

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	002-K3.03	
	Importance Rating		4.6
Proposed Question: See Attached			
Proposed Answer:        See attached			
Explanation (Why the distractors are incorrect): a. Hydrogen generation will not take place at this CTMT temperature. c. This will have no effect on CTMT vessel. d. This will not block CTMT spray nozzles.			
Technical Reference(s):    DB-OP-01200		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):   OPS-SYS-306-02K			
Question Source:	Bank # _____ Modified Bank # _____ New <u>  X  </u>	(Note changes or attach parent)	
Question History	Previous NRC Exam _____ Previous Quiz / Test _____		
Question Cognitive Level:	Memory or Fundamental Knowledge <u>  X  </u> Comprehension or Analysis _____		
10 CFR Part 55 Content:	55.41 <u>  X  </u> 55.43 _____		
Comments (Why is it an upper level question):			

Question:

The following plant conditions exist:

- Reactor power is 100%.
- A 3 gpm RCS leak has been determined to be identified leakage.

Which one of the following is the most significant concern to continued plant operation due to boron precipitation?

- a. Hydrogen generation due to corrosion.
- b. CTMT air temperature due to CAC blockage.
- c. CTMT vessel wall thinning due to corrosion.
- d. Blockage of CTMT spray nozzles.

Answer:

- b.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	006-K3.03	
	Importance Rating		4.4
Proposed Question: See Attached			
Proposed Answer:            See attached			
Explanation (Why the distractors are incorrect): USAR analysis for LOCA assumes failure of 1 of 2 ECCS loops and still stays within design criteria.			
Technical Reference(s):    USAR, Chapter 15		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):   OPS-SYS-108-32K			
Question Source:	Bank # _____ Modified Bank # _____ New <u>  X  </u>	(Note changes or attach parent)	
Question History	Previous NRC Exam _____ Previous Quiz / Test _____		
Question Cognitive Level:	Memory or Fundamental Knowledge <u>  X  </u> Comprehension or Analysis _____		
10 CFR Part 55 Content:	55.41 _____ 55.43 <u>  X  </u>		
Comments (Why is it an upper level question): SRO question due to CTMT design bases.			

Question:

The following plant conditions exist:

- A large break LOCA has occurred.
- LPI pump 1 has been diagnosed with a sheared shaft.

Which one of the following describes the effect on CTMT?

- a. CTMT pressure will exceed the design bases pressure due to the loss of cooling flow.
- b. CTMT pressure will stay within its design bases pressure, even with the loss of one LPI pump.
- c. CTMT temperature will exceed its design bases temperature due to loss of the one LPI pump.
- d. CTMT temperature will stay within the design bases temperature if CTMT Purge system is started.

Answer:

- b.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	010-K6.03	
	Importance Rating		3.6
Proposed Question: See Attached			
Proposed Answer:            See attached			
Explanation (Why the distractors are incorrect): a.    PORV not leaking. b.    PORV not leaking. c.    Stopping RCP 1-1 has a minimal effect on spray flow.			
Technical Reference(s):    DB-OP-02513.03		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):    OPS-GOP-113-05K			
Question Source: OLC-3576	Bank # Modified Bank # New	_____ <u>  X  </u> _____	(Note changes or attach parent)
Question History	Previous NRC Exam Previous Quiz / Test	_____ _____	
Question Cognitive Level:	Memory or Fundamental Knowledge Comprehension or Analysis	_____ <u>  X  </u>	
10 CFR Part 55 Content:	55.41 <u>  X  </u> 55.43    _____		
Comments (Why is it an upper level question):			

Question:

The following plant conditions exist:

- Reactor power 68% steady
- RCS pressure 2100 psig decreasing slowly
- All pwr. heaters On
- 480 MCC E11A Deenergized for maintenance (supply to RC-10, Spray Block Valve)
- Pwr Spray Valve RC 2 Indicates open, in manual and held closed for 45 seconds
- Pwr PORV outlet temp. 158°F and steady
- RCS water inventory 0.15 gpm leakage
- RC PRZR PRESS RLF out temp. 158°F and steady

Which one of the following will most quickly decrease the pressure loss without an RPS actuation?

- a. Close RC-10 (Spray Line Isolation) at Control Room Switch HIS-RC-10.
- b. Close RC-10 (Spray Line Isolation) locally.
- c. Stop RCP 2-2 after reducing reactor power to less than 50%.
- d. Stop RCP 2-2 immediately.

Answer:

- d.

Question:

The following plant conditions exist:

- Reactor power is at 68% steady
- RCS pressure is 2100 psig and decreasing slowly
- All Pressurizer heaters are on
- 480 MCC E11A has been deenergized for maintenance (supply to RC 10, Spray Block Valve).
- RC 2, Pzr Spray Valve, has no closed indication even though the control switch was placed in the closed position.
- Pzr PORV outlet temperature indicates 158°F and steady
- The latest RCS water inventory indicates 0.15 gpm total RCS leakage
- RC PRZR PRESS RLF out temperature indicates 158°F and steady

Which one of the following will have the greatest effect on slowing the RCS pressure decrease?

- a. Close RC 11, PORV Block
- b. Close RC 2A, PORV
- c. Stop RCP 1-2
- d. Stop RCP 2-2

Answer:

d.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	011-A1.01	
	Importance Rating		3.6
Proposed Question: See Attached			
Proposed Answer:            See attached			
Explanation (Why the distractors are incorrect): a. Valve does not go full open. b. Only goes to 40% at 2205 psig. c. Only goes to 40%.			
Technical Reference(s):    Dwg. OS-001A, Sh. 4		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):   OPS-SYS-104-05K			
Question Source: OLC-6486	Bank # Modified Bank # New	<u>  X  </u> _____ _____	(Note changes or attach parent)
Question History	Previous NRC Exam Previous Quiz / Test	_____ _____	
Question Cognitive Level:	Memory or Fundamental Knowledge Comprehension or Analysis	_____ <u>  X  </u>	
10 CFR Part 55 Content:	55.41 <u>  X  </u> 55.43    _____		
Comments (Why is it an upper level question): Examinee must be able to determine valve response due to pressure changes.			



Question:

The following plant conditions exist:

- RC System pressure is 2190 psig.
- The operator has taken RC 2, Pressurizer Spray Valve, control to open and then to auto with RC 2 at 25% open.

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

- a. RC 2 will go fully open.
- b. RC 2 will open to the 40% open position.
- c. RC 2 will remain at 25% open until pressure increases to 2205 psig, at which time it will open fully.
- d. RC 2 will remain at 25% open until pressure increases to 2205 psig, at which time it will open to 40% open.

Answer:

- d.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	012-A4.04	
	Importance Rating		3.3
Proposed Question: See Attached			
Proposed Answer:        See attached			
Explanation (Why the distractors are incorrect): All except high temperature are bypassed in shutdown bypass.			
Technical Reference(s):    DB-OP-06403.01, C-5, Section 3.3		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available): OPS-SYS-504-10K			
Question Source: OLC-6879	Bank # Modified Bank # New	_____ <u>  X  </u> _____	(Note changes or attach parent)
Question History	Previous NRC Exam Previous Quiz / Test	_____ _____	
Question Cognitive Level:	Memory or Fundamental Knowledge Comprehension or Analysis	<u>  X  </u> _____	
10 CFR Part 55 Content:	55.41 55.43	<u>  X  </u> _____	
Comments (Why is it an upper level question):			

Question:

Given the following conditions:

- The plant is shutdown with cooldown in progress.
- The Reactor Protection System (RPS) has just been placed in "Shutdown Bypass".

Which of the following RPS trips is available for protection?

- a. High RCS temperature
- b. Low RCS pressure
- c. Power to pumps
- d. Flux/ $\Delta$  flux/flow

Answer:

- a.

Question:

After placing the RPS in shutdown bypass, which of the following RPS trips is available for protection?

- a. High RCS temperature
- b. Low RCS pressure
- c. Power to pumps
- d. RCS variable pressure/temperature

Answer:

- a.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	016-GEN-2.1.31	
	Importance Rating		3.9
Proposed Question: See Attached			
Proposed Answer:            See attached			
Explanation (Why the distractors are incorrect): ICS will always select highest flow loop for Tave control when the lower one decreases by 10 mpph.			
Technical Reference(s):    DB-OP-02515 DB-OP-06407		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):   OPS-SYS-502-02K			
Question Source: OLC-6622	Bank # <u>  X  </u> Modified Bank # <u>          </u> New <u>          </u>	(Note changes or attach parent)	
Question History	Previous NRC Exam <u>          </u> Previous Quiz / Test <u>          </u>		
Question Cognitive Level:	Memory or Fundamental Knowledge <u>          </u> Comprehension or Analysis <u>  X  </u>		
10 CFR Part 55 Content:	55.41 <u>  X  </u> 55.43 <u>          </u>		
Comments (Why is it an upper level question): Examinee must determine how ICS Tave control auto selects the correct instrument.			

Question:

ICS will automatically select the Tave signal from the RCS loop with the highest flow rate. This occurs when the RCS loop with the \_\_\_\_\_.

- a. Highest flowrate increases to greater than 72 mpph, and the operator CANNOT manually override the transfer
- b. Highest flowrate increases to greater than 72 mpph, and the operator CAN manually override the transfer
- c. Lowest flowrate decreases to less than 63 mpph, and the operator CANNOT manually override the transfer
- d. Lowest flowrate decreases to less than 63 mpph, and the operator CAN manually override the transfer

Answer:

- c.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	028-A4.03	
	Importance Rating		3.3
Proposed Question: See Attached			
Proposed Answer:        See attached			
Explanation (Why the distractors are incorrect): Emergency personnel hatch area is not a sample area.			
Technical Reference(s):    DB-OP-06417.01, C-3, Section 4.1		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):   OPS-SYS-108-09K			
Question Source:	Bank # _____ Modified Bank # _____ New <u>  X  </u>	(Note changes or attach parent)	
Question History	Previous NRC Exam _____ Previous Quiz / Test _____		
Question Cognitive Level:	Memory or Fundamental Knowledge <u>  X  </u> Comprehension or Analysis _____		
10 CFR Part 55 Content:	55.41 <u>  X  </u> 55.43    _____		
Comments (Why is it an upper level question):			

Question:

The CTMT hydrogen analyzers can be lined up to four different sample points within CTMT.

Which one of the following is NOT a sample point?

- a. Top of Steam Generator 1 secondary shield wall
- b. CTMT personnel hatch area
- c. Top of CTMT dome
- d. Emergency personnel hatch area

Answer:

- d.



<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	029-A2.03	
	Importance Rating		3.1
Proposed Question: See Attached			
Proposed Answer:        See attached			
Explanation (Why the distractors are incorrect): DB-OP-06503 directs the starting of the EVS fans and alignment to the negative pressure area. EVS will not automatically start on CTMT Purge high radiation.			
Technical Reference(s):    DB-OP-06503.01, C-2, Section 5.1		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):   OPS-SYS-109-07K			
Question Source: OLC-4655	Bank # Modified Bank # New	_____ <u>  X  </u> _____	(Note changes or attach parent)
Question History	Previous NRC Exam Previous Quiz / Test	_____ _____	
Question Cognitive Level:	Memory or Fundamental Knowledge Comprehension or Analysis	_____ <u>  X  </u>	
10 CFR Part 55 Content:	55.41 <u>  X  </u> 55.43    _____		
Comments (Why is it an upper level question): The examinee must determine that the emergency section of DB-OP-06503 applies to this event.			

Question:

The following plant conditions exist:

- Plant is in Mode 5.
- Containment Purge System is in operation on CTMT.

RE 5052C, CTMT Purge System RCM, has alarmed high.

Which one of the following actions must be taken?

- a. Stop the CTMT purge exhaust and supply fans.
- b. Close the CTMT isolation dampers for the CTMT Purge System.
- c. Start one of the Emergency Ventilation System fans.
- d. Open the CTMT Purge System to EVS damper.

Answer:

- c.

Question:

The following plant conditions exist:

- Plant is in Mode 6.
- Containment Purge System is in operation on CTMT.
- Fuel handling operations in progress in the refueling canal area.

RE 5052C, CTMT Purge System RCM, has alarmed high.

Which one of the following actions must be taken?

- a. Manually align the Emergency Ventilation System to the fuel handling area.
- b. Verify CTMT Purge System automatically realigns to the negative pressure area.
- c. Manually start both of the Emergency Ventilation System fans.
- d. Verify both Emergency Ventilation System fans automatically start.

Answer:

c.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	033-A3.02	
	Importance Rating		3.1
Proposed Question: See Attached			
Proposed Answer:        See attached			
Explanation (Why the distractors are incorrect): b.    Evacuation of the RRA is an unnecessary action. c.    Fuel Handling Director is not responsible for evacuating CTMT.			
Technical Reference(s):    DB-OP-02530.03, Section 4.1		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):    OPS-GOP-130-03K			
Question Source:	Bank # _____ Modified Bank # _____ New <u>  X  </u>	(Note changes or attach parent)	
Question History	Previous NRC Exam _____ Previous Quiz / Test _____		
Question Cognitive Level:	Memory or Fundamental Knowledge _____ Comprehension or Analysis <u>  X  </u>		
10 CFR Part 55 Content:	55.41 _____ 55.43 <u>  X  </u>		
Comments (Why is it an upper level question): The examinee will have to determine the appropriate procedure to mitigate the event. This question is SRO level due to performing the SRO actions of the appropriate procedure.			

Question:

Refueling operations are in progress.

The following plant conditions exist:

- Fuel handling personnel report the main fuel handling bridge just ran into a reactor vessel guide stud with a spent fuel assembly in the mast.
- Fuel Handling Director reports bubbles are rising around the mast of the main fuel handling bridge.
- Fuel handling personnel on the main fuel handling bridge report their personal electronic dosimeters are alarming and have evacuated the bridge.

Which one of the following is the next operator action to be taken?

- a. Sound the Containment Evacuation Alarm and make an announcement to evacuate containment.
- b. Sound the Containment Evacuation Alarm and make an announcement to evacuate the Radiologically Restricted Area.
- c. Inform the Fuel Handling Director to evacuate containment and manually trip the CTMT Purge System exhaust radiation monitors.
- d. Inform the Fuel Handling Director to evacuate the refueling canal area and start both trains of Control Room Emergency Ventilation System.

Answer:

- a.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	035-A3.01	
	Importance Rating		3.9
Proposed Question: See Attached			
Proposed Answer:            See attached			
Explanation (Why the distractors are incorrect): a. No transfer will occur. c. No transfer will occur. d. No transfer will occur.			
Technical Reference(s):    DB-OP-06407.02, Attachment 1		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):   OPS-SYS-507-03K			
Question Source: OLC-6612	Bank # Modified Bank # New	<u>  X  </u> _____ _____	(Note changes or attach parent)
Question History	Previous NRC Exam Previous Quiz / Test	_____ _____	
Question Cognitive Level:	Memory or Fundamental Knowledge Comprehension or Analysis	_____ <u>  X  </u>	
10 CFR Part 55 Content:	55.41 55.43	<u>  X  </u> _____	
Comments (Why is it an upper level question): The examinee will have to diagnose that the startup level for the present power level is within 3% of the mid-scale valve.			

Question:

The selected OTSG 1 startup level instrument rapidly fails to mid-scale with the plant at 95% power.

Which one of the following describes how the effect on the plant would be different with SASS in automatic versus the effect with SASS unable to transfer?

- a.     -     In automatic, SASS would cause a transfer to the non-selected instrument.  
          -     The same button would stay depressed; however, both would be illuminated.
- b.     -     There would be no difference because even in automatic, OTSG 1 startup level would not transfer due to the difference between actual and mid-scale being less than 3% at this power level.
- c.     -     In automatic, SASS would cause a transfer to the non-selected instrument.  
          -     The previously non-selected instrument's pushbutton would become depressed and both buttons would be illuminated.
- d.     -     There would be no difference since in either case an automatic transfer to the non-selected instrument would occur.

Answer:

b.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	039-K5.05	
	Importance Rating		3.1
Proposed Question: See Attached			
Proposed Answer:            See attached			
Explanation (Why the distractors are incorrect): a. A head bubble will not form if RCPs are operating. b. Pressurizer level is manually controlled during a cooldown. d. Two makeup pumps will maintain RCS inventory.			
Technical Reference(s):    Tech. Spec. Bases 3/4.4.9		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):   OPS-SYS-103-09K			
Question Source:	Bank # _____ Modified Bank # _____ New <u>  X  </u>	(Note changes or attach parent)	
Question History	Previous NRC Exam _____ Previous Quiz / Test _____		
Question Cognitive Level:	Memory or Fundamental Knowledge <u>  X  </u> Comprehension or Analysis _____		
10 CFR Part 55 Content:	55.41 _____ 55.43 <u>  X  </u>		
Comments (Why is it an upper level question): Tech. Spec. Bases question			



Question:

The basis for the RCS cooldown limits in Tech. Specs. is to prevent:

- a. Reactor head steam bubble formation
- b. Excessive pressurizer outsurge into the RCS
- c. Non-ductile failure of an RCS boundary
- d. Exceeding Makeup System capacity through a single injection line

Answer:

- c.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	055-K4.02	
	Importance Rating		2.6
Proposed Question: See Attached			
Proposed Answer:        See attached			
Explanation (Why the distractors are incorrect):  When E2 and F2 are deenergized RE1003A and RE1003B are deenergized as well. When E2 and F2 are reenergized, the RCMs sample pump will remain off, thus Alarm 9-4-A is due to low flow.			
Technical Reference(s):    Dwg. OS-015		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):   OPS-SYS-508-04K			
Question Source:	Bank # _____ Modified Bank # _____ New <u>  X  </u>	(Note changes or attach parent)	
Question History	Previous NRC Exam _____ Previous Quiz / Test _____		
Question Cognitive Level:	Memory or Fundamental Knowledge _____ Comprehension or Analysis <u>  X  </u>		
10 CFR Part 55 Content:	55.41 <u>  X  </u> 55.43    _____		
Comments (Why is it an upper level question):  The examinee will have to diagnose the effect of momentarily deenergizing E2 and F2 has on RE1003A and RE1003B.			

Question:

The following plant conditions exist:

- An ATWS has occurred.
- E2 and F2 were deenergized and then reenergized to mitigate the event.
- Pressurizer level is 100 inches and steady.

At the completions of Supplemental Actions of DB-OP-02000, you notice that Annunciator Alarm 9-4-A, VAC SYS DISCH RAD HI, in alarm.

Your actions based on this alarm would be to:

- a. Go to SG Tube Leak Procedure, DB-OP-02531.
- b. Go to Section 8 of DB-OP-02000, SG Tube Rupture.
- c. Have the Vacuum System vent realigned to the filter system.
- d. No action is required.

Answer:

- d.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	062-A4.01	
	Importance Rating		3.1
Proposed Question: See Attached			
Proposed Answer:        See attached			
Explanation (Why the distractors are incorrect): a.    ACB 34563 will open to isolate ACB 34564 from ACB 34560. b./c. ACB 34561 will open to isolate ACB 34562 from ACB 34560.			
Technical Reference(s):    Dwg. OS-056		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):    OPS-SYS-403-06K			
Question Source: OLC-7405	Bank # Modified Bank # New	<u>  X  </u> _____ _____	(Note changes or attach parent)
Question History	Previous NRC Exam Previous Quiz / Test	_____ _____	
Question Cognitive Level:	Memory or Fundamental Knowledge Comprehension or Analysis	<u>  X  </u> _____	
10 CFR Part 55 Content:	55.41 <u>  X  </u> 55.43    _____		
Comments (Why is it an upper level question):			

Question:

If ACB 34560 received a trip signal but failed to open, which one of the following sets of breakers would open?

- a. ACB 34561 and ACB 34564
- b. ACB 34562 and ACB 34563
- c. ACB 34562 and ACB 34564
- d. ACB 34561 and ACB 34563

Answer:

- d.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	064-K6.07	
	Importance Rating		2.9
Proposed Question: See Attached			
Proposed Answer:            See attached			
Explanation (Why the distractors are incorrect): Each EDG requires only one air receiver at normal pressure to be operable.			
Technical Reference(s):    DB-OP-06316. 02, C-1, Attachment 13 <div style="float: right;">           Reference Attached: _____            (Attach if not            previously provided)         </div>			
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):   OPS-SYS-406-06K			
Question Source:	Bank # _____ Modified Bank # _____ New <u>  X  </u>	(Note changes or attach parent)	
Question History	Previous NRC Exam _____ Previous Quiz / Test _____		
Question Cognitive Level:	Memory or Fundamental Knowledge <u>  X  </u> Comprehension or Analysis _____		
10 CFR Part 55 Content:	55.41 _____ 55.43 <u>  X  </u>		
Comments (Why is it an upper level question): SRO due to determining EDG operability.			

Question:

Emergency Diesel Generator (EDG) Air Compressor Receiver 1-2-1 has been isolated and depressurized. The result of this action is:

- a. Both EDGs are inoperable.
- b. EDG 1 is inoperable, EDG 2 is operable.
- c. EDG 1 is operable, EDG 2 is inoperable.
- d. Both EDGs are operable.

Answer:

- d.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	075-K1.01	
	Importance Rating		2.5
Proposed Question: See Attached			
Proposed Answer:        See attached			
Explanation (Why the distractors are incorrect):  DB-OP-02511 states that a non-seismic line rupture could result in a loss of ultimate heat sink. The flooding could be from SW or circ. Water.			
Technical Reference(s):    DB-OP-02511.01, C-4, Note 4.4.1.f		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):   OPS-GOP-111-05K			
Question Source: OLC-4932	Bank # <u>  X  </u> Modified Bank # <u>          </u> New <u>          </u>	(Note changes or attach parent)	
Question History	Previous NRC Exam <u>  X  </u> Previous Quiz / Test <u>          </u>		
Question Cognitive Level:	Memory or Fundamental Knowledge <u>  X  </u> Comprehension or Analysis <u>          </u>		
10 CFR Part 55 Content:	55.41 <u>  X  </u> 55.43 <u>          </u>		
Comments (Why is it an upper level question):			



Question:

The purpose of the Service Water Non-Seismic Line Rupture section of DB-OP-02511, Loss of Service Water Pumps/System is to prevent a loss of \_\_\_\_\_.

- a. cooling tower makeup
- b. ultimate heat sink inventory
- c. auxiliary feedwater alternate suction source
- d. turbine plant cooling water cooling

Answer:

- b.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	086-A2.02	
	Importance Rating		3.3
Proposed Question: See Attached			
Proposed Answer:            See attached			
Explanation (Why the distractors are incorrect): a. DB-FP-00009 directs the use of the FHAR. c. USAR is too general of a document to be used for this event. d. DB-FP-00005 is an administrative procedure for Fire Brigade.			
Technical Reference(s):    DB-FP-00009.05, C-11, Step 6.1.6		Reference Attached: <u>  X  </u> (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):			
Question Source:	Bank # _____ Modified Bank # _____ New <u>     X     </u>	(Note changes or attach parent)	
Question History	Previous NRC Exam _____ Previous Quiz / Test _____		
Question Cognitive Level:	Memory or Fundamental Knowledge <u>  X  </u> Comprehension or Analysis _____		
10 CFR Part 55 Content:	55.41 _____ 55.43 <u>     X     </u>		
Comments (Why is it an upper level question): This question is SRO level due to addressing conditions of license.			

Question:

The following alarms are received in the Control Room:

- 9-2-G FIRE WTR ELEC PMP ON
- 9-3-G FIRE WTR DSL PMP ON
- 9-5-G FIRE WTR TRB BLDG PRESS LO
- 9-6-G FIRE WTR STRG TK LVL

An investigation reveals excavation work in the northeast corner of the site has ruptured the underground loop. Isolation of the leak has resulted in the isolations of two hose houses and one hydrant.

Which one of the following documents is the proper document to use in this situation after the leak is isolated?

- a. FHAR
- b. DB-FP-00009, Fire Protection Impairment and Fire Watch
- c. USAR
- d. DB-FP-00005, Fire Brigade

Answer:

- b.

<b>EXAMINATION OUTLINE CROSS-REFERENCE:</b>	Level:	RO	SRO
	Tier #		2
	Group #		2
	K/A#	103-K1.02	
	Importance Rating		4.1
Proposed Question: See Attached			
Proposed Answer:            See attached			
Explanation (Why the distractors are incorrect): a. Four bolts are allowed to hold the equipment hatch. c. One door being closed on the emergency hatch is adequate. d. Both doors of CTMT personnel hatch are allowed open and hoses running through them if someone is in attendance.			
Technical Reference(s):    DB-PF-03270.00, C-4		Reference Attached: _____ (Attach if not previously provided)	
Proposed references to be provided to applicants during examination:			
Learning Objective (As available):   OPS-GOP-439-03K			
Question Source:	Bank # _____ Modified Bank # _____ New <u>  X  </u>	(Note changes or attach parent)	
Question History	Previous NRC Exam _____ Previous Quiz / Test _____		
Question Cognitive Level:	Memory or Fundamental Knowledge _____ Comprehension or Analysis <u>  X  </u>		
10 CFR Part 55 Content:	55.41 _____ 55.43 <u>  X  </u>		
Comments (Why is it an upper level question): The examinee must diagnose whether each of the distractors affect CTMT closure. This question is SRO level due to addressing a T.S. interpretation.			

Question:

The plant is in Mode 6. Refueling operations are in progress in the SFP area and refueling canal area.

Which one of the following statements would affect refueling operations?

- a. Equipment hatch with only four bolts holding it in place.
- b. Steam Generator 1 with a secondary manway removed and only SP17B2, Main Steam Safety Valve removed.
- c. The emergency personnel hatch with the inner door removed and the outer door closed.
- d. The CTMT personnel hatch has both doors open with a hose passing through them with only a maintenance worker in attendance.

Answer:

- b.