X			
Overtion Consider I and	) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	. 1 77 1 1		******	
Question Cognitive Level:	Memory or Fundamen		<u>X</u>		
	Comprehension or An	alysis			
10 CFR Part 55 Content:	55.41 .1			· · · · · · · · · · · · · · · · · · ·	
To CFR Part 33 Content.	55.41 <u>.1</u> 55.43				
	33.43				
Comments (Why is it an upper le	vel question):				
commence (why is it an appeare	vor question).				

### **ORIGINAL**

Question: 77

The following plant conditions exist:

- The plant is in Mode 1, at 7% RTP during initial power escalation from a refueling outage.
- Intermediate Range NI3 fails LOW.

Which ONE of the following conditions will result from this occurrence?

- a. No effect.
- b. Source Range NI 1 will energize.
- c. BOTH Source Range NIs will be energized.
- d. Intermediate Range SUR will fail mid-scale at 5 dpm (on CTRM center console).

Answer:

The following plant conditions exist:

- The reactor is at 7% power during initial power escalation from a refueling outage.
- Intermediate Range NI 3 fails low.

Which one of the following OPERATOR actions will be required as a result of this occurrence?

- a. Rod withdrawal and power increase will need to be stopped due to high startup rate.
- b. Reactor power will need to be reduced to less than 5% to comply with Tech. Specs.
- c. Both Source Range NIs will need to be de-energized since reactor power is less than 10%.
- d. RPS Channel 4 will need to be manually bypassed to remove the channel's input to other RPS channels.

Answer:

EXAMINATION OUTLINE CROSS-REFERENCE:	Tier # Group # K/A#	2	
		1	
P. 10 52	K/A#	<del></del>	
D 10 4 50	Towns and the Park	001-GE	N 2.1.33
	Importance Rati	ng 3.4	
Proposed Question: 78			
See Attached			
Proposed Answer: See attached			7
Explanation (Why the distractors are incorrect):			
a. T.S. 3.1.3.6 allows Group 7 rods to be at 100% at any	y power level.		
b. T.S. 3.1.3.9 allows APSRs to be at any position until	the end of core life.		
c. T.S. 3.1.3.1 requires all rods to be within 6.5% of the	group average.		
Technical Reference(s): Tech. Spec. 3.1.3.5		Reference Attach (Attach if not previously provid	\ <u>.</u>
None			
Learning Objective (As available): OPS-GOP-431-01K	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Question Source:  Bank #  Modified Bank #  New	(I	Note changes or attach pa	rent)
Question History Previous NRC Exam Previous Quiz / Tes			
Question Cognitive Level: Memory or Fundam Comprehension or A		Κ	
10 CFR Part 55 Content: 55.41 <u>.6</u> 55.43			
Comments (Why is it an upper level question):			
Must analyze conditions and determine if Tech. Spec. appli	ies.		
,			
,			
,			

The plant is at 50% power and 300 EFPD.

Which one of the following would require entry into Tech. Specs.?

- a. Group 7 rods are 100% withdrawn.
- b. Group 8 rods are 90% withdrawn.
- c. Rod 5-4 is 96% withdrawn.
- d. Rod 2-2 is 92% withdrawn.

## Answer:

d.

		Level:	RO	SRO
		Tier #	2	
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #	1	
		K/A#	003-A4	.08
		Importance Rating	3.2	
Proposed Question: 79				
See Attached				
Proposed Answer: See atta	ached			
Explanation (Why the distractors a	are incorrect):			
	actions for a loss of MU pr			
a., c., a. These are suppremental	actions for a loss of Mio pi	ump.		
Technical Reference(s):			Reference Attach	ned:
DB-OP-02512			(Attach if not	
			previously provid	ded)
			Farmana Parana	,
				-
Proposed references to be provided	d to applicants during exan	nination:		
None.				
110110.				
Logming Objective (As available)	ODC COD 115 00V	****		
Learning Objective (As available):	OPS-GOP-115-02K			
Question Source:	Bank #			
	Modified Bank #	(Note o	hanges or attach pa	arent)
	New	X		
O ( TT' )	D : NDCE			
Question History	Previous NRC Exam			
	Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamer	ntal Knowledge X		
Question Cognitive Level.	Comprehension or Ar			
	Comprenension of 74			
10 CFR Part 55 Content:	55.4110			
10 Ct RT art 33 Content.	55.43			
Comments (Why is it an upper leve	el question):			
	4			

The following plant conditions exist:

- The plant is at 100%.
- The running makeup pump trips.

Which one of the following should be performed immediately?

- a. Place MU19, RCP Seal Injection Flow Control, in HAND and close.
- b. Verify CCW supply to the RCPs.
- c. Place MU32, Pressurizer Level Control, in HAND and close.
- d. Verify the makeup tank is available.

Answer:

		Level:		RO	SRO
EVANUATION OUT INT	CDOCC DEPENDENCE	Tier#		2	
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #	· · · · · · · · · · · · · · · · · · ·	1	
		K/A#	-4i		K1.12
		Importance Ra	ating	4.1	
Proposed Question: 80					
See Attached					
Proposed Answer: See a	ttached				
Explanation (Why the distractors	s are incorrect):		···		
a. SFAS start puts the EDG in	the isochronous mode.				
b. Sequence only starts on C1	or D1 undervoltage.				
d. Same as a. and b.	•				
				•	
	•				
T 1 ' 1 D C ()					
Technical Reference(s): DB-OP-06316				Reference Att	
DB-01-00310				Attach if not	
			ŗ	previously pro	ovided)
Proposed references to be provid	ed to applicants during exan	nination:			
None					
7	\ ODG GMG #04 074	3180°44			
Learning Objective (As available					
Question Source:	Bank #	<del></del>			
OLC-7372	Modified Bank #	_X_	(Note cha	inges or attacl	n parent)
	New				
Question History	Previous NRC Exam				
·	Previous Quiz / Test				
Overtion Cognitive Level	Manager au Eurola	-4-1 TZ 1- 1			
Question Cognitive Level:	Memory or Fundamer Comprehension or An		X		
	Comprehension of Tu				
10 CFR Part 55 Content:	55.417				
	55.43				
	1				
Comments (Why is it an upper le	- '				
Must determine the effect an SFA	AS actuation has on the EDG	s.			

#### **ORIGINAL**

Question: 80

- The Emergency Diesel Generator (EDG) 1 is running for the monthly surveillance.
- The EDG is paralleled with the grid and at full load.
- SFAS Channels 1 and 2 trip due to RCS low pressure.

Select the condition of the EDG and the SFAS load sequencer AFTER receipt of the SFAS signal.

- a. The EDG engine remains running and the load sequencer is not started.
- b. The EDG engine remains running and the load sequencer is started.
- c. The EDG engine trips and the load sequencer is not started.
- d. The EDG engine trips and the load sequencer is started.

Answer:

a.

The following plant conditions exist:

- Emergency Diesel Generator (EDG) 1 is running for the monthly surveillance test and is paralleled with the grid at 2500 KW.
- A small break LOCA causes an SFAS actuation on RCS low pressure.
- No operator actions have been taken.

Which one of the following describes the mode of the EDG and the SFAS sequencer AFTER receipt of the SFAS signal?

- a. EDG 1 is in the droop mode and the sequencer is NOT started.
- b. EDG 1 is in the isochronous mode and the sequencer is started.
- c. EDG 1 is in the isochronous mode and the sequencer is NOT started.
- d. EDG 1 is in the droop mode and the sequencer is started.

Answer:

		Level:	RO	SRO
		Tier#	2	
EXAMINATION OUTLINE O	CROSS-REFERENCE:	Group #	1	
		K/A#		A3.02
		Importance Rating	3.7	
Proposed Question: 81				
See Attached				
Proposed Answer: See atta	ached			
Explanation (Why the distractors a	are incorrect):			
a. Sequence inhibit applicable v	when rods are in auto.			
b. Asymmetric fault applicable	when >60% power.			
d. SRO applicable when rods ar	e in auto.			
Technical Reference(s): DB-OP-06402			Reference Att (Attach if not	
DB-OF-00402			previously pr	
			brottomory E-	ovided,
Proposed references to be provided None	I to applicants during exan	nination:		
Learning Objective (As available):	: OPS-SYS-501-06K			
Question Source: OLC-6719	Bank # Modified Bank # New	X(Note	e changes or attac	h parent)
Question History	Previous NRC Exam Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundame Comprehension or A			
10 CFR Part 55 Content:	55.41 <u>.6</u> 55.43 <u>.6</u>			
Comments (Why is it an upper leve	el question):			
Must determine when various scen	narios are applicable to out	t inhibit.		

Which one of the following conditions would result in an OUT INHIBIT being generated in the rod control logic?

- a. Sequence inhibit during approach to criticality.
- b. An asymmetric fault when lifting off low level limits.
- c. A high intermediate range startup rate when at the point of adding heat.
- d. A safety rod group NOT at the out limit during control rod exercise test.

Answer:

		Level:		RO	SRO
EXAMINATION OUTLINE CROSS-REFERENCE:		Tier#		2	
		Group #		1	
		K/A# Importance R	otina	022-A3	.01
		Importance K	ating	4.1	
Proposed Question: 82					
See Attached				•	
Proposed Answer: See att	ached	•			
Explanation (Why the distractors	are incorrect):				
a. Spray pumps would not be r	•				
	_				
,					
c. Spray valves throttle when s	uction is transferred to the e	mergency sump	•		
Technical Reference(s):			]	Reference Attach	ıe <b>d</b> :
DB-OP-02000			(	(Attach if not	
			1	previously provid	led)
Proposed references to be provide	d to applicants during exam	ination:			
None					
None					
Learning Objective (As available)	: OPS-SYS-306-03K				
Question Source: OLC-7153	Bank # Modified Bank # New	_X	(Note cha	inges or attach pa	arent)
Question History	Previous NRC Exam			,	
2001 Quiz	Previous Quiz / Test	<u>X</u>			
Question Cognitive Level:	Memory or Fundamen Comprehension or An		X		
10 CFR Part 55 Content:	55.41 <u>7</u> 55.43				
Comments (Why is it an upper leve	el question):				
Must recognize SFAS has initiated	and determine appropriate	equipment respo	onse.		
					İ

The following plant conditions exist:

- The plant had been operating at 100% power.
- A small break loss of coolant accident has caused the RCS pressure to lower to 1500 psig. Containment pressure is 19.3 psia.

Which one of the following statement describes automatic actions which should have occurred for this condition?

- a. Two CACs running in fast, two CTMT spray pumps running with discharge valves throttled to 60%.
- b. Two CACs running in fast, two CTMT spray pumps running with discharge valves open
- c. Two CACs running in slow, CTMT spray pumps off with discharge valves throttled to 60%.
- d. Two CACs running in slow, CTMT spray pumps off with discharge valves open.

Answer:

d.

		Level:	RO	SRO
		Tier #	2	
EXAMINATION OUTLINI	E CROSS-REFERENCE:	Group #	1	
		K/A#		9-K3.03
		Importance Rating	3.5	
Proposed Question: 83				
See Attached				
D				
Proposed Answer: See a	attached			
Explanation (Why the distractor	s are incorrect):		-	
a. Indicated flow is less than	demand			
c./d. SG levels will increase.				
c./d. 30 levels will increase.				
Technical Reference(s):	·····		D - C	. 1 1
DB-OP-06407			Reference A (Attach if no	
22 01 00 107			previously p	
			previously p	Tovided)
Proposed references to be provide	led to applicants during exam	ination:		
None				
Learning Objective (As available	e): OPS-SYS-512-04K			
Question Source:	Bank #	X		
ORQ-1991	Modified Bank #		ote changes or atta	ch parent)
•	New			<b>F</b> •)
Oti History	D : NDCD		· · · · · · · · · · · · · · · · · · ·	
Question History 2000 Exam	Previous NRC Exam Previous Quiz / Test			
2000 Exam	Frevious Quiz/ Test	_X	198	
Question Cognitive Level:	Memory or Fundamer	ntal Knowledge		
	Comprehension or An		<del>_</del>	
10 CFD D + 55 C + +				
10 CFR Part 55 Content:	55.41 <u>.7</u>			
	55.43			
Comments (Why is it an upper le	vel question):			
	- '	1.4	001 1	
Must determine how RTD failure	e affects actual F w flow and	determine the affect	on SG levels.	

The following plant conditions exist:

- The plant is operating at 100% power.
- The ICS is in full automatic.
- The RTD providing temperature compensation for feedwater flow is failing high.
- No SASS transfer occurs.

Which one of the following describes the response of the steam generator levels?

- a. SG levels will INCREASE because indicated feedwater flow is greater than feedwater demand.
- b. SG levels will INCREASE because indicated feedwater flow is less than feedwater demand.
- c. SG levels will DECREASE because indicated feedwater flow is greater than feedwater demand.
- d. SG levels will DECREASE because indicated feedwater flow is less than feedwater demand.

Answer:

EXAMINATION OUTLINE CROSS-REFERENCE		Level:	RO	SRO
		Tier #	2	
		Group #	2	
		K/A#		ζ4.03
		Importance Rating	3.8	
Proposed Question: 84				
See Attached				
Proposed Answer: See a	ttached		F 2004	
Explanation (Why the distractors	s are incorrect):		· · · · · · · · · · · · · · · · · · ·	
a. Spray valve will only go to	40% when in AUTO.			
b. Spray valve will go to 40%		g.		
c. Spray valve will only go to	40% when in AUTO.	_		
or spray tarve min emy ge te	1070 WHOM M 110 1 0.			
Technical Reference(s):			Reference Att	ached:
OS-01A			(Attach if not	· · · · · · · · · · · · · · · · · · ·
			previously pro	vided)
D 1 C 1	1. 1			
Proposed references to be provid	ed to applicants during exan	nination:		
None				
Learning Objective (As available	e): OPS-SYS-104-05K			
	· · · · · · · · · · · · · · · · · · ·	v		
Question Source: OLC-6486	Bank # Modified Bank #	_X(No	te changes or attach	narent)
OLC-0480	New	(140	ne changes of attact	i parent)
Question History	Previous NRC Exam			
	Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundame	ntal Knowledge		
Question Cognitive Devel.	Comprehension or Ar		<del></del>	
10 CFR Part 55 Content:	55.413			
	55.43			
Commonts (Why: !- !+ 1:	1			
Comments (Why is it an upper le	vel question):			
Must determine how conditions a	affect the spray valve.			

The following plant conditions exist:

- RC System pressure is 2190 psig.

The operator has taken the RC2, Pressurizer Spray Valve, control switch to OPEN and then RETURNED to auto with the spray valve at 25% open.

Which one of the following describes the expected response of the pressurizer spray valve under these conditions?

- a. The spray valve will immediately go to fully open.
- b. The spray valve will immediately open to the 40% open position.
- c. The spray valve will remain at 25% open until pressure increases to 2205 psig, at which time it will open fully.
- d. The spray valve will remain at 25% open until pressure increases to 2205 psig, at which time it will open to 40% open.

Answer:

d.

		Level:	RO	SRO
EXAMINATION OUTLINE CROSS-REFERENCE:		Tier#	2	
		Group #	2	
		K/A#		GEN 2.1.21
		Importance Rating	3.1	
Proposed Question: 85				
See Attached				
Proposed Answer: See a	attached			<del> </del>
Explanation (Why the distractor	s are incorrect):			
b. Night Orders have direction	n to perform the test.			
c. PR-01 provides guidance for				
d. DOCS has been replaced b				
	j Carator.			
Technical Reference(s):			Reference Att	ached:
NG-NA-00107			(Attach if not	
			previously pro	ovided)
Proposed references to be provide	led to applicants during exan	nination:		
None	<del>-</del>			
None				
Learning Objective (As available	e): ONL-BQT-127-05K		****	
Question Source:	Bank #			
	Modified Bank #	(Not	te changes or attach	n parent)
	New	X	_	- ,
Question History	Previous NRC Exam	- V-1 V = V.	*	<del></del>
Question Tristory	Previous Quiz / Test	<del> </del>		
	10.00			
Question Cognitive Level:	Memory or Fundamer		_	
	Comprehension or Ar	alysis	_	
10 CFR Part 55 Content:	55.41 .10			-
To CITCI are 33 Content.	55.43			
	<del></del>			····
Comments (Why is it an upper le	vel question):			
		•		

Question: 85

The Control Rod Drive Exercise Test is scheduled for the upcoming shift.

DB-OP-06402, CRD Operating Procedure, can be verified current by \_\_\_\_\_\_.

a. using the Curator controlled view library

b. referring to the most recent Night Order

c. referring to PR-01, Operations Procedure Maintenance

d. using the Document On-Line Control System (DOCS)

Answer:

a.

		Level:		RO	SRO
THE ADDRESS OF THE PARTY OF THE	CD 0 CC 777777777	Tier #		2	
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #		2	_
		K/A#	Datina		ζ3.02
		Importance	Kating	4.2	_
Proposed Question: 86					
See Attached					
Proposed Answer: See a	ttached				<del></del>
Explanation (Why the distractors	s are incorrect):				
a. Will not increase flow rate.	,				
c./d. Does not increase dischar	ige pressure.				
Technical Reference(s): DB-OP-02000				Reference Atta (Attach if not previously pro	
Learning Objective (As available					
O					
Question Source:	Bank # Modified Bank # New	X	(Note cl	hanges or attach	parent)
	Modified Bank #	X	(Note cl	hanges or attach	parent)
Question History	Modified Bank # New Previous NRC Exam	ntal Knowledg	-	hanges or attach	parent)
Question History  Question Cognitive Level:	Modified Bank # New Previous NRC Exam Previous Quiz / Test Memory or Fundamer	ntal Knowledg	- - -e	hanges or attach	parent)
Question History  Question Cognitive Level:  10 CFR Part 55 Content:	Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or An  55.418 55.43	ntal Knowledg	- - -e	hanges or attach	parent)
Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level)	Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or An  55.418 55.43  vel question):	ntal Knowledg	- - -e	hanges or attach	parent)
Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level)	Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or An  55.418 55.43  vel question):	ntal Knowledg	- - -e	hanges or attach	parent)
Question Source:  Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level)  Must determine how the failure at	Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or An  55.418 55.43  vel question):	ntal Knowledg	- - -e	hanges or attach	parent)
Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level)	Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or An  55.418 55.43  vel question):	ntal Knowledg	- - -e	hanges or attach	parent)
Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level)	Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or An  55.418 55.43  vel question):	ntal Knowledg	- - -e	hanges or attach	parent)
Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level)	Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or An  55.418 55.43  vel question):	ntal Knowledg	- - -e	hanges or attach	parent)
Question History  Question Cognitive Level:  10 CFR Part 55 Content:  Comments (Why is it an upper level)	Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Memory or Fundamer Comprehension or An  55.418 55.43  vel question):	ntal Knowledg	- - -e	hanges or attach	parent)

A large break loss of coolant accident has occurred.

While transferring LPI suction to the emergency sump, CS 1530, Containment Spray Pump 1 (CSP) Discharge Valve, fails in the OPEN position.

Which one of the following describes the effect this failure will have on the Containment Spray System?

- a. Potential to exceed the design flow rate of the CSP.
- b. Potential to lose net positive suction head for the CSP.
- c. Potential to overpressurize the containment spray header.
- d. Potential to cause cavitation at the containment spray header nozzles.

Answer:

EXAMINATION OUTLINE CROSS-REFERENCE:		Level:		RO	SRO		
		Tier#		2			
		Group # K/A#		2	A 2 0 1		
		Importance R	ating	4.0	A3.01		
D	nd made	Importance R	ating	1 7.0			
Proposed Question: 87							
See Attached							
Proposed Answer: See attack	ned						
Explanation (Why the distractors are	incorrect):						
a. Setpoint without an SFAS actua	ation.						
b. Setpoint without an SFAS and low pressure on an SG.							
d. Setpoint with an SFAS and low	pressure on an SG.						
Technical Reference(s): DB-OP-02000				Reference Att (Attach if not previously pro			
Proposed references to be provided to Steam Tables  Learning Objective (As available):		imation.					
Question Source:	Bank # Modified Bank # New		(Note cha	anges or attacl	ı parent)		
Question History	Previous NRC Exam Previous Quiz / Test	<del>-</del>					
Question Cognitive Level:	Memory or Fundamer Comprehension or An		X				
10 CFR Part 55 Content:	55.41 <u>10</u> 55.43 <u></u>						
Comments (Why is it an upper level of	question):						
Must determine the status of RCPs and if SFAS has actuated to determine SG level.							
made determine the suites of RCI's di	ia ii oi i io iius uotuutou	to determine bo	10101.				

The following plant conditions exist:

- The reactor has tripped from 100% power due to low RCS pressure.
- RCS pressure is 1500 psig.
- Hotleg temperatures are 590°F.
- Average incore temperature is 595°F.
- SG1 pressure is 790 psig and steady.
- SG2 pressure is 820 psig and steady.

Which one of the following SG levels should be maintained?

- a. 49 inches
- b. 55 inches
- c. 124 inches
- d. 130 inches

Answer:

		Level:	RO	SRO
TWANT THON OVER THE	CD 0.66 D T T T T T T T T T T T T T T T T T T	Tier #	2	
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #	2	
,		K/A#		A3.04
		Importance Rating	2.7	
Proposed Question: 88				
See Attached				
Proposed Answer: See att	ached			
Explanation (Why the distractors	are incorrect):			
a. Battery charger will not have	e power.			
c. E4 will be deenergized.				
_	•			
d. F4 is not the normal power s	upply.			
Technical Reference(s): DB-OP-06333			Reference Atta	ached:
DB-OP-00333			(Attach if not	• 1 1
			previously pro	vided)
			F1	
None  Learning Objective (As available)	· OPS_SYS_410_07K			
	7.72.72	77		
Question Source: ONL-0532	Bank # Modified Bank # New	X (Note	changes or attach	parent)
Question History	Previous NRC Exam Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamen Comprehension or An		-	
10 CFR Part 55 Content:	55.41 <u>.7</u> 55.43			
Comments (Why is it an upper leve	el question):			
Must determine status of power su	pplies and determine what v	will power the distributi	on panel.	
				i

The following plant conditions exist:

- The plant was at 100% power.
- All systems were in a normal lineup.
- 13.8 kv Bus A lockout has occurred five minutes ago.
- The misc. diesel generator failed to start.

What is the source of power for the YS1, 208/120 VAC Distribution Panel?

- a. The SCI-UPS battery charger through the SCI-UPS inverter.
- b. The SCI-UPS battery through the SCI-UPS inverter.
- c. 480 Volt Bus E4 through the SCI-UPS regulated transformer.
- d. 480 Volt Bus F4 through the SCI-UPS regulated transformer.

## Answer:

		Level:	RO	SRO
	~~~~~	Tier #	2	
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #	2	
		K/A#		K4.02
		Importance Rating	2.9	
Proposed Question: 89				
See Attached				
Proposed Answer: See at	tached			
Explanation (Why the distractors	are incorrect):		· · · · · · · · · · · · · · · · · · ·	
a. Deenergizing RPS will trip t	the reactor.			
b. RCP DC oil pumps are not r	unning.			
d. Battery Charger 1PN does n	<del>-</del>			
a. Buttery Charger 1111 does in	ot have power.			
Technical Reference(s): DB-OP-02521			Reference Att. (Attach if not previously pro	
Learning Objective (As available)				
Question Source:	Bank # Modified Bank # New	(Note	changes or attach	n parent)
Question History	Previous NRC Exam Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamer Comprehension or An			
10 CFR Part 55 Content:	55.41 <u>.7</u> 55.43			
Comments (Why is it an upper lev	rel question):			
Must analyze plant conditions and	determine available power	sources.		
	-			
				•

The following plant conditions exist:

- The plant is at 100% power.
- A lockout of 4160 VAC Bus C1 occurs.

Which one of the following actions should be completed to maximize available battery life?

- a. Deenergize RPS Channels 1 and 3.
- b. Lockout the DC oil pumps for RCP 1-1 and RCP 2-2.
- c. Transfer Panel YAU from Inverter YVA to Panel YAR.
- d. Place Battery Charger 1PN in service as Battery Charger 1P.

## Answer:

		Level:		RO	SRO
THE A DESIGNATION OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY		Tier #		2	
EXAMINATION OUTLINE	E CROSS-REFERENCE:	Group #		3	
		K/A#			K6.03
	· · · · · · · · · · · · · · · · · · ·	Importance R	ating	2.5	
Proposed Question: 90					
See Attached					
Proposed Answer: See a	attached	<u>-</u>			
Explanation (Why the distractor	s are incorrect):				
a. Below minimum NPSH for	•				
b. DHP 1 is aligned in the LP					
	i mode.				
c. HPI pump is used last.					
Technical Reference(s):			`	Reference Att	achad:
DB-OP-02527				Attach if not	actieu
				previously pro	vided)
			1	proviously pro	, videa)
Proposed references to be provide				····	
None				· · · · · · · · · · · · · · · · · · ·	
Learning Objective (As available	e): OPS-GOP-127-02K	1177			
Question Source:	Bank # Modified Bank # New	X	(Note cha	anges or attach	ı parent)
O4: IV:-4	D ' NDCE				
Question History	Previous NRC Exam Previous Quiz / Test	<del></del>			
	Fievious Quiz/ Test				
Question Cognitive Level:	Memory or Fundamer Comprehension or An		X		
10 CFR Part 55 Content:	55.4110	P-94 - 1940 - 4		*****	
	55.43				
Comments (Why is it an upper le	vel question):				
• • • • • • • • • • • • • • • • • • • •		oon he 4-1			
Must determine operational mod	e and applicable actions that	can be taken.			

The following plant conditions exist:

- Plant cooldown is in progress using DH Pump 2.
- RCS temperature is 210°F.
- DH14A, DH CLR2 OUTLET, fails closed.

Which one of the following would be the PREFERRED method to re-establish cooling to the RCS?

- a. Start an RCP to provide cooling through the SGs.
- b. Place DH Pump 1 in service on the RCS.
- c. Start HPI Pump 2 and inject water from the BWST.
- d. Locally control DH14A to maintain RCS temperature.

Answer:

d.

	Level:	RO	SRO
	Tier #	2	
EXAMINATION OUTLINE CROSS-REFERENCE:	Group #	3	
	K/A#		K3.03
- Link Aller	Importance Rating	4.1	
Proposed Question: 91			
See Attached			
See Attached			
Proposed Answer: See attached			
Explanation (Why the distractors are incorrect):			
a./b./d. On a loss of CCW, the reactor is tripped (Mode 3)	and RCPs are stopped (r	natural circ).	
The last of the Co.	<del>- **-</del>		
Technical Reference(s):		Reference Att	ached:
DB-OP-02523		(Attach if not	
		previously pro	ovided)
Proposed references to be provided to applicants during exa	mination:		
None			
None			
Learning Objective (As available): OPS-GOP-123-02K			
Question Source: Bank #	_X_		
OLC-3900 Modified Bank #		changes or attacl	narent)
New	(11016	changes of attach	i pareiit)
Question History Previous NRC Exam	า		
2000 Quiz Previous Quiz / Test			
2000 Quiz / 1001			
Question Cognitive Level: Memory or Fundame	ental Knowledge		
Comprehension or A		<del>-</del>	
10 CFR Part 55 Content: 55.4110			
55.43			
Comments (Why is it an upper level question):			
comments (why is it all upper level question).			
Must determine actions to be taken based on plant condition	s and determine final pla	nt conditions.	
•	•		

The following plant conditions exist:

- The plant is in Mode 1, operating at 82% power.
- CCW Pump 1-3 is OOS for bearing replacement.
- CCW Pump 1-1 breaker has been racked out for an inspection.
- Tech. Spec. 3.7.3.1 (CCW) has been entered.
- The following symptoms have been noted in the CTRM:
  - Annunciator (11-5-B) CCW PMP 2 FLOW LO
  - Computer Alarm (Q116) CC PMP MTR TRBL (TRIP)
  - Computer Alarm (Z120) CC PMP 2 (OFF)

Assuming that all efforts to correct this situation fail, choose the final condition that the plant will be placed in, after DB-OP-02523, CCW Malfunctions, has been implemented.

- a. Mode 1, 72% RTP
- b. Mode 3, with forced RC flow
- c. Mode 3, with natural circulation flow
- d. Mode 1, low level limits

Answer:

		Level:		RO	SRO
77/12/12/12/12/12/12/12/12/12/12/12/12/12/		Tier #		2	
EXAMINATION OUTLINE (	CROSS-REFERENCE:	Group #		3	
		K/A#			-K1.01
		Importance Rating	g	3.4	
Proposed Question: 92					
See Attached					
See Attached					
Proposed Answer: See atta	ached				W
Explanation (Why the distractors a	re incorrect):				
a./b./d. SW 1424 fails open on a	loss of air.				
T-1-1-1 Deference(a).				^ 4.	
Technical Reference(s): DB-OP-02528				ference At	
DB-OP-02528			•	ttach if not	
			pre	eviously pr	ovided)
Duomanad mafananana da la manada d	141:4. 1	•			
Proposed references to be provided	to applicants during exam	ination:			
None					
Learning Objective (As available):	ODS-SVS 304-07K				
	· · · · · · · · · · · · · · · · · · ·	B.4			
Question Source:	Bank #	<del></del>			
	Modified Bank #		ote chang	ges or attac	h parent)
	New	<u>X</u>			·
O (* 177 )		- 545 V			
Question History	Previous NRC Exam	<del> </del>			
	Previous Quiz / Test				
Question Cognitive Level:	Memory or Fundamen	tal Vnoveladaa			
Question Cognitive Level.	Comprehension or An		—		
	Complehension of All	alysis <u>A</u>	_		
10 CFR Part 55 Content:	55.417				
10 CFR 1 art 33 Coment.	55.41 <u>7</u> 55.43				
	JJ.7J				
Comments (Why is it an upper leve	d question).		-		
	•				
Must determine how SW 1424 will	fail and the effect on CCW	V temperature.			
		**			

Question: 92

The following plant conditions exist:

- The plant is at 100% power.
- CCW Pump 1 is in service.

A loss of instrument air to SW1424, CCW Heat Exchanger 1 Temperature Control Valve, has occurred. CCW temperature will \_\_\_\_\_\_.

a. rise due to SW1424 failing closed

b. NOT change due to SW1424 failing as is

c. lower due to SW1424 failing open

d. control at setpoint if the auto pushbutton is depressed

Answer:

		Level:	RO	SRO
		Tier#	3	
EXAMINATION OUTLINE	E CROSS-REFERENCE:	Group #		
		K/A#		2.1.03
	****	Importance Rating	3.0	
Proposed Question: 93				
See Attached				
_				
Proposed Answer: See a	ttached			
Explanation (Why the distractors	s are incorrect):			
		• •		
b./c./d. Needs CTRM SRO perm	mission, not Shift Manager po	ermission.		
Technical Reference(s):			Reference Atta	iched:
DB-OP-00100			(Attach if not	
			previously pro	vided)
Proposed references to be provid	ad to applicants during a			
	ed to applicants during exam	imation:		4
None				
		·		
Learning Objective (As available	e): OPS-GOP-502-01K			
Question Source:	Bank #			
2	Modified Bank #	(Note	changes or attach	parent)
	New	X	onanges of accept	parone
	· · · · · · · · · · · · · · · · · · ·			
Question History	Previous NRC Exam			
	Previous Quiz / Test			
Question Cognitive Level:	Mamary or Fundamer	stal V naveladas V		
Question Cognitive Level.	Comprehension or An	ntal Knowledge X		
	Comprehension of An		_	
10 CFR Part 55 Content:	55.4110			
	55.43			
			****	_
Comments (Why is it an upper le	vel question):			
	•			

Which one of the following sets of conditions is required to be met if a relief for a Reactor Operator is necessary any time other than normal shift turnover? The relief:

- 1. can have either an active SRO or RO license.
- 2. can be the Control Room SRO if another SRO assumes the Control Room SRO position
- 3. must have completed a shift turnover.
- 4. must receive permission from the Shift Manager.
- a. 1, 2, 3
- b. 2, 3, 4
- c. 1, 2, 4
- d. 1, 3, 4

#### Answer:

a.

		Level:	RO	SRO
		Tier#	3	
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #		
		K/A#	GEN 2.	1.17
		Importance Rating	3.5	
Proposed Question: 94				
See Attached				
Proposed Answer: See a	ttached			
Explanation (Why the distractors	s are incorrect):			
a./c. The alarm should be anno	ounced if unexpected.			
d. Not an entry condition for a	n AR			
d. Not all citily condition for a	ii Ab.			
Technical Reference(s):			Reference Attach	and:
DB-OP-00000			(Attach if not	ied:
22 01 00000			previously provi	ded)
			previously provi	ucu)
Proposed references to be provid	led to applicants during exam	nination:		
None				
Learning Objective (As available	e): OPS-GOP-501-04K			
Question Source:	Bank #			
Question Source.	Modified Bank #	(Note	changes or attach p	arent)
	New	X		
Question History	Previous NRC Exam			
	Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamer Comprehension or Ar	ntal Knowledge X		
10 CFR Part 55 Content:	55.41 <u>.10</u> 55.43			
Comments (Why is it an upper le	vel question):			

The following plant conditions exist:

- EDG 1 is tagged out for maintenance.
- Annunciator 1-6-D, C1/D1 CONTROL PWR TRBL, is locked in.

Which one of the following is the correct response if Annunciator 1-6-D reflashed?

- a. The annunciator DOES NOT have to be announced if it was previously locked in.
- b. The annunciator DOES have to be announced if the reflash was unexpected.
- c. The annunciator DOES NOT have to be announced since maintenance is being performed on EDG 1.
- d. The annunciator DOES have to be announced since it is an entry condition for Loss of AC Power Abnormal Procedure.

Answer:

DB-OP-03006 (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source: Bank # (Note changes or attach parent)  New  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge  Comprehension or Analysis			Level:		RO	SRO
Reference Attached   See attached			L			
Proposed Question: 95 See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect): a. Checked by DB-SC-03200. b. Checked by DB-OP-03007.  Technical Reference(s): DB-OP-03006  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-400-02K Question Source:  Bank # Modified Bank # Modified Bank # Modified Bank # New  X  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X Comprehension or Analysis  In OFFR Part 55 Content:  55.4110	EXAMINATION OUTLINE CR	<b>ROSS-REFERENCE:</b>				
Proposed Question: 95 See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect): a. Checked by DB-SC-03200. b. Checked by DB-SC-04187. c. Checked by DB-OP-03007.  Technical Reference(s): DB-OP-03006  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-400-02K  Question Source:  Bank #						72.2.12
See Attached  Proposed Answer: See attached  Explanation (Why the distractors are incorrect): a. Checked by DB-SC-03200. b. Checked by DB-SC-04187. c. Checked by DB-OP-03007.  Technical Reference(s):  DB-OP-03006  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-400-02K  Question Source:  Bank # Modified Bank # New X  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X Comprehension or Analysis  10 CFR Part 55 Content:  S5.41			Importance N	ating	3.0	
Explanation (Why the distractors are incorrect):  a. Checked by DB-SC-03200.  b. Checked by DB-SC-04187. c. Checked by DB-OP-03007.  Technical Reference(s):  DB-OP-03006  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source:  Bank # Modified Bank # New  Modified Bank # New  Modified Bank # New  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge Comprehension or Analysis  10 CFR Part 55 Content:  S5.41						
Explanation (Why the distractors are incorrect):  a. Checked by DB-SC-03200.  b. Checked by DB-SC-04187. c. Checked by DB-OP-03007.  Technical Reference(s):  DB-OP-03006  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source:  Bank #  Modified Bank #  New  Modified Bank #  New  Modified Bank #  New  Modified Bank #  New  Question History  Previous NRC Exam  Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge  Comprehension or Analysis  10 CFR Part 55 Content:  55.4110_	See Attached					
a. Checked by DB-SC-03200. b. Checked by DB-SC-04187. c. Checked by DB-OP-03007.  Technical Reference(s):  DB-OP-03006  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination: None  Learning Objective (As available): OPS-GOP-400-02K  Question Source:  Bank # Modified Bank # Modified Bank # New  X  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge Comprehension or Analysis  10 CFR Part 55 Content:  Seference Attached: (Attach if not previously provided)  Reference Attached: (Attached: (Attach of not previously provided)  Reference Attached: (Attached: (Attach of not previously provided)  Reference Attached: (Attach of not previously provided)	Proposed Answer: See attacl	hed				
b. Checked by DB-SC-04187. c. Checked by DB-OP-03007.  Technical Reference(s):  DB-OP-03006  Reference Attached:  (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source:  Bank #  Modified Bank #  Modified Bank #  New  X  Question History  Previous NRC Exam  Previous NRC Exam  Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge  Comprehension or Analysis  10 CFR Part 55 Content:  55.41	Explanation (Why the distractors are	e incorrect):	•			
C. Checked by DB-OP-03007.  Technical Reference(s):  DB-OP-03006  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source:  Bank # Modified Bank # Modified Bank # New X  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X Comprehension or Analysis  10 CFR Part 55 Content:  55.4110	a. Checked by DB-SC-03200.					
C. Checked by DB-OP-03007.  Technical Reference(s):  DB-OP-03006  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source:  Bank # Modified Bank # Modified Bank # New X  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X Comprehension or Analysis  10 CFR Part 55 Content:  55.4110	b. Checked by DB-SC-04187.					
Technical Reference(s):  DB-OP-03006  Reference Attached: (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source:  Bank # Modified Bank # New X  Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge Comprehension or Analysis  10 CFR Part 55 Content:  S5.41 10						
DB-OP-03006 (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source: Bank # (Note changes or attach parent)  New X  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge X  Comprehension or Analysis 10  10 CFR Part 55 Content: 55.41 10						
DB-OP-03006 (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source: Bank # (Note changes or attach parent)  New X  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge X  Comprehension or Analysis 10  10 CFR Part 55 Content: 55.41 10						
DB-OP-03006 (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source: Bank # (Note changes or attach parent)  New X  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge X Comprehension or Analysis  10 CFR Part 55 Content: 55.41 10						
DB-OP-03006 (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source: Bank # (Note changes or attach parent)  New X  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge X  Comprehension or Analysis 10  10 CFR Part 55 Content: 55.41 10						
DB-OP-03006 (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source: Bank # (Note changes or attach parent)  New X  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge X  Comprehension or Analysis 10  10 CFR Part 55 Content: 55.41 10						
DB-OP-03006 (Attach if not previously provided)  Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source: Bank # (Note changes or attach parent)  New X  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental Knowledge X Comprehension or Analysis  10 CFR Part 55 Content: 55.41 10	Tachnical Reference(s)				Deference Att	باد ما ،
Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source: Bank # (Note changes or attach parent)  New X  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental KnowledgeX Comprehension or Analysis  10 CFR Part 55 Content: 55.4110						
Proposed references to be provided to applicants during examination:  None  Learning Objective (As available): OPS-GOP-400-02K  Question Source: Bank # (Note changes or attach parent)  New (Note changes or attach parent)  Question History Previous NRC Exam  Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental KnowledgeX  Comprehension or Analysis  10 CFR Part 55 Content: 55.41					•	
Learning Objective (As available): OPS-GOP-400-02K  Question Source: Bank # (Note changes or attach parent)  New X					F	***** ,
Question Source:  Bank # Modified Bank # New  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental Knowledge X Comprehension or Analysis  10 CFR Part 55 Content:  Sank # Modified Bank # Now X  (Note changes or attach parent) X  Changes or attach parent) X  10 CFR Part 55 Content:	Learning Objective (As available):	OPS-GOP-400-02K				
Modified Bank # (Note changes or attach parent)  Rew X  Question History Previous NRC Exam Previous Quiz / Test  Question Cognitive Level: Memory or Fundamental KnowledgeX Comprehension or Analysis  10 CFR Part 55 Content: 55.4110						<del></del>
Question History  Previous NRC Exam Previous Quiz / Test  Question Cognitive Level:  Memory or Fundamental KnowledgeX Comprehension or Analysis  10 CFR Part 55 Content:  55.4110		Modified Bank #		(Note ch	anges or attacl	h parent)
Question Cognitive Level:  Memory or Fundamental Knowledge X Comprehension or Analysis  10 CFR Part 55 Content:  55.41		New	<u>X</u>			
Question Cognitive Level:  Memory or Fundamental Knowledge X Comprehension or Analysis  10 CFR Part 55 Content:  55.41	Question History	Previous NRC Exam				
Comprehension or Analysis  10 CFR Part 55 Content: 55.41	•					
Comprehension or Analysis  10 CFR Part 55 Content: 55.41	Question Cognitive Level:	Memory or Fundame	ntal Knowledge	Y		
10 CFR Part 55 Content: 55.41 <u>.10</u>	Question Cognitive Bovoi.					
33.43 <u>.4</u>	10 CFR Part 55 Content:					
		33.43				
Comments (Why is it an upper level question):	•					

Performance of DB-OP-03006, Miscellaneous Instrument Shift Checks, ensures Technical Specification requirement for \_\_\_\_\_\_ are met.

a. RE 4598AA and BA, Station Vent Monitors

b. RE 1998, Failed Fuel Detector

c. Meteorological Instrumentation

d. Shutdown Margin

Answer:

d.

	Level:	RO	SRO
	Tier#	3	
<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Group #		
	K/A#	GEN	2.2.27
	Importance Rating	2.6	
Proposed Question: 96			
•			
See Attached			
Proposed Answer: See attached			
Explanation (Why the distractors are incorrect):			
b./d. AFHB cannot pick up fuel from the upenders.			
c. Line shows using the west transfer mechanism.			
Technical Reference(s): DB-NE-06101	- 11.	Reference Atta (Attach if not	
		previously pro	vided)
None  Learning Objective (As available): OPS-FHT-102-01K			
Question Source: Bank # OLC-4554 Modified Bank # New	X (Note o	changes or attach	parent)
Question History Previous NRC Exam Previous Quiz / Test			
Question Cognitive Level: Memory or Fundame Comprehension or A			
10 CFR Part 55 Content: 55.41 <u>.10</u> 55.43 <u>.7</u>			
Comments (Why is it an upper level question):			
Must analyze movement sheet to determine the correct seque	ence.		

## **ORIGINAL**

Question: 96

A fuel assembly with a control rod in the spent fuel pool location AO3 is to be moved to the core at location HO5 using the east basket. According to DB-NE-06101, Fuel/Control Component Shuffle, the FH Director's Fuel Movement Sequence Sheet should show which one of the following?

	Moved By	Fuel ID	Control Comp ID	Initial <u>Location</u>	Final <u>Location</u>
a.	FSHB	NJ02QN	BAFI	E	H05
b.	MFHB	NJ01DV	C31A	E	H05
c.	SFCC	NJ039B	C35B	W	H05
d.	AFHB	NJ02QH	BAFG	W	H05

Answer:

A fuel assembly with a control rod in the spent fuel pool location AO3 is to be moved to the core at location HO5 using the east basket.

The FH Director's Fuel Movement Sequence Sheet should show which one of the following?

	Line No.	Moved By	Fuel ID	Control Comp ID	Initial Location	Final <u>Location</u>
a.	1	FSHB	NJ07LX	C2TU	A03	E
	2	MFHB	NJ07LX	C2TU	E	H05
b.	1	FSHB	NJ06KT	A06Q	A03	W
	2	AFHB	NJ06KT	A06Q	W	H05
c.	1	FSHB	NJ07LX	C2TU	A03	W
	2	MFHB	NJ06KT	A06Q	W	H05
d.	1	FSHB	NJ06KT	A06Q	A03	E
	2	AFHB	NJ07LX	C2TU	E	H05

Answer:

a.

	· · · · · · · · · · · · · · · · · · ·	Level:	RO	SRO
		Tier #	3	
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #		
		K/A#	GEN	2.3.1
		Importance Rating	2.6	
Proposed Question: 97				
See Attached				
Proposed Answer: See a	ttached			
Troposed Answer. See a				
Explanation (Why the distractors	s are incorrect):			
a. Skin is 50 R/year.				
c. Lens is 15 R/year.				
d. TEDE is 5 R/year.				
Technical Reference(s):	. ,		Reference Att	ached:
DB-HP-01201			(Attach if not	
			previously pro	vided)
			1	,
Lagraina Objective (Ac available	OPC COD 511 01V			
Learning Objective (As available				
Question Source:	Bank #	<u>X</u>		
OLC-5238	Modified Bank # New	(Note	changes or attach	parent)
	INCM			
Question History	Previous NRC Exam	X		
1996 Exam	Previous Quiz / Test			
Question Cognitive Level:	Memory or Fundamer	ntal Knowledge X		
Question Cognitive Level.	Comprehension or An			
			•	
10 CFR Part 55 Content:	55.4112			
	55.43			
C	141>			
Comments (Why is it an upper le	vel question):			
	,			

Which one of the following combinations represents the regulatory exposure limits of 10 CFR 20?

a. - 5.0 R/year TEDE

- 15.0 R/year to the SKIN

- 15.0 R/year to the LENS of the eye

b. - 5.0 R/year TEDE

- 15.0 R/year to the LENS of the eye

- 50.0 R/year to EXTREMITIES

c. - 5.0 R/year to the SKIN

- 50.0 R/year to EXTREMITIES

- 50.0 R/year to the LENS of the eye

d. - 15.0 R/year TEDE

- 15.0 R/year to the EXTREMITIES

- 50.0 R/year to the SKIN

Answer:

	100 200			
	Level:	RO	SRO	
EXAMINATION OF THE CHOICE PROPERTY.	Tier#	3		
EXAMINATION OUTLINE CROSS-REFERENCE:	Group #			
	K/A#		2.3.10	
	Importance Rating	2.9		
Proposed Question: 98				
See Attached				
Proposed Answer: See attached				
Explanation (Why the distractors are incorrect):				
b. ECCS equipment will be monitored remotely.				
c. Communications can be done with Gai-Tronics.				
d. AVVs will not be needed during a LBLOCA.				
Technical Reference(s): DB-OP-02000	Reference Attached:(Attach if not previously provided)			
None  Learning Objective (As available): OPS-GOP-309-04K		- V		
Question Source:  Bank #  Modified Bank #  New	(Note of	changes or attach	n parent)	
Question History Previous NRC Exam Previous Quiz / Test				
Question Cognitive Level: Memory or Fundamer Comprehension or An	ntal Knowledge X			
10 CFR Part 55 Content: 55.41 .12 .55.43 .4				
Comments (Why is it an upper level question):				
- · ·				

A large break LOCA has occurred.

The route for closing the breakers for DH7A, DH7B, DH9A, and DH9B is required in order to

- a. minimize the time spent in extremely high radiation levels
- b. verify the ECCS equipment is operating properly
- c. ensure radio contact can be maintained with the Control Room
- d. complete the route near the AVVs' remote operators in the event manual control is needed

Answer:

a.

		Level:	RO	SRO		
		Tier #	3			
EXAMINATION OUTLINE	CROSS-REFERENCE:	Group #				
		K/A#		2.3.11		
	*****	Importance Rating	2.7			
Proposed Question: 99						
See Attached						
Proposed Answer: See at	ttached		***			
Explanation (Why the distractors	ŕ					
a. Required for inoperable RE						
c. Required for inoperable RE	S.					
d. Required for inoperable RE	s.					
Technical Reference(s):			Reference Att	ached:		
DB-OP-03011		(Attach if not				
			previously pro	ovided)		
				·		
Proposed references to be provide	ad to applicants during arran	-ination.		<del></del>		
	ed to applicants during exam	illiation.				
None						
Learning Objective (As available	OPS-SYS-111-09K					
Question Source:	Bank #			<del></del>		
Question bource.	Modified Bank #	Modified Bank # (Note changes or attach page)		n parent)		
	New			- p		
O	D					
Question History	Previous NRC Exam Previous Quiz / Test					
- Washington	Frevious Quiz/ Test	<del></del>				
Question Cognitive Level:		ntal Knowledge <u>X</u>	<b>_</b>			
	Comprehension or Ar	nalysis	<del></del>			
10 CFR Part 55 Content:	55.41 12					
10 CFR Part 33 Content.	55.41 <u>.13</u> 55.43 <u>.2</u>					
Comments (Why is it an upper level)	vel question):					

The following plant conditions exist:

- A release of the MWMT started at 0930.
- The release will be completed at 1115.
- Computer Point F201, Collection Box Out Flow to Lake, becomes inoperable at 1015.

The MWMT release can continue provided .

- a. at least two independent verifications of the discharge valving lineup are performed
- b. the dilution flow is manually calculated every 30 minutes
- c. at least two independent verifications of the release rate calculations are done
- d. grab samples are collected and analyzed every two hours

Answer:

		Level:		RO	SRO
EVANGNATION OF THE IND	CDAGG DEPENDANCE	Tier #		2	
EXAMINATION OUTLINE CROSS-REFERENCE:		Group #		3	
		K/A#	7		A3.01
		Importance Ra	ting	3.9	
Proposed Question: 100					
See Attached					
Proposed Answer: See att	ashad		<del></del>	-	
Explanation (Why the distractors					
a. Supply fan trips when the ex	haust fan trips.				
b. Purge valves are controlled f	rom limit switches.				
c. Filters are not affected by int	erlocks.				
Technical Reference(s):				eference Atta	ached:
DB-OP-06503		(Attach if not			
			pı	reviously pro	vided)
	~				
Proposed references to be provided	d to applicants during exam	ination:			
None	**				
None					
Learning Objective (As available):	OPS-SYS-109-07K				
Question Source:	Bank #	X			
OLC-4105	Modified Bank #		(Note changes or attach parent)		
	New				
Question History	Previous NRC Exam	X		******	
1997 Exam	Previous Quiz / Test				
Question Cognitive Level:	Memory or Fundamen Comprehension or An		X		
10 CFR Part 55 Content:	55.41 <u>.7</u> 55.43				
Comments (Why is it an upper leve	el question):				
Comments (why is it air upper leve	i question).				

Which one of the following is the reason interlocks are provided for the Containment Purge System?

- a. Start the supply fan when the exhaust fan trips.
- b. Prevent damage to the containment purge valves.
- c. Prevent reverse flow through the containment purge exhaust filters.
- d. Prevent simultaneous purging of the containment and penetration rooms.

Answer:

d.