

INITIAL SUBMITTAL OF THE WRITTEN EXAMINATION

FOR THE CLINTON INITIAL EXAMINATION - JULY/AUG 2002

CPS ILT0101 NRC Written Exam Question

Q# 1	Exam BOTH	System # 201003	KA # A1.02	RO 2.8	SRO 2.8	LP # 85201	Objective NRS.19
Control Rod and Drive Mechanism						Cognitive Level: HIGH	
Ability to predict and/or monitor changes in parameters associated with operating the CONTROL ROD AND DRIVE MECHANISM controls including:						CRD drive pressure	

Which one of the following is the correct method to raise Drive Water Differential Pressure from 250 psid to 300 psid per Control Rod Hydraulics and Control, 3304.01?

- A. Throttle OPEN CRD Pressure Control Valve, 1C11-F003.
- B. Throttle SHUT CRD Pressure Control Valve, 1C11-F003.
- C. Throttle OPEN CRD Flow Control Valve, 1C11-F002A.
- D. Throttle SHUT CRD Flow Control Valve, 1C11-F002A.

ANS: B	Reference Provided: None	Reference and Rev: 3304.01 rev 29c	Question Source: New	Ques Rev 0
<p>Explanation: B is correct, throttling SHUT the Pressure Control Valve will raise Drive Water D/P. A is wrong, this will LOWER D/P. C is wrong, this will raise Cooling Water Flow and Cooling Water D/P D is wrong, this will lower Cooling Water Flow and Cooling Water D/P</p>				

CPS ILT0101 NRC Written Exam Question

Q# 2	Exam BOTH	System # 201005	KA # K5.10	RO 3.2	SRO 3.3	LP #	Objective
Rod Control and Information System (RCIS)						Cognitive Level: RECALL	
Knowledge of the operational implications of the following concepts as they apply to ROD CONTROL AND INFORMATION SYSTEM (RCIS):						Rod withdrawal limiter: BWR-6	

Why are Rod Control & Information System notch limits enforced ABOVE the Low Power Setpoint?

- A. Prevent exceeding MCPR during a postulated control rod drop accident.
- B. Prevent exceeding MCPR during a postulated control rod continuous withdrawal accident.
- C. Restrict control rod patterns during a power increase to prevent exceeding the Reactivity Anomalies technical specification
- D. Restrict control rod patterns to those analyzed resulting in acceptable fuel enthalpies during a reactor startup.

ANS: B	Reference Provided: None	Reference and Rev: ITS B3.3.2.1 rev4-8	Question Source: Modified Perry 97 NRC #16	Ques Rev 0
<p>Explanation:</p> <p>B is correct, Rod Withdrawal Limiter ensures MCPR SL is not exceeded during continuous withdraw from >LPSP</p> <p>A is wrong, CRDA applies to Rod Pattern Controller, not Rod Withdrawal Limiter.</p> <p>C is wrong, anomalies are not mentioned in B3.3.2.1.</p> <p>D is wrong, criteria for CRDA.</p> <p>NOTE – removed "...and LHGR" from original question.</p>				

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Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
3	BOTH	201005	K6.01	3.2	3.2		
Rod Control and Information System (RCIS)						Cognitive Level: HIGH	
Knowledge of the effect that a loss or malfunction of the following will have on the ROD CONTROL AND INFORMATION SYSTEM (RCIS):						First stage shell pressure or opening of a bypass valve(s): BWR-6	

While performing control rod scram time testing at 26% reactor power, a main turbine trip occurs.

Why does the rod pattern controller start to enforce control rod insertion AND withdrawal limits?

- A. The End-of-Cycle Recirc Pump Downshift caused reactor power to decrease below the Low Power Setpoint.
- B. The reduction in Feedwater flow resulted in a Recirc Pump Downshift that reduced reactor power below the Low Power Setpoint.
- C. The loss of steam to the turbine caused the rod pattern controller to sense power to be below the Low Power Setpoint.
- D. The bypass valves opening decreased steam flow at the equalizing header to less than the Low Power Setpoint.

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	CPS No.3304.02 rev 15	LC 557	0
<p>Explanation: Turbine Trip Scram is bypassed <33.3% power, reactor continues to operate. C is correct, Turbine Trip at 26% implies BPVs can accommodate steam flow. 1st Stage Shell Pressure is low because Turbine is tripped, <LPSP signal activates Rod Pattern Controller. A is wrong, at 26% power EOC-RPT is not active, no RR downshift will occur. B is wrong, no feedwater flow reduction will occur from a Turbine Trip with Bypass. D is wrong, steam flow at equalizing header will not change.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
4	BOTH	202001	A2.20	2.8	2.9	87202	.1.24
Recirculation System						Cognitive Level:HIGH	

Ability to (a) predict the impacts of the following on the RECIRCULATION SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations:

Loss of D.C. power: Plant-Specific

The reactor is at 90% power.

DC Control Power is lost ONLY to the 4B breaker for Reactor Recirculation Pump B.

Reactor Recirculation Pump breaker 5B will (1) , the procedure for this situation is (2) .

- | | | | |
|----|---------------|-------------------------------------------|--|
| | (1) | (2) | |
| A. | trip | 4100.01 Reactor Scram. | |
| B. | trip | 4008.01 Abnormal Reactor Coolant Flow. | |
| C. | remain closed | 4201.01 Loss of DC Power. | |
| D. | remain closed | 3302.01 Reactor Recirc FCV Lockout Reset. | |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
B	None	4008.01 rev 18	NEW	0
<p>Explanation:</p> <p>B is correct, pump trips, power will lower and not require scram.</p> <p>A is wrong, Single Loop Ops is allowed.</p> <p>C and D are wrong, RR Pump B will trip.</p>				

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Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
5	BOTH	209001	K2.02	2.5	2.7		
Low Pressure Core Spray System						Cognitive Level: RECALL	
Knowledge of electrical power supplies to the following:						Valve power	

AB MCC 1A3 is de-energized, which one of the following valves is affected?

- A. LPCS Injection Valve, 1E21-F005
- B. RHR C Minimum Flow Valve, 1E12-F064C
- C. HPCS Injection Valve, 1E22-F004
- D. RCIC Injection Valve, 1E51-F013

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	3313.01E001 rev 11	Modified INPO 19084 LaSalle	0
Explanation: A is correct, powered AB MCC 1A3 B is wrong, powered AB MCC 1B2 C is wrong, powered 1E22-S002 D is wrong, powered DC MCC 1A				

CPS ILT0101 NRC Written Exam Question

Q# 6	Exam BOTH	System # 211000	KA # A1.06	RO 3.8	SRO 3.9	LP #	Objective
Standby Liquid Control System						Cognitive Level: RECALL	
Ability to predict and/or monitor changes in parameters associated with operating the STANDBY LIQUID CONTROL SYSTEM controls including:						Flow indication: Plant-Specific	

Which of the following verifies Standby Liquid Control Injection flow into the reactor?

1. SLC Squib A and B CONTINUITY LIGHTS LIT
2. SLC Suction Valves from SLC Storage Tank OPEN
3. SLC Pumps A AND B START
4. SLC Pump Discharge Pressure slightly ABOVE Reactor Pressure

- A. 1, 2, and 3 ONLY
- B. 1, 3, 4 and 5 ONLY
- C. 1, 2, 4, and 5 ONLY
- D. 2, 3, 4, and 5 ONLY

ANS: D	Reference Provided: None	Reference and Rev: 4411.10 rev 4	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>D is correct, normal injection indication, 1 is incorrect, this light EXTINGUISHES</p> <p>A is wrong, 1 is incorrect, this light EXTINGUISHES</p> <p>B is wrong, 1 is incorrect, this light EXTINGUISHES.</p> <p>C is wrong, 1 is incorrect, this light EXTINGUISHES.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
7	BOTH	211000	K2.02	3.1	3.2		
Standby Liquid Control System						Cognitive Level: RECALL	
Knowledge of electrical power supplies to the following:						Explosive valves	

AB MCC 1B1 120 V Fire Protection Distribution Panel is deenergized.

Which one of the following components lost power?

- A. Standby Liquid Control Pump 1B, 1C41-C001B
- B. Standby Liquid Storage Tank Outlet Valve, 1C41-F001B
- C. Standby Liquid Control Squib Valve, 1C41-F004B
- D. Standby Liquid Storage Tank Operating Heater, 1C41-D002

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	3314.01E001 rev 9a	NEW	0
Explanation: C is correct A is wrong, powered AB MCC 1B1, not the Fire Protection Distribution Panel B is wrong, powered AB MCC 1B2 D is wrong, powered AB MCC 1H				

CPS ILT0101 NRC Written Exam Question

Q# 8	Exam BOTH	System # 212000	KA # A3.01	RO 4.4	SRO 4.4	LP # 87409	Objective .1.3.2
Reactor Protection System						Cognitive Level: HIGH	
Ability to monitor automatic operations of the REACTOR PROTECTION SYSTEM including:						Reactor power	

A reactor startup is in progress.

Which one of the following IRM readings will result in a reactor scram?

	A	B	C	D	E	F	G	H
A.	122	105	108	110	124	112	116	109
B.	105	124	109	110	122	116	108	112
C.	110	108	125	116	112	118	122	109
D.	109	108	119	120	105	116	118	121

ANS: B	Reference Provided: None	Reference and Rev: 3306.01 rev 10a	Question Source: NEW	Ques Rev 0
<p>Explanation: Must know trip setpoint and required coincidence. B is correct, trips at 120/125, this selection has a Div 2 (B) and a Div 1 (E) trip. A is wrong, both trips given are Div 1 (A and E) C is wrong, both trips given are Div 3 (C and G) D is wrong, both trips given are Div 4 (D and H)</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
9	BOTH	212000	K5.01	2.7	2.9	87411	.1.1.4
Reactor Protection System						Cognitive Level: RECALL	
Knowledge of the operational implications of the following concepts as they apply to REACTOR PROTECTION SYSTEM:						Fuel thermal time constant	

Which one of the following RPS trip signals is filtered with a time constant?

- A. APRM Fixed Neutron Flux – High
- B. APRM Flow Biased Simulated Thermal Power – High
- C. APRM Neutron Flux – High, Setdown
- D. IRM Neutron Flux – High

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
B	None	87411 rev 2	NEW	0
Explanation: B is correct, reference states verbatim A, C, and D are wrong, are not time constant filtered				

CPS ILT0101 NRC Written Exam Question

Q# 10	Exam BOTH	System # 214000	KA # K5.01	RO 2.7	SRO 2.8	LP # 87400	Objective .1.13
Rod Position Information System						Cognitive Level: RECALL	
Knowledge of the operational implications of the following concepts as they apply to ROD POSITION INFORMATION SYSTEM:						Reed switches	

With a control rod fully withdrawn, how many Position Indicator Probe reed switches should be closed for that rod?

- A. 1
- B. 2
- C. 3
- D. 4

ANS: D	Reference Provided: None	Reference and Rev: LP87400 rev 3	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>C is correct, there are 4 reed switches closed. Two PIP strings each with 2 closed reed switches, one for NOTCH 48 position indication, one for the FULL-OUT light function.</p> <p>B is wrong, 4</p> <p>C is wrong, 4</p> <p>D is wrong, 4</p>				

CPS ILT0101 NRC Written Exam Question

Q# 11	Exam BOTH	System # 214000	KA # K6.01	RO 2.5	SRO 2.6	LP # 87401	Objective .1.1.5
Rod Position Information System						Cognitive Level: RECALL	
Knowledge of the effect that a loss or malfunction of the following will have on the ROD POSITION INFORMATION SYSTEM:						A.C. electrical power	

The plant is operating at 90% power when a loss of 4160 V Bus 1B1 occurs followed by a scram from MSIV closure.

Following the scram it is noted that the Rod Control and Information System (RC&IS) indication is blinking ON and OFF.

Which of the following actions is appropriate to verify ALL RODS IN using the RC&IS display?

- A. Depress DATA SOURCE pushbutton to select the operable channel.
- B. Depress the RAW DATA and SCRAM VALVES button to determine rod positions.
- C. Depress the DATA MODE and DATA SOURCE pushbuttons to select the operable channel.
- D. Acknowledge the ACCUMULATOR FAULT to allow the rods to settle to the full in position.

ANS: C	Reference Provided: None	Reference and Rev: LP 87401 rev 2	Question Source: CPS NRC Exam 1997 Question 16	Ques Rev 0
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Explanation:

C is correct, blinking indicates one channel has data, the other does not. DATA MODE allows selection between dual channel and single channel, DATA SOURCE selects A or B data.

A is wrong, still blinking, due to being in dual channel.

B is wrong, SCRAM VALVES will indicate which rods have Scram Valves open. Not rod position.

D is wrong, ACCUMULATOR FAULT will indicate which accumulators have low pressure or high water, not rod position.

CPS ILT0101 NRC Written Exam Question

Q# 12	Exam BOTH	System # 215003	KA # K1.07	RO 3.0	SRO 3.0	LP # 87409	Objective .1.2.4
Intermediate Range Monitor (IRM) System						Cognitive Level: RECALL	
Knowledge of the physical connections and/or cause- effect relationships between INTERMEDIATE RANGE MONITOR (IRM) SYSTEM and the following:						Reactor vessel	

When FULLY INSERTED, IRM detectors are _____.

- A. NOT in direct contact with water AND are 15 inches ABOVE core centerline.
- B. in direct contact with water AND are 15 inches ABOVE core centerline.
- C. NOT in direct contact with water AND are 15 inches BELOW core centerline.
- D. in direct contact with water AND are 15 inches BELOW core centerline.

ANS: A	Reference Provided: None	Reference and Rev: LP87409 rev 1	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>A is correct, IRMs are NOT in direct contact with water AND 15 inches ABOVE core centerline when fully inserted</p> <p>B is wrong, IRMs are NOT in direct contact with water.</p> <p>C is wrong, IRMs are 15 inches ABOVE core centerline.</p> <p>D is wrong, IRMs are NOT in direct contact with water AND 15 inches ABOVE core centerline when fully inserted.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 13	Exam BOTH	System # 215003	KA # K3.01	RO 3.9	SRO 4.0	LP # 87409	Objective .1.2.5
Intermediate Range Monitor (IRM) System						Cognitive Level: HIGH	
Knowledge of the effect that a loss or malfunction of the INTERMEDIATE RANGE MONITOR (IRM) SYSTEM will have on following:						RPS	

The Mode Switch is in STARTUP/HOT STANDBY.
An IRM A INOP Trip is generated.

Which one of the following describes the RC&IS and RPS response?

	Rod Block	RPS Trip Signal - Div 1	Scram
A.	YES	YES	NO
B.	NO	NO	NO
C.	YES	NO	NO
D.	YES	YES	YES

ANS: A	Reference Provided: None	Reference and Rev: LP 87409 rev 1	Question Source: Modified INPO 1876 LaSalle	Ques Rev 0
<p>Explanation: A is correct, Rod Block and RPS Trip Div 1 are generated with RMS in STARTUP B is wrong, Rod Block and RPS Trip Div 1 are generated C is wrong, RPS Trip Div 1 is generated D is wrong, Rod Block and RPS Trip Div 1 are generated, Scram does not occur, no Division 2, 3, or 4 RPS Trips are given.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
14	BOTH	215004	A2.01	2.7	2.9	87215	.1.4.3
Source Range Monitor (SRM) System						Cognitive Level: HIGH	
Ability to (a) predict the impacts of the following on the SOURCE RANGE MONITOR (SRM) SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations:						Power supply degraded	

Reactor startup is in progress. The reactor is NOT critical.

SRMs read as follows:

Channel	A	B	C	D
Counts Per Second	2×10^3	3×10^3	2×10^3	5×10^3

PREDICT the effect of a loss of the SRM C High Voltage Power Supply, AND what would be the correct action, if any?

	EFFECT	NECESSARY OPERATOR ACTION
A.	Rod Block	Wait until power is on IRM Range 3.
B.	Rod Block	Bypass the affected channel and continue startup.
C.	Scram occurs	Fully insert all SRMs.
D.	Nothing happens	Startup may be continued.

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
B	None	ITS 3.3.1.2 amend 95	New	0
<p>Explanation: B is correct, loss of power supply causes SRM INOP Rod Block. ITS allows bypass of SRM. A is wrong, reactor is not critical, power won't reach IRM Range 3. INOP bypassed Range 8. C is wrong, SRMs are not RPS inputs. D is wrong, Rod Block occurs.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 15	Exam BOTH	System # 215004	KA # A4.07	RO 3.4	SRO 3.6	LP # 87215	Objective .1.7
Source Range Monitor (SRM) System						Cognitive Level: RECALL	
Ability to manually operate and/or monitor in the control room:						Verification of proper functioning/operability	

Per Source/Intermediate Range Monitors, 3306.01, during reactor startup Source Range Monitors are maintained between (1) counts per second, during detector motion reactor period will be (2) .

- | | |
|-----------------------------|------------|
| (1) | (2) |
| A. >100 to 1×10^5 | ACCURATE |
| B. >100 to 1×10^5 | INACCURATE |
| C. >1000 to 1×10^6 | ACCURATE |
| D. >1000 to 1×10^6 | INACCURATE |

ANS: B	Reference Provided: None	Reference and Rev: 3306.01 rev 10a	Question Source: NEW	Ques Rev 0
<p>Explanation: B is correct, SRMs are maintained between 1×10^2 to 1×10^5 cps, during motion reactor period is INACCURATE. A is wrong, during motion reactor period is INACCURATE. C is wrong, SRMs are maintained between 1×10^2 to 1×10^5 cps, during motion reactor period is INACCURATE. D is wrong, SRMs are maintained between 1×10^2 to 1×10^5 cps.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 16	Exam BOTH	System # 215005	KA # A1.07	RO 3.0	SRO 3.4	LP # 87411	Objective .1.1.3
Average Power Range Monitor/Local Power Range Monitor System						Cognitive Level: HIGH	
Ability to predict and/or monitor changes in parameters associated with operating the APRM/LPRM controls including:						APRM (gain adjustment factor)	

During steady state power operations, the APRM Gain Adjustment Factor (AGAF) for APRM C is 1.04.

The indication from APRM C is (1) because actual thermal power is (2) indicated power.

- | | |
|---------------------|--------------|
| (1) | (2) |
| A. conservative | LESS THAN |
| B. conservative | GREATER THAN |
| C. NON-conservative | GREATER THAN |
| D. NON-conservative | LESS THAN |

ANS: C	Reference Provided: None	Reference and Rev: LP87411 rev 2	Question Source: Clinton 1997 NRC Exam Question 25	Ques Rev 0
<p>Explanation: C is correct, NON conservative condition, and thermal is greater than indicated power. A is wrong, NON conservative condition. B is wrong, NON conservative condition, and thermal is greater than indicated power. D is wrong, thermal is greater than indicated power.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 17	Exam BOTH	System # 216000	KA # K1.17	RO 3.5	SRO 3.7	LP # 85264	Objective .1.4.1
Nuclear Boiler Instrumentation						Cognitive Level: HIGH	
Knowledge of the physical connections and/or cause- effect relationships between NUCLEAR BOILER INSTRUMENTATION and the following:						Emergency generators	

A transient occurred, the reactor has scrammed, plant conditions are:

- The Mode Switch is in SHUTDOWN with all control rods fully inserted.
- RPV Pressure is 755 psig.
- Drywell Pressure is 1.5 psig and rising at .02 psig per minute.
- RPV Water Level is -50 inches rising from a low indicated value of -73 inches.

Which one of the following describes the status of the Emergency Diesel Generators?

- | | | | |
|----|---------|---------|---------|
| | DG1A | DG1B | DG1C |
| A. | Running | Standby | Standby |
| B. | Running | Running | Standby |
| C. | Standby | Running | Running |
| D. | Standby | Standby | Running |

ANS: D	Reference Provided: None	Reference and Rev: LP85264 rev 4	Question Source: LC116	Ques Rev 0
<p>Explanation: D is correct, Level 2 (-45.5 in) was reached which starts DG1C, Level 1 (-145.5 in) was not reached, DG1A and DG1B are in Standby. A is wrong, DG1A should be in Standby, DG1C should be Running. B is wrong, DG1A and B should be in Standby, DG1C should be Running. C is wrong, DG1B should be in Standby.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 18	Exam BOTH	System # 218000	KA # A4.10	RO 3.8	SRO 3.8	LP # LP87218	Objective 1.11.1
Automatic Depressurization System						Cognitive Level: RECALL	
Ability to manually operate and/or monitor in the control room:						Lights and alarms	

Automatic Depressurization System has actuated.

What indication would be shown when the initiating signal is CLEAR and ready to be reset?

- A. ADS INHIBIT white lights ON
- B. HI DRYWELL PRESSURE A SEAL IN RESET red light ON
- C. ADS A&E LOGIC SEAL IN RESET white lights ON
- D. ADS DIV 1 OUT OF SERVICE status light ON

ANS: C	Reference Provided: None	Reference and Rev: 87218 rev 1	Question Source: New	Ques Rev 0
<p>Explanation:</p> <p>C is correct</p> <p>A is wrong, signal may not be clear</p> <p>B is wrong, and is an initiation logic input</p> <p>D is wrong, OOS switch has been turned, does not affect ADS logic.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
19	BOTH	218000	K4.02	3.8	4.0	87218	
Automatic Depressurization System						Cognitive Level: HIGH	
Knowledge of AUTOMATIC DEPRESSURIZATION SYSTEM design feature(s) and/or interlocks which provide for the following:						Allows manual initiation of ADS logic	

During a LOSS of Division 1 DC Power, the ADS valves can be OPENED by depressing which of the following ADS Logic Initiate pushbuttons?

- A. A AND E
- B. B AND E
- C. A AND F
- D. B AND F

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	87218 rev1	NEW	0
<p>Explanation: D is correct, with a LOSS of Division 1 DC, ONLY the B AND F buttons provide adequate logic. A is wrong, A AND E are BOTH ineffective due to LOSS of Division 1 DC. B is wrong, E is ineffective due to LOSS of Division 1 DC, actuation requires TWO inputs. C is wrong, A is ineffective due to LOSS of Division 1 DC, actuation requires TWO inputs.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
20	RO	219000	A4.03	2.9	2.9		
RHR/LPCI: Torus/Suppression Pool Cooling Mode						Cognitive Level: HIGH	
Ability to manually operate and/or monitor in the control room:						Keep fill system	

While securing RHR B from the Suppression Pool Cooling mode, the following occur:

RHR PUMP B DISCHARGE PRESSURE ABNORMAL, 5065-5A, alarms
 RHR B Heat Exchanger Pressure, E12-R606B reads 40 psig.

This alarm is due to a (1) pressure condition, the REQUIRED operator action is to (2).

- | | | |
|----|------------|-------------------------------------------------|
| A. | (1)
LOW | (2)
continue to place RHR B in STANDBY |
| B. | LOW | pull the RHR Pump B breaker control power fuses |
| C. | HIGH | continue to place RHR B in STANDBY |
| D. | HIGH | pull the RHR Pump B breaker control power fuses |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
B	None	5065-5A rev 33	NEW	0
Explanation: B is correct, LOW pressure alarm setpoint 57.8 psig at RHR Pump B Discharge, Heat Exchanger Pressure tap is physically higher in the system.. Pulling the control power fuses prescribed by the procedure. A is wrong, Pulling the control power fuses prescribed by the procedure. C is wrong, LOW pressure, Pulling the control power fuses prescribed by the procedure. D is wrong, LOW pressure.				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
21	BOTH	259002	2.4.10	3.0	3.1	87570	.1.8.1
Reactor Water Level Control System						Cognitive Level:HIGH	
Emergency Procedures and Plan						Knowledge of annunciator response procedures.	

- Reactor Power is 90%.
- Both Turbine Driven Reactor Feed Pumps are in Three Element control.
- Feedwater Level Control is selected to Channel A.
- REACTOR WATER LEVEL HIGH – LOW, 5002-2Q alarms.
- WATER LEVEL SIGNAL FAILURE, 5002-2P alarms.
- RPV LEVEL CHANNEL ERROR A amber light is LIT.

Narrow Range Level Channels read as follows

1C34-N004A	1C34-N004B	1C34-N004C
30.8 inches	39.0 inches	39.4 inches

If NO ACTION is taken a (1) trip will occur.

To correct this situation, it is necessary to transfer level control to (2).

- | | |
|------------|----------------|
| (1) | (2) |
| A. LEVEL 3 | Channel B |
| B. LEVEL 3 | Single Element |
| C. LEVEL 8 | Channel B |
| D. LEVEL 8 | Single Element |

ANS: C	Reference Provided: None	Reference and Rev: 5002-2P rev 28a	Question Source: NEW	Ques Rev
<p>Explanation: Symptoms are given for “selected” Channel A gradually failing low, actual level is gradually rising as verified by the “non selected” Narrow Range Level instruments. C is correct, 2 out of 3 instruments trending high will eventually cause a Level 8 trip, correct action is to select Channel B for control. Single Element does NOT swap level channel selection.</p> <p>A is wrong, LEVEL 8 B is wrong, LEVEL 8 and Channel B D is wrong, Channel B</p>				

CPS ILT0101 NRC Written Exam Question

Q# 22	Exam BOTH	System # 223001	KA # K4.01	RO 3.7	SRO 3.8	LP # 85223	Objective .1.1.5
Primary Containment System and Auxiliaries						Cognitive Level: RECALL	
Knowledge of PRIMARY CONTAINMENT SYSTEM AND AUXILIARIES design feature(s) and/or interlocks which provide for the following:						Allows for absorption of the energy released during a LOCA	

Which one of the following components promotes steam condensation during a DBA LOCA?

- A. Horizontal Vents
- B. Spargers
- C. Drywell Air Coolers
- D. Drywell Vacuum Breakers

ANS: A	Reference Provided: None	Reference and Rev: LP85223 rev 1	Question Source: NEW	Ques Rev 0
<p>Explanation: A is correct, Horizontal Vents transfer steam to the suppression pool. B is wrong, SRV tailpipes have spargers and do NOT open on a DBA LOCA. C is wrong, Drywell Air Cooler chilled water is isolated during a LOCA. D is wrong, Drywell Vacuum Breakers do NOT condense steam nor transfer it to be condensed.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 23	Exam BOTH	System # 223002	KA # K6.06	RO 2.8	SRO 2.9	LP # 87401	Objective .1.4.1
Primary Containment Isolation System/Nuclear Steam Supply Shut-Off						Cognitive Level: HIGH	
Knowledge of the effect that a loss or malfunction of the following will have on the PCIS/NSSSS:						Various process instrumentation	

The plant is in Cold Shutdown with RHR A Loop in Shutdown Cooling Mode. RHR Heat Exchanger Room Ambient Temperature Instrument A in the Division 1 Trip System, 1E31-N608A, fails HIGH.

Which of the following describes the status of the RHR system TWO MINUTES LATER?

	SDC Outboard Isolation Valve 1E12-F008	SDC Inboard Isolation Valve 1E12-F009
RHR Pump A 1E12-C002A		
A. ON	OPEN	SHUT
B. ON	OPEN	OPEN
C. OFF	SHUT	SHUT
D. OFF	SHUT	OPEN

ANS: D	Reference Provided: None	Reference and Rev: LP87407 rev 1	Question Source: NEW	Ques Rev 0
<p>Explanation: D is correct, Div 1 Trip System isolates SDC Outboard Valve 1E12-F008, RHR A Trips. A is wrong, Div 1 Trip System isolates SDC Outboard Valve 1E12-F008, RHR A Trips. B is wrong, Div 1 Trip System isolates SDC Outboard Valve 1E12-F008, RHR A Trips. C is wrong, Div 1 Trip System does NOT isolate SDC Inboard Valve 1E12-F009.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 24	Exam BOTH	System # 226001	KA # A3.04	RO 3.1	SRO 3.1	LP # 85205	Objective .1.4.4
RHR/LPCI: Containment Spray System Mode						Cognitive Level: RECALL	
Ability to monitor automatic operations of the RHR/LPCI: CONTAINMENT SPRAY SYSTEM MODE including:						Lights and alarms	

In response to simultaneous LPCI and CNMT SPRAY initiation signals, the RED light associated with RHR A HX BYPASS VALVE,1E12-F048A will _____.

- A. be LIT for 10 minutes
- B. be LIT until CNMT SPRAY logic is RESET
- C. cycle LIT / EXTINGUISHED for 10 minutes then EXTINGUISHES
- D. be EXTINGUISHED until BOTH signals are reset

ANS: C	Reference Provided: None	Reference and Rev: 3312.01 rev 35	Question Source: NEW	Ques Rev 0
<p>Explanation: C is correct, 48A cycles for duration of LPCI 10 minute timer, then closes for CNMT Spray. A is wrong, cycles for 10 minutes. B is wrong, cycles for 10 minutes. D is wrong, cycles for 10 minutes, then closes.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
25	BOTH	226001	K1.04	3.1	3.3	85205 rev 6	
RHR/LPCI: Containment Spray System Mode						Cognitive Level: RECALL	
Knowledge of the physical connections and/or cause- effect relationships between RHR/LPCI: CONTAINMENT SPRAY SYSTEM MODE and the following:						A.C. electrical power	

During the initiation of RHR A into the Containment Spray Mode, RHR A To Containment Spray A Shutoff Valve, 1E12-F028A RED and GREEN valve position indication lights EXTINGUISH.

This could be caused by a breaker trip at _____.

- A. UPS 1A
- B. AB MCC 1A4
- C. DC MCC 1E
- D. NSPS Distribution Panel A

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
B	None	3312.01E001 rev 14	NEW	0
Explanation: B is correct, power supply is AB MCC 1A4 Distractors do not affect 1E12-F028A.				

CPS ILT0101 NRC Written Exam Question

Q# 26	Exam BOTH	System # 234000	KA # K4.02	RO 3.3	SRO 4.1	LP # 86614	Objective .1.8.12
Fuel Handling Equipment						Cognitive Level: HIGH	
Knowledge of FUEL HANDLING EQUIPMENT design feature(s) and/or interlocks which provide for the following:						Prevention of control rod movement during core alterations	

The Mode Switch is in REFUEL and all control rods are inserted.
The Refueling Bridge operator grappled a fuel bundle, raised the grapple, and commenced moving the bundle towards the core.

As the Refueling Bridge started moving towards the core, it _____.

- A. stopped before it reached the core AND initiated a control rod block
- B. continued over the core AND caused NO other protective actions
- C. stopped before it reached the core AND caused NO other protective actions
- D. continued over the core AND then initiated a control rod block

ANS: D	Reference Provided: None	Reference and Rev: 86614	Question Source: INPO 7928 Hatch	Ques Rev 0
<p>Explanation:</p> <p>D is correct, loaded grapple over the core initiates a rod block. A is wrong, bridge will not stop B is wrong, rod block will be initiated C is wrong, bridge will not stop and a rod block will be initiated.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 27	Exam BOTH	System # 239001	KA # K4.06	RO 3.1	SRO 3.2	LP # 85431	Objective .1.5.2
Main and Reheat Steam System						Cognitive Level: HIGH	
Knowledge of MAIN AND REHEAT STEAM SYSTEM design feature(s) and/or interlocks which provide for the following:						Allows for removal or prevents escape of radioactive steam from systems that have leaky MSIV's	

- A LOCA has occurred.
- Standby Gas Treatment Train A is in service.
- Main Steam Line A Inboard MSIV, 1B21-F022A, is OPEN.
- Reactor Pressure is 25 psig.
- Main Steam Line A Pressure is 17 psig.

Which of the following conditions will ALLOW initiation of the Inboard MSIV-LCS System A?

- A. Main Steam Line A Pressure lowers to 15 psig AND MSIV-LCS dilution flow is 105 cfm.
- B. Reactor Pressure lowers to 19 psig AND MSIV-LCS dilution flow is 105 cfm.
- C. Main Steam Line A Pressure lowers to 15 psig AND 1B21-F022A, Main Steam Line A Inboard MSIV is SHUT.
- D. Reactor Pressure lowers to 19 psig AND 1B21-F022A, Main Steam Line A Inboard MSIV is SHUT.

ANS: D	Reference Provided: None	Reference and Rev: 5067.02 (2H) rev 31	Question Source: Modified ILT Bank 21377	Ques Rev 0
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Explanation:
D is correct, permissives are Reactor AND Main Steam Line Pressure <20 psig AND Inboard MSIV must be SHUT
A is wrong, Reactor Pressure must be <20 psig AND Inboard MSIV must be SHUT.
B is wrong, Inboard MSIV must be SHUT.
C is wrong, Reactor Pressure must be <20 psig.

CPS ILT0101 NRC Written Exam Question

Q# 28	Exam BOTH	System # 239003	KA # K4.01	RO 3.2	SRO 3.5	LP # 85431	Objective .1.1.1
MSIV Leakage Control System						Cognitive Level: RECALL	
Knowledge of MSIV LEAKAGE CONTROL SYSTEM design feature(s) and/or interlocks which provide for the following:						Performance of its safety function following a loss of offsite power: BWR-4, 5, 6(P-Spec)	

What design feature does MSIV-LCS utilize to perform its safety function following a Loss of Offsite Power?

MSIV Leakage Control System components _____.

- A. are all powered from Uninterruptible Power Supplies
- B. are all powered from divisional batteries
- C. are all powered from Diesel Generator supplied buses
- D. all fail to their required position on loss of power

ANS: C	Reference Provided: None	Reference and Rev: LP85431 rev 2	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>C is correct, MSIV-LCS components are powered from Diesel Generator supplied buses.</p> <p>A is wrong, powered from Diesel Generator supplied buses.</p> <p>B is wrong, powered from Diesel Generator supplied buses.</p> <p>D is wrong, powered from Diesel Generator supplied buses.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 29	Exam BOTH	System # 262001	KA # A2.03	RO 3.9	SRO 4.3	LP # 85571	Objective .1.3.3
A.C. Electrical Distribution						Cognitive Level: HIGH	
Ability to (a) predict the impacts of the following on the A.C. ELECTRICAL DISTRIBUTION; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations:						Loss of off-site power	

The reactor was at 90% power.

- 4KV BUS LOW VOLTAGE, 5008-5L alarmed
- AC UNDERVOLTAGE SECOND LEVEL 4160V BUS, 5060-3D alarmed
- AC UNDERVOLTAGE SECOND LEVEL 4160V BUS, 5061-3D alarmed
- 4160V BUS 1A1 VOLTAGE was 4065 VAC
- 4160V BUS 1B1 VOLTAGE was 4065 VAC

The loss of power to Bus 1A1 and Bus 1B1 is (1) .

These conditions will require entry into 4200.01, Loss of AC Power, Section (2) .

(1)

(2)

- | | |
|--------------|-----------------------------|
| A. IMMEDIATE | 4.2, Loss of ECCS Busses |
| B. IMMEDIATE | 4.4, Station Blackout (SBO) |
| C. DELAYED | 4.2, Loss of ECCS Busses |
| D. DELAYED | 4.4, Station Blackout (SBO) |

ANS: C	Reference Provided: None	Reference and Rev: 4200.01 rev 15	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>C is correct, Degraded Voltage Relays time out in 15 seconds, will trip RAT and ERAT feeds to 1A1, 1B1, and 1C1. Diesel Generators will Auto Start and reenergize these busses. Loss of ECCS busses is the correct procedure, section prescribes action upon re-energization. A is wrong, Delayed LOSS B is wrong, Delayed LOSS, Station Blackout does NOT exist. D is wrong, Station Blackout does NOT exist.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 30	Exam BOTH	System # 264000	KA # K3.02	RO 3.9	SRO 4.0	LP # 85264	Objective .1.4.2
Emergency Generators (Diesel/Jet)						Cognitive Level: HIGH	
Knowledge of the effect that a loss or malfunction of the EMERGENCY GENERATORS (DIESEL/JET) will have on following:						A.C. electrical distribution	

With the plant in Mode 2, a Loss of Offsite Power has occurred. The C Area operator dispatched to 1B Emergency Diesel Generator Control Panel, 1PL12JB reports the following:

ENGINE 1 HIGH COOLANT TEMP annunciator 5285-1B is LIT.
Engine 1 Jacket Water Temperature reads 210°F.

Which of the following describes the expected status of Bus 1A1 and Bus 1B1?

4160V Bus 1A1 is (1), 4160V Bus 1B1 is (2).

- | | | |
|----|--------------|--------------|
| | (1) | (2) |
| A. | De-energized | Energized |
| B. | De-energized | De-energized |
| C. | Energized | Energized |
| D. | Energized | De-energized |

ANS: D	Reference Provided: None	Reference and Rev: LP 85264 rev 4	Question Source: New	Ques Rev 0
<p>Explanation:</p> <p>D is correct, Jacket Water Temperature reads is ABOVE 205°F, which is an active trip. With a LOOP given, 1B1 is De-energized.</p> <p>A is wrong, 1A Emergency Diesel Energizes 1A1, 1B Emergency Diesel is tripped, 1B1 is De-energized.</p> <p>B is wrong, 1A Emergency Diesel Energizes 1A1</p> <p>C is wrong, 1B Emergency Diesel is tripped, 1B1 is De-energized.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
31	BOTH	271000	A1.01	3.3	3.2		
Offgas System						Cognitive Level:RECALL	
Ability to predict and/or monitor changes in parameters associated with operating the OFFGAS SYSTEM controls including:						Condenser vacuum	

- Reactor Power is 4 %
- Main Condenser Vacuum Pump A is in service.
- Steam Jet Air Ejector startup is in progress.
- SJAE Suction Valve, 1CA002A is opened.
- The operator leaves the Main Condenser Vacuum Pump in service AND does NOT SHUT Vacuum Pump Suction Valve, 1CA003.

Condenser vacuum will (1) SLOWLY because (2) .

- | | | |
|------------|-----------------------------------------------------------|-----|
| (1) | | (2) |
| A. IMPROVE | SJAE Suction Valve, 1CA002A will SHUT due to an interlock | |
| B. IMPROVE | of air in-leakage from the vacuum pump suction relief | |
| C. DEGRADE | of air in-leakage from the vacuum pump suction relief | |
| D. DEGRADE | SJAE Suction Valve, 1CA002A will SHUT due to an interlock | |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
B	None	3215.01 rev 25e	New	0
<p>Explanation: B is correct, procedure requires 1CA003 SHUT ASAP after SJAE startup. A is wrong, will IMPROVE slowly because of air in-leakage. C is wrong, will IMPROVE slowly because of air in-leakage. D is wrong, will IMPROVE slowly because of air in-leakage.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
32	BOTH	272000	A2.11	3.4	3.7	85208	.1.2.6
Radiation Monitoring System						Cognitive Level: HIGH	
Ability to (a) predict the impacts of the following on the RADIATION MONITORING SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations:						Leakage and/or breaks from contaminated systems to atmosphere or to other process systems	

- The Reactor is operating at 90% power.
- There is a leaking tube in the RT Non-Regenerative Heat Exchanger.

If NOT corrected, this will result in (1) alarms on the Component Cooling Water Process Radiation Monitor, 1RIX-PR037.

To control the consequences of this failure, enter (2).

(1)

(2)

- | | |
|--------------------|--------------------------------------------------|
| A. HIGH then ALERT | Abnormal Release of Radioactive Liquids, 4979.05 |
| B. ALERT then HIGH | Abnormal Release of Radioactive Liquids, 4979.05 |
| C. HIGH then ALERT | Abnormal High Area Radiation Levels, 4979.02 |
| D. ALERT then HIGH | Abnormal High Area Radiation Levels, 4979.02 |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
B	None	5140.49 rev 0	NEW	0
<p>Explanation:</p> <p>B is correct, reactor water leaking from RT NRHX will cause an ALERT then an ALARM, 4979.05 is the appropriate procedure.</p> <p>A is wrong, will cause an ALERT then an ALARM.</p> <p>C is wrong, will cause an ALERT then an ALARM, 4979.05 is the appropriate procedure.</p> <p>D is wrong, 4979.05 is the appropriate procedure.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
33	BOTH	286000	K2.02	2.9	3.1		
Fire Protection System						Cognitive Level: RECALL	
Knowledge of electrical power supplies to the following:						Pumps	

Makeup Water Pump House MCC A has lost power.

Which one of the following components is affected?

- A. Plant Service Water Seal Water Pump, 0WS01PA
- B. ERAT Cooling Fans, 0AP164E
- C. Fire Protection Jockey Pump, 0FP04P
- D. Makeup Condensate Pump A, 0MC01PA

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	3213.01E002 rev 9a	NEW	0
Explanation: C is correct per reference A,B, and D are wrong.				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
34	RO	288000	A2.01	3.3	3.4	85455	.1.5.1
Plant Ventilation Systems						Cognitive Level: HIGH	
Ability to (a) predict the impacts of the following on the PLANT VENTILATION SYSTEMS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations:						High drywell pressure: Plant-Specific	

The reactor was operating at rated conditions.
Drywell Pressure increased to 3.0 psig.

(1) What is the expected status of Containment Continuous Purge, and (2) what procedure governs the temperature of the area this system normally ventilates?

- | | |
|-------------|--------------------------------------------|
| (1) | (2) |
| A. RUNNING | 3408.01, Containment Building/Drywell HVAC |
| B. RUNNING | EOP-6, Primary Containment Control |
| C. ISOLATED | EOP-6, Primary Containment Control |
| D. ISOLATED | 3408.01, Containment Building/Drywell HVAC |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	4001.02 rev 16	NEW	0
<p>Explanation:</p> <p>C is correct, CCP Isolates, Containment Temperature is controlled per EOP-6, Primary Containment Control. Drywell Pressure 1.68 psig is the entry condition for EOP-6.</p> <p>A is wrong, CCP Isolates, Containment Temperature is controlled per EOP-6, Primary Containment Control. Drywell Pressure 1.68 psig is the entry condition for EOP-6.</p> <p>B is wrong, CCP Isolates.</p> <p>D is wrong, Containment Temperature is controlled per EOP-6, Primary Containment Control.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 35	Exam BOTH	System # 290002	KA # K1.17	RO 3.3	SRO 3.4	LP # 87422	Objective .1.1.11
Reactor Vessel Internals						Cognitive Level: RECALL	
Knowledge of the physical connections and/or cause- effect relationships between REACTOR VESSEL INTERNALS and the following:						ADS	

During Safety / Relief Valve testing of an ADS valve, the QUALITY of steam in the tailpipe is (1), because the steam is tapped (2) the Steam Dryers.

- | | |
|---------|--------|
| (1) | (2) |
| A. LOW | BEFORE |
| B. LOW | AFTER |
| C. HIGH | BEFORE |
| D. HIGH | AFTER |

ANS: D	Reference Provided: None	Reference and Rev: LP87422 rev 0	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>D is correct, the quality of steam is high, due to steam tapped after the Dryers.</p> <p>A is wrong, the quality of steam is high, due to steam tapped after the Dryers.</p> <p>B is wrong, the quality of steam is high.</p> <p>C is wrong, steam tapped after the Dryers.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
36	BOTH	GENERIC	2.1.12	2.9	4.0		
						Cognitive Level:HIGH	
Conduct of Operations						Ability to apply technical specifications for a system.	

The reactor is at 90% power.

A Motor Operated Valve having BOTH a Containment Isolation function AND a system function has a stroke time in excess of the Limiting Value.

Which one of the following is correct?

- A. Containment Isolation AND system function SHALL be declared INOPERABLE.
- B. ONLY the Containment Isolation SHALL be declared INOPERABLE.
- C. ONLY the system function SHALL be declared INOPERABLE.
- D. Valve is considered OPERABLE, but degraded.

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	OP-CL-101-302-1001 rev 0	NEW	0
<p>Explanation: Candidate must know Limiting Value is the OPERABILITY requirement, stroke time in excess of Acceptance Range denotes degradation.</p> <p>When a Containment Isolation Valve is declared INOPERABLE and IF it impairs any OTHER ITS function, THEN that function shall also be declared INOPERABLE.</p> <p>B is wrong, Containment Isolation AND system function SHALL be declared INOPERABLE.</p> <p>C is wrong, Containment Isolation AND system function SHALL be declared INOPERABLE.</p> <p>D is wrong, Containment Isolation AND system function SHALL be declared INOPERABLE.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
37	BOTH	GENERIC	2.1.17	3.5	3.6		
						Cognitive Level: RECALL	
Conduct of Operations						Ability to make accurate, clear and concise verbal reports.	

When reporting indicator readings, the format should be _____.

- A. VALUE – CHANNEL - TREND
- B. PARAMETER – CHANNEL - VALUE
- C. PARAMETER – CHANNEL - TREND
- D. PARAMETER – VALUE – TREND

ANS: D	Reference Provided: None	Reference and Rev: OP-AA-104-101	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>D is correct, reference states verbatim.</p> <p>A is wrong, PARAMETER not identified.</p> <p>B is wrong, TREND not identified.</p> <p>C is wrong, VALUE not identified.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 38	Exam BOTH	System # GENERIC	KA # 2.1.30	RO 3.9	SRO 3.4	LP # 85115	Objective .1.4.1
						Cognitive Level: RECALL	
Conduct of Operations						Ability to locate and operate components, including local controls.	

- A 6.9kV breaker is racked in and control power fuses are installed.
- The breaker has been remotely CLOSED.
- The breaker's LOCAL / REMOTE SWITCH is placed in the LOCAL position.
- The handswitch located on the cubicle door is placed in the OPEN position

The breaker will (1) because (2) is in effect.

(1)

(2)

- | | |
|------------------|----------------|
| A. remain CLOSED | remote control |
| B. OPEN | local control |
| C. remain CLOSED | local control |
| D. OPEN | remote control |

ANS: A	Reference Provided: None	Reference and Rev: 85115 rev 0	Question Source: NEW	Ques Rev 0
<p>Explanation: Breaker racked-in / connected enables REMOTE, disables LOCAL control. A is correct, remain CLOSED, remote control is in effect. B is wrong, remain CLOSED, remote control is in effect. C is wrong, remote control is in effect. D is wrong, remain CLOSED.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 39	Exam BOTH	System # GENERIC	KA # 2.2.28	RO 2.6	SRO 3.5	LP # 86610	Objective N.1.8.1
						Cognitive Level: RECALL	
Equipment Control						Knowledge of new and spent fuel movement procedures.	

In accordance with 3703.01, CORE ALTERATIONS, a fuel move is considered complete when the fuel bundle has been placed in the correct location and the _____.

- A. grapple has been RELEASED
- B. hoist loaded light goes OUT
- C. slack cable light is LIT
- D. orientation has been double verified

ANS: A	Reference Provided: None	Reference and Rev: 3703.01 rev 22b	Question Source: INPO 19057 Clinton	Ques Rev 0
<p>Explanation:</p> <p>A is correct, stated in reference</p> <p>B is wrong, when the grapple has been released.</p> <p>C is wrong, when the grapple has been released.</p> <p>D is wrong, when the grapple has been released..</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
40	BOTH	GENERIC	2.2.33	2.5	2.9	87401	.1.1.1
						Cognitive Level: RECALL	
Equipment Control						Knowledge of control rod programming.	

The Rod Pattern Controller enforces a prescribed rod pattern from (1) rod density to (2) power.

- | | | |
|----|------|-------|
| | (1) | (2) |
| A. | 0% | 16.7% |
| B. | 0% | 33.3% |
| C. | 100% | 16.7% |
| D. | 100% | 33.3% |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	LP 87401 rev 2	DRESDEN 115	0
Explanation: EPU numbers obtained from ITS 3.3.2.1. BPWS applies from all rods fully inserted (100% rod density) to 16.7% power				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
41	BOTH	GENERIC	2.3.2	2.5	2.9		
						Cognitive Level: RECALL	
Radiological Controls						Knowledge of facility ALARA program.	

Which one of the following is the LOWEST level of authority authorized to waive Independent Verification of a valve position due to ALARA concerns?

- A. Radiation Protection Shift Supervisor
- B. Reactor Operator
- C. Shift Manager
- D. Plant Manager

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	1052.01 rev 7b	NEW	0
<p>Explanation: C is correct, Shift Manager may waive verification due to ALARA concerns. A B and D are wrong per reference.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
42	BOTH	GENERIC	2.3.10	2.9	3.3		
						Cognitive Level: RECALL	
Radiological Controls						Ability to perform procedures to reduce excessive levels of radiation and guard against personnel exposure.	

Which of the following describes the concern while transferring water to Radwaste from RHR A vice RHR B during Shutdown Cooling operation?

- A. High Conductivity
- B. High Temperature
- C. High Radiation
- D. High Flowrate

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	3312.03 rev 3d	NEW	0
<p>Explanation: C is correct, RHR A requires local valve operation which will result in radiation exposure to operators. A is wrong, conductivity is monitored in BOTH RHR Loops. B is wrong, temperature is controlled in BOTH RHR Loops. D is wrong, flowrate is controlled in BOTH RHR Loops..</p>				

CPS ILT0101 NRC Written Exam Question

Q# 43	Exam BOTH	System # GENERIC	KA # 2.4.5	RO 2.9	SRO 3.6	LP # 87571 rev 3	Objective
						Cognitive Level: RECALL	
Emergency Procedures and Plan						Knowledge of the organization of the operating procedures network for normal, abnormal, and emergency evolutions.	

Procedure hierarchy from HIGHEST to LOWEST for the following procedures is ...

- 1) Emergency Operating Procedures
- 2) Integrated Plant Operating Procedures
- 3) Off-Normal Procedures

- A. 1,2,3
- B. 1,3,2
- C. 2,3,1
- D. 2,1,3

ANS: B	Reference Provided: None	Reference and Rev: 1005.09 rev	Question Source: NEW	Ques Rev 0
<p>Explanation: B is correct, Emergency Operating Procedures, Off Normal Procedures, then Integrated Plant Operating Procedures are in correct order of hierarchy Distractors are not in proper order of hierarchy</p>				

CPS ILT0101 NRC Written Exam Question

Q# 44	Exam BOTH	System # GENERIC	KA # 2.4.20	RO 3.3	SRO 4.0	LP # 87551	Objective .1.5
						Cognitive Level: RECALL	
Emergency Procedures and Plan						Knowledge of operational implications of EOP warnings, cautions, and notes.	

Emergency Operating Procedures contain CAUTIONS which are used to identify potential hazards to (1) and are placed (2) the step to which they apply.

- | | |
|---------------------------|--------|
| (1) | (2) |
| A. personnel ONLY | before |
| B. personnel ONLY | after |
| C. equipment OR personnel | before |
| D. equipment OR personnel | after |

ANS: C	Reference Provided: None	Reference and Rev: LP 87551 rev 3	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>C is correct, EOP CAUTIONS are used to identify hazards to equipment or personnel and are placed before the step to which they apply.</p> <p>A is wrong, equipment or personnel.</p> <p>B is wrong, equipment or personnel and are placed before the step to which they apply.</p> <p>D is wrong, are placed before the step to which they apply.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
45	BOTH	GENERIC	2.4.34	3.8	3.6		
						Cognitive Level: HIGH	
Emergency Procedures and Plan						Knowledge of RO tasks performed outside the main control room during emergency operations including system geography and system implications.	

A Reactor Operator following Remote Shutdown, 4003.01, opened breakers CB21 through CB32 at NSPS 120VAC SOL PWR DIST PNLS A and B.

- (1) Where are these panels?
 (2) Predict the plant response when the breakers are opened?

- | | |
|-----------------------------------|----------------------------------|
| (1) | (2) |
| A. Control Building 802 Elevation | The reactor will be scrammed. |
| B. Aux Building 781 Elevation | The reactor will be scrammed. |
| C. Control Building 802 Elevation | SRV operation will be prevented. |
| D. Aux Building 781 Elevation | SRV operation will be prevented. |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	4003.01 rev 13	New	0
Explanation: A is correct, NSPS Solenoid Power Distribution Panels A and B are located on the Control Building 802 Elevation, when opened, the reactor is scrammed. B is wrong, Control Building 802 Elevation. C is wrong, The reactor will be scrammed. D is wrong, Control Building 802 Elevation, the reactor will be scrammed.				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
46	BOTH	295006	AK1.03	3.7	4.0		
SCRAM						Cognitive Level: HIGH	
Knowledge of the operational implications of the following concepts as they apply to SCRAM:						Reactivity control	

- The Mode Switch has been placed in SHUTDOWN.
- All rods inserted EXCEPT one rod, which is stuck at notch 48.
- SRMs AND IRMs have been inserted.

Shutdown Criteria is (1) , requiring entry into (2) .

- | | | | |
|----|---------|-----|--------------------------|
| | (1) | (2) | |
| A. | met | | EOP-1A, ATWS RPV CONTROL |
| B. | met | | 4100.01, REACTOR SCRAM |
| C. | NOT met | | EOP-1A, ATWS RPV CONTROL |
| D. | NOT met | | 4100.01, REACTOR SCRAM |

ANS: B	Reference Provided: None	Reference and Rev: 4100.01 rev 17	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>B is correct, one rod out is the demonstration of Shutdown Margin and the reactor has met Shutdown Criteria. The required procedure is 4100.01, REACTOR SCRAM sect. 4.3.1 to direct actions for rod insertion.</p> <p>A is wrong, 4100.01, REACTOR SCRAM is required.</p> <p>C is wrong, Shutdown Criteria is met, 4100.01, REACTOR SCRAM is required.</p> <p>D is wrong, Shutdown Criteria is met.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 47	Exam BOTH	System # 295008	KA # AK2.09	RO 3.1	SRO 3.1	LP #	Objective
High Reactor Water Level						Cognitive Level: HIGH	
Knowledge of the interrelations between HIGH REACTOR WATER LEVEL and the following:						Reactor water cleanup system (ability to drain): Plant-Specific	

- The reactor automatically scrammed due to loss of Condenser Vacuum.
- Reactor Pressure is 400 psig and stable.
- Condenser Vacuum is 0 inches Hg vac.
- RPV Water Level is 100 inches AND RISING.
- CRD is injecting at 40 gpm.
- Main Condenser Low Vacuum Bypass Switches are in NORMAL.

Which is the SMALLEST valve that can be used to LOWER RPV Water Level to 30 inches?

- A. Inboard MSIV Before Seat Warmup Drain Valve, 1B21-F016
- B. Main Turbine Bypass Valve # 1
- C. Reactor Water Cleanup Drain Flow Regulator, 1G33-F033
- D. RHR B to Radwaste First Isolation Valve, 1E12-F049

ANS: C	Reference Provided: None	Reference and Rev: 3303.01 rev 25a	Question Source: NEW	Ques Rev 0
<p>Explanation: Condenser Vacuum at 0 inches Hg vac implies a Group 1 Isolation C is correct, RWCU can be used to reject to the Condenser. A is wrong, Group 1 Isolation prevents using 1B21-F016. B is wrong, Group 1 Isolation prevents using Bypass Valves D is wrong, RHR SDC valves are interlocked SHUT due to Reactor Pressure.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 48	Exam BOTH	System # 295009	KA # AK1.01	RO 2.7	SRO 2.9	LP # 87570	Objective .1.1.1
Low Reactor Water Level						Cognitive Level: HIGH	
Knowledge of the operational implications of the following concepts as they apply to LOW REACTOR WATER LEVEL:						Steam carryunder	

One of the Turbine Driven Reactor Feed Pumps is inadvertently TRIPPED while the plant is at 90% power.

- (1) Which of the following is the concern?
- (2) Predict the effect on the plant from this condition?

(1)

(2)

- | | |
|---------------|-----------------------------------------------------------|
| A. CARRYOVER | Excess moisture impinging the blades of the Main Turbine. |
| B. CARRYOVER | A reduction in the margin to transition boiling. |
| C. CARRYUNDER | Excess moisture impinging the blades of the Main Turbine. |
| D. CARRYUNDER | A reduction in the margin to transition boiling. |

ANS: C	Reference Provided: None	Reference and Rev: LP87570 rev 1	Question Source: Modified DAEC 98 AUDIT Q#4	Ques Rev 0
<p>Explanation:</p> <p>C is correct, carryunder results from lowering water level results in moisture impingement. A is wrong, carryunder results . B is wrong, carryunder results from lowering water level results in moisture impingement D is wrong, results in moisture impingement.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 49	Exam BOTH	System # 295010	KA # AA1.07	RO 3.2	SRO 3.4	LP # 85405	Objective
High Drywell Pressure						Cognitive Level: HIGH	
Ability to operate and/or monitor the following as they apply to HIGH DRYWELL PRESSURE:						Containment (drywell) atmosphere control	

A LOCA has occurred.

The control switches for CGCS Hydrogen Mixing Compressors 1A AND 1B are taken to START.

One minute later the operator observed that CGCS Hydrogen Mixing Compressor 1A D/P is slightly above 4 psid and CGCS Hydrogen Mixing Compressor 1B D/P is slightly above 6 psid.

This indicates CGCS Hydrogen Mixing Compressor _____.

- A. 1A failed to start
- B. 1B failed to start
- C. 1A started but the suction valve failed to OPEN
- D. 1B started but the suction valve failed to OPEN

ANS: D	Reference Provided: None	Reference and Rev: LP85405 rev 2	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>D is correct, CGCS Hydrogen Mixing Compressor 1B High D/P indicates suction valve did not open.</p> <p>A is wrong, CGCS Hydrogen Mixing Compressor 1A indicates normal D/P.</p> <p>B is wrong, CGCS Hydrogen Mixing Compressor 1B High D/P indicates suction valve did not open.</p> <p>C is wrong, CGCS Hydrogen Mixing Compressor 1A indicates normal D/P.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
50	BOTH	295010	AK2.03	3.0	3.1	85405	.1.1.3
High Drywell Pressure						Cognitive Level: HIGH	
Knowledge of the interrelations between HIGH DRYWELL PRESSURE and the following:						Drywell/containment differential pressure: Mark-III	

The following conditions exist:

- Drywell Pressure is 2.2 psig
- Containment Pressure is 2.8 psig

The Drywell Vacuum Relief Valves, 1HG10A and 1HG11A are (1).

These valves also provide a flowpath that is required by the CGCS Hydrogen (2).

(1)

(2)

- | | |
|---------|--------------------|
| A. SHUT | Recombiners |
| B. OPEN | Mixing Compressors |
| C. SHUT | Mixing Compressors |
| D. OPEN | Recombiners |

ANS: B	Reference Provided: None	Reference and Rev: 85405 rev 2	Question Source: NEW	Ques Rev 0
<p>Explanation: Vacuum Reliefs are fully OPEN at -0.5 psid Drywell to Containment D/P. B is correct, fully OPEN, also provide a flowpath for Mixing Compressors. A is wrong, fully OPEN, also provide a flowpath for Mixing Compressors. C is wrong, fully OPEN. D is wrong, also provide a flowpath for Mixing Compressors.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
51	BOTH	295012	AK3.01	3.5	3.6		
High Drywell Temperature						Cognitive Level: RECALL	
Knowledge of the reasons for the following responses as they apply to HIGH DRYWELL TEMPERATURE:						Increased drywell cooling	

EOP-6, Primary Containment Control requires starting additional Drywell Coolers and Supplemental Coolers to prevent jeopardizing _____ integrity.

- A. RPV Level Instrument
- B. Safety Relief Valve
- C. Recirc Pump Seal
- D. Primary Containment

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	EOP Bases 8-2	NEW	0
Explanation: D is correct, to prevent jeopardizing Primary Containment integrity. A is wrong, to prevent jeopardizing Primary Containment integrity. B is wrong, to prevent jeopardizing Primary Containment integrity. C is wrong, to avoid jeopardizing Primary Containment integrity.				

CPS ILT0101 NRC Written Exam Question

Q# 52	Exam RO	System # 295038	KA # EK2.05	RO 3.7	SRO 4.7	LP #	Objective
High Off-Site Release Rate						Cognitive Level: RECALL	
Knowledge of the interrelations between HIGH OFF-SITE RELEASE RATE and the following:						Site Emergency Plan	

What is the LOWEST level of the Emergency Plan that would require entry into EOP-9, Radioactivity Release Control?

- A. Unusual Event
- B. Alert
- C. Site Area Emergency
- D. General Emergency

ANS: B	Reference Provided: None	Reference and Rev: 4406.01 rev 26	Question Source: New	Ques Rev 0
<p>Explanation:</p> <p>B is correct, Alert is the LOWEST activation level requiring EOP-9 entry.</p> <p>A is wrong, no entry required.</p> <p>C is wrong, not the LOWEST activation level.</p> <p>D is wrong, not the LOWEST activation level.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 53	Exam BOTH	System # 295013	KA # AK3.01	RO 3.6	SRO 3.8	LP # LP 85205	Objective .1.9.2
High Suppression Pool Temperature						Cognitive Level: RECALL	
Knowledge of the reasons for the following responses as they apply to HIGH SUPPRESSION POOL TEMPERATURE:						Suppression pool cooling operation	

EOP-6, PRIMARY CONTAINMENT CONTROL, INITIALLY requires operation of Suppression Pool Cooling Mode to preserve _____ requirements.

- A. ECCS pump NPSH
- B. SF Filter Demin Resin
- C. DBA LOCA analysis
- D. ECCS suction piping

ANS: C	Reference Provided: None	Reference and Rev: LP85205 rev 6	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>C is correct, DBA LOCA analysis is dependent on Suppression Pool Temperature at 95°F. A is wrong, DBA LOCA analysis. B is wrong, DBA LOCA analysis. D is wrong, DBA LOCA analysis.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 54	Exam BOTH	System # 295015	KA # AK2.08	RO 3.6	SRO 3.7	LP # 87512	Objective .1.11
Incomplete SCRAM						Cognitive Level: HIGH	
Knowledge of the interrelations between INCOMPLETE SCRAM and the following:						Neutron monitoring system	

During an ATWS, Nuclear Instruments are (1) inserted, so that (2) can be determined.

- | | |
|------------------|-------------------|
| (1) | (2) |
| A. automatically | Shutdown Criteria |
| B. automatically | Power Leg actions |
| C. manually | Shutdown Criteria |
| D. manually | Power Leg actions |

ANS: D	Reference Provided: None	Reference and Rev: 4100.01 rev 18	Question Source: NEW	Ques Rev 0
<p>Explanation: Shutdown criteria is dependent upon Control Rod positions, Reactor Power < IRM Range 7 and lowering is a Power Leg EXIT criteria. D is correct, Nuclear instruments are MANUALLY inserted, to determine power leg actions. A is wrong, Nuclear instruments are MANUALLY inserted, to determine power leg actions. B is wrong, Nuclear instruments are MANUALLY inserted. C is wrong, inserted to determine power leg actions.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
55	BOTH	295016	AA1.06	4.0	4.1	85433	.1.4.6
Control Room Abandonment						Cognitive Level: HIGH	
Ability to operate and/or monitor the following as they apply to CONTROL ROOM ABANDONMENT:						Reactor water level	

The Control Room abandonment is in progress.

Actual Reactor Water Level is +55 inches.

Reactor Pressure is 1000 psig.

BOTH Reactor Recirc Pumps have been tripped.

NO Transfer Switches have been repositioned on the Remote Shutdown Panel.

Reactor Water Level Meter on the Remote Shutdown Panel will indicate (1) because (2).

A. downscale

a Transfer Switch requires repositioning

B. accurately

NO Transfer Switch operation is required and Calibration Conditions are established

C. upscale

NO Transfer Switch operation is required and Calibration Conditions are NOT present

D. upscale

a Transfer Switch requires repositioning

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
B	None	LP 85433 rev 2	NEW	0

Explanation:

B is correct, indicates accurately, requires NO Transfer Switch, cal conditions are present.

A is wrong, indicates accurately, requires NO Transfer Switch.

C is wrong, indicates accurately, cal conditions are present.

D is wrong, indicates accurately, requires NO Transfer Switch, cal conditions are present.

CPS ILT0101 NRC Written Exam Question

Q# 56	Exam BOTH	System # 295016	KA # AA2.04	RO 3.9	SRO 4.1	LP # 85433	Objective
Control Room Abandonment						Cognitive Level: HIGH	
Ability to determine and/or interpret the following as they apply to CONTROL ROOM ABANDONMENT:						Suppression pool temperature	

On the Remote Shutdown Panel, there are a total of (1) Suppression Pool Temperature indicators.

When an SRV is OPENED from the Remote Shutdown Panel, (2) of the indicators will RISE more than the others.

- | | | | |
|----|-----|--|-----|
| | (1) | | (2) |
| A. | 3 | | 1 |
| B. | 3 | | 2 |
| C. | 6 | | 1 |
| D. | 6 | | 2 |

ANS: D	Reference Provided: None	Reference and Rev: LP 85433 rev 2	Question Source: NEW	Ques Rev 0
<p>Explanation: 3 SRVs each have 2 Suppression Pool temperature indicators near their tailpipes for a total of 6. 2 will rise more than the others when an SRV is OPENED.</p> <p>D is correct, there are 6 indicators of Local Suppression Pool Temperature at SRV Discharges, 2 will rise more than the others when an SRV is OPENED.</p> <p>A is wrong, there are 6 indicators of Local Suppression Pool Temperature at SRV Discharges, 2 will rise more than the others when an SRV is OPENED.</p> <p>B is wrong, there are 6 indicators of Local Suppression Pool Temperature at SRV Discharges.</p> <p>C is wrong, 2 will rise more than the others when an SRV is OPENED.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
57	BOTH	295018	AK2.02	3.4	3.6		
Partial or Complete Loss of Component Cooling Water						Cognitive Level: HIGH	
Knowledge of the interrelations between PARTIAL OR COMPLETE LOSS OF COMPONENT COOLING WATER and the following:						Plant operations	

The reactor is operating at 90% power.

- RECIRC MOTOR A WINDING COOLING WATER FLOW LOW, 5003-3D alarms.
- RECIRC MOTOR B WINDING COOLING WATER FLOW LOW, 5003-3K alarms.
- The B Reactor Operator reports ALL CCW Pumps have tripped and WILL NOT restart.

A (1) is required.

The Main Steam Isolation Valves WILL (2) during the plant cooldown.

(1)

(2)

- | | |
|-------------------------|-------------|
| A. Rapid Plant Shutdown | remain OPEN |
| B. Reactor Scram | be SHUT |
| C. Rapid Plant Shutdown | be SHUT |
| D. Reactor Scram | remain OPEN |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
B	None	3212.01 rev 25c	NEW	0
<p>Explanation: With a TOTAL loss of CCW, Recirc Pumps must be secured within one minute, which requires Reactor Scram, the MSIVs will be SHUT due to loss of Service / Instrument Air (SA Compressors will trip on low CCW pressure).</p> <p>B is correct, Reactor Scram is required, MSIVs will be SHUT.</p> <p>A is wrong, Reactor Scram is required, MSIVs will be SHUT.</p> <p>C is wrong, Reactor Scram is required.</p> <p>D is wrong, MSIVs will be SHUT.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 58	Exam BOTH	System # 295021	KA # AK1.02	RO 3.3	SRO 3.4	LP # 87422	Objective .1.4.6
Loss of Shutdown Cooling						Cognitive Level: HIGH	
Knowledge of the operational implications of the following concepts as they apply to LOSS OF SHUTDOWN COOLING:						Thermal stratification	

The Reactor is in MODE 4.

BOTH Reactor Recirculation Pumps are secured.

BOTH Control Rod Drive Pumps are secured.

Reactor Water Cleanup is NOT in service.

A Group 3 Isolation has occurred on low reactor water level.

Reactor Water Level is now +7 inches Narrow Range.

Which one of the following actions is required?

- A. Maintain reactor water level between +7 and +30 inches on Narrow Range to restart RHR in Shutdown Cooling Mode.
- B. Starting Reactor Water Cleanup with suction from the Recirc Loops ONLY to prevent thermal stratification.
- C. Raise reactor water level to 44 inches on Shutdown Range to prevent thermal stratification.
- D. Start Reactor Water Cleanup with suction from the bottom head drain ONLY to increase core flow.

ANS: C	Reference Provided: None	Reference and Rev: 4006.01 rev 4	Question Source: INPO 15970 VY Significantly modified	Ques Rev 0
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Explanation:

C is correct, It is required to raise level to 44 inches on Shutdown Range to establish Natural Circulation.

A is wrong, 44 inches on Shutdown Range.

B is wrong, Recirc Loop Suction WILL NOT circulate inside the shroud.

D is wrong, does not establish circulation.

CPS ILT0101 NRC Written Exam Question

Q# 59	Exam BOTH	System # 295023	KA # 2.4.10	RO 3.0	SRO 3.1	LP #	Objective
Refueling Accidents						Cognitive Level: RECALL	
Emergency Procedures and Plan						Knowledge of annunciator response procedures.	

DROPPED FUEL BUNDLE WARNING SYSTEM DW 767 AZ 120 is in HIGH ALARM. The B Reactor Operator has verified that the monitor has NOT spiked.

It is required by CPS No. 4979.07, Dropped Fuel Bundle, to _____.

- A. verify Standby Gas Treatment System is operating
- B. notify RP to perform surveys near the ARM
- C. direct the Refuel SRO to recover the dropped fuel bundle
- D. evacuate the Drywell and Containment

ANS: D	Reference Provided: None	Reference and Rev: 5140.17 rev 0	Question Source: NEW	Ques Rev 0
Explanation: D is correct, 5140.17 requires evacuation of the Drywell and Containment. A is wrong, no initiation signal for VG Auto Start has been provided. B is wrong, surveys ONLY required if monitor HAS spiked. C is wrong, 5140.17 requires evacuation of the Drywell and Containment.				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
60	BOTH	295024	EA1.03	4.0	3.9	85209	.1.5.2
High Drywell Pressure						Cognitive Level: HIGH	
Ability to operate and/or monitor the following as they apply to HIGH DRYWELL PRESSURE:						LPCS: Plant-Specific	

- Drywell Pressure is 1.7 psig
- Reactor Pressure is 700 psig
- RPV Water Level is -20" Wide Range

What is the expected status of the Low Pressure Core Spray System?

LPCS Pump	LPCS Injection Valve 1E21-F005
A. ON	OPEN
B. OFF	SHUT
C. ON	SHUT
D. OFF	OPEN

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	LP 85209 rev 3	New	0
<p>Explanation: C is correct, LPCS Pump starts when Drywell Pressure reaches 1.68 psig. 1E21-F005 remains SHUT until 472 psig. A is wrong, 1E21-F005 remains SHUT until 472 psig. B is wrong, LPCS Pump starts when Drywell Pressure reaches 1.68 psig D is wrong, LPCS Pump starts when Drywell Pressure reaches 1.68 psig, 1E21-F005 remains SHUT until 472 psig.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
61	BOTH	295024	EK1.02	3.9	4.1		
High Drywell Pressure						Cognitive Level: HIGH	
Knowledge of the operational implications of the following concepts as they apply to HIGH DRYWELL PRESSURE:						Containment building integrity: Mark-III	

At 1000, the reactor was operating at 90% power
 At 1001, Drywell Pressure is 3 psig.

At 1003, the expected positions of the following valves are:

Main Steam Line A Inboard
 MSIV, B21-F022A

Equipment Drain Sump Discharge
 Containment Outboard Valve, 1RE022

- | | | |
|----|------|------|
| A. | SHUT | SHUT |
| B. | SHUT | OPEN |
| C. | OPEN | OPEN |
| D. | OPEN | SHUT |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	4001.02 rev 14	New	0
Explanation: D is correct, MSIV OPEN, Equipment Drain Valve SHUT. A is wrong, MSIV OPEN. B is wrong, MSIV OPEN, Equipment Drain Valve SHUT. C is wrong, Equipment Drain Valve SHUT.				

CPS ILT0101 NRC Written Exam Question

Q# 62	Exam BOTH	System # 295025	KA # EK3.06	RO 4.2	SRO 4.4	LP # 87212	Objective .1.1.2
High Reactor Pressure						Cognitive Level: RECALL	
Knowledge of the reasons for the following responses as they apply to HIGH REACTOR PRESSURE:						Alternate rod insertion: Plant-Specific	

ARI Logic actuates at (1) psig to (2) .

- | | | | |
|----|------|-----|--------------------------------------------------|
| | (1) | (2) | |
| A. | 1127 | | provide an alternate means of initiating a scram |
| B. | 1127 | | prevent exceeding the RPV Design Pressure |
| C. | 1065 | | provide an alternate means of initiating a scram |
| D. | 1065 | | prevent exceeding the RPV Design Pressure |

ANS: A	Reference Provided: None	Reference and Rev: 87212 rev 1	Question Source: New	Ques Rev 0
<p>Explanation:</p> <p>A is correct per reference.</p> <p>B is wrong, ARI is not considered in overpressure protection (not Safety Related).</p> <p>C is wrong, actuates at 1127.</p> <p>D is wrong, actuates at 1127, ARI is not considered in overpressure protection (not Safety Related)</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
63	BOTH	295026	EK1.01	3.0	3.4	85726	K1.10
Suppression Pool High Water Temperature						Cognitive Level: HIGH	
Knowledge of the operational implications of the following concepts as they apply to SUPPRESSION POOL HIGH WATER TEMPERATURE:						Pump NPSH	

- RCIC is injecting to the RPV at 600 gpm.
- RCIC Suction is aligned to the Suppression Pool.

As Suppression Pool Temperature RISES, Net Positive Suction Head to the RCIC Pump (1) .
To reverse the trend in Net Positive Suction Head, (2) .

(1)

(2)

- | | |
|-----------|--------------------------------------------|
| A. LOWERS | adjust the RCIC Flow Controller to 700 gpm |
| B. LOWERS | transfer suction to the RCIC Storage Tank |
| C. RISES | adjust the RCIC Flow Controller to 700 gpm |
| D. RISES | transfer suction to the RCIC Storage Tank |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
B	None	LP 85726 rev 3	NEW	0
<p>Explanation: RISING Suppression Pool Temperature LOWERS NPSH to RCIC Pump. RCIC Storage Tank offers higher elevational head and cooler water than the Suppression Pool which will RAISE NPSH.</p> <p>B is correct, RISING Suppression Pool Temperature LOWERS NPSH to RCIC Pump. RCIC Storage Tank will RAISE NPSH.</p> <p>A is wrong, transferring to the RCIC Storage Tank will RAISE NPSH.</p> <p>C is wrong, RISING Suppression Pool Temperature LOWERS NPSH to RCIC Pump. RCIC Storage Tank will RAISE NPSH.</p> <p>D is wrong, RISING Suppression Pool Temperature, LOWERS NPSH to RCIC Pump.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
64	BOTH	295027	EK3.01	3.7	3.8		
High Containment Temperature (Mark III Containment Only)						Cognitive Level: RECALL	
Knowledge of the reasons for the following responses as they apply to HIGH CONTAINMENT TEMPERATURE (MARK III CONTAINMENT ONLY):						Emergency depressurization: Mark-III	

Why does EOP-6, PRIMARY CONTAINMENT CONTROL require a BLOWDOWN if Primary Containment Temperature CANNOT be held below 185°F?

- A. To prevent exceeding the Primary Containment Design Temperature.
- B. To ensure stable steam condensation.
- C. To ensure ADS Solenoids will still be functional.
- D. To prevent exceeding the Drywell Design Temperature.

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	EOP Bases 8-3 rev 3	NEW	0
<p>Explanation: A is correct, BLOWDOWN is required to prevent exceeding Primary Containment Design Temperature. B is wrong, to prevent exceeding Primary Containment Design Temperature. C is wrong, to prevent exceeding Primary Containment Design Temperature. D is wrong, to prevent exceeding Primary Containment Design Temperature.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 65	Exam BOTH	System # 295028	KA # EK3.05	RO 3.6	SRO 3.7	LP #	Objective
High Drywell Temperature						Cognitive Level: RECALL	
Knowledge of the reasons for the following responses as they apply to HIGH DRYWELL TEMPERATURE:						Reactor SCRAM	

The reason for scrambling the reactor BEFORE Drywell Temperature reaches 330°F is _____.

- A. to reduce RPV Level instrument inaccuracies
- B. to reduce the rate of heat input to the drywell
- C. to allow Reactor Recirculation pumps to be shutdown before seal damage occurs
- D. to allow the MSIVs to be SHUT before exceeding their design temperature

ANS: B	Reference Provided: None	Reference and Rev: EOP Bases 8-7 rev 3	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>B is correct, reference states verbatim.</p> <p>A is wrong, RPV Level accuracy is unaffected by scram.</p> <p>C is wrong, RR Pump trip is not addressed in EOP-6.</p> <p>D is wrong, MSIVs should be left OPEN so that Anticipation of Emergency Depressurization in EOP-1 can be performed.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
66	BOTH	295029	EK1.01	3.4	3.7		
High Suppression Pool Water Level						Cognitive Level: RECALL	
Knowledge of the operational implications of the following concepts as they apply to HIGH SUPPRESSION POOL WATER LEVEL:						Containment integrity	

Opening SRVs while Suppression Pool Water Level is above Figure Q, SRV Tail Pipe Limit may produce a failure that results in _____.

- A. actuation of Suppression Pool Makeup
- B. steam entrainment in pump suction
- C. direct pressurization of the containment
- D. invalid actuation of ECCS systems

ANS: C	Reference Provided: EOP-6 Figure Q	Reference and Rev: EOP Bases 8-18	Question Source: NEW	Ques Rev 0
<p>Explanation: C is correct, operation of SRVs while above the SRV Tail Pipe Limit may result in Tail Pipe failure which results in direct pressurization of the containment. A is wrong, Suppression Pool Makeup results from Low Suppression Pool Water Level. B is wrong, pump suction are separated from SRV Tailpipes. D is wrong, pressurization of the Containment / Drywell would result in valid ECCS signal.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 67	Exam BOTH	System # 295031	KA # EA1.08	RO 3.8	SRO 3.9	LP #	Objective
Reactor Low Water Level						Cognitive Level: RECALL	
Ability to operate and/or monitor the following as they apply to REACTOR LOW WATER LEVEL:						Alternate injection systems: Plant-specific	

Which one of the following requires LOCAL operation to accomplish injection to the reactor?

- A. LPCS / RHR A Water Leg Pump
- B. Fire Protection
- C. Shutdown Service Water
- D. Standby Liquid Control from the Storage Tank

ANS: B	Reference Provided: None	Reference and Rev: 4411.03 rev 6	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>B is correct, Fire Protection requires Local operation.</p> <p>A is wrong, can be performed from Main Control Room.</p> <p>C is wrong, can be performed from Main Control Room.</p> <p>D is wrong, can be performed from Main Control Room.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
68	BOTH	295031	EK2.01	4.4	4.4	85423	.1.7.5
Reactor Low Water Level						Cognitive Level: HIGH	
Knowledge of the interrelations between REACTOR LOW WATER LEVEL and the following:						Reactor water level indication	

- The reactor is SHUTDOWN.
- Reactor Recirculation Pumps are OFF.
- Reactor Pressure is 1000 psig.
- RPV Level is -170 inches Fuel Zone.

INDICATED RPV Level on Fuel Zone is (1) than ACTUAL Level.

As the reactor cools down, Fuel Zone becomes (2) accurate.

- | | | |
|----|--------|------|
| A. | HIGHER | LESS |
| B. | HIGHER | MORE |
| C. | LOWER | LESS |
| D. | LOWER | MORE |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	LP 85423 rev 2	NEW	0
<p>Explanation: D is correct, calibration conditions for Fuel Zone are 212°F, 0 psig. While pressurized, Fuel Zone indicates LOWER than actual level due to LOWER density water in the variable leg. As cooldown progresses, Fuel Zone becomes MORE accurate. A is wrong, indicates LOWER than actual level, becomes MORE accurate. B is wrong, indicates LOWER than actual level. C is wrong, becomes MORE accurate.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
69	RO	295033	EA1.03	3.8	3.8		
High Secondary Containment Area Radiation Levels						Cognitive Level: HIGH	
Ability to operate and/or monitor the following as they apply to HIGH SECONDARY CONTAINMENT AREA RADIATION LEVELS:						Secondary containment ventilation	

- At 10:00, Defeating VF Interlocks, 4410.00C011, was completed.
- At 10:15, Fuel Building Ventilation (VF) was RESTARTED.
- At 10:45, 1RIX-PR006A,B,C, AND D FUEL BUILDING EXHAUST Process Radiation Monitors increased to the HIGH ALARM setpoint.

At 11:00, Fuel Building Ventilation is (1) AND Standby Gas Treatment System is (2) ?

- | | |
|------------|------------|
| (1) | (2) |
| A. RUNNING | in STANDBY |
| B. RUNNING | RUNNING |
| C. TRIPPED | RUNNING |
| D. TRIPPED | in STANDBY |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	4410C011 rev 4	NEW	0
Explanation: C is correct. 4410.00C011 defeats RPV Level 2 and High Drywell Pressure Trips ONLY. This defeat does NOT affect High Radiation Trip / Isolation of VF OR High Radiation Auto Start of VG. Fuel Building Exhaust HIGH Radiation will trip VF AND Auto Start VG. A is wrong, VF is TRIPPED, VG is RUNNING. B is wrong, VF is TRIPPED. D is wrong, VG is RUNNING.				

CPS ILT0101 NRC Written Exam Question

Q# 70	Exam BOTH	System # 295034	KA # EA1.05	RO 3.8	SRO 3.8	LP #	Objective
Secondary Containment Ventilation High Radiation						Cognitive Level: HIGH	
Ability to operate and/or monitor the following as they apply to SECONDARY CONTAINMENT VENTILATION HIGH RADIATION:						Fuel building ventilation: Plant-Specific	

Containment Continuous Purge Exhaust Radiation reads 120 mR/hr.

What is the expected status of the following?

(1) Fuel Building
Exhaust Isolation Damper
1VF09Y.

(2) Standby Gas Treatment System
Accident Range Monitor (AXM),
ORIX-PR008.

- | | | |
|----|------|------------|
| | (1) | (2) |
| A. | SHUT | RUNNING |
| B. | SHUT | IN STANDBY |
| C. | OPEN | RUNNING |
| D. | OPEN | IN STANDBY |

ANS: A	Reference Provided: None	Reference and Rev: 3319.01 rev14	Question Source: NEW	Ques Rev 0
<p>Explanation: A is correct, 1VF09Y shuts as Fuel Building Vents ISOLATE, the AXM ORIX-PR008 is RUNNING. B is wrong, AXM ORIX-PR008 is RUNNING. C is wrong, 1VF09Y shuts. D is wrong, 1VF09Y shuts, AXM ORIX-PR008 is RUNNING..</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
71	BOTH	295035	EK2.01	3.6	3.6	85449	.1.3.3
Secondary Containment High Differential Pressure						Cognitive Level: HIGH	
Knowledge of the interrelations between SECONDARY CONTAINMENT HIGH DIFFERENTIAL PRESSURE and the following:						Secondary containment ventilation	

Secondary Containment Differential Pressure is NORMALLY maintained by the (1) Ventilation System, if Differential Pressure is +0.5 inches of water, it is required to (2).

(1)

(2)

- | | |
|-----------------------|--------------------------------------------|
| A. Auxillary Building | enter EOP-8, Secondary Containment Control |
| B. Auxillary Building | start additional exhaust fans |
| C. Fuel Building | enter EOP-8, Secondary Containment Control |
| D. Fuel Building | start additional exhaust fans |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	85449	NEW	0
<p>Explanation: C is correct, Fuel Building Ventilation maintains D/P, it is required to enter EOP-8. A is wrong, Fuel Building Ventilation maintains D/P. B is wrong, Fuel Building Ventilation maintains D/P, it is required to enter EOP-8.. D is wrong, it is required to enter EOP-8.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 72	Exam BOTH	System # 295036	KA # EA1.03	RO 2.8	SRO 3.0	LP # 85304	Objective
Secondary Containment High Sump/Area Water Level						Cognitive Level: HIGH	
Ability to operate and/or monitor the following as they apply to SECONDARY CONTAINMENT HIGH SUMP/AREA WATER LEVEL:						Radwaste	

Reactor power is 90%.

Suppression Pool Level is 20 feet.

The HPCS Pump Discharge Pressure Instrument sensing line is leaking.

This water is coming from the (1) and will accumulate in a sump and then will be pumped to the (2) Floor Drain Tank.

- | | | | |
|----|-------------------|--|---------------|
| | (1) | | (2) |
| A. | RCIC Storage Tank | | Fuel Building |
| B. | RCIC Storage Tank | | Aux Building |
| C. | Suppression Pool | | Fuel Building |
| D. | Suppression Pool | | Aux Building |

ANS: D	Reference Provided: None	Reference and Rev: LP85304 rev 1 LP85380 rev 2	Question Source: NEW	Ques Rev 0
<p>Explanation: D is correct HPCS suction has swapped to the Suppression Pool, pumped to the Aux Building Floor Drain Tank. the HPCS Sump pumps to the Aux Building Floor Drain Tank. A is wrong, pumped to the Aux Building Floor Drain Tank. B is wrong, Suppression Pool. C is wrong, Suppression Pool, pumped to the Aux Building Floor Drain Tank.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 73	Exam BOTH	System # 295038	KA # EA1.01	RO 3.9	SRO 4.2	LP #	Objective
High Off-Site Release Rate						Cognitive Level: HIGH	
Ability to operate and/or monitor the following as they apply to HIGH OFF-SITE RELEASE RATE:						Stack-gas monitoring system: Plant-Specific	

On the AR/PR Display, the Common Station HVAC Exhaust Stack Monitor, 0RIX-PR001 indicating tile is RED.

The Accident Range HVAC Monitor, 0RIX-PR012 should be in (1).

If it is verified that this indication is NOT due to a spike, it is immediately required to enter (2).

(1)

(2)

- | | | |
|----|-----------|-----------------------------------------------------|
| A. | standby | EOP-9, Radioactivity Release Control |
| B. | standby | Abnormal Release of Airborne Radioactivity, 4979.01 |
| C. | operation | EOP-9, Radioactivity Release Control |
| D. | operation | Abnormal Release of Airborne Radioactivity, 4979.01 |

ANS: D	Reference Provided: None	Reference and Rev: LP 85273 rev 2	Question Source: NEW	Ques Rev 0
<p>Explanation: RED Tile implies HIGH Alarm. 0RIX-PR001 in High Alarm starts 0RIX-PR012. D is correct, 0RIX-PR012 is in operation, enter Abnormal Release of Airborne Radioactivity. A is wrong, 0RIX-PR012 is in operation, enter Abnormal Release of Airborne Radioactivity. B is wrong, 0RIX-PR012 is in operation. C is wrong, enter Abnormal Release of Airborne Radioactivity.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 74	Exam BOTH	System # 400000	KA # A3.01	RO 3.0	SRO 3.0	LP # 85208	Objective .1.4.1
Component Cooling Water System (CCWS)						Cognitive Level: RECALL	
Ability to monitor automatic operations of the CCWS including:						Setpoints on instrument signal levels for normal operations, warnings, and trips that are applicable to the CCWS	

As Component Cooling Water (CC) System Expansion Tank Level LOWERS through ___ inches, ALL running Component Cooling Water (CC) Pumps will TRIP.

- A. 12
- B. 18
- C. 24
- D. 30

ANS: C	Reference Provided: None	Reference and Rev: LP 85208 rev 4	Question Source: NEW	Ques Rev 0
<p>Explanation: C is correct, CC Pumps trip at 24 inches in the CC Expansion Tank.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
75	BOTH	500000	EK1.01	3.3	3.9		
High Containment Hydrogen Concentration						Cognitive Level: RECALL	
Knowledge of the operational implications of the following concepts as they apply to HIGH CONTAINMENT HYDROGEN CONCENTRATIONS:						Containment integrity	

When the containment Deflagration Limit is exceeded, starting the Hydrogen Recombiners is _____.

- A. NOT permitted, because hydrogen ignition sources must be eliminated
- B. NOT permitted, because inadequate hydrogen exists to support recombination
- C. REQUIRED, because it will reduce hydrogen concentration
- D. REQUIRED, because it will prevent a detonable hydrogen mixture

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	EOP Bases 9-13	NEW	0
<p>Explanation: A is correct, Starting Recombiners is NOT permitted, ignition sources are required to be eliminated, resultant pressures could exceed structural capability of the containment. B is wrong, hydrogen concentration is in EXCESS of vendor specified maximum for Recombiner operation, equipment damage could result. C is wrong, NOT permitted, because hydrogen ignition sources must be eliminated. D is wrong, NOT permitted, because hydrogen ignition sources must be eliminated.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
76	BOTH	500000	EK3.02	2.8	3.0		
High Containment Hydrogen Concentration						Cognitive Level: RECALL	
Knowledge of the reasons for the following responses as they apply to HIGH PRIMARY CONTAINMENT HYDROGEN CONCENTRATIONS:						Operation of drywell recirculating fans	

EOP-7, Hydrogen Control, requires operation of mixers when hydrogen is detected in the drywell because they _____.

- A. catalytically recombine hydrogen and oxygen, reducing the concentration of hydrogen in the drywell
- B. are an ignition source, and are used in the event that hydrogen igniters have failed to ignite hydrogen
- C. lower drywell pressure prior to the ignition expected when hydrogen igniters are energized
- D. redistribute hydrogen throughout the containment and drywell, reducing localized concentration

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	EOP Bases 9-9 rev 3	NEW	0
<p>Explanation: D is correct, redistribute hydrogen throughout the containment and drywell, reducing localized concentration. A is wrong, but describes operation of hydrogen recombiners. B is wrong, but describes why hydrogen must be below Deflagration Limit prior to starting mixers. C is wrong, but mixers do lower drywell pressure during operation.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 77	Exam BOTH	System # 600000	KA # AK1.02	RO 2.9	SRO 3.1	LP # 85286 rev 3	Objective .1.2.3
Plant Fire On Site						Cognitive Level: RECALL	
Knowledge of the operation applications of the following concepts as they apply to Plant Fire On Site:						Fire Fighting	

To establish fire fighting water pressure in the Containment, it is required to (1) breakers for 1FP051, 1FP054, 1FP078, and 1FP079, so that these valves may be (2).

- | | | |
|----|-------|--------|
| | (1) | (2) |
| A. | OPEN | OPENED |
| B. | OPEN | SHUT |
| C. | CLOSE | OPENED |
| D. | CLOSE | SHUT |

ANS: C	Reference Provided: None	Reference and Rev: 1893.04 rev 9d	Question Source: NEW	Ques Rev 0
<p>Explanation: C is correct, MOVs 1FP051, 1FP054, 1FP078, and 1 FP079 breakers are normally OFF, require their power breakers turned ON and are required to be OPEN to provide water to hose stations. A is wrong, breakers turned ON. B is wrong, breakers turned ON and OPEN. D is wrong, OPEN.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 78	Exam BOTH	System # 600000	KA # AK3.04	RO 2.8	SRO 3.4	LP # 85567	Objective .1.7
Plant Fire On Site						Cognitive Level: RECALL	
Knowledge of the reasons for the following responses as they apply to PLANT FIRE ON SITE:						Actions contained in the abnormal procedure for plant fire on site	

When the Diesel Generator Fire Protection System Alarm sounds, it is required for personnel to EXIT the Diesel Generator Room because _____.

- A. Water may cause electrical shorts
- B. Dry Chemical extinguishing agent is an irritant
- C. Halon is a carcinogen
- D. Carbon Dioxide will cause suffocation

ANS: D	Reference Provided: None	Reference and Rev: LP 85567 rev 2	Question Source: NEW	Ques Rev 0
<p>Explanation:</p> <p>D is correct, Carbon Dioxide will cause suffocation.</p> <p>A is wrong, Carbon Dioxide is the installed fire suppression agent.</p> <p>B is wrong, Carbon Dioxide is the installed fire suppression agent.</p> <p>C is wrong, Carbon Dioxide is the installed fire suppression agent.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 79	Exam RO	System # 201001	KA # A3.07	RO 3.3	SRO 3.3	LP #	Objective
Control Rod Drive Hydraulic System						Cognitive Level: RECALL	
Ability to monitor automatic operations of the CONTROL ROD DRIVE HYDRAULIC SYSTEM including:						HCU accumulator pressure/level	

Control Rod 28-29 Hydraulic Control Unit Nitrogen Pressure is 1500 psig, this will result in a(n) _____ Alarm.

- A. Low CRD Charging Water Header Pressure
- B. Accumulator Trouble
- C. Rod Control and Information System Inop
- D. High CRD Drive Water Filter D/P

ANS: B	Reference Provided: None	Reference and Rev: 5006-1H rev 32	Question Source: NEW	Ques Rev 0
<p>Explanation: B is correct, Low HCU Nitrogen Pressure is one input to the Accumulator Trouble alarm. A is wrong, but sustained Low Charging Pressure CAN cause HCU pressure to drop. C is wrong, but loss of RC&IS power CAN cause Accumulator Trouble alarm. D is wrong, but high Drive Water Filter D/P can result in lower Charging Pressure.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
80	RO	201003	K5.07	3.3	3.6	85756	
Control Rod and Drive Mechanism						Cognitive Level: HIGH	
Knowledge of the operational implications of the following concepts as they apply to CONTROL ROD AND DRIVE MECHANISM:						How control rod movements affect core reactivity	

Reactor power is 1×10^4 Counts Per Second with a 90 second period indicated on SRMs. The Reactor Operator moves a control rod from notch 08 to notch 04.

Reactor period will _____.

- A. get longer
- B. get shorter
- C. remain the same
- D. cause an alarm

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	85756	NEW	0
Explanation: A is correct, rod insertion will slow down the rate of power rise, or lengthen reactor period. B is wrong, lengthen C is wrong, lengthen D is wrong, lengthen				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
81	RO	202001	K2.01	3.2	3.2	85202	
Recirculation System						Cognitive Level: RECALL	
Knowledge of electrical power supplies to the following:						Recirculation pumps: Plant-Specific	

Reactor Recirculation Pump A is powered from (1) when in FAST speed, and (2) when in SLOW speed.

- | | (1) | (2) |
|----|----------------|-----------------|
| A. | 6.9 KV Bus 1A | 4.16 KV Bus 1A |
| B. | 4.16 KV Bus 1A | 4.16 KV Bus 1A1 |
| C. | 6.9 KV Bus 1A | 4.16 KV Bus 1A1 |
| D. | 4.16 KV Bus 1A | 6.9 KV Bus 1A |

ANS: A	Reference Provided: None	Reference and Rev: LP85202 rev 2	Question Source: NEW	Ques Rev 0
Explanation: A is correct, reference states verbatim, FAST 6.9KV Bus 1A, SLOW 4.16KV Bus 1A				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
82	RO	202002	A2.02	2.9	3.0		
Recirculation Flow Control System						Cognitive Level: HIGH	
Ability to (a) predict the impacts of the following on the RECIRCULATION FLOW CONTROL SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations:						Loss of A.C.	

Reactor is at 90% power.
Both Recirc Flow Control Valves are at 75%.

If AC Power to BOTH subloops for FCV B were lost, what would be the expected valve response AND what action would be taken to mitigate the consequences of this event?

- (1) Valve motion would be inhibited but could drift _____.
(2) Action to mitigate this event is _____.

(1) (2)

- A. SHUT control reactor power by adjusting the operable Flow Control Valve
- B. SHUT scram before exceeding Technical Specification Limit for Jet Pump Flow mismatch
- C. OPEN control reactor power by adjusting the operable Flow Control Valve
- D. OPEN scram before exceeding Technical Specification Limit for Jet Pump Flow mismatch

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	5003.04 rev 30	NEW	0
<p>Explanation: 90% power implies RR in Fast Speed. C is correct, with no hydraulic power and RR in Fast, RR FCV may drift open, correct action is to control power with the operable FCV per 5003.04. A is wrong, OPEN. B is wrong, OPEN, control reactor power by adjusting the operable Flow Control Valve. D is wrong, control reactor power by adjusting the operable Flow Control Valve.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
83	RO	203000	K6.02	2.8	3.0	85205	.1.7.2
RHR/LPCI: Injection Mode (Plant Specific)						Cognitive Level: HIGH	
Knowledge of the effect that a loss or malfunction of the following will have on the RHR/LPCI: INJECTION MODE:						D.C. electrical power	

At 1000, the reactor is in MODE 3 with the following conditions:

- Reactor Pressure is 60 psig.
- BOTH Reactor Recirc Pumps are operating in slow speed.
- RHR B is operating in the Shutdown Cooling Mode.
- HPCS and RHR C are unavailable due to maintenance.
- RPV Inlet Valves, 1B21-F065A and B are SHUT.

At 1005 Division 1 DC power is lost.

At 1010 Recirc Loop A suction pipe ruptured.

Assuming NO operator action, what is the expected final status of:

(1) RHR Pump A 1E12-C002A

(2) LPCI from RHR A Shutoff Valve, 1E12-F042A?

	RHR A Pump 1E12-C002A (1)	LPCI from RHR A Shutoff Valve, 1E12-F042A (2)
A.	NOT RUNNING	OPEN
B.	RUNNING	SHUT
C.	NOT RUNNING	SHUT
D.	RUNNING	OPEN

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	LP 85201 rev 6	NEW	0
<p>Explanation: with HPCS out of service, LPCI setpoint will be reached. A is correct, Division 1 DC loss prevents RHR A pump start, initiation logic remains operable from Div 1 NSPS on alternate power, 1E12-F042A will OPEN. B is wrong, RHR A pump NOT RUNNING, 1E12-F042A will OPEN. C is wrong, 1E12-F042A will OPEN D is wrong, RHR A pump NOT RUNNING.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
84	RO	204000	K3.04	2.6	2.6		
Reactor Water Cleanup System						Cognitive Level: HIGH	
Knowledge of the effect that a loss or malfunction of the REACTOR WATER CLEANUP SYSTEM will have on following:						Reactor water temperature	

- The reactor operated 6 months at 90% power.
- One SRV stuck OPEN resulted in a reactor scram.
- The reactor has been shutdown for 24 hours.
- RPV Water Level is 60 inches on Shutdown Range.
- The condenser is NOT available.
- Shutdown Cooling Mode of RHR is NOT available.
- Alternate Decay Heat Removal is in service with RT Pumps A and B.
- Reactor Temperature is 180°F. Cooldown Rate is 15°F /hour

If the Reactor Water Cleanup System is isolated, Reactor Coolant Temperature will _____.

- A. lower
- B. stabilize at 180°F
- C. rise to 212°F and stabilize
- D. rise to 540°F and stabilize

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	4006.01 rev 4	NEW	0
<p>Explanation: C is correct, when RT is lost, Decay Heat Removal is lost, One SRV stuck OPEN, Coolant Temperature will rise to 212°F and stabilize. A is wrong, Decay Heat Removal is lost, One SRV stuck OPEN, Coolant Temperature will rise to 212°F and stabilize. B is wrong, Decay Heat Removal is lost, One SRV stuck OPEN, Coolant Temperature will rise to 212°F and stabilize. D is wrong, Decay Heat Removal is lost, One SRV stuck OPEN, Coolant Temperature will rise to 212°F and stabilize.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
85	RO	209002	A2.10	2.7	3.0	85380	.1.6.5
High Pressure Core Spray System (HPCS)						Cognitive Level: HIGH	
Ability to (a) predict the impacts of the following on the HIGH PRESSURE CORE SPRAY SYSTEM (HPCS); and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations:						Valve openings: BWR-5, 6	

At 11:00, Drywell Pressure was 1.0 psig.

At 11:00, HPCS Pump automatically started and HPCS Injection Valve 1E22-F004 OPENED.

At 11:05, HPCS Injection Valve 1E22-F004 AUTOMATICALLY SHUT.

At 11:05, HPCS Pump Min Flow to the Suppression Pool 1E22-F012 OPENED.

These events will cause Suppression Pool Level to (1), and if NO operator action is taken, it will be necessary to enter (2).

(1)

(2)

- | | | |
|----|-------|-------------------------------------|
| A. | RISE | EOP-6 PRIMARY CONTAINMENT CONTROL |
| B. | RISE | EOP-8 SECONDARY CONTAINMENT CONTROL |
| C. | LOWER | EOP-6 PRIMARY CONTAINMENT CONTROL |
| D. | LOWER | EOP-8 SECONDARY CONTAINMENT CONTROL |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	LP85380 rev 2	NEW	0
<p>Explanation: A is correct, The normal HPCS Suction is provided by the RCIC Storage Tank, HPCS Pump Min Flow to the Suppression Pool 1E22-F012 is OPEN, which fills the Suppression Pool. The entry condition for EOP -6 on High Suppression Pool Level is 19 feet 5 inches, HPCS Suction will automatically transfer to the Suppression Pool at 19 feet 11.5 inches. B is wrong, EOP-6 PRIMARY CONTAINMENT CONTROL is required C is wrong, Suppression Pool Level will RISE. D is wrong, Suppression Pool Level will RISE, EOP-6 PRIMARY CONTAINMENT CONTROL is required.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 86	Exam RO	System # 215005	KA # A4.06	RO 3.6	SRO 3.8	LP # 87411	Objective .1.1.2
Average Power Range Monitor/Local Power Range Monitor System						Cognitive Level: HIGH	
Ability to manually operate and/or monitor in the control room:						Verification of proper functioning/operability	

APRM Channel A has FOUR (4) associated LPRMs bypassed.

PREDICT the expected meter reading if APRM Channel A Meter Function Selector Switch was placed in the COUNT position.

- A. 27
- B. 28
- C. 29
- D. 30

ANS: C	Reference Provided: None	Reference and Rev: 87411	Question Source: ILT BANK 06106	Ques Rev 0
<p>Explanation: C is correct, there are 33 assigned LPRMs. COUNT indicates 1 unit per UNBYPASSED LPRM. There are 29 unbypassed LPRMs, COUNT will display 29 A is wrong, will indicate 29 B is wrong, will indicate 29 D is wrong, will indicate 29</p>				

CPS ILT0101 NRC Written Exam Question

Q# 87	Exam RO	System # 216000	KA # 2.1.27	RO 2.8	SRO 2.9	LP # 87218	Objective .1.12.2
Nuclear Boiler Instrumentation						Cognitive Level: HIGH	
Conduct of Operations						Knowledge of system purpose and/or function.	

Due to a sensing line failure, the Differential Pressure across Wide Range Reactor Water Level Instrument, B21-N073C has INCREASED.

The level signal input to the associated Analog Trip Module will be (1) than ACTUAL level.

This instrument failure (2) PREVENT the HPCS to Containment Outboard Isolation Valve, 1E22-F004 from automatically repositioning when ACTUAL level reaches Level 8.

- | | |
|-----------|----------|
| (1) | (2) |
| A. HIGHER | WILL |
| B. HIGHER | WILL NOT |
| C. LOWER | WILL |
| D. LOWER | WILL NOT |

ANS: C	Reference Provided: None	Reference and Rev: 87218 rev 1	Question Source: NEW	Ques Rev 0
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Explanation:

Operator must know D/P – Level relationship AND Level 8 logic for 1B21-F004. BOTH N073C AND N073D are required for Level 8 response.

C is correct, High D/P corresponds to a LOWER level input to the ATM. This failure WILL prevent 1E22-F004 from automatically repositioning (SHUT) at Level 8.

A is wrong, LOWER level input to the ATM.

B is wrong, LOWER level input to the ATM. This failure WILL prevent repositioning.

D is wrong, This failure WILL prevent 1E22-F004 from automatically repositioning.

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
89	RO	217000	K5.03	2.6	2.6	85217	.1.5.7
Reactor Core Isolation Cooling System (RCIC)						Cognitive Level: HIGH	
Knowledge of the operational implications of the following concepts as they apply to REACTOR CORE ISOLATION COOLING SYSTEM (RCIC):						Differential pressure indication	

- RCIC is running, injecting 600 gpm to the reactor.
- RCIC suction is aligned to the Suppression Pool.
- RCIC DIV 1 STEAM LINE DIFFERENTIAL PRESSURE HIGH, 5063- 3A alarms.
- RCIC DIV 2 STEAM LINE DIFFERENTIAL PRESSURE HIGH, 5063- 4A alarms.

What is the status of (1) RCIC Suppression Pool Suction Valve, 1E51-F031 AND (2) RCIC Pump Discharge to the Reactor Outboard Isolation Valve, 1E51-F013 FIVE MINUTES LATER?

(1)
RCIC Suppression Pool
Suction Valve, 1E51-F031

(2)
RCIC Pump Discharge to the Reactor
Outboard Isolation Valve, 1E51-F013

- | | | |
|----|------|------|
| A. | SHUT | SHUT |
| B. | SHUT | OPEN |
| C. | OPEN | SHUT |
| D. | OPEN | OPEN |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	5063.03 rev33	NEW	0

Explanation:

A is correct High Steam Line D/P is a GROUP 5 AND 6 RCIC ISOLATION signal, which SHUTS 1E51-F031. ALL ISOLATION SIGNALS are RCIC Turbine Trip Signals. RCIC Trip SHUTS 1E51-F013

B is wrong, RCIC Trip Signal SHUTS 1E51-F013.

C is wrong, High Steam Line D/P is a GROUP 5 AND 6 RCIC ISOLATION signal, which SHUTS 1E51-F031

D is wrong, High Steam Line D/P is a GROUP 5 AND 6 RCIC ISOLATION signal, which SHUTS 1E51-F031. ALL ISOLATION SIGNALS are RCIC Turbine Trip Signals. RCIC Trip SHUTS 1E51-F013

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
90	RO	223002	2.4.31	3.3	3.4		
Primary Containment Isolation System/Nuclear Steam Supply Shut-Off						Cognitive Level: HIGH	
Emergency Procedures and Plan						Knowledge of annunciators alarms and indications, and use of the response instructions.	

With the reactor at 90% power, the following annunciators alarm:

- AUX BLDG MAIN STEAM TUNNEL HIGH TEMP, 5066-1D
- AUX BLDG MAIN STEAM TUNNEL HIGH TEMP, 5067-1D
- RCIC STEAM TUNNEL TIMER BYPASS, 5063-5A

Assuming NO operator actions, PREDICT the status of

- (1) Main Steam Line A Outboard MSIV, 1B21-F028A AND
- (2) RHR and RCIC Steam Supply Inboard Isolation Valve, 1E51-F063

after FIVE MINUTES?

	(1) Main Steam Line A Outboard MSIV, 1B21-F028A	(2) RHR and RCIC Steam Supply Inboard Isolation Valve, 1E51-F063
A.	SHUT	OPEN
B.	SHUT	SHUT
C.	OPEN	SHUT
D.	OPEN	OPEN

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	4100.01	NEW	0
<p>Explanation: A is correct, MS Tunnel High Temp causes Group 1 Isolation and Initiation of a 25 minute delay timer for RCIC Isolation. B is wrong, RCIC Isolation delayed for 25 minutes. C is wrong, MSIVs are shut, RCIC Isolation delayed for 25 minutes. D is wrong, MSIVs are shut.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 91	Exam RO	System # 245000	KA # K3.02	RO 3.9	SRO 4.0	LP # 87498	Objective .1.10
Main Turbine Generator and Auxiliary Systems						Cognitive Level: HIGH	
Knowledge of the effect that a loss or malfunction of the MAIN TURBINE GENERATOR AND AUXILIARY SYSTEMS will have on following:						Reactor pressure	

- The reactor was at 90% power for six months.
- The Turbine Generator tripped due to a fault in Main Power Transformer A.

Assuming ALL systems operate as expected, PREDICT HOW MANY of the following valves OPEN as an INITIAL response to control Reactor pressure?

	MAIN TURBINE BYPASS VALVES	SAFETY RELIEF VALVES
A.	ONLY 3	NONE
B.	ONLY 3	ONLY 3
C.	ALL 6	ONLY 6
D.	ALL 6	ALL 16

ANS: D	Reference Provided: None	Reference and Rev: LP 87498 rev 3	Question Source: NEW	Ques Rev 0
<p>Explanation: D is correct, Transient Analysis shows ALL 6 BPVs AND ALL 16 SRVs OPEN initially. A is wrong, 6 BPVs AND all 16 SRVs OPEN initially. B is wrong, 6 BPVs AND all 16 SRVs OPEN initially. C is wrong, 16 SRVs OPEN initially.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 92	Exam RO	System # 256000	KA # K4.04	RO 2.7	SRO 2.7	LP # 85302	Objective .1.1.2
Reactor Condensate System						Cognitive Level: RECALL	
Knowledge of REACTOR CONDENSATE SYSTEM design feature(s) and/or interlocks which provide for the following:						Maintenance of water quality	

The Condensate Polishing System _____.

- A. filters and purifies water to maintain Reactor feedwater quality
- B. polishes and deionizes high quality water rejected to Radwaste
- C. filters and purifies water to maintain quality in the Auxiliary Boilers
- D. polishes and deionizes high quality water rejected to the Ultrasonic Resin Cleaner

ANS: A	Reference Provided: None	Reference and Rev: 85302 rev 2	Question Source: ILT Bank 10439	Ques Rev 0
Explanation: A is correct, The Condensate Polishing System, filters and purifies water to maintain Reactor feedwater quality.				

CPS ILT0101 NRC Written Exam Question

Q# 93	Exam RO	System # GENERIC	KA # 2.2.13	RO 3.6	SRO 3.8	LP #	Objective
						Cognitive Level:RECALL	
Equipment Control						Knowledge of tagging and clearance procedures.	

While verifying control switch tags in the Main Control Room, it is discovered that a tag has been placed on the wrong valve control switch.

Which one of the following actions is required FIRST?

- A. Stop and notify the Tagging Authority.
- B. Move the tag to the correct component.
- C. Evaluate the impact on the affected system.
- D. Generate a Condition Report.

ANS: A	Reference Provided: None	Reference and Rev: 1014.01 rev 29b	Question Source: NEW	Ques Rev 0
<p>Explanation: A is correct, Stop and notify the Tagging Authority. Distractors are also performed, but are not FIRST.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 94	Exam RO	System # GENERIC	KA # 2.2.30	RO 3.5	SRO 3.3	LP #	Objective
						Cognitive Level: RECALL	
Equipment Control						Knowledge of RO duties in the control room during fuel handling such as alarms from fuel handling area / communication with fuel storage facility / systems operated from the control room in support of fueling operations / and supporting instrumentation.	

Which one of the following is a responsibility of the Reactor Operator during core alterations?

- A. Maintain the official copy of the Special Nuclear Material Move Sheets.
- B. Observe Source Range Monitors for rising counts.
- C. Perform verification of in-core coordinates.
- D. Observe and directly supervise Core Alterations.

ANS: B	Reference Provided: None	Reference and Rev: 3703.01 rev 22b	Question Source: Modified INPO 19164 Braidwood	Ques Rev 0
<p>Explanation:</p> <p>B is correct, stated in reference</p> <p>A is wrong, SNM Custodian / Nuclear Engineer</p> <p>C is wrong, Bridge Operator, Spotter, Refuel SRO</p> <p>D is wrong, Refuel SRO</p>				

CPS ILT0101 NRC Written Exam Question

Q# 95	Exam RO	System # GENERIC	KA # 2.3.9	RO 2.5	SRO 3.4	LP # 85455	Objective .1.9
						Cognitive Level: RECALL	
Radiological Controls						Knowledge of the process for performing a containment purge.	

During a Containment Purge, ventilation is aligned to supply (1) air to the Containment AND (2) exhaust air is discharged to the environment

- | | |
|----------------------|-------------------|
| (1) | (2) |
| A. charcoal filtered | charcoal filtered |
| B. charcoal filtered | unfiltered |
| C. fresh | unfiltered |
| D. fresh | charcoal filtered |

ANS: D	Reference Provided: None	Reference and Rev: 85455 rev 2	Question Source: NEW	Ques Rev 0
<p>Explanation: D is correct, fresh air is supplied, charcoal filtered exhaust is discharged. A is wrong, fresh air is supplied. B is wrong, fresh air is supplied, charcoal filtered exhaust is discharged. C is wrong, charcoal filtered exhaust is discharged.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 96	Exam RO	System # 295002	KA # AA2.04	RO 2.8	SRO 2.9	LP # 85271	Objective .1.5.1
Loss of Main Condenser Vacuum						Cognitive Level: HIGH	
Ability to determine and/or interpret the following as they apply to LOSS OF MAIN CONDENSER VACUUM:						Offgas system flow	

The Reactor is at 90% power.

Off-Gas Post Treatment PRMs 1RIX-PR035 AND 1RIX-PR041 are in HIGH ALARM.

Main Condenser Vacuum is expected to (1) due to (2).

- | | |
|------------|-------------------------------------|
| (1) | (2) |
| A. IMPROVE | a reduction in Off Gas System flow |
| B. IMPROVE | air leaking into the Main Condenser |
| C. DEGRADE | a reduction in Off Gas System flow |
| D. DEGRADE | air leaking into the Main Condenser |

ANS: C	Reference Provided: None	Reference and Rev: 85271 rev 4	Question Source: NEW	Ques Rev 0
<p>Explanation: Reactor at 90% power implies SJAEs and Off Gas are in service, HIGH ALARM on either PRM listed will SHUT 1N66-F060, which isolates Off Gas Flow to the Stack AND is expected to DEGRADE Main Condenser Vacuum.</p> <p>A is wrong, Main Condenser Vacuum is expected to DEGRADE.</p> <p>B is wrong, Main Condenser Vacuum is expected to DEGRADE, due to a reduction in Off Gas Flow.</p> <p>D is wrong, due to a reduction in Off Gas Flow.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 97	Exam RO	System # 295003	KA # AA2.02	RO 4.2	SRO 4.3	LP #	Objective
Partial or Complete Loss of A.C. Power						Cognitive Level: HIGH	
Ability to determine and/or interpret the following as they apply to PARTIAL OR COMPLETE LOSS OF A.C. POWER:						Reactor power, pressure, and level	

Following a reactor scram from 90% power due to a Station Blackout, Source Range Monitors will indicate accurate (1) , AND their detector drive power is (2).

- | | |
|---------------------|---------------------------|
| (1) | (2) |
| A. Level AND Period | maintained by an inverter |
| B. Level AND Period | lost |
| C. Period ONLY | maintained by an inverter |
| D. Period ONLY | lost |

ANS: D	Reference Provided: None	Reference and Rev: 4200.01 rev 15	Question Source: NEW	Ques Rev 0
<p>Explanation: SRMs are normally retracted at power. SRM Drive Power is from CB MCC 1C and AB MCC 1F, BOTH are lost during a SBO. SRM Detectors are retracted and cannot be inserted during the SBO.</p> <p>D is correct, SRMs will indicate accurate Period ONLY, their drives are retracted and are lost during a SBO.</p> <p>A is wrong, Period ONLY, their drives are retracted and are lost during a SBO.</p> <p>B is wrong, Period ONLY.</p> <p>C is wrong, drives are retracted and are lost during an SBO.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
98	RO	295014	AA2.01	4.1	4.2		
Inadvertent Reactivity Addition						Cognitive Level: HIGH	
Ability to determine and/or interpret the following as they apply to INADVERTENT REACTIVITY ADDITION:						Reactor power	

Reactor is at 90 % power.

Due to a failure, High Pressure Heater 6A and 6B Bypass Valve, 1FW014 is stroking OPEN.

INITIALLY, Reactor Power indication on APRMs will (1), due to increasing Core (2) .

(1)

(2)

- | | | |
|----|-------|------------------|
| A. | RISE | Inlet Subcooling |
| B. | RISE | Flow |
| C. | LOWER | Inlet Subcooling |
| D. | LOWER | Flow |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	4005.01 rev 16	NEW	
<p>Explanation:</p> <p>A is correct, APRMs will RISE due to increasing Core Inlet Subcooling.</p> <p>B is wrong, due to increasing Core Inlet Subcooling.</p> <p>C is wrong, APRMs will RISE.</p> <p>D is wrong, APRMs will RISE due to increasing Core Inlet Subcooling.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
99	RO	295028	2.4.1	4.3	4.6		
High Drywell Temperature						Cognitive Level: RECALL	
Emergency Procedures and Plan						Knowledge of EOP entry conditions and immediate action steps.	

Which one of the following is the MINIMUM Drywell Temperature which requires entry into EOP-6, PRIMARY CONTAINMENT CONTROL?

- A. 146°F
- B. 151°F
- C. 156°F
- D. 161°F

ANS: B	Reference Provided: None	Reference and Rev: EOP Bases 8-2 rev 3	Question Source: NEW	Ques Rev 0
<p>Explanation: B is correct, it is required to enter EOP-6 PRIMARY CONTAINMENT CONTROL above 150°F. A is wrong, NOT above 150°F C is wrong, NOT the MINIMUM. D is wrong, NOT the MINIMUM.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 100	Exam RO	System # 400000	KA # K1.03	RO 2.7	SRO 3.0	LP # 85208	Objective .1.2.6
Component Cooling Water System (CCWS)						Cognitive Level: RECALL	
Knowledge of the physical connections and/or cause-effect relationships between CCWS and the following:						Radiation monitoring systems	

The Process Radiation Monitor which samples the Component Cooling Water System is physically connected to the system at the _____.

- A. outlet piping of the CCW Heat Exchangers
- B. discharge piping of the CCW Pumps
- C. return piping to the CCW Pumps
- D. the inlet piping to the CCW Demin

ANS: C	Reference Provided: None	Reference and Rev: 85208 rev 4	Question Source: NEW	Ques Rev 0
Explanation: C is correct, CCW Return Header PRM, 1RIX-PR037 is physically connected to the system at the return piping to the CCW Pumps.				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
101	SRO	209001	2.1.33	3.4	4.0		
Low Pressure Core Spray System						Cognitive Level:HIGH	
Conduct of Operations						Ability to recognize indications for system operating parameters which are entry-level conditions for technical specifications.	

Low Pressure Core Spray Pump Min Flow Recirc Valve, 1E21-F011 failed to stroke OPEN during Low Pressure Core Spray Valve Operability, 9052.02.

As a result, Low Pressure Core Spray is (1).
LPCS helps to ensure cladding temperature is limited to (2) in the event of a DBA LOCA.

- | | |
|---------------|--------|
| (1) | (2) |
| A. OPERABLE | 3300°F |
| B. OPERABLE | 2200°F |
| C. INOPERABLE | 3300°F |
| D. INOPERABLE | 2200°F |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	ITS B.3.5.1	NEW	0
<p>Explanation:</p> <p>D is correct, LPCS is INOPERABLE, LPCS limits fuel cladding temperature to 2200°F.</p> <p>A is wrong, LPCS is INOPERABLE, LPCS limits fuel cladding temperature to 2200°F.</p> <p>B is wrong, LPCS is INOPERABLE.</p> <p>C is wrong, LPCS limits fuel cladding temperature to 2200°F</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
102	SRO	223002	2.1.11	3.0	3.8		
Primary Containment Isolation System/Nuclear Steam Supply Shut-Off						Cognitive Level: HIGH	
Conduct of Operations						Knowledge of less than one hour technical specification action statements for systems.	

The reactor is operating at 90% power.

BOTH Main Steam Drain and MSIV Bypass Inboard Isolation Valve, 1B21-F016 AND Main Steam Drain and MSIV Bypass Outboard Isolation Valve, 1B21-F019 are inoperable due to slow stroke time.

The required action is to isolate the penetration flow path (1) .

The basis for this requirement is to limit (2) .

(1)

(2)

- | | |
|-------------------|--------------------------------------------|
| A. within 1 hour | fission product release to the environment |
| B. within 4 hours | inventory loss from the reactor |
| C. within 1 hour | inventory loss from the reactor |
| D. within 4 hours | fission product release to the environment |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	ITS B3.6.1.3B	NEW	0
<p>Explanation: A is correct, ITS 3.6.1.3B requires the flowpath isolated within 1 hour, the basis is to limit fission product release to the environment. B is wrong, requires the flowpath isolated within 1 hour, the basis is to limit fission product release to the environment. C is wrong, the basis is to limit fission product release to the environment. D is wrong, requires the flowpath isolated within 1 hour.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
103	SRO	239003	2.4.10	3.0	3.1		
MSIV Leakage Control System						Cognitive Level: RECALL	
Emergency Procedures and Plan						Knowledge of annunciator response procedures.	

A LOCA has occurred.

Main Steam Isolation Valve Leakage Control System has been initiated.

LOW DILUTION AIR FLOW, 5067-5J alarms.

The cause of the annunciator is (1) steam leakage past the MSIVs.

It is required to isolate the (2) Main Steam Isolation Valve Leakage Control System.

- | | | |
|----|------|----------|
| | (1) | (2) |
| A. | LOW | Outboard |
| B. | LOW | Inboard |
| C. | HIGH | Outboard |
| D. | HIGH | Inboard |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	5067-5J rev 31	NEW	0
<p>Explanation:</p> <p>C is correct. HIGH steam leakage past the MSIVs causes Low Dilution Flow, it is required to isolate the Outboard MSIV-LCS.</p> <p>A is wrong, HIGH steam leakage past the MSIVs causes Low Dilution Flow.</p> <p>B is wrong, HIGH steam leakage past the MSIVs causes Low Dilution Flow, it is required to isolate the Outboard MSIV-LCS.</p> <p>D is wrong, it is required to isolate the Outboard MSIV-LCS.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
104	SRO	264000	2.2.22	3.4	4.1		
Emergency Generators (Diesel/Jet)						Cognitive Level: HIGH	
Equipment Control						Knowledge of limiting conditions for operations and safety limits.	

- The plant is at 90% power.
- 1A Diesel Generator is tagged out for turbocharger repair.
- HIGH/LOW TEMPERATURE DIESEL GENERATOR ROOM 1B, 5052-4A alarms.
- Diesel Generator Room 1B Temperature is 48°F and LOWERING.

Determine the proper action AND the basis for the requirement.

The required action is (1) within 2 hours.

The basis for the requirement is to provide adequate power to (2).

(1)

(2)

- | | |
|------------------------------|----------------------------------------|
| A. start and load DG 1C | ECCS pumps in the event of a LOOP LOCA |
| B. start and load DG 1C | perform a controlled plant shutdown |
| C. make 1A or 1B DG operable | ECCS pumps in the event of a LOOP LOCA |
| D. make 1A or 1B DG operable | perform a controlled plant shutdown |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	ITS 3.8.1	ITS 3.8.1.E	Modified LC060	0
<p>Explanation: C is correct, it is required to make 1A or 1B DG operable to provide power to ECCS pumps. A is wrong, it is required to make 1A or 1B DG operable. B is wrong, it is required to make 1A or 1B DG operable to provide power to ECCS pumps. D is wrong, to provide power to ECCS pumps.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
105	SRO	272000	2.1.33	3.4	4.0		
Radiation Monitoring System						Cognitive Level: HIGH	
Conduct of Operations						Ability to recognize indications for system operating parameters which are entry-level conditions for technical specifications.	

The plant is at 90% power.

Division 1 Shutdown Service Water Effluent Process Radiation Monitor 1RIX-PR038 is in LOW FAIL.

It is required to (1) to prevent an unmonitored radioactive release to the (2).

(1)

(2)

- | | |
|-------------------------------------------------------|------------------------|
| A. secure flow through the Plant Service Water System | Ultimate Heat Sink |
| B. analyze grab samples every 12 hours | Ultimate Heat Sink |
| C. secure flow through the Plant Service Water System | Discharge Flume |
| <u>D. analyze grab samples every 12 hours</u> | <u>Discharge Flume</u> |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
B	None	ODCM 2.7-1	NEW	0
<p>Explanation: B is correct, It is required to analyze grab samples every 12 hours to prevent a radioactive release to the Ultimate Heat Sink. A is wrong, It is required to analyze grab samples every 12 hours. C is wrong, It is required to analyze grab samples every 12 hours to prevent a radioactive release to the Ultimate Heat Sink. D is wrong, to prevent a radioactive release to the Ultimate Heat Sink.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
106	SRO	290002	2.2.22	3.4	4.1	87439 rev 2	1.1.3
Reactor Vessel Internals						Cognitive Level: HIGH	
Equipment Control						Knowledge of limiting conditions for operations and safety limits.	

- The plant is in MODE 2
- Reactor Pressure is 600 psig
- Reactor Power is 28%

It is required to (1) because of (2) concerns.

- | | |
|---------------------------------|------------------------|
| (1) | (2) |
| A. Be in MODE 3 within 8 hours | reactor coolant system |
| B. Be in MODE 3 within 8 hours | fuel cladding |
| C. Notify the NRC within 1 hour | reactor coolant system |
| D. Notify the NRC within 1 hour | fuel cladding |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	ITS 2.1.1.1	NEW	0
<p>Explanation:</p> <p>D is correct, MCPR safety limit is violated, Notify the NRC , this limit protects the cladding..</p> <p>A is wrong, Notify the NRC within 1 hour.</p> <p>B is wrong, Notify the NRC within 1 hour, this limit protects the cladding.</p> <p>C is wrong, this limit protects the cladding</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
107	SRO	GENERIC	2.1.20	4.3	4.2		
						Cognitive Level: RECALL	
Conduct of Operations						Ability to execute procedure steps.	

Which one of the following is the required action per Core Alterations, 3703.01, when a fuel bundle has been placed in an incorrect core location and released?

- A. Move the bundle from the incorrect location to the correct location
- B. Note the actual location on the SNM move sheet and continue.
- C. Move the bundle from the incorrect location to the original location.
- D. Initiate a Condition Report and contact a Reactor Engineer.

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	3703.01 rev 23	NEW	0
Explanation: D is correct, Initiate a Condition Report and contact a Reactor Engineer.				

CPS ILT0101 NRC Written Exam Question

Q# 108	Exam SRO	System # GENERIC	KA # 2.1.33	RO 3.4	SRO 4.0	LP #	Objective
						Cognitive Level: HIGH	
Conduct of Operations						Ability to recognize indications for system operating parameters which are entry-level conditions for technical specifications.	

- Reactor Power is 90%.
- Total Core Flow is 84.5 Mlb/hr.
- Loop A Jet Pump Flow is 39.5 Mlb/hr.
- Loop B Jet Pump Flow is 45.0 Mlb/hr.

This combination (1) Technical Specification LCO requirements.

The basis of the applicable Technical Specification LCO is to ensure that (2) preserved.

(1)

(2)

- | | |
|------------------|------------------------------------|
| A. MEETS | the ability to reflood the core is |
| B. MEETS | loop coastdown characteristics are |
| C. DOES NOT MEET | the ability to reflood the core is |
| D. DOES NOT MEET | loop coastdown characteristics are |

ANS: D	Reference Provided: Calculator	Reference and Rev: ITS 3.4.1.A	Question Source: NEW	Ques Rev 0
<p>Explanation: allowable mismatch $\geq 70\%$ core flow is 5% rated core flow(4.225 Mlb/hr). D is correct, DOES NOT MEET Tech Spec requirements, LCO ensures loop coastdown characteristics are preserved. A is wrong, DOES NOT MEET Tech Spec requirements, LCO ensures loop coastdown characteristics are preserved. B is wrong, DOES NOT MEET Tech Spec requirements. C is wrong, LCO ensures loop coastdown characteristics are preserved.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
109	SRO	GENERIC	2.2.25	2.5	3.7		
						Cognitive Level: RECALL	
Equipment Control						Knowledge of bases in technical specifications for limiting conditions for operations and safety limits.	

The Reactor Coolant System Pressure Safety Limit is (1) psig as measured in the steam dome and is based on (2) of design pressure.

- | | |
|---------|------|
| (1) | (2) |
| A. 1375 | 110% |
| B. 1375 | 125% |
| C. 1325 | 110% |
| D. 1325 | 125% |

ANS: C	Reference Provided: None	Reference and Rev: ITS B2.1.2 rev 0	Question Source: NEW	Ques Rev 0
<p>Explanation: C is correct, 1325 psig, as measured in the steam dome corresponds to 1375 psig at the lowest elevation of the RCS, which corresponds to 110 % of design pressure (1250 psig).</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
110	SRO	GENERIC	2.2.26	2.5	3.7		
						Cognitive Level: HIGH	
Equipment Control						Knowledge of refueling administrative requirements.	

Refueling is in progress.

The Refueling Bridge is moving towards the core with a new fuel assembly.

The A Reactor Operator reports that SRMs indicate as follows:

SRM	A	B	C	D
CPS	2×10^0	4×10^0	6×10^0	5×10^0

Which of the following is the correct action and why?

- A. Complete the fuel move if ALL OTHER SRMs indicate normally because any TWO SRMs are the minimum required for Core Alterations.
- B. Stop Core Alterations ONLY in the affected quadrant because ONE SRM is required in the quadrant receiving Core Alterations.
- C. Stop ALL Core Alterations because ALL SRMs are required for Core Alterations.
- D. Complete the fuel move irrespective of SRM status, because the fuel must be placed in a safe condition.

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
B	None	3703.01 rev 22b	New	0
<p>Explanation: B is correct. One SRM INOP implies 3 are available. Only one quadrant cannot receive Core Alts. The other three quadrants have an operable SRM plus an adjacent SRM. A is wrong, completion is not allowed if the quadrant has inoperable SRM. C is wrong, not required to stop Core Alts, all SRMs not required. D is wrong, completion is only allowed if SRM operability is met.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
111	SRO	GENERIC	2.3.1	2.6	3.0		
						Cognitive Level: HIGH	
Radiological Controls						Knowledge of 10 CFR 20 and related facility radiation control requirements.	

During a refueling outage, with LPRM detector replacement in progress; an LPRM detector is discovered in a trash barrel in the Auxiliary Building by a contractor.

RP determined that the contractor received:

- 4 Rem Whole Body
- 16 Rem to the eyes
- 25 Rem shallow dose to his right hand

What is (are) the required notification(s)?

1. A report specifying the exposure issued to the contractor.
2. Notify the NRC Operations Center via the ENS immediately, but no later than 1 hour.
3. Notify the NRC Operations Center within 24 hours.
4. Submit a written report to the NRC within 30 days.

A. 1 ONLY

B. 1, 2 and 4 ONLY

C. 1 and 4 ONLY

D. 1, 3 and 4 ONLY

ANS: D	Reference Provided: LS-AA-1120 rev 0 pages 17-21	Reference and Rev: LS-AA-1120 rev 0	Question Source: NEW	Ques Rev 0
-----------	--------------------------------------------------------	----------------------------------------	-------------------------	---------------

Explanation:

C is correct, It is required to Notify the NRC within 24 hours, submit a written report to the contractor and the NRC within 30 days.

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
112	SRO	GENERIC	2.3.8	2.3	3.2		
						Cognitive Level: RECALL	
Radiological Controls						Knowledge of the process for performing a planned gaseous radioactive release.	

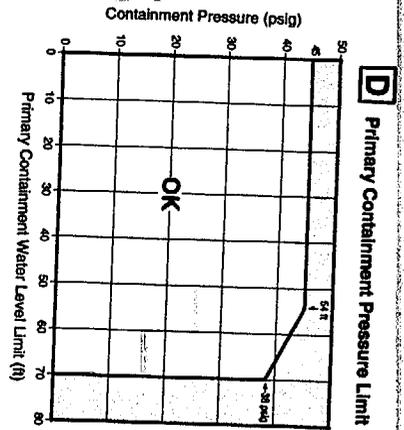
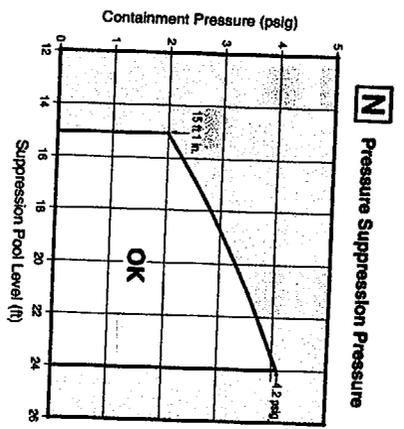
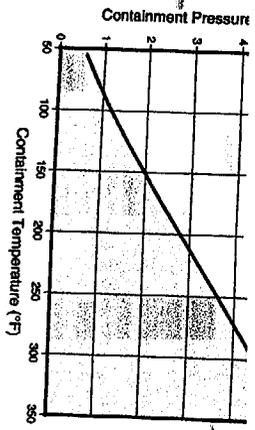
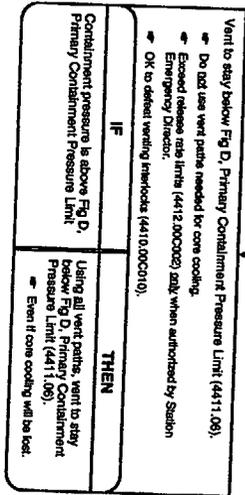
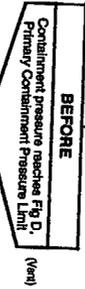
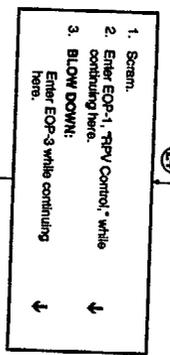
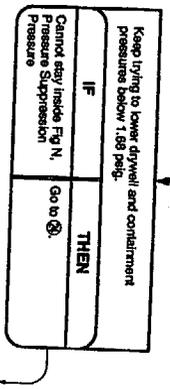
Containment Venting is required per EOP-6, Primary Containment Control. Permission to exceed release rate limits is required from the _____.

- A. Control Room Supervisor
- B. Radiation Protection Manager
- C. Emergency Director
- D. Plant Manager

ANS: C	Reference Provided: Blackout EOP-6	Reference and Rev: 4411.06 rev 4	Question Source: NEW	Ques Rev 0
Explanation: C is correct, the Emergency Director must authorize exceeding release rates in EOP-6.				



Emergency system.
 Do not use RHP pumps you need for core cooling.



DRAFT 1/31/2002

EMERGENCY OPERATING PROCEDURE		CLINTON POWER STATION	
PRIMARY CONTAINMENT CONTROL		4402.01	
Approval Verified:	Approved Documentation on File:	NO.:	REV.
Date:	Date:	4402.01	26
		SHEET 1 OF 1	

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
113	SRO	GENERIC	2.4.4	4.0	4.3	87296	.1.1
						Cognitive Level: HIGH	
Emergency Procedures and Plan						Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures.	

The plant is operating at 90% power.

- Fuel movement activities are being conducted in the Spent Fuel Pool.
- A fuel assembly is inadvertently dropped while being moved.
- Bubbles are seen by the operators on the Fuel Handling Bridge.

The water in the pool REDUCES the (1) radiation hazard and the required action is to enter (2).

- | | | | |
|----|---------------|--|-------------------------------------|
| A. | (1)
Iodine | | (2)
4979.07 DROPPED FUEL BUNDLE |
| B. | Noble Gas | | EOP-9 RADIOACTIVITY RELEASE CONTROL |
| C. | Iodine | | EOP-9 RADIOACTIVITY RELEASE CONTROL |
| D. | Noble Gas | | 4979.07 DROPPED FUEL BUNDLE |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	4979.07 rev 0	NEW	0
<p>Explanation: A is correct, Iodine is absorbed by the pool, which reduces the hazard . Noble Gas absorption is negligible, 4979.07 is the correct procedure. B is wrong, Noble Gas absorption is negligible. no ALERT EAL, not outside secondary containment. C is wrong, no ALERT EAL, not outside secondary containment. D is wrong, Noble Gas absorption is negligible.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
114	SRO	295004	2.4.11	3.4	3.6		
Partial or Complete Loss of D.C. Power						Cognitive Level: RECALL	
Emergency Procedures and Plan						Knowledge of abnormal condition procedures.	

- The reactor is at 90% power
- All Circulating Water Pumps are in service.
- All Auxiliary Power Buses are supplied by their MAIN source.
- TRIP 125V DC MCC 1E BREAKER, 5012-6A alarms
- UNDERVOLTAGE 125V DCMCC 1E alarms
- DC MCC 1E BUS VOLTAGE is 0 VDC

It is required to immediately enter (1).

Execution of these procedure steps will require entry into (2).

(1)

(2)

- | | |
|------------------------------|-------------------------------|
| A. Loss of AC Power, 4200.01 | Reactor Scram, 4100.01 |
| B. Loss of AC Power, 4200.01 | Rapid Plant Shutdown, 3005.01 |
| C. Loss of DC Power, 4201.01 | Rapid Plant Shutdown, 3005.01 |
| D. Loss of DC Power, 4201.01 | Reactor Scram, 4100.01 |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	4201.01 rev 4a	NEW	0
Explanation: D is correct, Loss of DC power, 4201.01, Reactor Scram, 4100.01. A is wrong, Loss of DC power, 4201.01. B is wrong, Loss of DC power, 4201.01, Reactor Scram, 4100.01. C is wrong, Reactor Scram, 4100.01				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
115	SRO	295004	AA2.02	3.5	3.9		
Partial or Complete Loss of D.C. Power						Cognitive Level: HIGH	
Ability to determine and/or interpret the following as they apply to PARTIAL OR COMPLETE LOSS OF D.C. POWER:						Extent of partial or complete loss of D.C. power	

The reactor is at 90% power.

TRIP 125V DC MCC 1A BREAKER, 5060-1E alarms.

Diesel Generator 1A Output Breaker GREEN light is LIT.

C Area Operator reports 125V DC MCC 1A Battery Feed Breaker is TRIPPED and will not reset.

It is required to (1) .

If a Loss of Offsite Power occurs while in this condition, Diesel Generator 1A (2) start.

(1)

(2)

- | | |
|---------------------------------------------------|----------|
| A. restore the battery to operable within 2 hours | WILL NOT |
| B. restore the battery to operable within 2 hours | WILL |
| C. verify the charger is operable within 4 hours | WILL NOT |
| D. verify the charger is operable within 4 hours | WILL |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	ITS 3.8.4 no bases	ITS B.3.8.4 rev 6-5	NEW	0
<p>Explanation: The impact on the Emergency Diesel Generator is listed in Bases of 3.8.4. A is correct, restore the battery within 2 hours, EDG WILL NOT start. B is wrong, EDG WILL NOT start.. C is wrong, restore the battery within 2 hours.. D is wrong, restore the battery within 2 hours, EDG WILL NOT start.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
116	SRO	295012	AA2.01	3.8	3.9		
High Drywell Temperature						Cognitive Level: HIGH	
Ability to determine and/or interpret the following as they apply to HIGH DRYWELL TEMPERATURE:						Drywell temperature	

You are the CRS.

The B Reactor Operator informs you that Drywell Average Air Temperature is 150°F.

This (1) exceed the Technical Specification Limit , which is based on NOT exceeding (2) during a DBA LOCA.

- | | (1) | | (2) |
|----|----------|--|--------------------------|
| A. | DOES NOT | | 330°F in the drywell |
| B. | DOES | | 185°F in the containment |
| C. | DOES NOT | | 185°F in the containment |
| D. | DOES | | 330°F in the drywell |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	ITS B3.6.5.5	NEW	0
<p>Explanation: D is correct, Drywell Average Air Temperature at 150°F exceeds the LCO value of 146.53°F and is based on not exceeding 330°F during a DBA LOCA. A is wrong, exceeds the LCO value. B is wrong, based on not exceeding 330°F during a DBA LOCA. C is wrong, exceeds the LCO value based on not exceeding 330°F during a DBA LOCA.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
117	SRO	295015	AA2.01	4.1	4.3		
Incomplete SCRAM						Cognitive Level: HIGH	
Ability to determine and/or interpret the following as they apply to INCOMPLETE SCRAM:						Reactor power	

- EOP 1A ATWS RPV Control has been entered.
- The plant is at 35% power with five Safety Relief Valves OPEN.
- Reactor Water Level is +30 inches.
- Suppression Pool Temperature is 111°F.
- Drywell Pressure is 1.9 psig.

It is required to Terminate and Prevent Injection and lower level until which one of the following conditions is met?

- A. ONLY one Safety Relief Valve is OPEN.
- B. RPV Level drops to – 60 inches.
- C. Drywell Pressure stays below 1.68 psig.
- D. Reactor Power lowers to 4%.

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	4404.01 rev 26	NEW	0
<p>Explanation: D is correct, It is required to lower level until power is below 5%. A is wrong, All SRVs CLOSED AND Drywell Pressure is < 1.68 psig. B is wrong, -140 inches C is wrong, All SRVs CLOSED AND Drywell Pressure is < 1.68 psig.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
118	SRO	295017	2.4.10	3.0	3.1		
High Off-Site Release Rate						Cognitive Level: HIGH	
Emergency Procedures and Plan						Knowledge of annunciator response procedures.	

- A Radwaste Liquid Discharge is in progress.
- Liquid Radwaste Discharge, ORIX-PR040, is in HIGH ALARM.
- Data review indicates the alarm is NOT due to a spike.

The required action is to (1) AND enter (2).

- | (1) | (2) |
|---------------------------------------------|--------------------------------------------------|
| A. verify liquid discharge has been secured | Abnormal Release of Radioactive Liquids, 4979.05 |
| B. verify liquid discharge has been secured | EOP-9, Radioactivity Release Control |
| C. direct chemistry to obtain a sample | Abnormal Release of Radioactive Liquids, 4979.05 |
| D. direct chemistry to obtain a sample | EOP-9, Radioactivity Release Control |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	5140.54 rev 0	NEW	0
<p>Explanation: A is correct, verify liquid discharge has been secured, enter Abnormal Release of Radioactive Liquids, 4979.05. B is wrong, enter Abnormal Release of Radioactive Liquids, 4979.05. C is wrong, verify liquid discharge has been secured. D is wrong, verify liquid discharge has been secured, enter Abnormal Release of Radioactive Liquids, 4979.05.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
119	SRO	295017	AA2.01	2.9	4.2		
High Off-Site Release Rate						Cognitive Level: HIGH	
Ability to determine and/or interpret the following as they apply to HIGH OFF-SITE RELEASE RATE:						Off-site release rate: Plant-Specific	

A Radwaste Truck wrecked on the site access road at the Highway 54 intersection. The liner has failed resulting in leakage. The Radiation Protection Technician dispatched to the area reports that dose rate at the site boundary has been 15 mr/hr for the last 30 minutes.

It is required to declare an (1) due to an (2).

- | | (1) | (2) |
|------------------|-----|----------------------------------------|
| A. UNUSUAL EVENT | | offsite release |
| B. UNUSUAL EVENT | | unplanned increase in radiation levels |
| C. ALERT | | offsite release |
| D. ALERT | | unplanned increase in radiation levels |

ANS: C	Reference Provided: Radiological Emergency Plan Annex for CPS CL-3 through 16	Reference and Rev: RA-2	Question Source: NEW	Ques Rev 0
<p>Explanation: 10 CFR 55.43(b)4 Radiation Hazards during abnormal situations. C is correct, an ALERT is declared due to an offsite release. A is wrong, an ALERT is declared. B is wrong, an ALERT is declared due to an offsite release. D is wrong, due to an offsite release.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
120	SRO	295019	AA2.01	3.5	3.6		
Partial or Complete Loss of Instrument Air						Cognitive Level: HIGH	
Ability to determine and/or interpret the following as they apply to PARTIAL OR COMPLETE LOSS OF INSTRUMENT AIR:						Instrument air system pressure	

Reactor power is 90%.

AUTO START SERVICE AIR COMPRESSOR, 5041-6B alarms.

At this time, Service Air System Pressure is expected to be (1).

If air pressure were to decrease an additional 10 psig, the Reactor Operator should be directed to perform actions in accordance with (2).

- | | |
|-------------------|---------------------------------|
| (1) | (2) |
| A. 65 and 75 psig | Reactor Scram, 4100.01 |
| B. 65 and 75 psig | Loss of Instrument Air, 4004.01 |
| C. 76 and 85 psig | Reactor Scram, 4100.01 |
| D. 76 and 85 psig | Loss of Instrument Air, 4004.01 |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	4004.01 rev 8	NEW	0
<p>Explanation: Air Compressor Auto Starts at 80 psig. Scram is required at 60 psig. D is correct, 76 and 85 psig, enter Loss of Instrument Air, 4004.01. A is wrong, 76 and 85 psig, enter Loss of Instrument Air, 4004.01. B is wrong, 76 and 85 psig. C is wrong, enter Loss of Instrument Air, 4004.01.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
121	SRO	295022	2.4.10	3.0	3.1		
Loss of CRD Pumps						Cognitive Level: HIGH	
Emergency Procedures and Plan						Knowledge of annunciator response procedures.	

- A reactor startup is in progress.
- Reactor pressure is 0 psig.
- CRD DRIVE WATER PUMP AUTO TRIP, 5068.03 alarms.
- Accumulator Fault annunciator is received for CRD 32-21.
- C Area Operator reports Accumulator 32-21 is 1500 psig.
- CRD 32-21 is at notch position 48.

It is required to IMMEDIATELY (1) because there is inadequate pressure available to ensure rod 32-21's scram (2).

- | | |
|-----------------------------------------------------------|--------------------|
| A. Declare control rod 32-21 inoperable | (1)
(2)
time |
| B. Declare control rod 32-21 inoperable | function |
| C. Place the reactor mode switch in the shutdown position | time |
| D. Place the reactor mode switch in the shutdown position | function |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	ITS 3.1.5D.1	Modified LC432	0
Explanation: D is correct, ITS 3.1.5.C.1 requires immediate verification that all rods associated with inoperable accumulators are inserted. Since rod 32-21 is at notch 48 this time cannot be met. 3.1.5.D.1 requires the reactor mode switch placed in shutdown immediately. A is wrong, required to place the mode switch in shutdown, to ensure scram function. B is wrong, required to place the mode switch in shutdown., Declaring rod 32-21 is a 1 hour action – not IMMEDIATE. C is wrong, to ensure scram function.				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
122	SRO	295027	2.4.11	3.4	3.6		
High Containment Temperature (Mark III Containment Only)						Cognitive Level: HIGH	
Emergency Procedures and Plan						Knowledge of abnormal condition procedures.	

At 1330, RT Pumps A and B are in service.

At 1340, RWCU HX ROOM WEST TEMPERATURE HIGH, 5000-5A alarms.

At 1345, assuming no operator action, RT pumps A and B are (1).

Operator actions should be directed in accordance with (2).

(1)

(2)

- | | |
|----------------|------------------------------------|
| A. NOT RUNNING | Automatic Isolation, 4001.02 |
| B. NOT RUNNING | EOP-6, Primary Containment Control |
| C. RUNNING | Automatic Isolation, 4001.02 |
| D. RUNNING | EOP-6, Primary Containment Control |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
A	None	5000.05 rev 27	NEW	0
<p>Explanation: RT will isolate , RT pumps will trip..</p> <p>A is correct, NOT RUNNING, Automatic Isolation, 4001.02.</p> <p>B is wrong, Automatic Isolation, 4001.02.</p> <p>C is wrong, NOT RUNNING.</p> <p>D is wrong, NOT RUNNING, Automatic Isolation, 4001.02</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
123	SRO	295030	2.4.1	4.3	4.6		
Low Suppression Pool Water Level						Cognitive Level: HIGH	
Emergency Procedures and Plan						Knowledge of EOP entry conditions and immediate action steps.	

Following a reactor scram from 90% power, conditions are as follows.

- Five rods are at notch 48.
- Suppression Pool Level is 18 feet.
- Suppression Pool Temperature is 140°F.
- Reactor Pressure is 1000 psig controlled with Bypass Valves.
- Reactor Water Level is +30 inches.
- Reactor Power is < 1 %
- Standby Liquid Control Pump A is injecting.
- Standby Liquid Control Pump B is tripped.

What action should operators be directed to perform?

- A. Reduce Reactor Water Level to at least -60 inches.
- B. Initiate Alternate Boron Injection.
- C. Reduce Reactor Pressure to less than 950 psig.
- D. Initiate Automatic Depressurization System.

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
C	None	EOP-6	NEW	0
<p>Explanation: Suppression Pool Level at 18 feet requires EOP-6 entry. C is correct, Heat Capacity Limit requires lowering Reactor Pressure below 960 psig. A is wrong, not required to lower level because power is <5%. B is wrong, Boron Injection Temperature Limit is exceeded but SBLC is injecting. D is wrong, is not required because reactor pressure has not been lowered yet.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
124	SRO	295033	2.4.10	3.0	3.1		
High Secondary Containment Area Radiation Levels						Cognitive Level: HIGH	
Emergency Procedures and Plan						Knowledge of annunciator response procedures.	

- New Fuel inspection is in progress in the Fuel Building.
- Spent Fuel Storage Area Radiation Monitor, 1RIX-AR016 is in HIGH ALARM.
- Data review of 1RIX-AR016 indicates 3 mr/hr, RISING slowly.

It is required to enter Abnormal High Area Radiation, 4979.02 (1), and (2).

- | | | |
|----|------------------------------------------|-----------------------|
| | (1) | (2) |
| A. | ONLY | verify VG auto starts |
| B. | ONLY | evacuate the area |
| C. | AND EOP-8, Secondary Containment Control | verify VG auto starts |
| D. | AND EOP-8, Secondary Containment Control | evacuate the area |

ANS:	Reference Provided:	Reference and Rev:	Question Source:	Ques Rev
D	None	5040.08	NEW	0
<p>Explanation: D is correct, it is required to enter BOTH 4979.02 AND EOP-8, it is required to evacuate the area. A is wrong, enter BOTH 4979.02 AND EOP-8, it is required to evacuate the area. B is wrong, enter BOTH 4979.02 AND EOP-8. C is wrong, it is required to evacuate the area.</p>				

CPS ILT0101 NRC Written Exam Question

Q#	Exam	System #	KA #	RO	SRO	LP #	Objective
125	SRO	295038	EA2.01	3.3	4.3		
High Off-Site Release Rate						Cognitive Level: HIGH	
Ability to determine and/or interpret the following as they apply to HIGH OFF-SITE RELEASE RATE:						Off-site	

Field teams have been dispatched due to a Radioactivity Release.

The field teams are located as follows:

Field Team 1 is at the Screenhouse.

Field Team 2 is 15 feet NORTH of the Highway 54 and Site Access Road intersection.

Field Team 3 is at the Meteorological Tower.

Field Team 4 is at the Shell Oil Pumping Station.

Which of the following describes which Field Team(s) is (are) OFF-SITE for the purposes of Emergency Classification?

- A. All Field Teams
- B. 2 and 3 ONLY
- C. 2 and 4 ONLY
- D. 3 and 4 ONLY

ANS: C	Reference Provided: None	Reference and Rev: EP-MW-110-200 rev 0 ODCM rev 19	Question Source: NEW	Ques Rev 0
<p>Explanation: C is correct, 15 feet North of Highway 54 and Access Road and Shell Oil Pumping Station are OFF-SITE because it is neither owned, leased, nor otherwise controlled by AmerGen. A is wrong, Field Team 1 and 3 are on site. B is wrong, Field Team 3 is on site. D is wrong, Field Team 3 is on site.</p>				

CPS ILT0101 NRC Written Exam Question

Q# 126	Exam SRO	System # 295014	KA # AA2.05	RO 4.2	SRO 4.6	LP # 87439 rev 2	Objective 1.1.3
Inadvertent Reactivity Addition						Cognitive Level: HIGH	
Ability to determine and/or interpret the following as they apply to INADVERTENT REACTIVITY ADDITION:						Violation of safety limits	

- Reactor Power was 90%
- Turbine Bypass Valves opened due to an EHC Pressure Regulator malfunction.
- Loss of Feedwater Heating, 4005.01 was entered
- The A Reactor Operator adjusted RR Flow Control Valves to maintain Reactor power at 90%.
- Feedwater Temperature has dropped 105°F.
- 3D Monicore Official Case indicates that MCPR is 1.08

- (1) What action should the Reactor Operator be directed to perform?
 (2) Rated reactor power may be restored when approval is given by the _____.

(1)

(2)

- | | |
|-------------------------------------------------------------------|-------------------------------|
| A. Scram the reactor per 4100.01,
Reactor Scram | Plant Manager |
| B. Scram the reactor per 4100.01,
Reactor Scram | Nuclear Regulatory Commission |
| C. Insert the CRAM rods per 4005.01,
Loss of Feedwater Heating | Shift Manager |
| D. Insert the CRAM rods per 4005.01,
Loss of Feedwater Heating | Reactor Engineer |

ANS: B	Reference Provided: None	Reference and Rev: ITS 2.1.1.2	Question Source: NEW	Ques Rev 0
<p>Explanation: B is correct, MCPR safety limit is violated, Notify the NRC . A is wrong, Notify the NRC C is wrong, Scram the reactor, Notify the NRC. D is wrong, Scram the reactor, Notify the NRC.</p>				