# **PROPOSED NRC-AUTHORIZED WRITTEN EXAMINATION**

# FOR THE LASALLE INITIAL EXAMINATION - APRIL 2002

001 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP BWR-GE5 \*EXLEVEL R \*EXMNR WALTON \*QVAL 1.00 \*SEC \*SUBSORT \*KA 295031A202 \*QUESTION Given the following initial plant conditions:

- An ATWS has occurred
- The LGAs have been entered
- SBLC pump is injecting boron into the core
- Reactor power is 20% and oscillating
- SRVs controlling RPV pressure is 900 psig
- RPV level was lowered to -80 inches

As required by LGAs, reactor water level is being lowered. Why is reactor water level reduced under these circumstances?

- a. Further concentration of boron will result thus lowering the reactor power level
- b. Natural circulation driving head and core flow will decrease thereby increasing core voiding
- c. Decreased reactor pressure will add negative reactivity due to reduced moderator density
- d. Increased reactor water temperature will add negative reactivity due to reduced moderator density

## \*ANSWER

b. \*REFERENCE LGA-010, Failure to Scram Lesson Plan LGA-010, Failure to Scram Modified Higher

*QNUM	002
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	<b>RK WALTON</b>
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295023A203
*QUESTION	
The Unit 1 Stand	hy Gas Treatment (S

The Unit 1 Standby Gas Treatment (SBGT) system is out of service. The Unit 2 SBGT system is available. Which of the following events would be a concern if the remaining SBGT system would become inoperable?

- a. Inability to monitor Refuel Floor radiation levels.
- b. Inability to maintain negative pressure in Primary Containment.
- c. Inability to provide a controlled release path during a refuel accident.
- d. Inability to provide pressure control between clean and contaminated areas within the reactor building.

\*ANSWER c. \*REFERENCE 095 SBGT System Lesson Plan Modified Memory

*QNUM	003
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	<b>RK WALTON</b>
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	234000K304
*QUESTION	
Evel heredlers her	a informed the cos

Fuel handlers have informed the control room that the fuel loading chamber is broken. What evolutions will be delayed by this component's failure?

- a. core alterations
- b. core verification
- c. sipping fuel in spent fuel pool
- d. moving new fuel into spent fuel pool

\*ANSWER

а.

\*REFERENCE LTP 1700-1, Core Verification

LFP 200-1, Receiving New Fuel

LFP 400-6, Installation and Operation of Fuel Sipping Equipment

LFS 100-4, Core Alteration

New

Memory

*QNUM	004
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	RK WALTON
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	2.4.10
*QUESTION	
The following conditions exist on Unit 2:	

- Drywell pressure 2.5 psig
- Undervoltage condition on Bus 242-Y

The 2A EDG started and loaded onto the bus. After several minutes, annunciator 2DG03J-1-2, "OVERSPEED" alarmed. As reactor operator, you verify the 2A EDG\_\_\_\_\_.

- a. shuts down engine only
- b. continues to power Bus 242-Y
- c. electrically unloads and runs idle

d. shuts down engine and opens output breaker to Bus 242-Y
\*ANSWER
d.
\*REFERENCE
LOR-2DG03J-1-2
011 EDG Lesson Plan
New
Memory

*QNUM	005
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295033K204
*QUESTION	
A DIV I Fuel Pool	<b>Radiation High-Hig</b>

A DIV I Fuel Pool Radiation High-High annunciator was received. Operators find that Channels "A" and "B" have tripped. Prioritize the following expected manual and/or automatic actions in the expected sequence.

- 1. When air flow has reached the required amount, the VG Electric Heater will energize.
- 2. Procedure directs the operator to shutdown the VG equipment train of the unaffected unit using the handswitch on 1(2)PM07J.
- 3. Reactor Building ventilation trip.
- 4. VG Cooling Fan will trip, if it was running.
- 5. VG Cooling Fan starts.

6. - The initiation signal will start the VG Primary Fan, and the fan start signal will open the VG inlet then outlet isolation dampers.

- 7. No further action.
  - a. 7 only
  - b 3,7 only
  - c. 3,6,1,4,2,7 only
  - d. 3,6,5,2,7 only

\*ANSWER

c. \*REFERENCE SBGT lesson plan pg 14 of 45 LOR-1(2)H13-P601-F205 LOP-VG-02 New Higher

*QNUM	006
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	216000A103
*QUESTION	
In the process of	restoring from testi

In the process of restoring from testing transmitter 1B21-N705A (RCIC Div 1 Level 8 trip logic) in surveillance test LIS-RI-112 "UNIT 1 REACTOR VESSEL HIGH WATER LEVEL 8 RCIC TURBINE TRIP AND MAIN TURBINE/FEEDWATER PUMP TRIP CALIBRATION," the NSO noticed the "RCIC RX VESSEL WTR LVL HI," annunciator was still lit. The NSO then finds that the "RX WATER LVL HI C TRIP - LEVEL 8 TRIP" status light is lit.

Select the answer reflecting other actions he should expect as a result of these two indications.

- a. No additional actions, these are in same logic string.
- b. Both Divisions RCIC logic trip.
- c. Main Turbine trip, Feedwater pumps trip.

d. Both Divisions RCIC logic trip, Main Turbine trip, Feedwater pumps trip. \*ANSWER

c. \*REFERENCE LIS-RI-112, pg 61 Modified Higher

*QNUM	007
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	205000 2.4.4
*QUESTION	
The reactor is in a	node 3 with (A) loop

The reactor is in mode 3 with 'A' loop of RHR in SDC mode, in preparation for a refueling outage. Reactor pressure is 100 psig. Which of the following would be an indication of a loss of shutdown cooling possibly requiring entry into an abnormal operating procedure?

- 1. E12-F023 RHR Head Spray Valve indicating light on PCIS panel is extinguished.
- 2. RHR Service Water Pump indicates tripped.
- 3. 1E12-F053A SDC return valve closed.
- 4. Loss of Leakage Detection Power
- a. 2 and 3 only
- b. 2, 3, & 4
- c. 1, 3, & 4

d. 1 and 4 only

\*ANSWER b. \*REFERENCE PCIS lesson plan New Higher

*QNUM	008
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	271000A405
*QUESTION	
An excessive offs	ite radioactive relea

An excessive offsite radioactive release from the offgas system can be monitored by the Combined Offgas Post-treatment Monitoring System. Automatic trips of the system would involve:

- a. A HIGH-HIGH radiation trip (indicative of a minimum of 10E5 cps) in one channel combined with any other downscale, inop or HIGH-HIGH trip will CLOSE the OG system outlet valve to the stack (1N62-F057) which closes the combined drain valves and the holdup line drain valves.
- b. A HIGH-HIGH-HIGH radiation trip (indicative of a minimum of 10E6 cps) in one channel combined with any other downscale, inop or HIGH-HIGH-HIGH trip will CLOSE the OG system outlet valve to the stack (1N62-F057) which closes the combined drain valves and the holdup line drain valves.
- c. A HIGH-HIGH radiation trip (indicative of a minimum of 10E5 cps) in one channel combined with any other downscale, inop or HIGH-HIGH trip will OPEN the Off Gas Charcoal Adsorber Train Inlet Stop 1(2)N62-F042.
- d. A HIGH-HIGH-HIGH radiation trip (indicative of a minimum of 10E6 cps) in one channel combined with any other downscale, inop or HIGH-HIGH-HIGH trip will OPEN the Off Gas Charcoal Adsorber Train Inlet Stop 1(2)N62-F042.

\*ANSWER b. \*REFERENCE Lesson plans offgas (80) LOP-PR-03, Big Notes OG-1 New higher

*QNUM	009	
*HNUM		
*ANUM		
*QCHANGED	FALSE	
*ACHANGED	FALSE	
*QDATE	2002/04/08	
*FAC	373	
*RTYP	BWR-GE5	
*EXLEVEL	R	
*EXMNR	miller	
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA	201001A107	
*QUESTION		
With no control rod motion		

With no control rod motion, \_\_\_\_\_\_gpm could be expected to be added to the reactor from the control rod drive (CRD) system to stabilize reactor water level in the event of a leak with the reactor at normal pressure and the CRD lineup in a normal configuration and \_\_\_\_\_\_gpm could be expected from the system with the reactor depressurized and CRD flow maximized?

- a. 120/170
- b. 120/300
- **c**. 60/170

d. 60/300 \*ANSWER d. \*REFERENCE CRD Hydraulic Lesson Plan LGA-RD-01 new fundamental \*ONUM 010 \*HNUM \*ANUM \*QCHANGED FALSE FALSE \*ACHANGED \*QDATE 2002/04/08 \*FAC 373 **BWR-GE5** \*RTYP \*EXLEVEL R **RK WALTON** \*EXMNR 1.00 \*QVAL \*SEC \*SUBSORT \*KA 295034A103 **\*QUESTION** 

Control room operators receive annunciator, "Div 2 RB Vent Rad Hi-Hi" and confirm that both 'C' and 'D' radiation monitoring channels have tripped. From the list of parameters below, what automatic actions will occur?

- 1. Closes U1 RB Ventilation System Inboard Isolation Dampers
- 2. Closes U2 RB Ventilation System Inboard Isolation Dampers
- 3. Starts both trains of SBGT system
- 4. Closes U1 RB Ventilation System Outboard Isolation Dampers
- 5. Closes U2 RB Ventilation System Outboard Isolation Dampers
- a. Only 1, 2 & 3 occurs
- b. Only 2, 3 & 5 occurs
- c. Only 3, 4 & 5 occurs
- d. 1, 2, 3, 4 & 5 occurs

\*ANSWER

a.

\*REFERENCE

118 Reactor Building Ventilation Systems Lesson Plan, pgs 24 & 26 LOR-1H13-P601-E204, Annunciator Response Procedure question source (new) level of knowledge (higher)

*QNUM	011
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	<b>RK WALTON</b>
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	290003K604
*QUESTION	
Operations perces	and the next the de

Operations personnel tag out the deluge system to the control room ventilation air filtration unit. What protective function does this system provide?

- a. manual system for quenching charcoal fires
- b. emergency method for control room fire suppression
- c. automatic smoke quenching in case of control room fire
- d. automatic quenching of charcoal in case of charcoal fire

\*ANSWER a. \*REFERENCE 117 Control room Ventilation Lesson Plan Dwg VC/VE-1 New Memory

*QNUM	012
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	<b>RK WALTON</b>
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	300000K513
*QUESTION	
Maintonanao noro	annal hava ramava

Maintenance personnel have removed the Instrument Air/Service Air after-filter and identified that the filter has been severely damaged. With only this filter damaged, what specific type of contaminant would pass into the downstream distribution header?

- a. resin beads
- b. desiccant fines
- c. excess moisture

d. oil and dust particles \*ANSWER b. \*REFERENCE 120 Plant Air System Lesson Plans Figure 120-05, Air Filter-Dryer Unit New Memory

*QNUM	013
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	<b>RK WALTON</b>
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	400000K301
*QUESTION	
On a bot summor	day with both units

On a hot summer day with both units operating in Mode 1, control room operators observe an increase in RBCCW system temperatures due to a decrease in service water flow. What RBCCW-cooled component is the most limiting concerern?

- a. Recirculation pump bearings.
- b. Control Rod Drive pump bearings.
- c. Recirculation pump motor windings.

d. Reactor Water Cleanup heat exchangers.

\*ANSWER c. \*REFERENCE 114 RBCCW Lesson Plan, pg 20 Dwg WR-1, RBCCW System drawing LOA-WR-101, Loss of RBCCW System New Memory

*QNUM	014	
*HNUM		
*ANUM		
*QCHANGED	FALSE	
*ACHANGED	FALSE	
*QDATE	2002/04/08	
*FAC	373	
*RTYP	BWR-GE5	
*EXLEVEL	R	
*EXMNR	miller	
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA	201002A201	
*QUESTION		
Given the following conditions:		

- The operator is performing a single notch withdrawal on a control rod with power at 16%.
- The RDCS abnormal condition occurs because Activity Control Units disagree.

- a. 1. generate a rod block and allow insert signals only2. monitor rod position.
- b. 1. generate a rod block and allow insert signals only2. briefly depress the insert pushbutton.
- c. 1. lock out and cause a loss of Accumulator Trouble and Scram indications on the full core display
  2. monitor rod position.
- d. 1. lock out and cause a loss of Accumulator Trouble and Scram indications on the full core display

2. briefly depress the insert pushbutton.

\*ANSWER c. \*REFERENCE System 47, page 24 New Higher

*QNUM	015
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	202002K306
*QUESTION	
<b>—</b> · ·	1 1 1

Reactor power is stable at 100%. Short-term maintenance is being performed on a reactor recirculation flow control subloop. A manual transfer to the redundant subloop was performed. The operator pushed the Motion Inhibit Trip (MIT) pushbutton for the operating subloop at the 1H13-P602 panel. A sudden failure of the operating controller caused controller output to go to zero.

If the subloop in maintenance is still functioning, recirculation flow control should \_\_\_\_\_\_.

- a. remain with the operating subloop because automatic transfer is inhibited by the MIT, and the flow control valve will close.
- b. remain with the operating subloop because any maintenance on the backup subloop prevents automatic transfer, and the flow control valve will close.
- c. transfer to the backup subloop because of a sensed rate of change fault, and the flow control valve position will remain constant.
- d. transfer to the backup subloop because of an AC 70 system component failure and the flow control valve position will remain constant.

#### \*ANSWER

a. \*REFERENCE Recirculation Flow Control Lesson Plan New Higher

*QNUM	016
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	203000K408
*QUESTION	
Linit 1 was operation	a at 100% nowor

Unit 1 was operating at 100% power, performing an 'A' RHR system full flow surveillance test in accordance with LOS-RH-Q1. The 'A' RHR pump was running with an operator in the process of throttling flow to 7200 gpm using the handswitch for 1E12-F024A, A RHR Pump Full Flow Test Isol Valve in accordance with the procedure.

SELECT the correct statement assuming only automatic actions take place and operator actions remain as in the initial conditions.

- a. The full flow test valve will go closed if high drywell pressure is acheived.
- b. The full flow test valve will go closed if reactor vessel level reaches -150 inches and the control valve for the full flow test valve is released.
- c. The full flow test valve will go closed if the control switch is released and a manual LPCI initiation pushbutton is armed and depressed.
- d. The full flow valve will go closed if a high drywell pressure signal is generated, then when the full flow control switch is released, vessel level drops to -150 inches.

\*ANSWER c. \*REFERENCE LOS-RH-Q1 New Memory

*QNUM	017
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	209001K504
*QUESTION	
The Low Pressure Co	ore Spray system functions primarily to:

a. minimize hydrogen generation by keeping a water spray environment above the core.

b. limit maximum cladding temperature and cool it to saturation upon flooding the core.

c. provide the predominant source of steam cooling to the core.

d. minimizes zirconium oxide production for small to intermediate break LOCAs. \*ANSWER

b. \*REFERENCE UFSAR 6.3.1.1 System 63 LPCS Lesson Plan New Memory

*QNUM	018
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	209002K601
*QUESTION	
Unit 1 was in Mode 1	when a trip of the L

Unit 1 was in Mode 1 when a trip of the Unit 1 SAT occurred. Which one of the following statements about HPCS is TRUE?

- a. Division 3 Bus 143 will remain deenergized and HPCS is not available.
- b. Bus 143 will fast transfer to the UAT and HPCS will remain available.
- c. The HPCS pump will be unavailable until Bus 143 can be cross-tied to Bus 243.
- d. The HPCS pump will be unavailable until the Division 3 Diesel Generator energizes the bus.

\*ANSWER d. \*REFERENCE LaSalle Exam Bank Bank Memory

*QNUM	019
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	211000A107
*QUESTION	
Linit 4 was appreting	a at 100% paulor

Unit 1 was operating at 100% power midway between refueling cycles with all control rods out, and a xenon transient in progress. A condition requiring a reactor scram was observed. After the scram, it was determined that all rods failed to insert. After several unsuccessful attempts to insert control rods, operators begin injection of the contents of the standby liquid control (SBLC) tank with one SBLC pump. The system and tank contents were considered available and operable prior to use.

According to system design, reactor power should \_\_\_\_\_\_.

- a. decrease and the reactor should remain subcritical, even if the normal cooldown rate is exceeded. However subcriticality is not assured if the reactor recirculation pumps are run because the SBLC boron concentration does not account for the volume of water in the reactor recirculation piping.
- b. decrease and the reactor should remain subcritical, as long as the normal cooldown rate is not exceeded. However subcriticality is not assured if the reactor recirculation pumps are run because the SBLC boron concentration does not account for the volume of water in the reactor recirculation piping..
- c. decrease and the reactor should remain subcritical, even if the normal cooldown rate is exceeded and the reactor recirculation pumps are run because the SBLC boron concentration accounts for the volume of water in the reactor recirculation piping.
- d. decrease and the reactor should remain subcritical, as long as the normal cooldown rate is not exceeded, even if the reactor recirculation pumps are run because the SBLC boron concentration accounts for the volume of water in the reactor recirculation piping.

\*ANSWER b. \*REFERENCE FSAR 9.3.5.3 New higher

*QNUM	020
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	212000A216
*QUESTION	
The following conditions exist:	

- The plant is operating at 100% power.
- An operator initiated scram becomes necessary, no automatic trip signal is present.
- The mode switch is placed in "Shutdown" resulting in a reactor scram.
- The SDV water level bypass switch is placed in bypass.
- The reactor scram RESET switch is positioned to the Reset Group 1 & Group 4 (GR 1/4) position 6 seconds after the reactor scrammed and the operator then left to attend to another panel.
- Another operator moves the mode switch to startup.

Select the statement that describes current plant conditions:

- a. The MSIV closure scram is not bypassed, SDV scram can be bypassed, operators should anticipate MSIV closure and may bypass SDV high level scram.
- b. The MSIV closure scram is not bypassed, SDV scram can not be bypassed, operators should anticipate MSIV closure and may not bypass SDV high level scram.
- c. The MSIV closure scram is bypassed, SDV scram can be bypassed, operators may bypass SDV high level scram.
- d. The MSIV closure scram is bypassed, SDV scram can not be bypassed, operators may not bypass SDV high level scram.

\*ANSWER d. \*REFERENCE Lesson plan 49 New Higher

021 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE 2002/04/08 \*QDATE \*FAC 373 \*RTYP BWR-GE5 \*EXLEVEL R \*EXMNR **RK WALTON** 1.00 \*QVAL \*SEC \*SUBSORT \*KA 209001 2.1.33 \*QUESTION Control room operators have completed LOS-LP-Q1, "LPCS System Inservice Test." The data collected is as follows: LPCS Pump Flow Rate: 6250 gpm

- LPCS Pump Flow Rate: 6250 gpm
   LPCS Pump Disabasea Brassura 210 r
- LPCS Pump Discharge Pressure: 310 psig

Control room operators \_\_\_\_\_\_ enter Technical Specifications because \_\_\_\_\_\_.

a. need to / only pump flow rate is out of specification

b. need to / only pump discharge pressure is out of specification

c. need to / both pump flow and discharge pressure are out of specification

d. do NOT need to / parameters are within Technical Specification limits.

\*ANSWER

a.

\*REFERENCE LOS-LP-Q1 new fundamental

*QNUM	022
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	223002K110
*QUESTION	
Select the functions which are expected to	

Select the functions which are expected to result from the initiation of a Group IV Primary Containment Isolation Signal.

- 1. Reactor building supply and exhaust dampers will close on both units because of the interlock with Group IV.
- 2. The CRD Pump Cubical Fans will trip because of low reactor building ventilation air exhaust flow.
- 3. A Group I MSIV isolation on Hi Steam Tunnel Differential Temperature will occur because of high temperatures following the reactor building ventilation trip.
- 4. Primary Containment Nitrogen Inerting and Makeup Isolation Valves will close because of the interlock with Group IV.
- a. 1, 2 and 3 only
- b. 2 and 4 only
- c. 3 and 4 only

d. 1, 2 and 4 only \*ANSWER d. \*REFERENCE Lesson Plan 091 pg 15 New Memory

*QNUM	023
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	263000K201
*QUESTION	
The 125 VDC	<b>Distribution Panel 112</b>

The 125 VDC Distribution Panel 112Y became de-energized. From the following DC load list, select those which may show abnormal operation due to Panel 112Y becoming de-energized.

- 1. RCIC interlocks
- 2. Automatic Depressurization System Division 2
- 3. Standby Gas Treatment System Panel
- 4. Remote Shutdown System Panel

The affected loads include:

- a. 1, 2, & 3 only
- b. 2 and 3 only
- c. 1, 3, & 4 only
- d. 1 and 4 only

\*ANSWER a. \*REFERENCE Lesson Plan 6, DC Distribution New Memory

*QNUM	024
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295029 2.1.32
*QUESTION	
LGA 003 and LO	D DH 16 "DAISING

LGA-003 and LOP-RH-16 "RAISING AND LOWERING OF SUPPRESSION POOL(SP) LEVEL" require maintaining suppression pool level within a band specified by Technical Specifications. SELECT the appropriate response for maintaining SP level:

- a. Maintain at or below +3 inches in order to ensure effectiveness of SP spray.
- b. Maintain at or below +3 inches in order to ensure dynamic loads from SRV discharges are in an acceptable range.
- c. Maintain at or below 0 inches in order to ensure effectiveness of SP spray effect.
- d. Maintain at or below 0 inches in order to ensure dynamic loads from SRV discharges are in an acceptable range.

\*ANSWER b. \*REFERENCE LGA-003 LGA-003 lesson plan LOP-RH-16 New Memory

*QNUM	025
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	R
*EXMNR	Walton
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	268000K501
*QUESTION	

Radwaste Discharge Pumps transfer the water from the Radwaste Discharge Tanks to the blowdown line, and can be automatically tripped based on \_\_\_\_\_.

- a. blowdown line / high effluent radiation monitor readings (mr)
- b. Radwaste Discharge Tanks via recirculation / high effluent radiation monitor readings (mr)
- c. blowdown line / high area radiation monitor dose rate (mr/hr)
- d. Radwaste Discharge Tanks via recirculation / high area radiation monitor dose rate (mr/hr)

\*ANSWER a. \*REFERENCE system 121 New Higher

*QNUM	026
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	241000K317
*QUESTION	
	<b>.</b>

The throttle pressure sensor for the regulator in control of the main turbine electro-hydraulic control system failed high, inputting a higher value than actual.

- a. Turbine accelerates and the control valves start to open.
- b. Turbine speed remains about the same and control valves start to open.
- c. Turbine speed remains about the same and the backup regulator picks up.
- d. Turbine decelerates and the control valves to start to close.

\*ANSWER b. \*REFERENCE EHC electrical lesson plans (074) New Higher

*QNUM	027
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	RK Walton
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295005K202
*QUESTION	
A lists Alexan sounds and a	and a set for the second

With the unit operating at full power, the Main Generator 86 Lockout Device actuates. What could be said of the resultant feedwater temperature? Feedwater temperature . . .

- a. increases due to feedwater pumps running near dead-head conditions
- b. increases due to increased thermal efficiencies
- c. decreases due to feedwater heaters tripping
- d. decreases due to increased ambient heat losses

# \*ANSWER

C.

# \*REFERENCE

071 Main Turbine and Auxiliaries, VIII.A.2.e.1, page 32 of 56

077 Feedwater Lesson Plan, Section VII.A.6

008 Main Generator & Excitation Lesson Plan, Section IV.A, IV.A.4, IV.D.1, pgs 22 & 23 111, Circulating Water System Lesson Plan, Section VII.B.2, pg. 31 New

Higher

*QNUM	028
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	RK Walton
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295006K306
*QUESTION	
The reactor is at 65%	nowor when n

The reactor is at 65% power when maintenance personnel cause the main turbine stop valves to close. A reactor scram results, water level decreases (but NOT enough to cause any level-generated primary containment isolation signals to occur). Given these conditions, recirculation system flow decreases due to:

- a. ATWS recirculation pump trip
- b. less voiding in core
- c. flow control valve runback
- d. EOC-RPT

\*ANSWER d. \*REFERENCE 022 Reactor Recirculation Lesson Plan Section, pages 17 -20. 023 Recirculation Flow Control Lesson Plan, pg 15 New Higher

*QNUM	029
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	RK Walton
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295007A103
*QUESTION	
I had to be been and	••••••••••••••••••••••••••••••••••••••

Unit 1 is in Mode 2 with reactor pressure at 925 psig for a hydrostatic test of the reactor pressure vessel. The RCIC system is in pressure control mode with the RCIC controller in manual. Reactor pressure increases and a Safety Relief Valve sticks open. The perator enters LOA-SRV-101 "Unit 1 Stuck Open Safety relief Valve". Under these conditions, if reactor pressure increases, RCIC turbine speed \_\_\_\_\_\_ and flow \_\_\_\_\_\_.

- a. will not change / increases
- b. will not change / decreases
- c. automatically increases / increases
- d. automatically decreases / decreases

\*ANSWER

b.

\*REFERENCE

Technical Specifications Table 3.3.1.1-1, Function 3, RPS High Steam Dome Pressure (Setpoint less than 1059 psig)

Technical Specifications SR 3.5.3.3, RCIC Operability Testing (to test press greater than/equal to 920 psig, and less than/equal to 1020 psig)

LIS-NB-105A, "Unit 1 High Reactor Pressure Scram Channels A & C," Page 13 and 15 of 36. (Setpoint less than 1077 psig)

LIS-RI-Q3, "RCIC System Pump Operability and Valve Inservice Tests," Sections B1 and D6. Lesson Plan 032-RCIC

New

Higher

*QNUM		030		
*HNUM				
*ANUM				
*QCHANGED		FALSE		
*ACHANGED		FALSE		
*QDATE		2002/04/08		
*FAC		373		
*RTYP	BWR-0	GE5		
*EXLEVEL		В		
*EXMNR		RK Walton		
*QVAL	1.00			
*SEC				
*SUBSORT				
*KA		295009A203		
*QUESTION				
The reactor was appreting at full pay				

The reactor was operating at full power with operators rejecting RWCU flow to the condenser. Control room operators then detected the following conditions:

- Primary containment pressure at 10 psig and increasing
- Primary containment temperature 140 degF and increasing
- Reactor pressure vessel level drops to -60 inches

Assuming no operator intervention, how does the RWCU system respond?

- a. only valve G33F033 (RWCU Blowdown header control valve) closes
- b. only valves G33F001 and G33F004 (RWCU inboard/outboard isolation valves) close
- c. only valve G33F004 (RWCU outboard isolation valve) closes
- d. only valve G33F001 (RWCU inboard isolation valve) closes.

\*ANSWER b. \*REFERENCE

027 RWCU System Lesson Plan, pages 12-15 Dwg RT-1, RWCU System New Higher

031 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 **BWR-GE5** \*RTYP \*EXLEVEL B \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 295010 2.3.11 \*QUESTION The Unit is operating at full power. The following primary containment conditions exist:

- drywell temperature is 120 degF
- drywell pressure is 1.2 psig
- Auxiliary Building temperature is 90 degF on the 786' level

In order to reduce drywell pressure to 0.2 psig, the shift manager orders you to vent the drywell using the VQ system IAW LGA-VQ-01, "Containment Vent." Which instrument would you monitor to verify that the gaseous release is within the ODCM release limits?

- a. SBGT area radiation monitor
- b. Station ventilation stack radiation monitor
- c. Auxiliary Building exhaust ventilation radiation monitor
- d. Reactor Building exhaust ventilation radiation monitor

\*ANSWER

b. \*REFERENCE 093 Containment Vent and Purge Lesson Plan Drawing VQ-1, Primary Containment Purge LGA-VQ-01, Containment Vent question source (new) level of knowledge (fundamental)

032 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 **BWR-GE5** \*RTYP \*EXLEVEL В **RK Walton** \*EXMNR \*QVAL 1.00 \*SEC \*SUBSORT \*KA 295014K105 \*QUESTION

With the unit operating at full power, HPCS inadvertently starts and injects into the vessel. Regarding this event, which core thermal limit would be most limiting?

- a. MCPR (Minimum Critical Power Ratio)
- b. LHGR (Linear Heat Generation Rate)
- c. MFLPD (Maximum Fraction Limiting Power Distribution)
- d. APLHGR (Average Planar Linear Heat Generation Rate)

\*ANSWER

a. \*REFERENCE BWR Thermodynamics, Core Thermal Limits question source (modified) higher

*QNUM		033
*HNUM		
*ANUM		
*QCHANGED		FALSE
*ACHANGED		FALSE
*QDATE		2002/04/08
*FAC		373
*RTYP	BWR-0	GE5
*EXLEVEL		В
*EXMNR		RK Walton
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA		295015K201
*QUESTION		
A FL L L	-1-1 - 1 -	-1

After being unable to start either CRD pump, and with several control rods having drifted into the core, the unit supervisor orders you to insert a scram. Following the scram from full power, you identify the following conditions:

- neutron power decreasing on all IRMs
- all rods in except for center control rod 30-31
- on the full core display, control rod 30-31 is full out with blue light extinguished
- no other alarms for control rod 30-31 on full core display

Based on these indications, what is the reason for control rod 30-31 not inserting?

- a. scram discharge instrument volume is full
- b. associated accumulator has a low pressure condition
- c. loss of control rod drive charging header pressure
- d. scram outlet valve on the associated HCU did not reposition

\*ANSWER

d.

\*REFERENCE LGP 3-2, "Reactor Scram," Attachment E 025 Control Rod Drive Hydraulics Lesson Plan pgs 8 and 17 Dwg RD-1, CRD Hydraulic System Dwg RM-1, Reactor Manual Control System question source (new) level of knowledge (higher)

\*QNUM 034 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE 2002/04/08 \*QDATE \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В \*EXMNR **RK Walton** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 295024K306 \*QUESTION What is the purpose of having a high drywell pressure reactor scram?

- a. to limit fuel damage during a LOCA
- b. to limit the pressure spike in drywell during a LOCA
- c. to limit reactor pressure and any core flux transient during a LOCA
- d. to limit amount of volume added to the suppression pool during a LOCA \*ANSWER

a. \*REFERENCE 049 Reactor Protective System Lesson Plan Dwg RP-1, Reactor Protection question source (new) level of knowledge (fundamental) \*ONUM 035 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В **RK Walton** \*EXMNR 1.00 \*QVAL \*SEC \*SUBSORT 295025A107 \*KA \*QUESTION

Unit 2 was operating at 90% power on the 100% rod line when a transient occurred. The reactor operator observed the reactor steam dome pressure increase to 1150 psig. Two of the ATWS trip units for Division 2 reactor pressure fail to operate because of a manufacturing defect. Under these circumstances, the recirculation pumps will \_\_\_\_1.\_\_\_ and the alternate rod insertion (ARI) system \_\_\_\_2.\_\_\_ because \_\_3.\_\_\_.

- a. 1. trip, 2. will initiate automatically, 3. Division 1 trip unit logic will actuate trip breakers, and ARI will remain functional using Division 1 logic only.
- b. 1. trip, 2. must be manually initiated, 3. RPT trip unit logic will actuate trip breakers, but ARI will not acuate without two of the sensors for Division 2 logic.
- c. 1. remain in fast speed, 2. will initiate automatically, 3. RPT trip will not function for ATWS without the two ARI trip units mentioned, and ARI will remain functional using Division 1 logic only.
- d. 1. remain in fast speed, 2. must be manually initiated, 3. RPT trip will not function for ATWS without the two ARI trip units mentioned, and ARI will not actuate without two of the sensors for Division 2 logic.

### \*ANSWER

a. \*REFERENCE LIS NB-120A, "Unit 1 Reactor Vessel High Pressure ARI/ATWS Calibration" Dwg RR3, "Reactor Recirculation Power Distribution" Technical Specification 3.3.4.2, ATWS-RPT Instrumentation 022 Recirculation System Lesson Plan, pgs 19 & 20 026 Alternate Rod Insertion Lesson Plan question source (new) level of knowledge (higher)
*QNUM	036
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	<b>RK WALTON</b>
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	290001A101
*QUESTION	
A LOCA has occu	rred in the drywell

A LOCA has occurred in the drywell concurrent with a release of radioactivity which caused the RB ventilation system to isolate. The following plant conditions exist:

- Reactor water level is at -60 inches, lowering
- Drywell pressure is at 6.5 psig, raising
- Reactor building ventilation exhaust radiation is 6 mr/hr, steady
- Fuel Pool ventilation exhaust radiation is 5 mr/hr, steady
- Main Steam line delta T is 25 degrees F, steady

In accordance with LGA-002, in order to restart RB ventilation, operators must install jumpers to bypass:

- 1. Main steam line delta T.
- 2. High Drywell pressure.
- 3. Low RPV water level.
- 4. Reactor Building ventilation radiation.
- 5. Fuel Pool ventilation radiation.
- a. only 2 & 3
- b. only 4 & 5
- c. only 1, 2 & 3

d. 1, 2, 3, 4, & 5

\*ANSWER

а.

\*REFERENCE LOA-AR-101, Area Radiation Monitoring System Abnormal Procedure 118 Reactor Building Ventilation Lesson Plan Modified Higher

\*QNUM 037 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 **BWR-GE5** \*RTYP \*EXLEVEL B **RK WALTON** \*EXMNR \*QVAL 1.00 \*SEC \*SUBSORT \*KA 500000K101 \*QUESTION The post-LOCA conditions inside containment are as follows:

- hydrogen concentration is 1 volume percent and increasing
- drywell pressure is 5 psig
- drywell temperature 140 degF

You have been instructed to perform LGA-HG-01, "Operation of Combustible Gas Control System." The reason for operating the hydrogen recombiners to reduce hydrogen concentration in primary containment is:

- a. to prevent a hydrogen burn thus ensuring drywell integrity
- b. to prevent a hydrogen-oxygen recombination which could limit acceptable containment oxygen concentrations.
- c. to prevent radiolytic decomposition of water in the reactor coolant system
- d. to prevent a metal-steam reaction between the zirconium fuel rod cladding and the reactor coolant

### \*ANSWER

a. \*REFERENCE LGA-HG-01, "Operation of Combustible Gas Control System" 090 Primary & Secondary Containment Lesson Plan question source (new) level of knowledge (fundamental)

038 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE 2002/04/08 \*QDATE \*FAC 373 **BWR-GE5** \*RTYP \*EXLEVEL В \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 295002K207 **\*QUESTION** 

The unit operating at 20% power, with the "A" train of SJAE in standby, and the "B" train of SJAE in operation. Maintenance personnel cause the loss of condensate cooling to the "B" train SJAE and off gas condensers. What would be the resultant effect to main condenser vacuum?

- a. efficiency of the OG system is lost resulting in a reduction in condenser vacuum.
- b. a turbine trip and reactor scram would occur due to loss of condenser vacuum
- c. the "A" train of SJAE would automatically start and maintain condenser vacuum
- d. condenser vacuum will degrade to a point where the mechanical vacuum pump would automatically start

\*ANSWER

a. \*REFERENCE 080 Offgas Lesson Plan question source (new) level of knowledge (higher)

\*QNUM 039 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL B **RK WALTON** \*EXMNR \*QVAL 1.00 \*SEC \*SUBSORT \*KA 295003K303 \*QUESTION

What is the reason for 'load shedding' on the 4160 VAC safety buses under Loss of Coolant Accident conditions?

- a. Designed to prevent an overload condition when the diesel generator picks up the bus.
- b. Designed to protect equipment from damage due to increased current.
- c. Designed to protect motors from damage due to prolonged operation at reduced voltage.

d. Designed to prevent loading a faulted bus.

\*ANSWER a. \*REFERENCE 005, "AC Distribution Lesson Plan" question source (New) level of knowledge (fundamental)

\*QNUM 040 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В \*EXMNR Bielby \*QVAL 1.00 \*SEC \*SUBSORT \*KA 295013K201 \*QUESTION The following plant conditions exist:

- Reactor is at full power
- Suppression Pool (SP) Cooling is in operation
- average pool temperature is increasing
- RCIC testing is in progress

There is a required action to immediately stop RCIC testing if SP temperature exceeds the minimum temperature of (1) °F, or immediately place the mode switch in SHUTDOWN if SP temperature exceeds the minimum temperature of (2) °F.

- a. (1)105, (2)110
- b. (1)110, (2) 120
- c. (1) 105, (2) 120

d. (1)110 , (2) 110

\*ANSWER

a. \*REFERENCE 090 Primary & Secondary Containment Lesson Plan Technical Specification 3.6.2.1 question source (new) level of knowledge (higher)

*QNUM		041
*HNUM		
*ANUM		
*QCHANGED		FALSE
*ACHANGED		FALSE
*QDATE		2002/04/08
*FAC		373
*RTYP	BWR-0	GE5
*EXLEVEL		В
*EXMNR		RK WALTON
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA		295017A109
*QUESTION		
The second second second		

To reduce pressure in containment, operators are purging the primary containment using standby gas treatment system (SBGTS) post-accident in accordance with LGA-VQ-03, "Primary Containment Purge." Reactor plant conditions are stable, there is no threat to primary containment. Other plant conditions are as follows:

- Reactor water level is stable at 35 inches
- Unit 1 SBGTS train is in service
- Unit 2 SBGTS train is in standby
- Radiation levels in primary containment are elevated
- Primary containment pressure is 1.5 psig, decreasing
- Primary containment temperature is 105 degF, decreasing

The discharge rate through the Unit 1SBGTS radiation monitor causes annunciator PM7J-A304, "SBGT WIDE RANGE GAS MONITOR TROUBLE" to alarm. Under these circumstances, what would the operator do?

a. continue purging, no radiation release limits are imposed

- b. secure purging by manually shutting down Unit 1 SBGTS
- c. continue purging until General Emergency radiation limits are reached
- d. verifying automatic shutdown of the Unit 1 SBGTS

\*ANSWER b. \*REFERENCE LGA-VQ-03, Primary Containment Purge Dwg VG-1, "Standby Gas Treatment System" Dwg M-153, Sh 1, Process radiation Monitoring System question source (new) level of knowledge (higher)

042 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В **RK WALTON** \*EXMNR \*QVAL 1.00 \*SEC \*SUBSORT \*KA 295018A203 **\*QUESTION** 

Unit 1 is operating at full power with the Reactor Building Closed Cooling Water (RBCCW) and service water system in operation as follows:

- "A" RBCCW heat exchanger and pump are in operation
- "B" RBCCW heat exchanger and pump are in standby
- "C" RBCCW heat exchanger is available
- Service Water system temperature is 80 degF

The RBCCW system is leaking water into containment at a rate of 5 gpm. Assuming no operator actions, what additional component failure would eventually result in a loss of RBCCW cooling?

- a. RBCCW heat exchanger tube leak
- b. Low reactor water level (Level 3 signal)
- c. Loss of instrument air to flow control valve 1WS087A/B
- d. Loss of instrument air to RBCCW expansion tank makeup valve 1WR091 \*ANSWER

d. \*REFERENCE 114 RBCCW Lesson Plan, pg 4, 5 091 Primary Containment Isolation System, pg 17 &42 question source (new) level of knowledge (higher)

\*QNUM 043 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP BWR-GE5 \*EXLEVEL B \*EXMNR **RK WALTON** 1.00 \*QVAL \*SEC \*SUBSORT \*KA 295019 2.1.27 \*QUESTION

With both units at full power, the operating station air compressor fails resulting in reduced Service Air and Instrument Air (SA/IA) pressures. Without operator intervention, which one of the following might you expect as a result of decreasing SA/IA header pressures?

- a. condenser hotwell level increases
- b. increasing TBCCW temperature
- c. fuel pool cooling demineralizers lose pre-coat
- d. Automatic start of the standby Station Air Compressor

\*ANSWER

C.

\*REFERENCE LOA-IA-101, Rev 0 Attachments A & B. 075 Condensate and Condensate Booster System Lesson Plan, pg 22 029 Fuel Pool Cooling Lesson Plan 113 TBCCW Lesson Plan question source (new) level of knowledge (higher)

044 \*QNUM \*HNUM \*ANUM FALSE \*QCHANGED \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL B \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 295020K104 \*QUESTION The following conditions exist for unit 1:

- reactor is shutdown with head installed
- Core temperature is 170 degF
- "B" train residual heat removal is in shutdown cooling operation at 7000 gpm
- both recirculation pumps out of service
- reactor water level is being maintained at +50 inches on the Shutdown Range

An inadvertant PCIS Group 6 isolation occurs. The Group 6 isolation signal can not be cleared. What actions would the operators take to minimize thermal stratification of the bottom reactor vessel head and enhance RPV moderator temperature monitoring?

- a. minimize RWCU blowdown flow
- b. maximize CRD flow to the vessel
- c. maximize RBCCW flow to the RWCU heat exchanger

d. raise reactor vessel level to at least 220 inches on the shutdown range \*ANSWER

d.

u. \*REFERENCE LOA-RH-101, RHR Abnormal LOP-RH-17, Shutdown Cooling System Startup, Operation, & Transfer question source (new) level of knowledge (higher)

\*QNUM 045 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL B \*EXMNR **RK WALTON** 1.00 \*QVAL \*SEC \*SUBSORT \*KA 295022K203 **\*QUESTION** 

Unit 2 is at full power operation with the "A" Control Rod Drive pump in operation. The control room operator receives annunciator "2A CRD FEED PUMP AUTO TRIP." The 2B Control Rod Drive pump fails to start. All accumulator pressures will \_\_\_\_\_\_, the control rods are

- a. immediately depressurize / still scrammable
- b. immediately depressurize / not scrammable
- c. eventually depressurize / not scrammable

d. eventually depressurize/ still scrammable
\*ANSWER
d.
\*REFERENCE
024 Control Rod Drive Mechanism Lesson Plan
question source (new)
level of knowledge (fundamental)

\*QNUM 046 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL R \*EXMNR **RK WALTON** 1.00 \*QVAL \*SEC \*SUBSORT \*KA 295026K302 **\*QUESTION** 

Unit 1 is operating at 100% reactor thermal power with main steam relief valve 1B21-FO13U leaking steam past its seat. The leakage causes the suppression pool to heatup. Under these circumstances, initiating suppression pool cooling would be necessary to prevent during accident conditions.

- a. SRV tailpipe damage
- b. RH, LPCS and HPCS pumps from being thermally damaged
- c. incomplete condensing of steam discharged to the pool

d. a possible water hammer when starting RH, LPCS or HPCS pumps \*ANSWER

c. \*REFERENCE 090 Primary and Secondary Containment Lesson Plan 064 Residual Heat Removal Lesson Plan question source (new) level of knowledge (fundamental)

*QNUM		047
*HNUM		
*ANUM		
*QCHANGED		FALSE
*ACHANGED		FALSE
*QDATE		2002/04/08
*FAC		373
*RTYP	BWR-0	GE5
*EXLEVEL		В
*EXMNR		P T Young
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA		295028A205
*QUESTION		

After a transient, the following parameter values are noted:

12 psig rising.
240 degrees F rising.
7 psig rising.
105 degrees F rising.

No operator action has been taken. Which of the following is indicated?

- a. A safety relief valve has failed open.
- b. Containment is breached following a water break LOCA.
- c. Containment is functioning normally following a high pressure discharge into the drywell.
- d. Containment is functioning normally following a bypass path discharge into the suppression chamber airspace has occurred.

#### \*ANSWER

c. \*REFERENCE 90, Primary and Secondary Containments LGA-003 Primary Containment Control (LGA Lesson Plan) question source (new) level of knowledge (higher)

\*QNUM 048 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL B \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 295030K103 \*QUESTION What is the purpose for low level limit for suppression pool water level?

- a. to prevent excessive clearing loads from S/RV discharges
- b. to ensure sufficient volume of water to condense steam energy
- c. to minimize heating the suppression pool during a LOCA
- d. to prevent excessive pool swell loads during a LOCA

\*ANSWER

b. \*REFERENCE 090 Primary & Secondary Containment Lesson Plan Technical Specification Basis 3.6.2.2 question source (new) level of knowledge (fundamental)

049 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 **BWR-GE5** \*RTYP \*EXLEVEL В \*EXMNR **RK WALTON** 1.00 \*QVAL \*SEC \*SUBSORT \*KA 295035K301 \*QUESTION

Main steam tunnel temperatures and pressures are increasing due to a steam leak in the tunnel. As main steam line tunnel pressure increases, the low pressure blowout panels will actuate relieving pressure to the \_\_\_\_\_\_ resulting in a \_\_\_\_\_\_ release to the environment.

- a. turbine building / monitored release to the environment.
- b. turbine building / unmonitored release to the environment.
- c. auxiliary building / monitored release to the environment.
- d. auxiliary building / unmonitored release to the environment.

\*ANSWER

а.

\*REFERENCE

090 Primary and Secondary Containment System Lesson Plan, pg 26 & 27 095 Standby Gas Treatment System Lesson Plan question source (new) level of knowledge (higher) \*QNUM 050 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE 2002/04/08 \*QDATE \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 202002A301 \*QUESTION Unit 2 is operating at 50% power with the following conditions:

- both turbine driven reactor feedwater pumps operating
- both recirculation pumps operating at 60 hz
- operating on 80% rod control line

The "A" turbine driven reactor feedwater pump trips. Reactor vessel water level drops to 15" before operators recover level. Under these circumstances, the recirculation pumps \_\_\_\_\_\_ and the recirculation flow control valves \_\_\_\_\_\_.

- a. downshift / receive a run back signal
- b. downshift / do not receive a run back signal
- c. remain at constant speed / receive a run back signal
- d. remain at constant speed / do not receive a run back signal

\*ANSWER

C.

\*REFERENCE 022 Reactor Recirculation System Lesson Plan, pgs 16-18 Dwg RR-2, Recirculation Flow Control System question source (new) level of knowledge (higher)

051 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE 2002/04/08 \*QDATE \*FAC 373 BWR-GE5 \*RTYP \*EXLEVEL B **RK WALTON** \*EXMNR \*QVAL 1.00 \*SEC \*SUBSORT \*KA 203000A410 **\*QUESTION** The following accident conditions exist:

- Drywell pressure 3.5 psig increasing
- RPV pressure 525 psig decreasing
- RPV level -40 inches decreasing

Assuming all ECCS equipment functions as designed, LPCI would inject as soon as

- a. indication of pumps running
- b. RPV level drops to -147 inches
- c. RPV pressure drops to below 250 psig
- d. LPCI outboard isolation valves indicate open

\*ANSWER

c. \*REFERENCE Dwg. RH-2, "RHR Modes of Operation" LGA-001, RPV Control 064 Residual Heat Removal System Lesson Plan question source (new) level of knowledge (higher)

052 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 **BWR-GE5** \*RTYP \*EXLEVEL В **RK WALTON** \*EXMNR 1.00 \*QVAL \*SEC \*SUBSORT \*KA 211000K202 \*QUESTION

Before actuating SBLC from Control Room Panel 1H13-P603 during a failure to scram scenario, the reactor operator notices that the following conditions:

- SBLC INJ SQUIB VLV ON light for 1C41-F004A is ON
- SBLC INJ SQUIB VLV ON light for 1C41-F004B is OFF
- SBLC SQUIB VLV CONTINUITY LOSS alarm has annunciated.

What does this condition indicate?

- a. SBLC will not inject
- b. Loss of power from Bus 136X-2
- c. Loss of power from Bus 135X-1
- d. Less than 0.2 ma current in 1C41-F004A continuity circuit

\*ANSWER

b.

\*REFERENCE

028 Standby Liquid Control Lesson Plan

Electrical Dwg 1E-1-4209AA & AB, Schematic of SBLC

Big Notes Dwg SC-1, SBLC

LOR-1H13-P603-A105, SBLC Squibb vlv continuity loss alarm

question source (new)

level of knowledge (comprehension/analysis)

*QNUM		053
*HNUM		
*ANUM		
*QCHANGED		FALSE
*ACHANGED		FALSE
*QDATE		2002/04/08
*FAC		373
*RTYP	BWR-0	GE5
*EXLEVEL		B
*EXMNR		miller
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA		212000K311
*QUESTION		

The reactor is operating at full power in a half trip condition due to a loss of an RPS bus. Immediately after the loss of power to the other RPS bus, and subsequent trip, reactor water level is at 14 inches and feedwater flow is approximately 30 %. What affect will the RPS bus losses have on reactor recirculation pumps in this condition, assuming all parameters responded as designed?

- a. Both pumps tripped because the ATWS recirc pump trip logic was activated
- b. Both pumps tripped because the end of cycle recirc pump trip logic was activated
- c. Both pumps downshifted to slow because the ATWS recirc pump trip logic was activated
- d. Both pumps downshifted to slow because the end of cycle recirc pump trip logic was activated.

## \*ANSWER

d. \*REFERENCE 022 Reactor Recirculation Lesson Plan, pg 11 question source (new) level of knowledge (higher)

\*QNUM 054 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE 2002/04/08 \*QDATE \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL B \*EXMNR WALTON \*QVAL 1.00 \*SEC \*SUBSORT \*KA 215003K406 **\*QUESTION** 

Unit 2 Mode switch is in Startup when an IRM detector spikes causing a momentary upscale alarm. What design feature allows the RO to determine which detector spiked?

- a. alarm seals in
- b. annunciator remains lit
- c. recorded on point history computer
- d. recorded on core monitoring computer

\*ANSWER

а

\*REFERENCE 042 Intermediate Range Monitor Lesson Plan, pgs 31 050 Process Computer Lesson Plan question source (new) level of knowledge (fundamental)

*QNUM		055	
*HNUM			
*ANUM			
*QCHANGED		FALSE	
*ACHANGED		FALSE	
*QDATE		2002/04/08	
*FAC		373	
*RTYP	BWR-0	GE5	
*EXLEVEL		В	
*EXMNR		RK Walton	
*QVAL	1.00		
*SEC			
*SUBSORT			
*KA		215004K503	
*QUESTION			
*QNUM		055	
*HNUM			
*ANUM			
*QCHANGED		FALSE	
*ACHANGED		FALSE	
*QDATE		2002/04/08	
*FAC		373	
*RTYP	BWR-0	GE5	
*EXLEVEL		B	
*EXMNR		RK Walton	
	1.00		
*SEC			
-20820KI		0450041/500	
		215004K503	
QUESTION			

A reactor startup is in progress with the following conditions:

- Mode switch in Startup
- RPS shorting links removed
  - All IRMs except one on Range 8, 1 on Range 7

If SRM detectors are mistakenly driven fully into the core, select the answer describing which of the functions listed below can occur under these conditions?

- 1. an SRM high rod block
- 2. an SRM high-high RPS trip
- 3. an SRM detector not full in rod block
- a. 2 only
- b. 1 and 3 only
- c. 1, and 2 only
- d. 1 only

\*ANSWER

C.

\*REFERENCE

041 Source Range Monitor Lesson Plan\*

Higher

New

056 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 215005K603 **\*QUESTION** 

With the unit at full power operation, an operator selects the COUNT function on APRM B cabinet. The output of the meter is reads 70%. The operator then selects an operable LPRM input to APRM B and places the S2 meter single function switch from OPERATE to BYPASS. What alarms will come in?

- 1. Channel A1/B1 Neutron Monitor Trip
- 2. Channel A2/B2 Neutron Monitor Trip
- 3. Rod Out Block
- a. only 1
- b. only 2
- c. only 1 and 3
- d. only 2 and 3

\*ANSWER

c. \*REFERENCE LIP-NR-904, LPRM Cable and Connector Checks 043 LPRM Lesson Plan 044 APRM Lesson Plan, Pg 8 LOR-1H13-P603-A405, A505, B206, B208 (Annunciator Response Procedures) NR-4, APRM Simplified Schematic Figure 44-01, APRM Channel and Trip Units question source (new) level of knowledge (higher)

*QNUM		057
*HNUM		
*ANUM		
*QCHANGED		FALSE
*ACHANGED		FALSE
*QDATE		2002/04/08
*FAC		373
*RTYP	BWR-0	GE5
*EXLEVEL		В
*EXMNR		RK Walton
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA		217000A215
*QUESTION		
Libit 1 is at full	nowor	operation with

Unit 1 is at full power operation with reactor core isolation cooling (RCIC) operating for a quarterly surveillance test. You are the reactor operator in Unit 1 control room when equipment operators report from outside the RCIC room that the RCIC room is filled with steam. You look at computer points for RCIC area temperatures and note the following:

- RCIC Equipment Area ambient temperature is 195 degrees F and increasing
- RCIC Area Vent Differential temperature is 103 degrees F and increasing
- Annunciator 1H11-P601-D411, Div I RCIC Equip Area Diff/Area Temp Hi alarms
- Division II, RCIC, Primary Containment Isolation System has NOT actuated.

As reactor operator, you verify RCIC Turbine Steam Supply \_\_\_\_\_ close(s) and take actions to \_\_\_\_\_.

- a. Inboard isolation valves / shutdown RCIC IAW LOP-RI-03, 'RCIC System Isolation and System Shutdown'
- b. Outboard isolation valve / shutdown RCIC IAW LOP-RI-03, 'RCIC System Isolation and System Shutdown'
- c. Inboard isolation valves / recover RCIC IAW LOP-RI-04, 'Turbine Trip Recovery and Turbine Reset of RCIC'
- d. Outboard isolation valve / recover RCIC IAW LOP-RI-04, 'Turbine Trip Recovery and Turbine Reset of RCIC'

\*ANSWER b. \*REFERENCE LOR 1H13-P601-D411, Div1 RCIC Equip Area Diff/Amb Temp Hi alarm procedure question source (new) level of knowledge (analysis/evaluation)

*QNUM		058
*HNUM		
*ANUM		
*QCHANGED		FALSE
*ACHANGED		FALSE
*QDATE		2002/04/08
*FAC		373
*RTYP	BWR-0	GE5
*EXLEVEL		В
*EXMNR		PT Young
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA		218000A309
*QUESTION		
Linit 1 was and	orotina	at 100% nouver

Unit 1 was operating at 100% power with Division III Diesel Generator unavailable due to engine bearing replacement. A loss of offsite power results in a reactor scram.

As the BOP Operator, you observe the following

- RCIC initiates and is injecting.
- Drywell pressure is 1.9 psig and steady.
- All RHR pumps are operating on minimum flow.
- LPCS can not be started.
- Division | RPV wide range level on recorder 1B21-R884A indicates downscale.
- Division II RPV wide range level on recorder 1B21-R884B indicates -87 inches and is trending down at a rate of -10 inches per minute.

For these conditions, which one of the following describes the operation of Automatic Depressurization System (ADS)?

- a. Division I ADS will initiate after 118 seconds.
- b. Division I ADS will initiate after 716 seconds.
- c. Division II ADS will initiate after 958 seconds.
- d. Division II ADS will initiate after 1076 seconds.

#### \*ANSWER

a. \*REFERENCE 62, Automatic Depressurization System 40, Reactor Vessel Instrumentation (Figures 040-6, -07, -08, and -09) question source (new) level of knowledge (higher cognitive)

\*QNUM 059 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В **RK WALTON** \*EXMNR 1.00 \*QVAL \*SEC \*SUBSORT \*KA 223001A413 **\*QUESTION** 

LOP-HG-02, "Operation of the Post-LOCA Combustible Gas Control System," requires that hydrogen recombiner flow calculations be recalculated as primary containment conditions change. Where would you look to determine the hydrogen recombiner flow?

- a. Control Room Panel 1PM16J
- b. Control Room Panel 1PM13J
- c. Auxiliary Electric Equipment Room Panel 1PA12J
- d. Auxiliary Electric Equipment Room Panel 1PA14J

\*ANSWER

C.

#### \*REFERENCE

LOP-HG-02, "Operation of the Post-LOCA Combustible Gas Control System," pg 4 094 Hydrogen Recombiner Lesson Plan question source (new) level of knowledge (fundamental)

060 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 239002K108 **\*QUESTION** 

Why are the accumulators serving the ADS valves at a higher pressure than the accumulators serving the SRV?

- a. the ADS system uses 2 solenoids to open the valve
- b. the ADS valves must be able to open with an elevated drywell pressure
- c. elevated ADS accumulator pressure ensures a better seating of SRV accumulator check valve

d. the ADS accumulator pressure is higher making the system more reliable \*ANSWER

b. \*REFERENCE 062 Automatic Depressurization System Lesson Plan 070 Main Steam Lesson Plan Dwg NB-1, ADS question source (new) level of knowledge (fundamental)

*QNUM		061
*HNUM		
*ANUM		
*QCHANGED		FALSE
*ACHANGED		FALSE
*QDATE		2002/04/08
*FAC		373
*RTYP	BWR-0	GE5
*EXLEVEL		В
*EXMNR		RK WALTON
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA		259001K201
*QUESTION		
h hate at the shear of the		and the second s

Unit 1 is shutting down and dumping steam to the condenser via the turbine bypass valves. Other Unit 1 conditions are as follows:

- All control rods are inserted
- Plant pressure is at 550 psig decreasing slowly
- Both TDRFPs are secured
- MDRFP maintaining reactor water level in normal band
- 1A condensate and booster pump (CBP) is in service
- FW level control in automatic
- Condensate and Feedwater system lineups normal for given conditions

An electrical fault occurs on Bus 152 deenergizing the bus. Reactor vessel water level starts to decrease due to \_\_\_\_\_.

a. Both MDRFP and 1A CBP deenergize

b. 1A CBP deenergizes causing MDRFP to trip on low suction pressure

c. MDRFP deenergizes and CBP discharge pressure too low to feed to RPV

d. MDRFP deenergizes, and Feedwater Bypass Valve (FW022) is closed
\*ANSWER
d.
\*REFERENCE
Dwg. AP-3, AC Distribution
1E-1-4000M and 1E-1-4000NF
LGP 2-1, Normal Reactor Shutdown
question source (new)
level of knowledge (higher)

\*QNUM 062 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 **BWR-GE5** \*RTYP \*EXLEVEL В \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 259002K412 \*QUESTION Unit 1 is operating at 70% power, with the following conditions in effect:

- Reactor water level 36"
- Turbine Driven Reactor Feedwater Pump (TDRFP) 'B' operating in Manual on its M/A transfer
- Motor Driven Reactor Feedwater Pump (MDRFP) operating in single element control in Automatic
- TDRFP 'A' tagged out of service

The 'B' TDRFP is put into 3-element automatic control on its M/A transfer station. In what mode will the MDRFP be operating after the transfer of the 'B' TDRFP from Manual to Automatic?

- a. Automatic on the Startup Controller
- b. Automatic on its M/A transfer station
- c. Manual on its M/A transfer station
- d. Manual on its Startup Controller

# \*ANSWER

C.

### \*REFERENCE

031 Reactor Vessel Water Level Control Lesson Plan 077 Reactor Feedwater Lesson Plan question source (bank) See LaSalle question 031.00.14 level of knowledge (fundamental)

\*QNUM 063 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE 2002/04/08 \*QDATE \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL B \*EXMNR miller \*QVAL 1.00 \*SEC \*SUBSORT \*KA 261000K603 **\*QUESTION** The following conditions apply:

- Unit 1 is in cold shutdown
- Unit 2 is operating at full power
- 1B Diesel Generator (DG) is out of service for overhaul.

A faulted condition on the ring bus causes a loss of all offsite power, and unit 2 turbine generator trips. The 1A DG fails to start on demand. The electrical transient causes a Unit 1 reactor building ventilation high radiation signal to spike up to the setpoint for standby gas treatment (SBGT) system actuation.

Assuming no operator action, what is the status of the standby gas treatment system approximately 5 minutes after the ring bus fault.

- a. Unit 1 SBGT running, Unit 2 SBGT not running
- b. Unit 1 SBGT running, Unit 2 SBGT running
- c. Unit 1 SBGT not running, Unit 2 SBGT not running

d. Unit 1 SBGT not running, Unit 2 SBGT running

\*ANSWER

d. \*REFERENCE E-prints: 1E-1-4000M, P, BQ, DN (Bus 136X-1) 005 AC Distribution Lesson Plan 095 Standby Gas Treatment Lesson Plan question source (new) level of knowledge (higher) \*QNUM 064 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE 2002/04/08 \*QDATE \*FAC 373 \*RTYP BWR-GE5 \*EXLEVEL B \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 264000K505 **\*QUESTION** 

According to LOS-DG-M2, "Diesel Generator Operatility Test," the emergency diesel generator speed droop switch must be positioned to '50' prior to paralleling AC power sources. Why is the droop switch placed in this position for surveillance testing?

- a. allows the EDG to share the load
- b. prevents exceeding limits on fuel rack position
- c. to ensure that the EDG picks up all load on the bus

d. to ensure the EDG will carry the design load assumed in the safety analysis \*ANSWER

а.

\*REFERENCE LOS-DG-M2, "Diesel Generator Operability Test" 011 Emergency Diesel Generator Lesson Plan, pg 53 question source (new) level of knowledge (fundamental) \*QNUM 065 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE 2002/04/08 \*QDATE \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В \*EXMNR **RK WALTON** 1.00 \*QVAL \*SEC \*SUBSORT \*KA 214000A402 **\*QUESTION** 

A failure of the Display Memory Module occurs in the Reactor Manual Control System. Where could you look to determine control rod vertical position indication?

- a. Four Rod display
- b. Rod Worth Minimizer
- c. Rod Select display
- d. Rod Block Monitor

\*ANSWER

b.

\*REFERENCE 047 Reactor Manual Control System Lesson Plan, pg 18 Rod Worth Minimizer, Figure 48-06 Dwg RM-1, Reactor Manual Control System question source (new) level of knowledge (higher)

\*QNUM 066 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL R \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 219000A212 **\*QUESTION** 

Unit 2 is shutdown for a refuel outage. The reactor head is removed and core reload is in progress (Mode 5). The following additional plant conditions exist:

- 'B' train of RHR is in suppression pool cooling mode, system temperature is at 85 degF
- 'A' train of RHR is in shutdown cooling mode, system temperature is at 95 degF

A "Suppression Chamber Level Hi" annunciator alarms. The refuel floor supervisor also notes a level dropping in the refueling cavity. The operator identifies that both the 2E12-F004B (RHR pump suction valve) and 2E12-F006B (RHR shutdown cooling suction valve) valves are open simultaneously. Actions in the abnormal procedures must be taken to mitigate against

- a. high radiation levels on the refuel floor by closing the 2E12-F006B valve
- b. exceeding heat capacity temperature limit by opening the 2E12-F006B valve
- c. inadequate NPSH for RHR pump operation by closing either the 2E12-F004B or the 2E12-F006B valve.
- d. excessive temperature stratification within the reactor vessel by closing either the 2E12-F004B or the 2E12-F006B valve.

#### \*ANSWER

a. \*REFERENCE LOA-RH-102, Unit 2 RHR Abnormal LOA-FC-201, Unit 2 Fuel Pool Cooling System Abnormal Dwg RH-2, RHR Modes of Operation question source (new) level of knowledge (higher) \*ONUM 067 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE 2002/04/08 \*QDATE \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL B \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 226001A110 \*QUESTION Unit 1 experiences a transient. Plant conditions are as follows:

- under voltage condition on all 1E busses
- drywell pressure reaches 5.5 psig

Diesel Generator 1A sequentially picks up loads. However, as reactor operator, you identify that the 1B RHR pump fails to start. The shift manager orders you to start the 1B RHR pump in accordance with LGA-RH-103, "Unit 1 A/B RHR Operations in the LGAs/LSAMGs." The load on Diesel Generator 1A is 480 amps. By starting the 1B RHR pump, amps on the bus will

a. have no affect, the DG continues to operate normally

b. cause DG 1A engine to shutdown on underfrequency

c. cause DG 1A output breaker to trip on overcurrent after a 0.5 sec time delay

d. cause DG 1A engine to shutdown on overcurrent after a 10 second time delay \*ANSWER

a.

#### \*REFERENCE

011 Emergency Diesel Generator Lesson Plan, pgs 45, 57, 74 LTA 500-109, Unit 1 Integrated Division I Response Time Surveillance Test LGA-RH-103, "Unit 2 A/B RHR Operations in the LGAs/LSAMGs" question source (new) level of knowledge (evaluation/analysis)

\*QNUM 860 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE 2002/04/08 \*QDATE \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 230000K604 \*QUESTION

Control room operators are making preparations to start the "B" RHR pump in the suppression pool spray mode for a special test. Equipment operators note that the discharge pressure downstream of the "B" RHR pump discharge check valve only reads 15 psig. What could cause this condition?

- a. RHR water leg pump failure
- b. LPCS water leg pump failure
- c. "B" RHR pump suction valve is closed

d. "B" RHR pump suction relief valve has lifted
\*ANSWER
a.
\*REFERENCE
Dwg. RH-2, RHR Modes of Operation
Dwg 1E-1-4000CV, 480 VAC, MCC135Y-2
question source (new)
level of knowledge (fundamental)

\*QNUM 069 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL R \*EXMNR **RK WALTON** 1.00 \*QVAL \*SEC \*SUBSORT \*KA 239001K506 **\*QUESTION** Unit 1 is starting up from a refuel outage. The following plant conditions exist:

- Mode Switch is in RUN
- Reactor power is 12%
- all MSIVs are open

Control room operators observe RPS bus 'A' loses power. How would the MSIVs respond?

- a. All MSIVs would go closed
- b. All MSIVs would stay open
- c. Only inboard MSIVs would go closed
- d. Only outboard MSIVs would go closed

\*ANSWER

b.

\*REFERENCE Dwg. MS-2, Main Steam Details 070 Main Steam Lesson Plan, pgs 14 & 15 LOP-AA-03, Primary Containment Isolations, pg 17 question source (new) level of knowledge (fundamental)

070 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В **RK WALTON** \*EXMNR 1.00 \*QVAL \*SEC \*SUBSORT \*KA 256000K303 **\*QUESTION** 

With Unit 2 at full power after a power uprate, control room operators receive annunciator, "HP HTR 26 EXTR STEAM CHECK VLV NOT OPEN." This condition is <u>NOT</u> desirable because it would result in \_\_\_\_\_.

- a. a reactor power increase
- b. a reactor power decrease
- c. a change in pH of feedwater chemistry
- d. inability to remove moisture from the turbine

\*ANSWER

a. \*REFERENCE 079 Heater Drain Lesson Plan, pg 4 075 Condensate and Condensate Booster System Lesson plan, pgs 12 & 21 Dwg HD-1, Heater Drains question source (new) level of knowledge (higher) \*QNUM 071 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP BWR-GE5 \*EXLEVEL B \*EXMNR **RK WALTON** 1.00 \*QVAL \*SEC \*SUBSORT \*KA 262001K201 \*QUESTION

An internal fault on the Unit 1 System Auxiliary Transformer (SAT) causes the electrical loads to fast transfer to the Unit Auxiliary Transformer. What associated OCBs opened in the switchyard to isolate the Unit 1 SAT?

- a. 2-3 & 3-4
- b. 1-6 & 4-6
- c. 9-10 & 10-11

d. 1-13 & 11-13 \*ANSWER

d. \*REFERENCE Dwg AP-1, AC Distribution Figure 03-02, Switchyard Layout question source (new) level of knowledge (fundamental)
072 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В **RK WALTON** \*EXMNR \*QVAL 1.00 \*SEC \*SUBSORT \*KA 262002K115 \*QUESTION

Unit 1 control room operators receive annunciator, "Station Vent Stack Wide Range Trouble." The control room operators determine that the stack vent radiation monitors have lost power. Control room operators dispatch auxiliary operators to what power supply to investigate?

- a. 120 VAC RPS A & B cabinets
- b. 24 VDC Distribution Panels 1A & 1B
- c. 125 VDC 111Y & 112Y Distribution Panels
- d. 120/208 VAC 132Y-1 & 132Y-2 Distribution Panels

## \*ANSWER

а.

# \*REFERENCE

052 Process Radiation Monitor Lesson Plan 049 Reactor Protective System Lesson Plan Dwg AR-1, Area Radiation Monitor system Dwg 4218AM, Process Radiation Monitoring - Stack Gas Monitor Dwg 1E-1-4000KR & KR1, 132Y-2 Electrical Loads question source (new) level of knowledge (fundamental) \*QNUM 073 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL B \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 272000A303 \*QUESTION

During a discharge from the Discharge Storage Tank to the blowdown line, annunciator "RW Discharge High Rad/Inop or Low Sample Flow," alarms in the rad waste control room. What automatic functions accompany this alarm?

- a. Trips operating RW discharge pump only
- b. Closes RW discharge pump discharge valve only
- c. Trips operating RW discharge pump and closes RW discharge valve
- d. Closes RW discharge pump discharge valve and opens RW discharge pump recirculation valve back to the Discharge Storage Tank

### \*ANSWER

C.

\*REFERENCE

LOR 0PL01J-L202, Annunciator Response Procedure, "RW Discharge High Rad/Inop or Low Sample Flow"

121 Liquid Processing and Sumps Lesson Plan, pg 33

Dwg. LRW-1, Liquid Processing and Sump Systems

question source (new)

level of knowledge (fundamental)

*QNUM	074
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295008A202
*QUESTION	
The reactor is at 90%	nowor with roo

The reactor is at 90% power with reactor water level control in automatic and level above the setpoint of 36 inches. Which of the following is correct when evaluating a mis-match of process instrument flows in this condition.

- a. Total steam flow indication in the control room represents the output of the Steam Line Flow Soft Majority Selector multiplied by four.
- b. Total steam flow indication in the control room represents a summation of all the individual steam line flows for lines A thru D.
- c. Total feedwater flow indication in the control room is normally derived from the combination of feedwater pump flows, but will shift to input from header flow if a sufficient deviation occurs between the pump flows.
- d. Deviation of more than 1.0 Mlb/hr between the sum of individual pump feedwater flow and the sum of header feedwater flow results in a major RWLC failure alarm.

\*ANSWER

a. \*REFERENCE Reactor Water Level Control lesson plan 031 New Memory

\*QNUM 075 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL R \*EXMNR **RK WALTON** \*QVAL 1.00 \*SEC \*SUBSORT \*KA 233000K403 \*QUESTION

Service water cooling to the spent fuel pool system heat exchanger was lost and can not be restarted. Which of the following is the MAXIMUM fuel pool temperature that LOA-FC-101, "Unit 1 Fuel Pool Cooling System Abnormal Procedure," would allow before requiring that the demineralizer resin be manually bypassed to prevent damage to the resin and possible loss of flow due to filter plugging?

- a. 99 degF
- b. 119 degF
- c. 139 degF
- d. 149 degF

\*ANSWER

b.

\*REFERENCE 029 Fuel Pool Cooling Lesson Plan, pg 3, 20 LOA-FC-101, Unit 1 Fuel Pool Cooling System Abnormal Procedure question source (new) level of knowledge (fundamental)

076 \*QNUM \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В \*EXMNR **RK WALTON** 1.00 \*QVAL \*SEC \*SUBSORT \*KA 2.1.1 \*QUESTION Fill in the blanks with the proper answer. Diesel Generators be used for peaking power requirements. Diesel Generators be started in anticipation of loss of off site power. shall / should a.

- b. shall / should NOT
- c. shall NOT / should

d. shall NOT / should NOT \*ANSWER d. \*REFERENCE LAP 200-1, "Conduct of Operations" question source (new) level of knowledge (fundamental)

*QNUM		077
*HNUM		
*ANUM		
*QCHANGED		FALSE
*ACHANGED		FALSE
*QDATE		2002/04/08
*FAC		373
*RTYP	BWR-	GE5
*EXLEVEL		B
*EXMNR		RK WALTON
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA		2.1.14
*QUESTION		
Exclusive of pl	lant tra	nsients, when are plant announcements NOT required?

- a. Reactor startup to commence
- b. Stopping major plant components
- c. Starting of major plant components
- d. Primary and Secondary containment integrity in effect during plant startup \*ANSWER

b. \*REFERENCE LAP 200-1, Conduct of Operations LGP-1-S1, Master Startup Checklist question source (new) level of knowledge (fundamental) \*QNUM 078 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В **RK WALTON** \*EXMNR \*QVAL 1.00 \*SEC \*SUBSORT \*KA 2.1.30 \*QUESTION Fill in the blanks with the proper answer. The Reactor Mode Switch is located on the of panel H13-P603. When the Reactor Mode Switch is required to be LOCKED,

the key shall be located \_\_\_\_\_.

- a. desk section / in the lock
- b. vertical section / in the lock
- c. desk section / at the switch, but NOT in the lock
- d. vertical section / at the switch, but NOT in the lock

\*ANSWER

d.

\*REFERENCE

Dwg RM-1, Reactor Manual Control System LAP 200-1, "Conduct of Operations" question source (new)

level of knowledge (fundamental)

	079
	FALSE
	FALSE
	2002/04/08
	373
BWR-0	GE5
	В
	<b>RK WALTON</b>
1.00	
	2.1.31
	BWR-0

Operators are re-inerting the suppression chamber after a short duration outage. The operators monitor AI CM063, Suppression Chamber/DW Oxygen Monitor, on control room panel \_\_\_\_\_\_. The suppression chamber would be considered inerted when the MAXIMUM oxygen concentration is NOT greater than \_\_\_\_\_ by volume <u>AND</u> indicated oxygen concentration is no longer decreasing.

a. PM13J / 1%

b. PM13J / 4%

c. PM16J / 1%

d. PM16J / 4%

\*ANSWER

a.

\*REFERENCE LOP-VQ-04, Vent/Purge Primary Containment question source (new) level of knowledge (fundamental) \*QNUM 080 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE 2002/04/08 \*QDATE \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В \*EXMNR **RK WALTON** 1.00 \*QVAL \*SEC \*SUBSORT \*KA 2.2.1 \*QUESTION During approach to criticality, the reactor operator will DISCONTINUE Notch Out Override between positions 00 and 24 when

a. The generator is on line

b. At least one bypass valve is open

c. When Group 1 has been pulled to position 48

d. When highest initial SRM count rate has increased by a factor of 8 \*ANSWER

d. \*REFERENCE LGP-1-1, "Normal Unit Startup" question source (new) level of knowledge (fundamental) \*QNUM 081 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL В \*EXMNR **RK WALTON** 1.00 \*OVAL \*SEC \*SUBSORT 2.2.13 \*KA \*QUESTION

The unit is at full power operations. The Maintenance department wishes to work on the turbine trip pressure switches in the turbine EHC system. In order to work on this system at normal operating temperature and pressure, without the OOS being an Exceptional OOS, the Operations department needs \_\_\_\_\_\_ valve isolation since \_\_\_\_\_\_

- a. single / pressure is greater than 500 psig
- b. double / pressure is greater than 500 psig
- c. single / temperature is greater than 200 degrees F

double / temperature is greater than 200 degrees F
\*ANSWER
\*REFERENCE
OP-AA-101-201, Station Equipment Out of Service
question source (new)
level of knowledge (higher)

*QNUM		082
*HNUM		
*ANUM		
*QCHANGED		FALSE
*ACHANGED		FALSE
*QDATE		2002/04/08
*FAC		373
*RTYP	BWR-0	GE5
*EXLEVEL		В
*EXMNR		RK WALTON
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA		2.2.23
*QUESTION		
MARIA LINE A COLOR		an anatana kari

With Unit 2 in Mode 1, operators have completed testing the Unit 2 RCIC pump. Operations declare the RCIC pump inoperable due to inability to obtain the required flow rate. I&C technicians estimate at least 1 shift to complete troubleshooting activities. What is the required method to track the limiting condition for operation for RCIC to ensure that TS are being met?

- a. Condition Reports
- b. Unit Control Room Logs
- c. Degraded Equipment Log
- d. Short Duration Time Clock
- \*ANSWER
- С.

\*REFERENCE

OP-AA-101-302, Degraded Equipment Program OP-AB-101-206, Short Duration Time Clock OP-AA-101-402, Operating Records question source (new) level of knowledge (fundamental)

*QNUM	083
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	245000K409
*QUESTION	·
The turbine generator	r is synchronized to the grid.

- Pressure setpoint is set at 945 psig.
- Throttle pressure is 965 psig.
- Pressure difference between throttle pressure and reactor pressure is about 30 psig.

How many percent will steam flow increase if turbine load is increased until the reactor pressure reaches 1000 psig?

a. 5 b. 17 c. 27 d. 35 \*ANSWER b. \*REFERENCE Lesson Plan 074 Objective 074.00.05a New Higher

*QNUM		084
*HNUM		
*ANUM		
*QCHANGED		FALSE
*ACHANGED		FALSE
*QDATE		2002/04/08
*FAC		373
*RTYP	BWR-0	GE5
*EXLEVEL		В
*EXMNR		<b>RK WALTON</b>
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA		2.3.2
*QUESTION		
*QVAL *SEC *SUBSORT *KA *QUESTION	1.00	2.3.2

In preparation for hanging an out-of-service in a radiation/contamination area, an ALARA brief must be conducted. What subject matter should be addressed during the ALARA brief?

- a. Stop Work Conditions
- b. Emergency Egress Paths
- c. Planned Special Exposure
- d. Planned Personnel Contamination Dose Assessment

\*ANSWER b. \*REFERENCE RP-AA-401 question source (new) level of knowledge (fundamental)

*QNUM		085
*HNUM		
*ANUM		
*QCHANGED		FALSE
*ACHANGED		FALSE
*QDATE		2002/04/08
*FAC		373
*RTYP	BWR-0	GE5
*EXLEVEL		В
*EXMNR		<b>RK WALTON</b>
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA		2.3.4
*QUESTION		
A 477 111	• • • •	

A 17-year old visitor gets lost in the reactor building at LaSalle. He inadvertently walks into a high radiation area. Radiological Protection personnel read the visitor's dosimeter and calculate that the visitor received the following radiation exposure during his meanderings.

-	Chest	450 mrem
-	Hands	960 mrem
-	Eye Lens	510 mrem
-	Internal	55 mrem

Has the visitor exceeded any NRC Exposure limits? If so, which NRC Exposure limit was exceeded?

- a. LDE limit exceeded
- b. SDE limit exceeded
- c. TEDE limit exceeded
- d. No exposure limits exceeded

\*ANSWER

C.

\*REFERENCE RP-AA-203, Exposure Review and Authorization

question source (new)

level of knowledge (higher)

*QNUM		086
*HNUM		
*ANUM		
*QCHANGED		FALSE
*ACHANGED		FALSE
*QDATE		2002/04/08
*FAC		373
*RTYP	BWR-0	GE5
*EXLEVEL		В
*EXMNR		RK WALTON
*QVAL	1.00	
*SEC		
*SUBSORT		
*KA		2.3.10
*QUESTION		
What states -		and at up would be a

What statement is correct regarding access to the 796' level in the drywell during fuel moves?

- a. Access is always prohibited
- b. Access is allowed with permission from either an RP technician or a Shift Manager
- c. Access is controlled only by the specific RWP which governs the work to be performed
- d. Access is controlled by a RP technician in continual attendance or by remote monitoring with continuous communication

\*ANSWER

d.

\*REFERENCE

LRP 1120-3, "Drywell Access During Fuel Moves" question source (new) level of knowledge (fundamental)

*HNUM *ANUM *QCHANGED FALSE *ACHANGED FALSE *QDATE 2002/04/08 *FAC 373 *RTYP BWR-GE5 *EXLEVEL B *EXMNR RK WALTON *QVAL 1.00 *SEC *SUBSORT *KA 2.4.1 *QUESTION	*QNUM		087
*ANUM *QCHANGED FALSE *ACHANGED FALSE *QDATE 2002/04/08 *FAC 373 *RTYP BWR-GE5 *EXLEVEL B *EXMNR RK WALTON *QVAL 1.00 *SEC *SUBSORT *KA 2.4.1 *QUESTION	*HNUM		
*QCHANGEDFALSE*ACHANGEDFALSE*QDATE2002/04/08*FAC373*RTYPBWR-GE5*EXLEVELB*EXMNRRK WALTON*QVAL1.00*SEC*SUBSORT*KA2.4.1*QUESTIONThe fellowing of the sector of	*ANUM		
*ACHANGED FALSE *QDATE 2002/04/08 *FAC 373 *RTYP BWR-GE5 *EXLEVEL B *EXMNR RK WALTON *QVAL 1.00 *SEC *SUBSORT *KA 2.4.1 *QUESTION	*QCHANGED		FALSE
*QDATE       2002/04/08         *FAC       373         *RTYP       BWR-GE5         *EXLEVEL       B         *EXMNR       RK WALTON         *QVAL       1.00         *SEC       *         *SUBSORT       *         *KA       2.4.1         *QUESTION       *	*ACHANGED		FALSE
*FAC 373 *RTYP BWR-GE5 *EXLEVEL B *EXMNR RK WALTON *QVAL 1.00 *SEC *SUBSORT *KA 2.4.1 *QUESTION	*QDATE		2002/04/08
*RTYP       BWR-GE5         *EXLEVEL       B         *EXMNR       RK WALTON         *QVAL       1.00         *SEC       *         *SUBSORT       -         *KA       2.4.1         *QUESTION       -	*FAC		373
*EXLEVEL     B       *EXMNR     RK WALTON       *QVAL     1.00       *SEC     *SUBSORT       *KA     2.4.1       *QUESTION     The following production of the production of	*RTYP	BWR-	GE5
*EXMNR RK WALTON *QVAL 1.00 *SEC *SUBSORT *KA 2.4.1 *QUESTION	*EXLEVEL		В
*QVAL 1.00 *SEC *SUBSORT *KA 2.4.1 *QUESTION	*EXMNR		RK WALTON
*SEC *SUBSORT *KA 2.4.1 *QUESTION	*QVAL	1.00	
*SUBSORT *KA 2.4.1 *QUESTION	*SEC		
*KA 2.4.1 *QUESTION	*SUBSORT		
*QUESTION	*KA		2.4.1
The fellowing conditions suist is gringer constrained at	*QUESTION		
The following conditions exist in primary containment:	The following	conditio	ons exist in primary containment:

- Primary Containment Pressure 1.3 psig
- Drywell Temperature 130 degF
- Suppression Pool Temperature 106 degF
- Drywell Hydrogen at 1.8%

What are the immediate actions required by LGA-003, Primary Containment Control to address these conditions?

- a. Start suppression pool cooling
- b. Start all available drywell cooling
- c. Start hydrogen and oxygen monitors
- d. Start Primary Containment Vent and Purge System

\*ANSWER

a. \*REFERENCE LGA-003, Primary Containment Control question source (new) level of knowledge (higher)

*QNUM		088	
*HNUM			
*ANUM			
*QCHANGED		FALSE	
*ACHANGED		FALSE	
*QDATE		2002/04/08	
*FAC		373	
*RTYP	BWR-	GE5	
*EXLEVEL		В	
*EXMNR		<b>RK WALTON</b>	
*QVAL	1.00		
*SEC			
*SUBSORT			
*KA		2.4.3	
*QUESTION			
An accident ha	as occu	urred on Unit 2.	The plant conditions are as follows:

- All control rods inserted
- RPV dome pressure 200 psig and decreasing
- RPV water level is at -125 inches (wide range instrument) decreasing
- Drywell temperature is at 280 degF

Regarding Fuel Zone level indication, indicated reactor water level is believed to be

- \_\_\_\_\_ on the Fuel Zone instrument because \_\_\_\_\_ and it is considered
  - a. unreliable / boiling is occurring in the Fuel Zone instrument legs/ not be Post Accident Instrumentation.
  - b. lower than actual / Fuel Zone instruments are calibrated for 0 psig in the RPV/ be Post Accident Instrumentation.
  - c. higher than actual / Fuel Zone instruments are calibrated for 0 psig in the RPV/ be Post Accident Instrumentation.
  - d. pegged high / reactor water level has not entered the range of the Fuel Zone instrument/ not be Post Accident Instrumentation.

# \*ANSWER

to

b. \*REFERENCE LPGP-PSTG-01S03, Plant Specific Technical Guidelines - Cautions question source (new) level of knowledge (higher)

S

- Reactor Power at 85%
- APRM 'A' is selected as the reference APRM input for RBM Channel 'A'
- APRM 'A' is bypassed for maintenance using the APRM joystick.
- All other inputs to the RBM system are normal.

Assuming the operator takes no actions based on the above information, which one of the following statements correctly describes the response of RBM Channel 'A' to the bypassing of the 'A' APRM? RBM Channel 'A' . . .

- a. will light an RBM Bypass light indicating another APRM may be selected.
- b. generates a Downscale Failure alarm and Rod Withdrawal Block.
- c. automatically provides a normalizing reference signal from another APRM.
- d. is automatically bypassed.

\*ANSWER c. \*REFERENCE UFSAR 7.7.6.3.2 Lesson Plan 45 New Memory

*QNUM	090
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	209002K109
*QUESTION	
The LIDCO line in	

The HPCS line integrity monitor senses the differential pressure between the HPCS spray sparger and:

- a. Differential pressure tap, confirming HPCS piping integrity between the injection check valve and the RPV.
- b. SBLC above core plate pressure tap, confirming HPCS piping integrity from inside the RPV to the core shroud.
- c. Drywell, confirming HPCS piping integrity between the drywell wall and the RPV.

d. HPCS suction, confirming HPCS piping integrity from suction to discharge.
\*ANSWER
b.
\*REFERENCE
Lesson Plan 61
OBJ 061.00.05
Bank
Memory
061.00.05

*QNUM	091
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	<b>RK WALTON</b>
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295037 2.1.23
*QUESTION	
The unit was an an	

The unit was operating at 25% power. Control room operators then received a turbine trip signal and reactor pressure spiked up to 1100 psig. The Mode Switch was taken to Shutdown position. Plant conditions are now:

- -Reactor pressure 1060 psig and steady controlling with TBVs
- -Reactor power 20% and steady
- -Drywell pressure 2.8 psig
- -Reactor water level and -20" and increasing
- -Other reactor and control systems normal

What is the first recovery initiative should be implemented?

- m. Rapidly drop RPV water level
- n. Immediately initiate standby liquid control
- o. Terminate and prevent injection from cold water sources
- p. Verify ARI and recirculation pump ATWS actuations have occurred

## \*ANSWER

c. \*REFERENCE LGA-010, Failure to Scram LOP-AA-03, Reactor Mode Changes 022 Reactor Recirculation Lesson Plan 026 Alternate Rod Insertion Lesson Plan question source (new) level of knowledge (higher)

*QNUM	092
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	<b>RK WALTON</b>
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295021A104
*QUESTION	
Lipit 1 is in Mode	A completing a DE a

Unit 1 is in Mode 4 completing a 25 day refuel outage. Both recirculation pumps are operating at low speed. Other plant conditions are as follows:

- 'B' RHR pump is in shutdown cooling mode
- 'A' RHR pump is unavailable due to maintenance on the electrical bus
- Coolant temperature at 175 degF
- Both trains of RHR service water are available
- Circulating Water and feedwater and condensate systems are available
- 'A' train of Fuel Pool Cooling in service.

A fault occurs on Bus 142Y causing the bus to deenergize. The bus can not be reenergized. What other method of alternate heat removal is also unavailable under these circumstances?

- a. LPCS in core cooling mode
- b. RWCU removing decay heat
- c. "C" RHR pump in shutdown cooling mode

d. Main Condenser and condensate/booster pump

# \*ANSWER

C.

\*REFERENCE LOA-RH-101, Unit 1 RHR Abnormal LOP-RH-17, Alternate Shutdown Cooling LOP-CD-10, Main Condenser as Alternate Decay Heat Removal Dwg 1E-1-4000M & P, 6900 and 4160 VAC Buses New Memory

*QNUM	093
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295001K103
*QUESTION	
Given the following plant conditions:	

- Reactor recirculation loop B pump tripped
- Total core flow at 33% of rated flow
- Total core thermal power at 45% of rated

Which of the following actions should be taken to meet Unit 2 Technical Specification Required Actions and Limiting Conditions for Operation?

- a. Decrease core flow with the operating recirculation loop to exit Region I within 2 hours, and ensure Average Planar Linear Heat Generation Rate is within COLR specified requirements as required by the LCO.
- b. After QNE has assessed Minimum Critical Power Ratio, increase core flow with the operating recirculation loop to exit Region I within the next 2 hours, then ensure Minimum Critical Power Ratio is within COLR specified requirements as required by the LCO..
- c. Increase core flow with the operating recirculation loop to exit Region I within the next 2 hours without waiting for QNE assessment; and ensure Average Planar Linear Heat Generation Rate is within COLR specified requirements as required by the LCO.
- d. Decrease power by inserting control rods to below 43% of rated core thermal power within two(2) hours and ensure Linear Heat Generation Rate is within COLR specified requirements as required by the LCO..

\*ANSWER c. ITS TS 3.4.1 New Higher

*QNUM	094
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295012K102
*QUESTION	

Reactor power is 100 %. Unit 2 drywell temperatures as indicated on Multipoint Temperature Monitor 1(2)TM-VP105 switch positions 3 and 4 have been increasing consistently at a rate of 25 °F/hr. The temperatures on positions 3 and 4 are currently reading 121 °F. Assuming the rate of temperature change remains the same, it will be \_\_\_\_\_ minutes until Technical Specification required actions for drywell temperature will be in effect; and if the high temperature condition is not corrected, a \_\_\_\_\_\_ would be required Technical Specifications?

a. 12 / power reduction and change to Mode 2.

b. 12 / power reduction and change to Mode 3.

c. 36 / power reduction and change to Mode 2.

d. 36 / power reduction and change to Mode 3.

\*ANSWER d. \*REFERENCE LOP-VP-02 TS 3.6.1.5 New Higher

*QNUM	095
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295016K303
*QUESTION	
A L	

A hazardous environment exists in Unit 1 control room and evacuation is necessary in accordance with LOA-RX-101. The reactor has been scrammed. The 'B' RHR train is running in the suppression pool cooling mode. The remote shutdown panel has been prepared for standby operation. Supervisory instrumentation has been transferred to the Remote shutdown Panel. Transfer to the remote shutdown panel has just begun, using LOP-RX-03.

Placing a component's transfer switch to emergency will allow control of the component from \_\_\_1.\_\_. Components with transfer switches in the "emergency" position will \_\_\_2.\_\_.

- a. 1. the remote shutdown panel and the control room in order to meet 10CFR50 App A Criterion 19 requirements to enable maintaining the reactor in hot shutdown as a minimum; 2. lose primary containment isolation features.
- b. 1. the remote shutdown panel and the control room in order to meet 10CFR50 App A Criterion 19 requirements to enable bringing the reactor to cold shutdown; 2. maintain primary containment isolation features.
- c. 1. the remote shutdown panel only in order to meet 10CFR50 App A Criterion
   19 requirements to enable maintaining the reactor in hot shutdown as a minimum; 2. maintain primary containment isolation features.
- d. 1. the remote shutdown panel only in order to meet 10CFR50 App A Criterion 19 requirements to enable bringing the reactor to cold shutdown; 2. lose primary containment isolation features.

\*ANSWER d. \*REFERENCE LZP-1200-1 LOP-RX-01 LOP-RX-03 E.1 LOP-RX-03 D.2. UFSAR 7.4.4 10CFR50AppA New Memory

\*QNUM 096 \*HNUM \*ANUM \*QCHANGED FALSE \*ACHANGED FALSE \*QDATE 2002/04/08 \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL B **RK WALTON** \*EXMNR \*QVAL 1.00 \*SEC \*SUBSORT \*KA 288000K603 **\*QUESTION** Both units reactor building (RB) ventilation systems are operating when instrument air is lost. The RB ventilation exhaust and supply dampers fail \_\_\_\_\_\_ and RB modulating dampers fail a. closed / open b. closed / closed

c. open / open

d. open / closed

\*ANSWER

a.

\*REFERENCE

118 Reactor Building Ventilation Lesson Plan question source (new)

level of knowledge (fundamental)

*QNUM	097
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	286000A208
*QUESTION	
Roth Unite are on	orating at 100% pa

Both Units are operating at 100% power. Smoke has been reported in the vicinity of the 2A D/G. A Red CO2 alarm on Panel FP04JB/JC, is lit. Electricians near to the D/G room using a thermography camera for testing called and reported room temperature is  $200 \circ F$ .

Select a correct answer regarding fire protection system actions.

- a. The CO2 system should have actuated at a setpoint of 190 °F or higher D/G room temperature, with a 30 second time delay . Manual actuation is available but requires use of levers for the master valve located by the CO2 storage tank and for the header stop located in the D/G corridor.
- b. The CO2 system should actuate at a setpoint of 200 oF or higher D/G room temperature, with a 30 second time delay. Manual actuation requires use of levers for the master valve located by the CO2 storage tank and for the header stop located in the D/G corridor.
- c. The CO2 system should have actuated at a setpoint of 190 °F or higher D/G room temperature, with a 30 second time delay . Manual actuation requires use of levers for the master valve located in the D/G corridor and slave valve located just inside the door to the D/G.
- d. The CO2 system should actuate at a setpoint of 200 °F or higher D/G room temperature, with a 30 second time delay. Manual actuation requires use of levers for the master valve located in the D/G corridor and slave valve located just inside the door to the D/G.

\*ANSWER a. \*REFERENCE LOA-FP-101 FP system lesson plan. Pg19 New Memory

*QNUM	098
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295032A104
*QUESTION	
The Unit Supervi	sor has indication of

The Unit Supervisor has indication of refuel floor high temperature and smoke, and reports of a diesel starting at the Lake Screen House. Other annunciators just beginning to alarm on panel PM10J include:

- B102 0B DIESEL FIRE PUMP TROUBLE
- B202 OB DIESEL FIRE PUMP FAILURE
- B501 0A DIESEL FIRE PUMP DAY TANK HI-HI, LOW

The fire suppression system was in a normal lineup prior to the indications of high temperature and smoke. Given these plant conditions, select an answer which would be indicative of the maximum pressure that could be expected in the fire header at the present time to support fire fighting activities?

#### a. 135 psig

- b. 125 psig
- c. 115 psig

d. 85 psig \*ANSWER c. \*REFERENCE LOA-FP-101 pg 49 New Higher

*QNUM	099
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295004A102
*QUESTION	
NATE A STATE AND A DECK	

Water intrusion led to grounds disabling all Division 1 and Division 2 125VDC power. Which of the following is true?

- a. RCIC will trip if running because of overspeed trip.
- b. RCIC will remain running because 125 VDC power loss does not affect RCIC overspeed.
- c. RCIC will trip if running because of power loss to the Steam Supply Stop Valve, 1(2)E51-F045.
- d. RCIC will remain running because 125 VDC power loss does not affect the Steam Supply Stop Valve, 1(2)E51-F045.

\*ANSWER a. \*REFERENCE LOA-DC-101 pg 179 New Higher

*QNUM	100
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	В
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295010K301
*QUESTION	
If either Valve 1V	G023 or 2VG023 (

If either Valve 1VG023 or 2VG023 (SBGT VQ XTIE Valves) is open in operating condition 1, 2, or 3, and the Primary Containment Vent and Purge (VQ) primary containment isolation valves are open, then the associated SBGT (VG) train (Unit 1 or Unit 2) will be inoperable. Why?

SELECT the correct answer.

- a. The lineup may cause damage to the VQ system during some non-accident vent conditions.
- b. The lineup may cause damage to the VG system during some non-accident vent conditions.
- c. The lineup may cause damage to the VQ system under LOCA conditions with high drywell pressure.
- d. The lineup may cause damage to the VG system under LOCA conditions with high drywell pressure.

\*ANSWER d. \*REFERENCE LGA-VQ-01 section F New Memory

*QNUM	101
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	<b>BWR-GE5</b>
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295023K201
*QUESTION	
18/hat are the second	a attent to the stand of the

What are the protective interlocks intended to prevent refueling accidents/incidents involving the overhead crane.

- 1. The hoist movement is restricted to a Critical L-Path.
- 2. The spent fuel cask may only be operated 6" off the Refuel Floor or movement of the crane will be prevented.
- 3. An Area Radiation Monitor stops further upward movement of the Overhead Crane hoist if a high radiation condition is sensed.
- 4. A DIV 1 or DIV 2 FUEL POOL RAD HI-HI signal will prevent crane or hoist movement.
- a. 1,2,and 3 only
- b. 1, and 3 only
- c. 2,3, and 4 only
- d. 1,3, and 4 only

\*ANSWER a.

\*REFERENCE Lesson Plan 030, Fuel Handling system New Memory

*QNUM	102
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295038A201
*QUESTION	

A plant accident has resulted in an off-site release. Possible entry conditions into the Radioactive Release Control Procedure are described below. What are the minimum conditions which would require the Unit Supervisor to enter the LGA-009 "Radioactive Release Control" procedure?

a. 6.2E5microcuries/sec offsite release rate and Valid A-Model classification

b. 6.2E5microcuries/sec offsite release rate or Valid A-Model classification

c. 6.2E6microcuries/sec offsite release rate and Valid A-Model classification

d. 6.2E6microcuries/sec offsite release rate or Valid A-Model classification
\*ANSWER
\*REFERENCE
LGA-009
New
Memory
SRO due to 55.43.5

*QNUM	103
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295017 2.3.4
*QUESTION	
EDA Drotective A	ction Guidelines rea

EPA Protective Action Guidelines require evacuation of offsite public following a release of radioactive materials at what minimum levels?

SELECT the correct answer.

- a. 0.5 REM TEDE, 1 REM CDE thyroid
- b. 1.0 REM TEDE, 5 REM CDE thyroid
- c. 5.0 REM TEDE, 25 REM CDE thyroid

d. 25 REM TEDE, 50 REM CDE thyroid \*ANSWER b. \*REFERENCE EP-AA-111 sections 2.4 New Memory

*QNUM	104
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	<b>BWR-GE5</b>
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295003K106

The following conditions exist:

- A station blackout has occurred.
- Both Div I and Div II Emergency Diesels (EDG) failed to start.
- The Div III EDG started and was immediately shutdown.
- Pressure control using SRVs operated initially to control reactor pressure.

Which of the means below should be available and preferred to carry out pressure control steps of LGA-001 RPV Control, three hours after the SBO occurred?

- a. ADS valves using manual handswitch mode.
- b. Non-ADS SRVs using instrument air backup.
- c. SRVs using regulated instrument nitrogen pressure.
- d. Low Level Set (LLS) valves using manual handswitch mode

\*ANSWER

а.

\*REFERENCE

ADS lesson plans. Big Notes. IN-1, UFSAR 15.9.3.3 New Memory

*QNUM	105
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295023A204
*QUESTION	
	•

Refueling operations are in progress. An irradiated fuel bundle was grappled and was being moved towards the reactor when it contacted an obstruction in the spent fuel pool. After observing the contact, the operator ceased bundle movement. Bubbles can be seen rising through the water, and appear to be originating from the vicinity of the bundle. Select the statement which lists the appropriate action.

- a. Place the loaded fuel bundle in the originally designated reactor location then contact the Unit Supervisor.
- b. Ensure the grapple is securely closed, and evacuate the refueling floor.
- c. Place the loaded fuel bundle in an available spent fuel pool location and secure fuel movement.
- d. Request a location change from a QNE, then place the bundle in the nearest spent fuel pool location after receiving permission.

\*ANSWER c. \*REFERENCE LOA-FH-001, Revision 0, July 31, 1996 Modified Memory

*QNUM	106
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	<b>BWR-GE5</b>
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295025K211
*QUESTION	
A reactor scram o	coursed following a

A reactor scram occurred following a loss of feedwater at 100% rated power. The Shift Supervisor has executed LGP 3-2. Plant conditions are as follows:

- Reactor pressure is about 900 psig, and MSIVs have failed open.
- HPCS and RCIC are inoperable
- Condensate/Feedwater cannot be restored
- Both CRD pumps are running
- RPV level is -75 inches on WR, decreasing at a rate of about 15 inches/min.
- Drywell Pressure is 1.6 psig.

Select the appropriate action per LGA-001.

- a. Maintain RPV pressure less than 1059 psig with the turbine bypass valves and SRVs, and increase the CRD injection rate to restore RPV level to +11 to+59.5 inches.
- b. Maintain RPV pressure less than1059 psig with the turbine bypass valves only and inject with SLC from the test tank to maintain RPV level above -150 inches
- c. Reduce RPV pressure rapidly (greater than 100 degF/hr) and maintain less than 440 psig with the turbine bypass valves only, and inject with LPCS to restore RPV level to +11 to+59.5 inches.
- d. Reduce and maintain RPV pressure between 50 and 150 psig with the turbine bypass valves and SRVs, and inject with Condensate Transfer to maintain RPV level above -150 inches WR.

\*ANSWER

c. \*REFERENCE LGA-001 RPV control, anticipate blowdown Modified Higher

*QNUM	107
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295031A204
*QUESTION	
Which one of the	following condition

Which one of the following conditions related to unknown reactor vessel water level describes a condition where Adequate Core Cooling exists?

a. LGA-01 directed LGA-05 entry, 6 SRVs open, RPV pressure is 25 psig.

b. LGA-01 directed LGA-05 entry, 5 SRVs open, RHR Head Spray established.

c. LGA-10 directed LGA-05 entry, 6 SRVs are open, RPV pressure is 340 psig.

d. LGA-10 directed LGA-05 entry, 7 SRVs are open, RPV pressure is 100 psig. \*ANSWER

c. \*REFERENCE LGA-001,010,005 LPGP-PSTG-01S11 Modified Memory
*QNUM	108
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	<b>BWR-GE5</b>
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295037 2.4.7
*QUESTION	
The LOA AND Fail	

The LGA-010 Failure to Scram procedure level leg directs operators to lower reactor water level rapidly to at least -60 inches if reactor power is above 3% or unknown. What is the reason for lowering level at least to -60 inches?

This level helps lower power . . .

- a. and ensures feedwater sparger nozzles are uncovered to help minimize power oscillations.
- b. while allowing margin for feedwater sparger nozzles to remain covered to prevent thermal shock.
- c. and ensures core spray inlet lines are uncovered to minimize inlet subcooling if injection is needed.
- d. sufficiently while allowing margin for core spray inlet lines to remain covered, to prevent thermal shock if injection is needed.

\*ANSWER

a. \*REFERENCE BWR EP/SAG AppB -14-12 LGA-010 LPGP-PSTG-01S12 pg 24 New Higher

*QNUM	109
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295029 2.1.12
*QUESTION	
Unit 1 was in Mode 1	at 100%reactor power.

- At 9:00 a.m. on April 1, Suppression Pool water levels were reported to be +3.5 inches on one instrument and +3.2 inches on another instrument during a daily surveillance.
- Instrument technicians were called in to perform a calibration check on both instruments, and have preliminarily indicated that there are no problems with their operation.
- At 9:30 a.m., the Unit Supervisor ordered action to lower suppression pool water level concurrent with the instrument technicians performing their calibration check.
- Suppression pool level was last verified by TS surveillance SR 3.6.2.2.1 at +2 inches at 9:00p.m. on March 31.

What required actions apply and what completion time is applicable for each action?

- a. restore suppression pool level (11:00 a.m., 4/1), be in mode 3, (11:00 p.m., 4/1), be in mode 4 (11:00 p.m.,4/2)
- b. restore suppression pool level (11:00 a.m., 4/1), be in mode 3, (11:00 p.m., 4/1), be in mode 4 (11:00 a.m.,4/3)
- c. restore suppression pool level (11:00 a.m., 4/1), be in mode 3, (9:00 p.m., 4/1), be in mode 4 (9:00 p.m.,4/2)
- d. restore suppression pool level (11:00 a.m., 4/1), be in mode 3, (9:00 p.m., 4/1), be in mode 4 (9:00 a.m.,4/3)

\*ANSWER a. \*REFERENCE T.S.3.6.2.2 New Higher

*QNUM	110
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	<b>BWR-GE5</b>
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295034K305
*QUESTION	

A small unisolable primary system leak has developed on Unit 1 in the vicinity of the Reactor Sample Station. Reactor Building Ventilation exhaust rad levels were 40 mrem/hr and holding constant prior to the Reactor Building Ventilation isolating. Radiation levels in the vicinity of the Reactor Sample Station are 1100 mrem/hr and rising slowly.

Select the answer with the correct actions to be taken and reasons for the actions.

- a. Start Reactor building ventilation using LGA-VR-01 because VR will do a better job at maintaining area temperatures and differential pressure than VG.
- b. Shut down the reactor using LGP-2-1 to reduce decay heat levels and energy discharged to containment without introducing an unnecessary transient on plant systems.
- c. Scram the reactor and enter LGA-001 to reduce the energy the RPV may be discharging to the Secondary Containment because adequate core cooling, containment integrity, and/or the continued operability of equipment necessary to perform a safe shutdown may not be assured.
- d. Scram the reactor and enter LGA-001, then enter LGA-004 RPV Blowdown to preclude further temperature increases by rejecting the heat to the Suppression Pool instead of outside the Primary Containment since the problem is widespread.

## \*ANSWER

c. \*REFERENCE LOR-1H13-P601-F204 Div 1 Rx Bldg Vent radiation High-High LGA-002 Secondary Containment Control LGA-004, LGA-009 Bank Higher

*QNUM	111
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	209001 2.1.12
*QUESTION	
Linit One was one	roting at 1000/ nouve

Unit One was operating at 100% power with no equipment abnormalities noted when a surveillance test found 1 low pressure injection permissive pressure switch (E21-N413) for LPCS with a setpoint of 480 psig. What TS required actions are applicable?

- a. TS 3.5.1.A.1 only
- b. T.S. 3.3.5.1 D.1 only
- c. TS 3.3.5.1 D.1, TS 3.5.1 A.1

d. T.S. 3.3.5.1 D.1 and D.2 \*ANSWER c. \*REFERENCE TS 3.3.5.1 TS 3.5.1 LIS-NB-118A New Higher

*QNUM	112
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	223002 2.2.25
*QUESTION	

What is the basis for the Main Steam Line Pressure-Low Primary Containment Isolation which is required by Technical Specifications?

a. Protects from RPV cooldown greater than 100 degF/hour.

b. Helps ensure that offsite dose limits of 10CFR 100 are not exceeded.

c. Provides diversity to the high steam line flow isolation.

d. Provided to detect and prevent a leak in any Main Steam Line.

\*ANSWER a. \*REFERENCE TS Bases Volume 1 Book 2 B3.3.6.1-8 New Memory

*QNUM	113
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	262001A103
*QUESTION	
Lipit 4 in anomating	

Unit 1 is operating at 100% power. The SAT is providing power to bus 1241-Y. Voltage at the SAT degraded so that voltage at bus 141-Y decreased to 3800 Volts for one minute. As the Unit Supervisor, you would be expected to direct the following action(s):

- a. Shed non-essential loads from bus 141-Y ONLY.
- b. Trip ACBs 1412 and 1415 <u>ONLY</u>.
- c. Shed non-essential loads from Bus 141-Y AND trip ACBs 1412 and 1415.

d. No action is required until bus 141-Y ACBs 1412 and 1415 reach their low voltage trip.

\*ANSWER

c. \*REFERENCE LOP-AP-101, Section B.4 New Higher

*QNUM	114
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	290001A201
*QUESTION	
In order to comple	

In order to complete required actions for an abnormal condition in the plant, the Unit Supervisor has sent operators to the reactor building to operate equipment.

- the "RB 3 DOOR AIRLOCK F21 UNDERVOLTAGE" annunciator is lit.
- Operators trying to exit the reactor building report that only one door at the D/G corridor airlock can be opened.

Technical specification 3.4.6.1 for the secondary containment airlock is based on \_\_1\_\_\_? \_\_\_2.\_\_\_ should be recommended for the operators to take to operate the door in accordance with LOA-AP-101 Attachment L?

- a. 1. Safety Relief Valves fail open; 2. Since power is lost to both doors at the D/G corridor airlock; close the door to reset the interlock, then open the next door.
- b. 1. Loss of Coolant Accident; 2. Since power is lost to the both doors at the D/G corridor airlock; bypass the interlock with jumpers located in the D/G corridor, and both doors will open.
- c. 1. Loss of Coolant Accident; 2. Since power is lost to an interlock relay; open breakers to de-energize the interlock relays, and both doors will open.
- d. 1. Safety Relief Valves fail open; 2. Since power is lost to an interlock relay; reset the undervoltage relay logic for the airlock doors in the control room, and both doors will open.

\*ANSWER c. \*REFERENCE LOA-AP-101 Att L: 77 of 110 TS 3.4.6.1 New higher

*QNUM	115
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	<b>BWR-GE5</b>
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	263000 2.2.12
*QUESTION	
Poth Unite are at	4000/ maxima lata 1

Both Units are at 100% power. It is July 5th. During review of completed surveillance packages for performances of SR 3.8.6.2 for all batteries on July 4th, the following conditions were noted: (The last performance of these surveillances was completed successfully on April 5th.)

- one 250V battery cell has an electrolyte level equal to the top of the plates.
- one Div 1 125V battery cell has corrected specific gravity reading of 1.186 when average reading of cells is 1.206.
- The Div 2 125V battery was on float charge of 1 ampere following a discharge on June 30th. No specific gravity readings were taken.
- The Div 3 125V battery was discharged on June 22nd to 108V. Temperature compensation for the specific gravity revealed that some cells were at 60 degF.
- No other abnormal conditions were noted.

The surveillance procedure requires review of results to determine if equipment is operable in accordance with Technical Specifications. Select the OPERABLE battery and required action(s) in effect:

- a. The 250V battery is operable with required actions A.1 and A.2 in effect.
- b. The Div 1 125V battery is operable with required action A.3 in effect.
- c. The Div 2 125V battery is operable with required action A.3 in effect.
- d. The Div 3 125V battery was operable for June, inoperable on July 3, but operable now.

\*ANSWER b. \*REFERENCE TS3.8.6 New Higher

*QNUM	116
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	<b>BWR-GE5</b>
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	216000A103
*QUESTION	
Development of the	

During a surveillance test involving calibration of the four wide range reactor vessel level indication instrument loops, the instrument technician inadvertently leaves the root valves to the reference legs for the instruments closed. Select the answer which predicts the effect on the vessel level instrumentation, and the alternative instrumentation that the unit supervisor should choose in the event that a rapid depressurization event with lowering reactor vessel level occurred and LGA -001 RPV control was entered.

- a. Indicated level would be higher than actual, and fuel zone level instruments would be the most reliable because of calibration for high drywell temperatures.
- b. Indicated level would be higher than actual, and a shutdown range indication would be the most reliable because of RVLIS fill.
- c. Indicated level would be below actual level, and fuel zone level instrument would be the most reliable because of calibration for high drywell temperatures.
- d. Indcated level would be below actual level, and shutdown range indication would be the most reliable because of RVLIS fill.

\*ANSWER a. \*REFERENCE System 40 Lesson Plan New

Higher

*QNUM	118
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	271000K302
*QUESTION	
Following on ohn	ormal increase in C

Following an abnormal increase in Off Gas Post-Treatment Monitoring System radiation levels, which actions below will result in reducing offsite radioactive release rates resulting from radionuclides in the offgas (OG) system?

- 1. A decrease in steam jet air ejector flow.
- 2. Closure of the Off Gas Charcoal Adsorber Train Bypass Stop 1(2)N62-F043.
- 3. A mechanical vacuum pump start.
- 4. A Closure of the OG system outlet valve 1N62-F057.
- a. 1 or 2 only
- b. 2, 3, or 4 only
- c. 3 or 4 only

d. 1, 2, or 4 only \*ANSWER d. \*REFERENCE Lesson Plan 80, Offgas New Fundamental

*QNUM	119
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	RK WALTON
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	2.4.14
*QUESTION	
Regarding entry into	LGA-009, Radioactive Release Control: This LGA can

- only be initially entered if entry conditions are satisfied a.
- b. only be entered as an action from LGA-003, Primary Containment Control
- only be entered as an action from LGA-002, Secondary Containment Control C.
- be entered as an action from all LGAs d.

\*ANSWER a. \*REFERENCE LGA Lesson Plans - Flow Chart Use

New

Memory

*QNUM	120
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	<b>RK WALTON</b>
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	2.4.21
*QUESTION	
With Unit 2 at be	ainning of core life

With Unit 2 at beginning of core life, an upset condition has occurred resulting in an automatic scram. Other plant conditions are as follows:

- The reactor operator has taken the Mode switch to Shutdown
- Reactor water level has dropped to -25 inches
- 3 control rods remain at notch 08, all other control rods are full in
- All other reactor and containment parameters are normal

As the Control Room Unit Supervisor, what would be the first actions you would direct?

- 17. Inhibit ADS
- 18. Terminate and prevent injection from HPCS, LPCS, & LPCI
- 19. Initiate ARI
- a. only 1
- b. only 1 and 2
- c. only 1 and 3

d. only 1, 2 and 3

\*ANSWER

b.

\*REFERENCE LGA-010, Failure to Scram Lesson Plan New Memory

*QNUM	121
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	<b>BWR-GE5</b>
*EXLEVEL	S
*EXMNR	<b>RK WALTON</b>
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	2.4.44
*QUESTION	
1	

In accordance with EP-AA-113 "Protective Actions ", \_\_1st\_\_\_\_ are to be considered for actions protecting onsite personnel, and \_\_2nd\_\_\_\_ are to be considered for actions protecting offsite personnel.

- 1. Radiological Controls
- 2. Emergency Dose Limits (in excess of 10 CFR 20 limits).
- 3. Thyroid Blocking Agents (Potassium lodide).
- 4. Evacuation
- 5. Site Assembly

a. 1<sup>st)</sup>1,2,3,4,5 ; 2<sup>nd</sup>) 4 only

- b. 1<sup>st)</sup>1,2,3,4,5 ; 2<sup>nd</sup>) 3 and 4 only
- c. 1<sup>st)</sup> 1,2,4, and 5; 2<sup>nd</sup>) 4 only

d. 1<sup>st</sup>) 1,2,4, and 5 ; 2<sup>nd</sup>) 3 and 4 only

\*ANSWER

a. \*REFERENCE EP-AA-113, Protective Actions 4.2 and 4.3 New Memory

*QNUM	122
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	<b>RK WALTON</b>
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	295037A106
*QUESTION	
\A/ith Linit 1 at 25%	knower a malfuncti

With Unit 1 at 25% power, a malfunction in the feedwater level control system causes reactor water level to shrink to +5 inches. After the transient subsides, the following conditions exist:

- reactor pressure 1050 psig decreasing
- reactor water level 18 inches, steady
- main turbine tripped
- power range indicators unavailable

The reactor operator reports that neutron level is steady and is reading 100 on Range 10 of the IRMs. Reactor power is \_\_\_\_\_\_ and LGA 010, "Failure to Scram" requires that Recirculation pumps \_\_\_\_\_\_.

- a. 40% / be tripped
- b. 4% / be tripped
- c. 40% / remain in operation
- d. 4% / remain in operation

\*ANSWER

a. \*RF

\*REFERENCE 042 Intermediate Range Lesson Plan New Higher

*QNUM	123
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	<b>BWR-GE5</b>
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	2.3.7
*QUESTION	
•	

An emergency situation has occurred and an individual on a maintenance team needs to enter a very high radiation area to manipulate a stuck valve.

- No RWP has been written for the work.
- The individual to be sent has no previous exposure history from an emergency exposure, overexposure or a Planned Special Exposure.
- The individual has an annual total effective dose equivalent (TEDE) of 1.5 Rem
- It is anticipated that the emergency entry could result in as much as 4.5 Rem TEDE.

SELECT the correct answer regarding the above conditions.

- a. The worker may be sent without a prior approved RWP because the Planned Special Exposure limits have not been reached.
- b. The worker maybe sent without a prior approved RWP if RP personnel are in accompaniment.
- c. A prior approved RWP is required, but can be expedited since the Planned Special Exposure limits for the worker are not reached.
- d. A prior approved RWP is required because the Radiation Protection Manager must approve the entry.

\*ANSWER b. \*REFERENCE RP-AA-403 4.1.7 New Higher

*QNUM	124
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2002/04/08
*FAC	373
*RTYP	BWR-GE5
*EXLEVEL	S
*EXMNR	miller
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	205000 2.1.12
*QUESTION	,

The reactor mode switch is in the shutdown position, and average reactor coolant temperature is 180 degrees F.

- The A train of RHR shutdown cooling (SDC) has been inoperable for the last 24 hours due to pump problems.
- The B train of shutdown cooling was taken out of service and declared inoperable due to surveillance testing starting at 2 p.m.
- No reactor recirculation pumps are running.
- Average reactor coolant heatup rate since the B train was taken out of service has been constant at about +10 degF/hr.

If at 5:30 p.m. the surveillance testing is still in progress, no changes are reported for the 'A' loop, and average coolant temperature progresses according to the information above, SELECT the answer which includes all the required actions and completion times in effect according to the SDC portion of Technical Specifications.

- a. Verify alternate decay heat removal method within 1 hour and every subsequent 24 hours.
- b. Verify alternate method of coolant circulation within 1 hour of discovery and every 12 hours thereafter, and monitor reactor coolant temperature and pressure once per hour.
- c. Initiate action to restore each inoperable SDC loop immediately, and verify two alternate decay heat removal methods are available (one for the A and one for the B loop) within 1 hour, and be in mode 4 within 24 hours.
- d. Initiate action to restore one SDC loop or one recirculation pump immediately, and verify alternate method of reactor coolant circulation within 1 hour of discovery of no reactor coolant circulation and every 12 hours thereafter, and monitor reactor coolant temperature and pressure once per hour.

\*ANSWER d. \*REFERENCE TS sections 3.4.9 and 3.4.10 New Higher \*QNUM 125 \*HNUM \*ANUM FALSE \*QCHANGED \*ACHANGED FALSE 2002/04/08 \*QDATE \*FAC 373 \*RTYP **BWR-GE5** \*EXLEVEL S **RK WALTON** \*EXMNR 1.00 \*QVAL \*SEC **\*SUBSORT** \*KA 2.2.26 **\*QUESTION** 

Unit 2 is in Mode 5 during a refuel outage. The Mode switch is locked in the Shutdown position and fuel reloading is in progress. Of the following conditions, which one <u>IS</u> allowed by LFP-100-1, "Master Refuel Procedure?"

- a. SRM downscale and period alarms jumpered
- b. Over the Core Limit Switches 5LS, 5LS1 and 6LS disabled
- c. Fuel bundle latched with no Fuel Handling personnel present

d. Moving fuel with a control rod indicating a position other than 00
\*ANSWER
b.

\*REFERENCE LFP 100-1, Master Refuel Procedure question source (new) level of knowledge (fundamental) \*END