

**1 POINT**

**Question 1**

Unit 2 plant conditions:

- Reactor power = 40%
- 2N<sub>1</sub> and 2N<sub>2</sub> AUTO/MAN transfer switches in MANUAL

If the reactor trips, which ONE of the following describes the source of power to Unit 2's MFBs and correctly identifies whether a Load Shed will occur?

- A. CT-4 / yes
- B. 2T / no
- C. CT-2 / yes
- D. CT-2 / no

**1 POINT**

**Question 2**

Unit 2 initial conditions:

- Time = 1000
- Rx Power = 80%

Current conditions:

- Time = 1005
- Rx Power = 77% decreasing
- 1SA2/D3 (RC PRESS HIGH/LOW) in alarm
- 2RC-1 (PZR SPRAY) OPEN
- Control Rods Inserting
- Feedwater flow increasing
- OTSG levels = 73% increasing
- Tave 577 °F decreasing
- RCS pressure 2140 psig decreasing

Based on the current conditions, which ONE of the following describes the event cause?

- A. Controlling NI failed HIGH
- B. Main FDW Valve failed OPEN
- C. Turbine Bypass Valve failed OPEN
- D. Controlling NR RCS pressure failed HIGH

**1 POINT**

**Question 3**

Plant initial conditions:

- Both Keowee Units generating to the grid at  $\approx$  60 MWs
- ACB-4 closed

Current conditions:

- A LBLOCA occurs on Oconee Unit 2
- Keowee Unit #2 emergency locks out
- The Keowee main transformer locks out

Within thirty (30) seconds of the current conditions, which ONE of the following Keowee breaker combinations should exist?

- A. ACB-1 open and ACB-2 closed
- B. ACB-1 closed and ACB-3 closed
- C. ACB-3 open and ACB-4 closed
- D. ACB-3 closed and ACB-4 open

**1 POINT**

**Question 4**

Unit 1 plant conditions:

Reactor power:

- NI 5 = 68%
- NI 6 = 69%
- NI 7 = 72%
- NI 8 = 71%
- NI 9 = 69%

Statalarms actuated:

- 1SA-9/D2 (RCP VIBRATION HIGH)
- 1SA-9/E2 (RC PUMP VIBRATION EMERGENCY HIGH)
- 1SA-6/E-6 (RC PUMP 1B1 SEAL RETURN TEMP HIGH)

1B1 RCP parameters:

- SEAL RETURN FLOW
  - 1.7 gpm
- HIGHEST VIBRATIONS
  - Motor Stand = 5.2 mils steady
  - Spool piece = 15.6 mils steady
  - Upper bearing = 16.3 mils steady
- SEAL RETURN TEMPERATURE
  - 204°F increasing

Based on the above conditions, which ONE of the following operator actions is required and why?

- A. Trip the reactor, and then trip 1B1 RCP due to high seal return temperature.
- B. Trip the 1B1 RCP due to high sustained vibration, the reactor is not required to be tripped.
- C. Trip the 1B1 RCP due to high seal return temperature, the reactor is not required to be tripped.
- D. Trip the reactor, and then trip 1B1 RCP due to high sustained vibration.

**1 POINT**

**Question 5**

Unit 1 initial conditions:

- Reactor Power = 90%
- 1HP-120 failed CLOSED
- AP/14 (Loss of Normal HPI Makeup and/or RCP Seal Injection) has been entered

Current conditions:

- The operator determines that 1HP-26 fails to operate from the control room.

Which ONE of the following actions is directed by AP/14 for the current plant conditions?

- A. Dispatch an operator to manually throttle 1HP-26 (1A HP INJECTION)
- B. Dispatch an operator to throttle 1HP-122 (RC VOLUME CONTROL BYPASS)
- C. Throttle 1HP-410 (1HP-26 BYPASS)
- D. Close 1HP-5 (LETDOWN ISOLATION)

**1 POINT**

**Question 6**

Unit 1 initial conditions:

- The plant tripped from 100% power due to a trip of all RCPs
- Operators subsequently began a cooldown
- LPI high pressure mode was aligned

Current conditions:

- All LPI pumps have lost power
- Operators have entered AP/26 (Loss of Decay Heat Removal), Section 4A (RCS Intact and RC Loops Full)
- RCS Temperature = 250°F and increasing
- RCS Pressure = 295 psig and increasing
- Condenser is still available

Which ONE of the following correctly describes the required position of 1LP-3 (LPI HOTLEG SUCTION) and the path for steam generator feedwater supply based on the given plant conditions?

- A. The 1LP-3 is required to be closed.  
SGs shall be fed via MFW nozzles
- B. The 1LP-3 is required to be closed.  
SGs shall be fed via AFW nozzles
- C. The 1LP-3 is NOT required to be closed.  
SGs shall be fed via MFW nozzles.
- D. The 1LP-3 is NOT required to be closed.  
SGs shall be fed via AFW nozzles.

**1 POINT**

**Question 7**

Unit 1 plant conditions:

- Reactor power = 100%
- Inadvertent ES channel 6 actuation occurs

Which ONE of the following will occur as a result of the above conditions and why?

- A. LPSW cooling to ALL RCPs is isolated to prevent a subsequent water hammer.
- B. 1A, 1B and 1C RBCUs will start/switch to low speed in preparation for operation in a high density environment.
- C. Letdown will isolate to prevent reaching the letdown high temperature interlock.
- D. The operating CC pump will stop to prevent deadheading the pump.

**1 POINT**

**Question 8**

Unit 1 initial conditions:

- Reactor power = 100%

Current conditions:

- 1RC-1 (PZR Spray) and 1RC-3 (PZR Spray Block) fail OPEN

Based on the above conditions, which ONE of the following describes the expected plant response and how RCS pressure will be ultimately controlled?

The reactor will trip and...

- A. the EOP Subsequent Actions directs securing RCPs until normal pressure control is regained.
- B. the RCS will saturate. EOP Rule 2 will secure the RCPs and RCS pressure will stabilize at  $P_{sat}$  for the existing PZR temperature.
- C. ES Channels 1 and 2 will actuate. EOP Rule 6 (HPI) will be used to throttle HPI to control RCS pressure with a solid PZR.
- D. ES Channels 1 and 2 will actuate. EOP Rule 6 (HPI) will be used to control PZR level  $< 400$  inches.

**1 POINT**

**Question 9**

Unit 1 initial plant conditions:

- Time = 0900
- Reactor Power = 100%

Current plant conditions:

- Time = 0915
- Both Main FDW pumps trip
- Reactor Power = 47% and decreasing
- RCS temperature = 585 °F and increasing
- EFDW flow has been throttled to each SGs at ~990 gpm per header.
- OTSGs indicate 12" XSUR and constant.

Based on the current plant conditions, which ONE of the following actions will occur if Stat Alarms 1SA1/E6 (CRD ELECTRONIC TRIP E) and 1SA1/E7 (CRD ELECTRONIC TRIP F) alarm?

**ASSUME NO OPERATOR ACTION**

- A. Control Rods groups 1-7 will trip and TBVs will control THP pressure at the THP setpoint plus 125 psig
- B. Control Rods groups 5-7 ONLY will trip and TBVs will control THP pressure at the THP setpoint plus 125 psig
- C. Control Rods groups 1-7 will trip and TBVs will control THP pressure at the THP setpoint.
- D. Control Rods groups 5-7 ONLY will trip and TBVs will control THP pressure at the THP setpoint.

**1 POINT**

**Question 10**

Unit 1 plant initial conditions:

- 1A SGTR in progress

Current conditions:

- RCS cool down in progress
- 3 RCPs operating
- 1A SG isolated
- CETCs = 475°F

Based on current conditions, which ONE of the following is correct?

**SEE ATTACHMENT**

RCS pressure should be \_\_\_\_\_ psig.

- A. 750
- B. 625
- C. 578
- D. 525

**1 POINT**

**Question 11**

Unit 1 initial conditions:

- Rule 5 in progress
- ES Channels 1 and 2 initiated

Current conditions:

- RCS pressure = 1820 psig increasing
- Rule 5 is complete
- EHT tab is complete

Based on the above conditions, which ONE of the following states whether ES Channels 1 and 2 may be reset and the lowest level of permission required prior to resetting the channels?

- A. yes / Control Room SRO
- B. yes / Operations Shift Manager
- C. no / Control Room SRO
- D. no / Operations Shift Manager

**1 POINT**

**Question 12**

Unit 1 initial conditions:

- Time = 1000
- Reactor power = 100%

Current conditions:

- Time = 1001
- RCS Temperature = 545 °F decreasing
- RCS pressure = 1700 psig decreasing
- A OTSG pressure = 400 psig decreasing
- A OTSG level = 40% OR decreasing
- B OTSG pressure = 1000 psig decreasing
- B OTSG level = 30% OR decreasing

Based on the above conditions, which ONE of the following correctly states the event that has occurred and the status of the Main FDW pumps?

**ASSUME NO OPERATOR ACTIONS**

- A. 1A Main Feedwater flow input to ICS fails LOW / tripped
- B. 1A Main Feedwater flow input to ICS fails LOW / NOT tripped
- C. 1A Main Feedwater line break / tripped
- D. 1A Main Feedwater line break / NOT tripped

**1 POINT**

**Question 13**

Unit 1 plant conditions:

- EOP Blackout tab has been in progress for three hours

Which ONE of the following describes why the Blackout tab directs the crew to FAIL 1CC-8 (CC RETURN PENT (54) OUTSIDE BLOCK) closed?

- A. 1CC-8 will fail open if IA pressure decreases to  $< 35$  psig.
- B. Prevents auto restart of CC pumps once AC power is restored.
- C. CC will not be needed in the Reactor Building during the shutdown following the blackout.
- D. 1CC-8 will fail open once there is NO DC power available to the solenoid.

**1 POINT**

**Question 14**

Oconee initial plant conditions:

- Time = 07:00:00
- Oconee Unit 1 reactor power = 100%
- Oconee Unit 2 reactor power = 100%
- Keowee Unit 1 output = 73 MWe
- ACB-4 is closed
- PCB-8 is FAILED closed
- 230 KV Switchyard Yellow Bus voltage = 225.1 KV

Current conditions:

- Time = 07:00:30
- Oconee Unit 2 RCS pressure decreases to 1436 psig
- 230 KV Switchyard Yellow Bus voltage = 226.2 KV

Based on the above conditions, which ONE of the following describes the status of each Keowee unit and from where will Oconee Units 1 and 2 receive power?

**ASSUME NO OPERATOR ACTIONS**

- A. Keowee Unit 1 supplies Oconee Unit 1 via the Overhead Power Path  
Keowee Unit 2 supplies Oconee Unit 2 via the Standby Buses and CT-4.
- B. Keowee Unit 1 operates at rated speed but not tied to the Overhead Power Path  
Keowee Unit 2 supplies Oconee Unit 1 and 2 via the Standby Buses and CT-4.
- C. Keowee Unit 1 supplies the Standby Buses and CT-4.  
Keowee Unit 2 operates at rated speed but not tied to the Overhead Power Path  
Oconee Unit 1 is supplied from 1T and Oconee Unit 2 is supplied from CT-2.
- D. Keowee Unit 1 operates at rated speed but not tied to the Overhead Power Path  
Keowee Unit 2 supplies the Standby Buses and CT-4.  
Oconee Unit 1 is supplied from 1T and Oconee Unit 2 is supplied from CT-2.

**1 POINT**

**Question 15**

Unit 1 plant conditions:

- 1DCB bus has been inadvertently de-energized.

Based on the above conditions, which ONE of the following correctly describes the status of 1DIC panelboard?

The 1DIC panelboard will...

- A. de-energize with power having to be manually aligned from Unit 2 DCA Bus.
- B. remain energized with power coming from the same unit via isolating diodes.
- C. de-energize with power having to be manually aligned from the CS Battery Charger.
- D. remain energized with power coming from Unit 2 DCA via isolating diodes.

**1 POINT**

**Question 16**

Unit 1 initial conditions:

- Reactor power = 100%

Current conditions:

- A, B and C LPSW pumps tripped
- AP/24, Loss of LPSW in progress
- 1A HPI pump motor temperature increasing

Based on the above conditions, which ONE of the following statements is a required action per AP/24?

- A. If the TDEFDWP is operating satisfactorily; stop the MD EFDWPs immediately
- B. If the TDEFDWP is operating satisfactorily; stop the MD EFDWPs when directed by Station Management
- C. If HPIP motor bearings  $\geq 195^{\circ}\text{F}$ ; align and start SSF-ASW to cool the HPI pump motors
- D. If HPIP motor bearings  $\geq 195^{\circ}\text{F}$ ; ensure HPSW operating properly and aligned to the HPI pump motor coolers

**1 POINT**

**Question 17**

Unit 2 initial conditions:

- Reactor Power = 70%
- Switchyard isolation occurs.
- IMAs performed
- Symptom check performed

Current conditions:

- MFBs have just re-energized
- AP/11 (Recovery From Loss of Power) is initiated

Based on the current plant conditions, which ONE of the following actions are required and why?

- A. Reduce 2HP-120 setpoint to  $\geq 100$  inches to prevent HPI suction swap to BWST.
- B. Throttle EFDW using 2FDW-315 & 2FDW-316 after power restoration to prevent excessive EFDW header flow.
- C. Swap air ejector steam from Main Steam to Aux Steam to prevent excessive cooldown.
- D. Restore the condensate system up to one hour after power restoration to prevent steam induced water hammer.

**1 POINT**

**Question 18**

Which ONE of following describes the purpose of HPI Forced Cooling and the required number of HPI pumps that will be operating per Rule 4 (Initiation of HPI Forced Cooling)?

- A. Maintain RCS pressure less than PZR Safety valves relief set point to prevent them from opening. / 2
- B. To remove core decay heat to prevent the core from becoming uncovered. / 2
- C. Maintain RCS pressure less than PZR Safety valves relief set point to prevent them from opening. / 3
- D. To remove core decay heat to prevent the core from becoming uncovered. / 3

**1 POINT**

**Question 19**

Unit 1 plant conditions:

- Reactor power = 48%
- Group 6 Rod 6 has been determined to be stuck
- AP/15 (Dropped or Misaligned Control Rods) in progress
- OP/1/A/1105/019 (Control Rod Drive System) in progress

Based on the above conditions and the Limits and Precautions of OP/1/A/1105/019, which ONE of the following correctly describes the speed at which the stuck control rod is operated and why?

The control rod should be operated in \_\_\_\_\_ speed to prevent damaging the CRD \_\_\_\_\_.

- A. JOG / spider
- B. JOG / motor
- C. RUN / spider
- D. RUN / motor

**1 POINT**

**Question 20**

Unit 2 initial conditions:

- Time = 0900
- Reactor Startup in progress
- NI 1 & 2 = 70 cps
- NI 3 & 4 = 0 cps (out of service)
- ALL WRs = ~ 2.7 E-4%

Current conditions:

- Time = 0901
- NI 1 & 2 are inoperable

Based on the current conditions, which ONE of the following list ALL actions required per TS 3.3.9 (Source Range Neutron Flux) and why?

- A. Insert Control Rods to Gp 1 = 50% immediately, sample RCS for Boron and verify SDM within 1 Hour.

This is to ensure the reactor is sufficiently shutdown in a condition where power is not able to be determined accurately.

- B. Suspend operations involving positive reactivity changes and insert all control rods immediately. Open control rod drive trip breakers and verify SDM within 1 Hour.

This is because the source range provides the only reliable direct indication of power in this condition.

- C. Maintain present power level and restore inoperable channels to operable status prior to increasing Thermal Power and verify SDM within 1 Hour.

This prevents power increases in the range where the operators rely solely on the source range instrumentation for power indication.

- D. Initiate action to restore affected channels to operable status within 1 Hour.

This will ensure the future ability to accurately monitor reactivity changes in low power conditions. Further operation is allowed because the instrumentation does not provide a safety function during this range of power.

**1 POINT**

**Question 21**

Unit 1 plant conditions:

- SGTL in progress
- Rx power = ~32% decreasing
- Maximum Runback is in progress
- ALL RIAs operable

Based on the above conditions, which ONE of the following lists ALL of the RIAs that are directed by the EOP SGTR tab to be used to identify the specific SG with the tube leak?

Unit 1 RIA(s):

- A. 16 and 17
- B. 16, 17, and 40
- C. 16, 17, 59, and 60
- D. 16, 17, 40, 59, and 60

**1 POINT**

**Question 22**

Plant initial conditions:

- Unit 1 in MODE 6
  - De-fuel in progress
- Unit 2 in MODE 5
- 1RIA-3 (Fuel Transfer Canal Wall) = 1.4 mr/hr
- 1RIA-6 (Spent Fuel Pool) = 0.72 mr/hr

Current conditions:

- 1RIA-3 (Fuel Transfer Canal Wall) = 1.3 mr/hr
- 1RIA-6 (Spent Fuel Pool) = 12.38 mr/hr
  - Local evacuation alarm sounds

Based on the above conditions, which ONE of the following describes REQUIRED operator actions per AP/9 (Spent Fuel Damage)?

- A. Stop Unit 1 RB Purge Fan and start a SFP Filtered exhaust fan.
- B. Stop Unit 1 RB Purge Fan and stop all GWRs in progress.
- C. Stop Unit 2 RB Purge Fan and start a SFP Filtered exhaust fan.
- D. Stop Unit 2 RB Purge Fan and stop all GWRs in progress.

**1 POINT**

**Question 23**

Unit 1 initial plant conditions:

- Time = 0400
- Reactor power = 100%
- Generator output = 902 MWe
- Group 7 CR position = 90%
- Condenser vacuum = 27.8" Hg
- Turbine Master in HAND

Current conditions:

- Time = 0405
- Condenser vacuum = 22.3" Hg and stable

Which one of the following correctly describes the change in generator output and control rod response that would result from the above conditions?

- A. Generator output will decrease due to the reduction in ICS front end demand  
Group 7 Control Rods will withdraw due to positive neutron error
- B. Generator output will decrease due to the reduction in ICS front end demand  
Group 7 Control Rods will insert due to tracking MWe
- C. Generator output will decrease due to reduced turbine efficiency  
Group 7 Control Rods will withdraw due to positive neutron error
- D. Generator output will decrease due to reduced turbine efficiency  
Group 7 Control Rods will insert due to tracking MWe

**1 POINT**

**Question 24**

Unit 3 plant conditions:

- A Challenging Active Fire has been determined by the control room crew
- The fire location is:
  - inside the Unit 3 Turbine Building 3rd floor
  - Column C-55
- 7 minutes have elapsed

Which ONE of the following is correct at this time?

The Unit's Main Steam lines \_\_\_\_\_ be isolated and the SSF breaker transfer will be performed by the \_\_\_\_\_.

**SEE ATTACHMENT**

- A. will / units BOP
- B. will not / units BOP
- C. will / units AP/EOP NEO
- D. will not / units AP/EOP NEO

**1 POINT**

**Question 25**

Unit 1 initial plant conditions:

- Reactor power = 2%

Current conditions:

- ICS AUTO power and ICS HAND power lost

Based on the above conditions, which ONE of the following describes the level at which SGs will be maintained and how decay heat removal from the core is controlled?

**ASSUME NO OPERATOR ACTIONS**

- A. 25 inches SUR / manual operation of the ADVs.
- B. 30 inches XSUR / manual operation of the ADVs.
- C. 25 inches SUR / manual operation of the TBVs.
- D. 30 inches XSUR / manual operation of the TBVs.

**1 POINT**

**Question 26**

Unit 1 initial conditions:

- LOCA CD tab in progress
- Core SCM = 85 °F
- All HPIPs operating
- All LPIPs operating

Based on the above plant conditions, what criterion is required to throttle HPI per Rule 6 and when are the HPIPs directed to be secured per the LOCA CD tab?

- A. CETCs decreasing / As soon as LPI flow rates are  $\geq 3400$  gpm total flow or  $\geq 2900$  gpm flow in one header.
- B. CETCs decreasing / As soon as the ECCS Suction Swap to RBES (Encl. 5.12) is complete.
- C. Pzr level increasing / As soon as the ECCS Suction Swap to RBES (Encl. 5.12) is complete
- D. Pzr level increasing / As soon as LPI flow rates are  $\geq 3400$  gpm total flow or  $\geq 2900$  gpm flow in one header.

**1 POINT**

**Question 27**

Unit 1 conditions;

- Forced Cooldown tab in progress
- Decision is made to perform a Natural Circulation Cooldown
- CETC and  $T_{hot} = 530$  °F stable
- RCS pressure = 2130 psig stable

Based on plant conditions, how does the Reactor Operator initially control RCS pressure as the cooldown begins and why?

- A. Establish and maintain RCS pressure to achieve core SCM > 150 °F to promote flow through the RV Head Vents thereby cooling the surrounding area.
- B. Establish and maintain RCS pressure to achieve core SCM > 150 °F to ensure any potential voids have been collapsed.
- C. Establish and maintain RCS pressure ~ 2155 psig to promote flow through the RV Head Vents thereby cooling the surrounding area.
- D. Establish and maintain RCS pressure ~ 2155 psig to ensure any potential voids have been collapsed.

**1 POINT**

**Question 28**

Unit 2 plant conditions

- Reactor power = 100%
- Green "OFF" lights are illuminated on BOTH CC pumps
- 2SA9-C1 (CC Component Cooling Return Flow Low) actuated
- 2HP-120 (RC Volume Control) in HAND

Based on the above conditions, which ONE of the following is the expected plant response within the next 3 minutes?

**Assume no operator action AND the reactor does NOT trip**

Pressurizer level will \_\_\_\_ and LDST level will \_\_\_\_\_.

- A. increase / decrease
- B. increase / remain constant
- C. remain constant / decrease
- D. remain constant / remain constant

**1 POINT**

**Question 29**

Unit 1 initial conditions:

- MODE 5
- RCS intact
- LPI in normal decay heat removal
- LPI in purification

Current conditions:

- ALL source range NIs increasing

Based on the above conditions, which ONE of the following describes required actions of AP/3 (Boron Dilution)?

- A. Secure LPI purification and initiate boration from the BWST.
- B. Secure LPI purification and initiate boration from the CBAST.
- C. Align letdown to 1A BHUT and initiate boration from the BWST.
- D. Align letdown to 1A BHUT and initiate boration from the CBAST.

**1 POINT**

**Question 30**

Unit 1 initial conditions:

- Reactor power = 100%
- 1HP-26 valve position lights are OFF (valve in normal system alignment)

Current plant conditions:

- SBLOCA has occurred
- Rule 2 (Loss of SCM) initiated

How does the current malfunction affect system design performance and what procedural actions are required to compensate for the malfunction?

- A. Prevents full injection flow in the A HPI Header / Throttle open 1HP-410 to the desired flow per figure in Rule 2
- B. Prevents any flow in the A HPI Header / Throttle open 1HP-410 to the desired flow per figure in Rule 2
- C. Prevents any flow in the A HPI Header / Fully open 1HP-410 to achieve the maximum flow possible
- D. Prevents full injection flow in the A HPI Header / Fully open 1HP-410 to achieve the maximum flow possible

**1 POINT**

**Question 31**

Unit 1 initial conditions:

- RCS temperature = 500°F
- RCS pressure = 885 psig

Current conditions:

- RCS pressure decreasing
- Pressurizer level decreasing
- PZR relief valve tailpipe temperature = 300°F
- Quench tank level increasing
- Quench tank pressure = 10 psig increasing

Which ONE of the following would cause of the current conditions?

- A. 1B2 RCP Upper, Middle, and Lower seals have failed
- B. 1RC-159 and 1RC-160 (RXV Head vents) are leaking
- C. Low range RCS pressure has failed HIGH
- D. 1RC-66 (PORV) is leaking

**1 POINT**

**Question 32**

Unit 1 plant conditions:

- Mode 5
- CC system in operation
- OP/1/A/1104/008 (Component Cooling System) Enclosure. 4.5 (Letdown Cooler Flow Balance Setup) in progress
- It is determined that CRD outlet header flow is too low

As the Letdown Cooler outlet valves are adjusted to correct the CRD header flow, which ONE of the following describes an expected change in control room indications?

- A. Total CC flow increases
- B. Neutron count rate increases
- C. RCP CC return flow decreases
- D. CC pump discharge pressure increases

**1 POINT**

**Question 33**

Unit 1 initial conditions:

- Time = 0400
- Reactor power = 75%
- Plant transient

Current conditions:

- Time = 0402
- Plant stable
- Reactor power = 70%
- RCS pressure = 2209 psig
- PZR temperature = 644°F
- Tave = 584°F

Which ONE of the following correctly describes the effect of the above transient on the PZR and status of the PZR Control System?

- A. A PZR insurge will occur, PZR heater Bank 2 Group B and D are energized and 1RC-1 (PZR SPRAY) is OPEN.
- B. A PZR insurge will occur, PZR heater Bank 2 Group B and D are energized and 1RC-1 (PZR SPRAY) is CLOSED.
- C. A PZR outsurge will occur, ALL PZR heaters are de-energized and 1RC-1 (PZR SPRAY) is OPEN.
- D. A PZR outsurge will occur, ALL PZR heaters are de-energized and 1RC-1 (PZR SPRAY) is CLOSED.

**1 POINT**

**Question 34**

Which ONE following correctly completes the statement?

Per OP/1102/010 (Controlling Procedure For Unit Shutdown) the actual RPS high flux trip setpoint is set at \_\_\_\_ (%) when in shutdown bypass and this limit is imposed to \_\_\_\_\_.

- A. 5 / prevent any significant power production with a portion of the RPS bypassed
- B. 5 / ensure Emergency FDW has sufficient capacity to remove decay heat
- C. 4 / ensure Emergency FDW has sufficient capacity to remove decay heat
- D. 4 / prevent any significant power production with a portion of the RPS bypassed

**1 POINT**

**Question 35**

Unit 1 plant conditions:

- Reactor power = 100%
- "B" ES analog channel WR RCS pressure test module is in "TEST-OPERATE"
- 1KVIC power panelboard is de-energized

Based on the above conditions, which ONE of the following describes the ES channels that will actuate?

- A. All ES digital channels 1 through 6
- B. All ES digital channels 1 through 4
- C. Only ODD ES digital channels 1 and 3
- D. Only EVEN ES digital channels 2 and 4

**1 POINT**

**Question 36**

Unit 1 initial conditions:

- Steam leak inside containment
- Reactor Trip
- Rule 5 complete
- ES 1-6 initiated

Current conditions:

- RB pressure 0.5 psig stable
- EOP Enclosure 5.41 (ES Recovery) in progress

Which ONE of the following correctly identifies the sequence to place the Reactor Building Cooling Units in their normal configuration in accordance with Encl. 5.41?

- 1 - Reset Analog Bistables
- 2 - Place RBCUs on RZ module to MANUAL
- 3 - Reset Digital Channels 5 & 6
- 4 - Depress the PUSH TO RET TO NORMAL AFT ES RESET pushbuttons
- 5 - Initiate OP/1/A/1104/015 (RBCUs)
- 6 - Position the RBCU switches in LOW

A. 2 / 1 / 3 / 4 / 6 / 5

B. 1 / 3 / 4 / 6 / 5

C. 2 / 6 / 4 / 5

D. 1 / 3 / 6 / 4 / 5

**1 POINT**

**Question 37**

Unit 2 plant conditions:

- SBLOCA
- Enclosure 5.12 (ECCS Suction Swap to RBES) is complete

Which ONE of the following design features of the Reactor Building Spray (BS) system ensures that it performs its designed purpose?

- A. Flow orifices in each Building Spray header eliminate the need to throttle BS after initiation to prevent pump motor over current.
- B. Screens cover the RBES to filter particles and prevent blockage of flow through the spray nozzles.
- C. 50% of the spray nozzles are plugged to eliminate the need to throttle BS after initiation to prevent pump motor over current.
- D. Trisodium Phosphate Dodecahydrate is used to lower the PH of the RBES water which will minimize the dose from iodine in the RB atmosphere.

**1 POINT**

**Question 38**

Unit 3 plant conditions:

- Reactor power = 100%
- 3MS-112 & 3MS-173 (SSRH 3A/3B Controls) are in MANUAL
- 3MS-77, 78, 80, 81 (MS to SSRH's) are in AUTO

Which ONE of the following is correct if a turbine trip were to occur with the given conditions?

- A. 3MS-112 & 3MS-173 valve demand will throttle back with load
- B. 3MS-112 & 3MS-173 valve demand will remain full open but the air will be ported off, causing the valves to close
- C. 3MS-77, 78, 80, and 81 will close when the air is dumped off of the valves
- D. 3MS-77, 78, 80, and 81 will close as SSRH inlet pressure decreases

**1 POINT**

**Question 39**

Unit 1 initial conditions:

- Reactor power = 50%
- 1A and 1B SG levels  $\approx$ 30% Operating Range

Current conditions:

- 1A1 and 1B1 RCP's trip

Based on the above conditions, which ONE of the following states where SG levels will be controlled?

**ASSUME NO OPERATOR ACTIONS**

- A. 240 inches on the XSUR.
- B. 30 inches on the XSUR.
- C. 25 inches on the SUR.
- D. 50% on the OR.

**1 POINT**

**Question 40**

Unit 1 initial conditions:

- Reactor power = 50%
- Loss of main feedwater

Current plant conditions:

- RCS temperature 546 °F decreasing
- PZR Level 45" decreasing
- RCS pressure 2015 psig decreasing
- A SG pressures = 995 psig decreasing
- B SG pressures = 1010 psig stable

Which ONE of the following malfunctions will result in the above conditions?

**ASSUME NO OPERATOR ACTIONS**

- A. Turbine Control Valve #1 failed OPEN
- B. CSAE steam supply relief valve failed OPEN
- C. CRD trip confirm signal failed to actuate
- D. 1FDW-315 failed OPEN

**1 POINT**

**Question 41**

Unit 1 initial conditions:

- Reactor power = 100%
- 1DCA Bus Voltage = 125 VDC
- 1DCB Bus Voltage = 126 VDC
- 2DCA Bus Voltage = 127 VDC
- 2DCB Bus Voltage = 127 VDC

Current conditions:

- 1XS1 incoming feeder breaker trips

Based on the above conditions, which ONE of the following is correct regarding the DC power systems?

**ASSUME NO OPERATOR ACTIONS**

- A. 1DCA will be powered from the standby charger
- B. 1KX Inverter will be powered from 1DCB
- C. 1DCB loads will be powered from Battery 1CB
- D. 1DIC Inverter will be powered from 1DCB

**1 POINT**

**Question 42**

Which ONE of the following is a load of the Power Batteries?

- A. PCB-9 control power
- B. Main FWPT Auxiliary Oil Pump
- C. Mulsifyer systems
- D. CCW-8 (CCW Emergency Discharge to the tailrace)

**1 POINT**

**Question 43**

Initial plant conditions:

- Oconee Unit 1 and 2 at 100% power
- Keowee Unit 1 output = 88 MWe
- ACB-3 closed

Current conditions:

- Switchyard Isolation occurs

Based on the current conditions, which ONE of the following describes which ACB will close to energize Oconee Unit 1's Main Feeder Bus and what is a requirement that must be satisfied before the ACB can close?

- A. ACB-1 / Keowee output voltage and frequency must be within 5% of normal
- B. ACB-1 / Keowee output voltage and frequency must be within 10% of normal
- C. ACB-2 / Keowee output voltage and frequency must be within 5% of normal
- D. ACB-2 / Keowee output voltage and frequency must be within 10% of normal

**1 POINT**

**Question 44**

Unit 1 plant conditions:

- Reactor Building Purge in progress
- HIGH alarm received on 1RIA-45 (Unit Vent Gas Lo Range)

Based on the above conditions, which ONE of the following identifies a component, or set of components, that will change state?

- A. 1LWD-2 closes
- B. 1PR 2-5 close
- C. RB Evacuation Alarm will sound
- D. GWD 4-7 close

**1 POINT**

**Question 45**

Plant conditions:

- Unit 1 = 100%
- Unit 2 = de-fueled
- ALL Unit 1 & 2 LPSW pumps have just tripped
- AP-24 (Loss of LPSW) initiated

Based on the current plant conditions, which ONE of the following actions will be taken first per AP/24?

- A. Trip the reactor due to CRDM temperatures exceeding operational limits
- B. Cross-connect Unit 1 / 2 LPSW with HPSW
- C. Trip the reactor due to RCP component temperatures exceeding operational limits
- D. Refer to AP/29 (Rapid Unit Shutdown) and commence a Unit 1 shutdown

**1 POINT**

**Question 46**

Plant conditions:

- ALL off-site power sources have been lost (100KV, 230 KV and 525 KV transmission lines)
- Keowee has energized the MFB via the overhead power path
- IA pressure = 85 psig and decreasing
- ALL Diesel air compressors are OFF

Based on the above conditions, which ONE of the following describes which air compressors will be operating?

**ASSUME NO OPERATOR ACTIONS**

- A. ONLY the Back-up Instrument Air compressors will be operating
- B. ONLY the Auxiliary Instrument Air compressors will be operating
- C. ALL Auxiliary Instrument Air compressors and All Back-up Instrument Air compressors will be operating
- D. ALL Auxiliary Instrument Air compressors and the Primary Instrument Air compressor will be operating

**1 POINT**

**Question 47**

Unit 1 initial conditions:

- Time = 0500
- Reactor power = 100%

Current conditions:

- Time = 0505
- 1A MSLB in containment
- Core SCM = 16°F decreasing slowly
- RB Pressure = 7.8 psig increasing slowly
- Enclosure 5.1 (ES Actuation) in progress

Based on the above conditions, which ONE of the following describes a correct action per Enclosure 5.1 (ES Actuation) and why?

- A. Take 1HP-3 and 4 to manual and OPEN to re-establish letdown.
- B. Take 1HP-20 and 21 to manual and OPEN to re-establish RCP seal return.
- C. Take 1CC-7 and 8 to manual and OPEN to provide cooling to the RCP motors.
- D. Take 1LPSW-251/252 to FAILED OPEN and throttle 1LPSW-4/5 to 3000 - 3300 gpm to prevent LPSW pump run out.

**1 POINT**

**Question 48**

Unit 1 plant condition:

- Date/Time = 06-22-07 / 1200
- Reactor power = 100%
- ES channel 5 inadvertently actuates

Based on the above conditions, which ONE of the following describes the effect on RCP operation?

- A. RCP seal return flow is isolated and RCPs may continue operating until 06-26-07 / 1600 unless otherwise directed.
- B. RCP seal return flow is isolated and RCPs may continue operating indefinitely unless immediate trip criteria are exceeded.
- C. RCP motor stator cooling is isolated and RCPs may continue operating until 06-26-07 / 1600 unless otherwise directed.
- D. RCP motor stator cooling is isolated and RCPs may continue operating indefinitely unless immediate trip criteria are exceeded.

**1 POINT**

**Question 49**

The Unit 2 Auxiliary Instrument Air System compressor is powered from which ONE of the following load centers?

- A. 2XD
- B. 2XF
- C. 2XP
- D. 2XS1

**1 POINT**

**Question 50**

Unit 1 initial conditions:

- Reactor power = 100%

Current conditions:

- CRD Outlet HDR Flow = 150 gpm
- CC Total Flow = 525 gpm

Based on the above conditions, which ONE of the following describes which Statalarm will actuate, the expected automatic action (if any) and the required operator actions?

A. 1SA-9/B-1 (CRD RETURN FLOW LOW)

Standby CC pump starts

If standby CC pump is NOT operating, verify CC surge tank level > 18" and start the standby CC pump

B. 1SA-9/B-1 (CRD RETURN FLOW LOW)

NO automatic actions

Verify CC surge tank level > 18" and start the standby CC pump

C. 1SA-9/C-1 (COMPONENT COOLING RETURN FLOW LOW)

Standby CC pump starts

If standby CC pump is NOT operating, verify CC surge tank level > 18" and start the standby CC pump

D. 1SA-9/C-1 (COMPONENT COOLING RETURN FLOW LOW)

NO automatic actions

Verify CC surge tank level > 18" and start the standby CC pump

**1 POINT**

**Question 51**

Unit 3 plant conditions:

- Reactor power = 100%
- ES Analog Channel "C" WR RCS pressure signal fails LOW

Based on the above conditions, which ONE of the following describes the change in ES logic?

- A. ES Channels 1-4 are in a 2/2 logic
- B. ES Channels 1-6 are in a 2/2 logic
- C. ES channels 1-4 are now in a 1/2 logic
- D. ES channels 1-6 are now in a 1/2 logic

**1 POINT**

**Question 52**

Unit 1 initial conditions:

- 1A BHUT addition to LDST in progress
- 1HP-15 (LDST Makeup Control) is in automatic

Current conditions:

- Power to 1HP-15 is lost and returns in 20 seconds

Based on the above conditions, which ONE of the following correctly describes the condition of 1HP-15 after power is restored?

1HP-15 will be:

- A. Open and the controller will remain in automatic / batch will complete and valve will close
- B. Open and the controller will be in manual / addition will continue until valve is manually closed
- C. Closed and the controller will remain in automatic / valve will have to be reset to complete the batch addition
- D. Closed and the controller will be in manual / valve will have to be opened in manual to complete the addition

**1 POINT**

**Question 53**

Unit 1 initial conditions:

- Reactor power = 100%
- 1RC-1 (PZR Spray) OPEN

Current conditions:

- 1RC-1 (PZR Spray) CLOSED
- RCS Pressure = 2148 psig increasing

Based on the above conditions, which ONE of the following describes the PZR heaters that are energized?

- A. ONLY Bank 1
- B. ONLY Bank 1 and 3
- C. ONLY Bank 1, 2 and 3
- D. All Pressurizer heater banks

**1 POINT**

**Question 54**

Unit 1 plant conditions:

- Reactor Power = 100%
- 1SA9/D-4 (MS 1A PEN PRIMARY COOL FAN FAIL) stat alarm received

When will the standby steam line cooling fan start and based on what signal?

- A. 10 seconds / breaker position of the running fan
- B. 30 seconds / breaker position of the running fan
- C. 30 seconds / pressure switch located in the cooling ductwork
- D. 10 seconds / pressure switch located in the cooling ductwork

**1 POINT**

**Question 55**

Unit 1 initial conditions:

- Reactor power = 100%

Current plant conditions:

- Main Turbine Generator trip
- 1FDW-33 (1A SU FDW Block) FAILS closed

Which ONE of the following are the expected OTSG levels 15 minutes after the trip?

**ASSUME NO OPERATOR ACTIONS**

- A. 1A = 25" SU level / 1B = 25" SU level
- B. 1A = 0" SU level / 1B = 25" XSUR level
- C. 1A = 30" XSUR level / 1B = 25" SU level
- D. 1A = 30" XSUR level / 1B = 30" XSUR level

**1 POINT**

**Question 56**

Unit 1 initial conditions:

- HPI Forced Cooling in progress

Current conditions:

- Tcold = 511°F
- Preparing for HPI Forced Cooling (HPI F/C) recovery

Based on the above conditions and the guidance in the HPI CD tab, which ONE of the following describes what TBV setpoint (psig) should be used during HPI F/C recovery?

- A. 610
- B. 625
- C. 640
- D. 750

**1 POINT**

**Question 57**

Unit 2 initial conditions:

- Startup in progress
- Main turbine speed = 100 RPM

Current conditions:

- The operator selects 1800 RPM on the Main Turbine EHC control panel.

Based on the above conditions, which ONE of the following is correct?

By\_\_\_\_\_ RPM, the operating speed governor will FULLY CLOSE the\_\_\_\_ valves.

- A. 1750 / intercept
- B. 1800 / Main Control
- C. 1818 / Main Control
- D. 1836 / intercept

**1 POINT**

**Question 58**

Unit 1 initial plant conditions:

- Reactor power = 100%
- 1SSH-9 throttled

Current conditions:

- Condenser vacuum = 23.3" Hg slowly decreasing
- Steam Seal Header pressure = 1.1 psig

Based on the above conditions, which ONE of the following describes the status of Statalarm 1SA-03/A-6 (CONDENSER VACUUM LOW) and per AP/27 (Loss of Condenser Vacuum) how should 1SSH-9 be controlled to mitigate this event?

- A. actuated / 1SSH-9 should be throttled CLOSED.
- B. actuated / 1SSH-9 should be throttled OPEN.
- C. NOT actuated / 1SSH-9 should be throttled CLOSED.
- D. NOT actuated / 1SSH-9 should be throttled OPEN.

**1 POINT**

**Question 59**

Unit 1 plant conditions:

- Reactor power = 100%
- 50 gpd Tube Leak
- An increase in activity is reported in Chemical Treatment Pond (CTP) #3

Which ONE of the following describes an event which would cause this increase and the actions required to mitigate this event?

- A. 1RIA-42 (RCW) activity is increasing and this will increase activity levels in CTP #3.  
Isolate and repair the faulty cooler
- B. 1RIA-31 (LPI Cooler) activity is increasing and this will increase activity levels in CTP #3.  
Isolate and repair the faulty cooler
- C. 1RIA-54 (TBS) interlock has failed and the Turbine Building Sump is being continually pumped.  
Open and White Tag 1A and 1B TBS Pump breakers
- D. 1RIA-33 (LW Release) interlock has failed and a Waste Monitor Tank release continues from the Radwaste Building.  
Secure the Waste Monitor Tank

**POINT**

**Question 60**

Unit 2 plant conditions:

- Reactor power = 100% stable
- IA header pressure = 84 psig and slowly decreasing
- SA header pressure = 101 psig and stable
- All Automatic System Actions have occurred

Which ONE of the following describes an action that would positively assist in regaining IA header pressure?

- A. Open SA-143, SA to IA Controller Bypass.
- B. Place all Backup air compressors in BASE.
- C. Place the Standby Service air compressor to RUN.
- D. Place all three Units' Auxiliary IA compressors to RUN.

**1 POINT**

**Question 61**

Which ONE of the following is a function of HPSW-25, (EWST altitude valve)?

- A. Automatically closes when the base HPSW pump stops.
- B. Maintain HPSW system pressure when tank level drops.
- C. Allows continuous HPSW pump operation without EWST overflow.
- D. Allows continuous operation of the Jockey pump without EWST overflow.

**1 POINT**

**Question 62**

Unit 1 initial conditions:

- Reactor power = 76%
- Control Rod Group 7 = 78% withdrawn

Current conditions:

- Reactor power = 84%
- Control Rod Group 7 = 85% withdrawn
- Control Rod Group 7 Rod 6 = 78% withdrawn
- ASYMMETRIC FAULT light lit on the Diamond

Based on the above conditions, which ONE of the following describes a possible cause, an affect on the CRD system and a required action?

- A. TMR "B" Slice "A" and "C" FAILED  
CRD out inhibit at 55% power is in effect  
Manually trip the reactor
- B. TMR "B" Slice "A" and "C" FAILED  
CRD out inhibit at 60% power is in effect  
Verify SDM > 1%  $\Delta k/k$  within one hour
- C. Control Rod Group 7 Rod 6 PG/M Slice "A" and "C" FAILED  
CRD out inhibit at 55% power is in effect  
Manually trip the reactor
- D. Control Rod Group 7 Rod 6 PG/M Slice "A" and "C" FAILED  
CRD out inhibit at 60% power is in effect  
Verify SDM > 1%  $\Delta k/k$  within one hour

**1 POINT**

**Question 63**

Unit 2 initial conditions:

- Time = 0900
- Reactor power = 100%
- 2HP-120 in MANUAL
- PZR level = 220 inches
- Tave = 579.0°F
- A transient occurs

Current conditions:

- Time = 0905
- Diamond and FDW Master in MANUAL
- Reactor power = 91%
- PZR level = 263 inches
- Tave = 585.2°F

Based on the above conditions, which ONE of the following describes a required operator action and why?

- A. Trip the reactor to prevent exceeding the maximum PZR level of 285 inches.
- B. Trip the reactor to prevent operating without a steam bubble in the PZR.
- C. Reduce PZR level to prevent exceeding RCS pressure design limits in a subsequent accident.
- D. Reduce PZR level to ensure water relief through the PORV does not occur during design accidents.

**1 POINT**

**Question 64**

Unit 1 initial conditions:

- Time = 1000
- Reactor power = 100% for several months
- EFPD = 250
- Group 7 CRD position = 93%
- Spare IX placed in service

Current conditions:

- Time = 1030
- Reactor power = 100%
- Group 7 CRD position = 82%

Based on the above conditions, what will axial power imbalance do over the next 6 hours with no operator action and what procedure provides directions on the use of Group 8 rods to control imbalance?

- A. Becomes more negative / AP/3 (Boron Dilution)
- B. Becomes more positive / AP/3 (Boron Dilution)
- C. Becomes more negative / Operation at Power
- D. Becomes more positive / Operation at Power

**1 POINT**

**Question 65**

Unit 3 initial conditions:

- Reactor power = 100%
- Quarterly PT determined CF tank Pressure and Level instrumentation was out of tolerance

Current conditions:

- CF tank instrumentation was calibrated
- "A" CFT  
Pressure = 571 psig  
Level = 13.14 ft
- "B" CFT  
Pressure = 619 psig  
Level = 13.46 ft

Which ONE of the following describes the potential adverse effects created by the instrumentation error(s) if a large break LOCA were to occur?

- A. A CFT will discharge as required to provide core reflood.  
B CFT will discharge an inadequate volume of water.
- B. A CFT will discharge as required to provide core reflood.  
B CFT will discharge too soon and create the possibility of gas intrusion.
- C. A CFT will discharge too late which will extend the core uncoverly.  
B CFT will discharge too soon and create the possibility of gas intrusion.
- D. A CFT will discharge too late which will extend the core uncoverly.  
B CFT will discharge an inadequate volume of water.

**1 POINT**

**Question 66**

Unit 3 initial conditions:

- Reactor Power = 100%

Current conditions:

- Reactor Power = 98% decreasing slowly
- Feedwater flow is decreasing
- Control Rods are inserting
- Turbine Bypass Valves are full open
- Turbine Control Valves are full open

Based on current conditions, which ONE of the following has occurred and what corrective actions should be taken to stabilize the plant?

- A. EHC malfunction causing the turbine to pickup electrical load  
Take Reactor Diamond, Feedwater Loop Masters, Turbine Master to HAND
- B. NI flux input to the ICS has failed high  
Take Reactor Diamond, Feedwater Loop Masters to HAND
- C. Controlling Turbine Header pressure input to the ICS has failed high  
Take Reactor Diamond, Feedwater Loop Masters, Turbine Master to HAND
- D. Controlling NR RCS pressure input to the ICS has failed high  
Take Reactor Diamond, Feedwater Loop Masters, Turbine Master to HAND

**1 POINT**

**Question 67**

You are the Unit One OATC and have just been selected to participate in an unannounced drug-screening test. You have been directed to turn over to another RO.

Which ONE of the following is correct per OMP 2-1 (Duties and Responsibilities of On-Shift Operations Personnel)?

If the relief has...

- A. NOT previously performed turnover requirements on Unit 1, then he must perform a complete formal shift turnover per OMP 2-16 (Shift Turnover).
- B. previously received formal turnover on the unit and currently serving as the BOP, he may relieve the OATC temporarily without any additional actions.
- C. previously received formal turnover on the unit and currently serving as the BOP, only an entry in the Unit Log documenting the transfer of the RO function is required.
- D. NOT previously performed shift turnover requirements on Unit 1, he must, as a MINIMUM walkdown the control room panels with the off-going RO. Discuss evolutions in progress, and notify the CR SRO.

**1 POINT**

**Question 68**

Unit 2 plant conditions:

- Reactor power = 97%
- "C" RPS Channel is in manual bypass
- "D" RPS Reactor Building (RB) pressure transmitter fails LOW

Based on the above conditions, which ONE of the following describes the required action(s) per TS and the status of the "D" RPS RB pressure function after the action(s) have been taken?

Trip the "D" RPS channel \_\_\_\_\_ and the "D" RPS RB pressure function is \_\_\_\_\_.

- A. immediately / operable
- B. immediately / inoperable
- C. within 1 hour / operable
- D. within 1 hour / inoperable

**1 POINT**

**Question 69**

Unit 3 initial conditions:

- Reactor power = 100%
- 3FDW-315 tagged out for maintenance

Current conditions:

- 3FDW-316 mistakenly disassembled

Based on the above conditions, which ONE of the following statements correctly describes the TS required action?

- A. Entry LCO 3.0.3 immediately and commence unit shutdown
- B. Entry LCO 3.0.3 immediately and commence unit shutdown within 1 hour
- C. Restore one EFDW flow path immediately and maintain current power level
- D. Restore one EFDW flow path within 1 hour OR commence unit shutdown

**1 POINT**

**Question 70**

Unit 1 plant conditions:

- Controlling Procedure for Unit Startup in progress
- Safety Rod Groups 1-4 = 100% withdrawn
- Regulating Rod Group 5 = 87% withdrawn

Based on the above plant conditions, which ONE of the following correctly states the Group 6 control rod position (% withdrawn) that satisfies "Control Rod Group Overlap" and why group overlap is used?

- A. 8 / to ensure "Rod Insertion Limits" are not violated.
- B. 8 / to provide a more uniform differential rod worth.
- C. 18 / to provide a more uniform differential rod worth.
- D. 18 / to ensure "Rod Insertion Limits" are not violated.

**1 POINT**

**Question 71**

Plant conditions:

- 1SA-18/D-6 (RC System Approaching Saturation Conditions) is inoperable

Which ONE of the following describes the procedurally required actions for removal of this statalarm?

- A. Evaluate the removal of the statalarm by completing an evaluation located in OMP 1-02 (Rules of Practice). Control room personal shall review active evaluations once per shift.
- B. Evaluate the removal of the statalarm by completing an evaluation located in OMP 1-02 (Rules of Practice). Control room personal shall review active evaluations every 7 days.
- C. Evaluate the removal of the statalarm by completing an evaluation located in OP/1102/006 (Removal and Restoration of Station Equipment). Control room personal shall review active evaluations once per shift.
- D. Evaluate the removal of the statalarm by completing an evaluation located in OP/1102/006 (Removal and Restoration of Station Equipment). Control room personal shall review active evaluations every 7 days.

**1 POINT**

**Question 72**

While performing the SGTR tab of the Emergency Operating Procedure, which ONE of the following actions is taken to limit the activity released to the atmosphere?

- A. The TD EFDW pump is placed in "Pull To Lock" to ensure it does not start and feed the effected SG.
- B. The Auxiliary Steam systems for all three units are split to prevent cross contamination.
- C. Core SCM is minimized to reduce the primary to secondary leak rate.
- D. The Steam Air Ejectors are lined up to the Main Steam system to prevent cross contamination.

**1 POINT**

**Question 73**

A NEO must perform a high dose job.

RP informs:

- Expected Whole Body Dose Rate for job = 8 R/hr
- Expected Eye Dose Rate for job = 32 R/hr
- NEO has NO dose prior to the job

The job will take 25 minutes to complete.

If allowed, which ONE of the following correctly states all 10CFR20 and/or Duke Power administrative limits that will be exceeded?

- A. Duke Administrative TEDE
- B. Duke Administrative TEDE / Federal TEDE
- C. Duke Administrative TEDE / Federal TEDE / Duke Administrative LDE
- D. Duke Administrative TEDE / Duke Administrative LDE / Federal LDE

**1 POINT**

**Question 74**

Unit 1 initial conditions:

- Time = 0500
- Reactor tripped from 100% power with a slow transfer of electrical auxiliaries

Current conditions:

- Time = 0545
- EOP Enclosure 5.23 "Alignment of Condensate Recirc" initiated

Based on the current conditions, which one of the following describes the concern with starting a Hotwell Pump (HWP) and a specific requirement contained in Enclosure 5.23 that, if met, will allow starting this pump?

- A. Cavitation may occur / HWP may be restarted if EFDW is NOT available and secondary pumps are needed to feed the SGs.
- B. Cavitation may occur / HWP may be restarted with Operation Shift Manager permission.
- C. A water hammer may occur / HWP may be restarted if EFDW is NOT available and secondary pumps are needed to feed the SGs.
- D. A water hammer may occur / HWP may be restarted with Operation Shift Manager permission.

**1 POINT**

**Question 75**

Unit 1 initial conditions:

- Time = 1000
- Reactor power = 100%
- 1B MD EFDWP out of service

Current conditions:

- Time = 1015
- MSLB outside containment
- 1A SG pressure = 0 psig stable
- 1B SG pressure = 1000 psig stable
- RCS pressure = 1520 psig increasing

Based on current plant conditions, which ONE of the following correctly states which procedure each member of the crew should perform at 1016?

**ASSUME NO OPERATOR ACTIONS**

- A. SRO in Excessive Heat transfer tab / OATC performing Encl 5.1 (ES actuation) / BOP performing Rule 5 (Excessive Heat Transfer)
- B. SRO in Loss Of Heat Transfer tab / OATC performing Rule 5 (Excessive Heat Transfer) / BOP performing Rule 3 (Loss of Main or Emergency Feedwater)
- C. SRO in Excessive Heat transfer tab / OATC performing Rule 5 (Excessive Heat Transfer) / BOP performing Rule 3 (Loss of Main or Emergency Feedwater)
- D. SRO in Loss Of Heat Transfer tab / OATC performing Encl 5.1 (ES actuation) / BOP performing Rule 3 (Loss of Main or Emergency Feedwater)