

Draft Submittal

**OCONEE JUNE 2005 EXAM
50-269, 270, & 287/2005-301**

**JUNE 20 - 24, 2005
JUNE 30, 2005 (WRITTEN)**

1. Reactor Operator Operator Written Exam

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

1. 001K6.13 001

- Unit 1 Plant Conditions:

DRAFT

- Group 7 average position is 86%
- Rod 7-3 position indication is as follows:
 - Relative rod position indication (RPI) is 78%
 - Absolute Position indication (API) is 90%
 - Rx Engineering has determined that API is accurate

Which ONE of the following describes the condition of Rod 7-3 and the actions required to correct the current conditions?

- A. Rod 7-3 is misaligned; enter AP-15 "Dropped or Misaligned Control Rods" and position rod 7-3 to match the group 7 average.
- B. Rod 7-3 is NOT misaligned; select each rod in Group 7, then using the reset pulser align each rod to match the Group 7 average position as displayed on the OAC.
- C. Rod 7-3 is misaligned; enter AP-15 "Dropped or Misaligned Control Rods" and position all group 7 rods to match the current rod 7-3 position.
- D. Rod 7-3 is NOT misaligned; select rod 7-3 with Group/Single select switch, then use the reset pulser to align RPI to API.

Oconee Bank Question modified slightly. Lesson Plan OP-OC-IC-CRI objective # 11

- A. Incorrect, rod is not misaligned, only RPI is misaligned. Pulser must be used to realign RPI to API for just Rod 7-3.
- B. Incorrect, first part is correct, but only rod 7-3 needs to be reset.
- C. Incorrect, rod is not misaligned, only RPI is misaligned. Pulser must be used to realign RPI to API for just Rod 7-3.
- D. Correct, rod is not misaligned. Pulser must be used to realign RPI to API for just Rod 7-3.

K/A: Knowledge of the effect that a loss or malfunction of the following will have the control rod drive system: Location and operation of RPIS.

QUESTIONS REPORT
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2. 003 K5.02 001

- Unit 1 reduced power to 70% to remove the 1B2 RCP from service due to a low oil pot level.
- Assume the operators take the correct actions and no equipment malfunctions occur.

Which ONE of the following describes the effects that securing the pump will have on plant parameters?

- A. "A" loop RCS flow will decrease to slightly less than 100%, "B" Loop RCS flow will increase to slightly greater than 50%, feed water flow will re-ratio to approximately 5.0E6 lbm/hour for the "A" SG and 2.5 E6 lbm/hour for the "B" SG.
- B. "B" loop RCS flow will decrease to slightly less than 50%, "A" Loop RCS flow will increase to slightly greater than 100%, feed water flow will re-ratio to approximately 5.0E6 lbm/hour for the "A" SG and 2.5 E6 lbm/hour for the "B" SG.
- C. "A" loop RCS flow will decrease to slightly greater than 100%, "B" Loop RCS flow will increase to slightly greater than 50%, feed water flow will re-ratio to approximately 5.5 E6 lbm/hour for the "A" SG and 2.0 E6 lbm/hour for the "B" SG.
- D. "B" loop RCS flow will decrease to slightly less than 50%, "A" Loop RCS flow will increase to slightly less than 100%, feed water flow will re-ratio to approximately 5.5 E6 lbm/hour for the "A" SG and 2.0 E6 lbm/hour for the "B" SG.

New Question developed to match K/A, used Part B questions B330 and 335 as reference.

Need to verify numbers. Lesson Plan OP-OC-PNS-CPM Objective # 4.

- A. Incorrect, A loop flow will increase to > 100% and B loop flow to < 50%, and FW will re-ratio to approximately these values.
- B. Correct, B loop RCS flow will decrease, A loop flow increase and FW will re-ratio to approximately these values.
- C. Incorrect A loop flow will increase to > 100% and B loop flow to < 50%, the feed water re-ratios have too much going to B SG and not enough for A SG.
- D. Incorrect A loop flow will increase to > 100% and B loop flow to < 50%, the feed water re-ratios have too much going to B SG and not enough for A SG.

K/A: 003K5.02 Knowledge of the operational implications of the following concepts as they apply to the Reactor Coolant pump: Effects of RCP coastdown on RCS parameters.

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

3. 004K3.07 001

- Unit 1 is operating at 70% power.
- An NEO reports that the diaphragm for 1HP-120 (RC Volume Control) has blown.

Which ONE of the following describes the effect this will have on Pressurizer level and what action needs to be taken to mitigate the failure?

- A. Pressurizer level will decrease; cycle the running HPIP to control level.
- B. Pressurizer level will increase; throttle 1HP-27 ("B" loop HPI Emergency Makeup)
- C. Pressurizer level will decrease; throttle 1HP-7 (letdown flow control)
- D. Pressurizer level will increase; reduce seal injection flow to control level.

Modified Bank Question Part B349 OP-OC-PNS-HPI Objective # 4.

- A. Incorrect, pressurizer level will decrease (1HP-120 will fail closed on a blown diaphragm), but this is not the approved method of controlling pressurizer level.
- B. Incorrect, pressurizer level will decrease, and this method would raise pressurizer level.
- C. Correct, pressurizer level will decrease, and throttling letdown will control level.
- D. Incorrect, pressurizer level will decrease, and seal injection would need to be raised to maintain level.

K/A: Knowledge of the effect that a loss or malfunction of the (CVCS) will have on the following PZR level and pressure.

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4. 005K1.13 001

- Unit 1 has had a SBLOCA
- RCS pressure is 1000 psig and stable.
- RB pressure is 3.5 psig and stable.
- BWST level is 45 feet
- RBES level is 0.5 feet
- HP-24 and HP25 (BWST SUCTIONS) will not open
- All other components operated as designed.

Which ONE of the following lineups would provide for core cooling with the above conditions?

- A. Open 1LP-19 and 1LP-20 to allow the RBES to supply the LPI pumps.
- B. Open 1LP-15 and 1LP-16 to allow the RBES to supply the HPI pumps.
- C. Open 1LP-21 and 1LP-22 to allow the LPI pumps to supply the HPI pumps.
- D. Open 1LP-15 and 1LP-16 to allow the LPI pumps to supply the HPI pumps.

Modified from Oconee bank question 216 (PNS122604). Lesson Plan OP-OC-PNS-LPI Objective #32.

- A. Incorrect, RBES sump is only .5 feet. There is not enough water in the RBES and RCS pressure is too high for LPI.
- B. Incorrect, this would be correct if the BWST was exhausted and there was water in the RBES.
- C. Incorrect, These are the normal suction for the LPI pumps and will not allow for injection into the RCS with pressure at 1000 psig.
- D. Correct, this action would allow provide for core cooling until the BWST was exhausted.

K/A: 005K1.13 Knowledge of the physical connections and or cause-effect relationships between residual heat removal and the SIS system.

QUESTIONS REPORT
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5. 006K2.02 001

Which ONE of the following is the power supply to 1CF-2 (1B CFT Discharge Isolation)?

- A. 600V MCC 1XO
- B. 600V MCC 1XP
- C. 600V MCC 1XS1
- D. 600V MCC 1XS2

New Question developed from K/A. Used Enclosure 4.6 of OP/1/a/1104/001.
Lesson Plan OP-OC-EL-EPD objectives 25, 26, and 43.

- A. Incorrect, this is the power supply to 1CF-1.
- B. Correct, this is the power supply to 1CF-2.
- C. Incorrect, this is a power supply to other safety related equipment.
- D. Incorrect, this is a power supply to other safety related equipment.

K/A 006K2.02 (ECCS) Knowledge of electrical power supplies to the following: Valve operators for accumulators. (2.5/2.9)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

6. 006K2.04 001

- A Small Break LOCA has occurred on Unit 1.
- 1XS2 has had an Electrical Fault and remains de-energized.
- RCS Pressure 1500 psig
- ES Channels 1 and 2 have actuated

Which ONE of the following correctly describes the HPI flowpath based on the above conditions?

- A. HP-24 and 25 Open, HPI pumps A, B, and C running, HP- 26 and 27 open.
- B. HP-24 and 25 Open, HPI pumps A and B running, HP- 26 and 27 open.
- C. HP-25 Open, HPI pumps B and C running, HP- 27 open.
- D. HP-24 Open, HPI pumps A, B, and C running, HP- 26 open.

Lesson Plans OP-OC-PNS-HPI & EL-EPD-R23 OBJ # 44.(R50).

- A. Incorrect, HP25 and 27 do not have power and will not be open. All pumps should be running.
- B. Incorrect, HP25 and 27 do not have power and will not be open, and the C HPI pump will be running.
- C. Incorrect, HP25 and 27 do not have power and will not be open. All pumps should be running.
- D. Correct A, B, and C pumps will be running with HP-24 and 26 open.

K/A 006K2.04 (3.6/3.8) Knowledge of Electrical Power Supplies to the following: ESFAS-operated valves.

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

7. 007A2.04 001

- Unit 3 is in a refueling outage.
- RCS pressure is 50 psig
- Quench Tank Pressure is at 40 psig and needs to be lowered in accordance with OP/3/1104/017 "Quench Tank Operation", Enclosure 4.6 "Lower QT Pressure".
- During the Venting, 3GWD-12 (Quench Tank Vent Inside RB) and 3GWD-13 (Quench Tank Vent Outside RB) were fully opened and the Waste Gas system pressure reached +3 inches.

Which ONE of the following describes actions in the procedure that could have prevented this?

- A. Close 3GWD-13 (Quench Tank Vent Outside RB) to maintain vent header pressure $< +2$ inches, then cycle as required to lower quench tank pressure.
- B. Place the quench tank on recirc and reduce the temperature as much as possible.
- C. Throttle 3GWD-12 (Quench Tank Vent Inside RB) until Vent header pressure is reduced to $< +2.5$ inches, then re-open to lower quench tank pressure.
- D. Immediately begin draining the Quench Tank; level should have been lowered to less than 50 inches prior to venting.

New Question developed to match K/A. OP/3/110-4/017 "Quench Tank Operation", Enclosure 4.6 "Lower QT Pressure", used as reference.

- A. Correct, this method is used to prevent exceeding Vent Header Pressure Limit.
- B. Incorrect, lowering quench tank temperature at this point will have very little effect on pressure, and is not mentioned in the procedure.
- C. Incorrect, 3GWD12 is not throttled according to the procedure, and pressure should be less than +2 inches.
- D. Incorrect, draining the quench tank is not mentioned in the procedure and will have very little effect on reducing pressure in the vent header.

K/A: Ability to (a) predict the impacts of the following on the system and (b) based on those predictions use procedures to correct, control or mitigate the consequences of those abnormal operation: Overpressurization of the waste gas vent header. (2.5/2.9)

QUESTIONS REPORT
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8. 007EK2.02 001

Which ONE of the following occurs when the RPS coincidence tripping logic in the "A" RPS channel calls for a reactor trip and opens the associated breaker?

- A. The undervoltage coil will energize and the shunt trip coil will energize to trip the associated breakers.
- B. The shunt trip coil will de-energize and the undervoltage coil will de-energize to trip the associated breakers.
- C. The undervoltage coil will de-energize and the shunt trip coil will energize to trip the associated breakers.
- D. The shunt trip coil will de-energize and the undervoltage coil will energize to trip the associated breakers.

Oconee bank question IC091701 (227). Lesson Plan OP-OC-IC-RPS objective # 16, pages 39 & 40.

- A. Incorrect, the UV coil de-energizes, and the shunt coil energizes to cause the breakers to open.
- B. Incorrect, the UV coil de-energizes, and the shunt coil energizes to cause the breakers to open.
- C. Correct, the UV coil de-energizes, and the shunt coil energizes to cause the breakers to open.
- D. Incorrect, the UV coil de-energizes, and the shunt coil energizes to cause the breakers to open.

K/A: 007EK2.02 Knowledge of the interrelations between Reactor trip and the following: Breakers, relays and disconnects. (2.6/2.8)

QUESTIONS REPORT
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9. 007K3.01 001

- Unit 2 is operating at 100% Power.
- Operators notice the following conditions:
 - Reactor Building Pressure slowly rising currently at .5 psig.
 - Reactor Building Radiation Monitors RIA-47 and RIA-49 are slowly rising.
 - Reactor Building Sump level is slowly increasing.
 - Pressurizer level is stable
 - Quench Tank level is 85%
 - Quench Tank Pressure is 54 psig
 - Quench Tank Temperature indicates 190°F
 - RCP Seal flow is 8 GPM/pump

Which ONE of the following correctly describes the event that could cause this to occur?

- A. PORV 1RC-66 is stuck open and the PRT rupture disk has blown.
- B. A small main steam leak is in progress and containment parameters to increase.
- C. RCP Seal leakage is draining to the sump.
- D. A Core flood tank relief valve has lifted.

Modified question from last NRC exam. Lesson plan OP-OC-PNS-PZR objectives 23 and 27.

- A. Incorrect, if the PORV was stuck open temperature in the quench tank would be much higher, and pressurizer level would not be maintained stable.
- B. Incorrect, a small main steam line break would not cause rad monitors to increase.
- C. Correct, leakage from RCP seals could cause quench tank level to increase, causing pressure to increase water going to the sump would cause radiation monitors to increase and pressurizer level would stay essentially constant.
- D. Incorrect, Core flood tank would not cause the PRT level to increase.

K/A: Knowledge of the effect that a loss or malfunction of the Quench tank would have on the following: Containment (reactor building).

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

10. 007K4.01 001

Which ONE of the following describes how the quench tank contents are normally cooled if quench tank level was at 75% IAW **NEED TO ADD PROCEDURE** ?

- A. The quench tank must be drained via the quench tank drain pump and refilled with cooler demin water.
- B. Quench tank contents is placed on recirc with the component cooling system and is cooled by component cooling water.
- C. Quench tank contents is placed on recirc with the component cooling system CDP/QDP switch in bypass and is cooled by component cooling water.
- D. Quench tank contents is placed on recirc with the component cooling system CDP/QDP switch in bypass and is cooled by low pressure service water.

New question developed from lesson material and drawing. Reference OP-OC-PNS-PZR page 22, and Lesson plan OP-OC-PNS-CS Drawing HLP02 Component Cooling System. Objective 10. **NEED TO ADD PROCEDURE**

- A. Incorrect, it is possible to cool the quench tank in this manner but this is not normal.
- B. Incorrect, this is the correct method if the quench tank was greater than 80 "..
- C. Correct, this is the correct method with level < 80".
- D. Incorrect, LPSW does not cool the quench tank cooler.

K/A: 007K4.01 Knowledge of the quench tank design features and or interlocks which provide for the following: Quench tank cooling.

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

11. 008A1.02 001

- Unit 2 is operating at 100% power for two months.
- Flow has degraded through the CC system has degraded to approximately 600gpm.
- Temperature in the CC system has slowly risen over a 6 hour period.
- Computer point CC Clr Out Temp is rising.
- The on service demineralizer has been in service since the unit startup.

Which ONE of the following describes the effects that the above conditions will have on unit operation?

- A. HPI letdown temperature will rise, RCS temperature will rise, control rods will respond by inserting to lower RCS temperature.
- B. HPI letdown temperature will rise, RCS temperature will lower, control rods will respond by withdrawing to raise RCS temperature.
- C. HPI letdown temperature will decrease, RCS temperature will increase and control rods will respond by inserting to lower RCS temperature.
- D. HPI letdown temperature will decrease, RCS temperature will decrease and control rods will respond by withdrawing to raise RCS temperature.

New question developed from K/A. Lesson Plan OC-OP-PNS-CC page 7,16, 18.
Objective # 18.

- A. Incorrect, the rising temperature in the cc system will cause letdown temperature to increase this will in turn cause the demineralizer to release boron causing RCS temperature to decrease rods will withdraw to compensate.
- B. Correct, see A above.
- C. Incorrect, see A above.
- D. Incorrect, see A above.

K/A: 008A1.02 Ability to predict and or monitor changes in parameters associated with operating the Component Cooling System controls including CCW temperature.
(2.9/3.1)

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

12. 008AA2.04 001

Unit 1 was tripped from 100% power due to RCS leakage.
Pressurizer level initially decreased, then began to increase.
RCS Pressure is 1750 psig and slowly lowering.
1SA-18/A1 "Pressurizer Relief Valve Flow" is in alarm.
Operators placed 1RC-4 in the closed position.

Which ONE of the following provide indication to the operator that 1RC-66 was still open?

- A. Relief Valve tailpipe temperature computer point 1RC-66 O1A568 would read about 290 °F and the PZR Relief Flow detector would have at least 5 lights lit.
- B. Relief Valve tailpipe temperature computer point 1RC-66 O1A570 would read about 220 °F and the PZR Relief Flow detector would have at least 4 lights lit.
- C. Relief Valve tailpipe temperature computer point 1RC-66 O1A568 would read about 220 °F and the PZR Relief Flow detector would have at least 4 lights lit.
- D. Relief Valve tailpipe temperature computer point 1RC-66 O1A570 would read about 290 °F and the PZR Relief Flow detector would have at least 5 lights lit.

New Question developed to match K/A. 1SA-18/A1, lesson plan OP-OC-PNS-PZR, pages 20-24 used for reference. Objective 26.

- A. Correct, this is the computer point, correct temperature, and indication of flow through the valve.
- B. Incorrect, wrong computer point, wrong temperature, and four lights would not make the alarm come in.
- C. Incorrect, this is the computer point, wrong temperature, and four lights would not make the alarm come in.
- D. Incorrect, Wrong computer point, right temp and correct amount of lights. (indicates a Safety is open)

K/A: 008A2.04 Ability to determine and interpret the following as they apply to Pressurizer Vapor Space accident: high-temperature computer alarm, and alarm type. (3.2/3.5)

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

13. 009EK3.07 001

Unit 1 is operating at 100% power
Pressurizer level begins to drop rapidly
The crew trips the reactor due to inability to maintain pressurizer level.
RIA-50 is in alarm
CC Surge Tank is overflowing.

Which one of the following describes the most likely component that is leaking and safety concern for isolating CC in accordance with AP/1/A/1700/002?

- A. Letdown heat exchanger, CC must be isolated due to contaminated water overflowing to the auxiliary building floor.
- B. Letdown Heat exchanger, CC must be isolated due the water leaking out is not contained in the Reactor Building sump, and would not be available for recirc if required.
- C. RCP seal coolers, CC must be isolated due to contaminated water overflowing to the auxiliary building floor.
- D. RCP seal coolers, CC must be isolated due the water leaking out is not contained in the Reactor Building sump, and would not be available for recirc if required.

Oconee lesson plans OP-OC-PNS-CC objective # 6. OP-OC-EAP-APG AP2.
OP/1/1104/008

TOUGH K/A, may need some more work.

- A. Incorrect, this is the correct leak path, but CC drains to the LAWT.
- B. Correct, this is the correct leak path, and this is the safety concern to isolate CC
- C. Incorrect, wrong component and reason.
- D. Incorrect, wrong component right reason.

K/A: Knowledge of the reason for the following responses as they apply to SBLOCA increasing indication on CCWS process monitor: indicates inleakage of radioactive liquids. (3.3/3.6)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

14. 010A4.01 001

- Unit 2 Reactor Power is 100% and constant
- RCS Pressure is 2100 psig and decreasing
- Pressurizer level is 218" and constant
- Pressurizer temperature is decreasing
- LDST level is Constant

Which ONE of the following is the correct cause of the above conditions?

- A. A pressurizer outsurge has occurred
- B. A pressurizer steam space leak is occurring
- C. Pressurizer spray valve 2RC-1 is failed open
- D. Turbine Bypass valves have failed open

Bank question developed from Oconee bank questions 438 and 443 from the PNS bank.

Lesson Plan OP-OC-PNS-PZR Objectives 11 and 33.

- A. Incorrect, an outsurge will cause some of these conditions, but LDST level would not be constant, and pressurizer temperature would not decrease until an insurge occurred.
- B. Incorrect, a steam space leak would cause pressurizer level to rise.
- C. Correct, a spray valve being open would cause these conditions.
- D. Incorrect, the TBVs opening would cause some of these indications, but power and LDST level would not be constant.

K/A 010A4.01 Ability to manually operate or monitor in the control room: PZR Spray Valve (3.7/3.5).

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

15. 010K6.01 001

- Unit 1 Reactor Power is 100%
- RPS Channel A NR Pressure indicates 2155 psig.
- RPS Channel B NR Pressure indicates 2155 psig.
- RPS Channel C NR Pressure indicates 2155 psig.
- RPS Channel D NR Pressure indicates 2155 psig.
- RPS Channel E NR Pressure indicates 1700 psig.
- Supply Breaker to KVIA trips open.

Which ONE of the following describes the effect this will have on plant operation?

- A. Pressurizer heaters will energize causing actual RCS pressure to increase.
- B. Pressurizer sprays and the PORV will open causing actual RCS pressure to decrease.
- C. Control Rod groups 1-7 drop into the core due to Low Pressure Trip.
- D. ES Channels 1 and 2 actuate due to RCS Low Pressure.

Based on Oconee bank question PNS141901. Lesson plans OP-OC-IC-RPS objective 13 and OP-OC-IC-RCI objective 8.

- A. Correct, with median pressure control the system would see pressure low and energize heaters to raise pressure.
- B. Incorrect, RCS pressure would rise.
- C. Incorrect, the coincidence for a trip is not met.
- D. Incorrect, the coincidence for an ES actuation is not met.

K/A: Knowledge of the effect that a loss or malfunction of the following will have on the pressurizer pressure control system : pressure detection systems.(2.7/3.1)

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

16. 011EK2.02 001

- A Large Break LOCA has occurred on Unit 1
- ICCMs Indicate reverse video
- ICC Section of the EOP was entered from LOSCM
- Reactor Coolant pumps were not tripped as required
- Reactor coolant pump amps are fluctuating

Which ONE of the following is correct concerning the operation of the RCPs?

- A. Stop the RCPs, water trapped in the loops and lower region of the vessel will be used for core cooling.
- B. RCPs should remain running, forced steam cooling will provide adequate core cooling if a level exists in a SG.
- C. Stop 1 RCP in each loop, the Core will become partially uncovered if all RCPs are secured at this point.
- D. RCPs should remain running, RCP discharge pressure will minimize voiding of the core and increase heat transfer.

Bank Question # 198 This question is listed as SRO only may need to develop a different approach.

- A. Incorrect, this is the bases for restarting a RCP if they were tripped prior to entering the ICC section of the EOP.
- B. Correct, the flow of the 2 phase mixture will provide some core cooling although it may be inadequate. The steam flowing through the loops is where the cooling will come from.
- C. Incorrect, the core is already partially uncovered as indicated by the ICCM reverse SCM indications. The superheat conditions of the core would be worsened if the RCPs werre stopped at this point due to the loss of the mixture flow.
- D. Incorrect, The RCP discharge will not minimize or prevent voiding of the core. The heat transfer will be increased, but core voids will be removed by opening the Hot l leg and head vents if necessary.

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

17. 011K4.02 001

- Unit 3 is at 100% power
- Pressurizer (PZR) Level instrument #1 is selected
- 3-HP-120 "RC Volume Control" is in Automatic
- SASS is in Automatic

Which ONE of the following correctly describes the response of pressurizer level indication and the RC Volume Control valve if a "Data Link Failure" was displayed on #A ICCM Train? (Assume 3A ICCM train screens are not blank and most points are accurate).

- A. PZR level indication swaps to Instrument # 2, 3HP-120 controls level at setpoint and the PZR level Emergency High/Low statalarm remains operable.
- B. PZR level indication swaps to Instrument # 3, 3HP-120 controls level at setpoint, and the PZR level Emergency High/Low statalarm remains operable.
- C. PZR level indication fails as is, 3HP-120 controls level as demanded by the failed instrument and the PZR level Emergency High/Low statalarm is inoperable.
- D. PZR level indication fails low, 3HP-120 fully opens and both PZR level Emergency High/Low statalarm actuate.

Oconee Bank Question 276. Lesson PPlan Pressurizer PNS-PZR objective 19.

- A. Incorrect, SASS selects operable Pzr level signal in opposite train, and Emerg. S/A is inoperable.
- B. Incorrect SASS will not detect failure and will not select PZR Level # 3 following a ICCM Train A internal failure, and Emerg. S/A is not operable.
- C. Correct SASS will not detect failure as output from ICCM train has not changed.
- D. Incorrect, would be correct for power failure to ICCM train with SASS in manual.

011K4.02 Knowledge of PZR LCS design feature(s) which provide for the following: PRZ level controller.

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

18. 012A3.02 001

Which ONE of the following RPS bistables will automatically reset when the monitored parameter returns to a non-tripped value?

- A. High Pressure
- B. Flux/Flow/Imbalance
- C. Pump/Power
- D. Both Feedwater Pumps Tripped Bypass

Lesson Plan OP-OC-IC-RPS Objectives 7 and 21. Modified from bank question Oconee Bank Question 234 (IC094).

- A. Incorrect, this bistable does not automatically reset must be reset manually.
- B. Incorrect, this bistable does not automatically reset must be reset manually..
- C. Incorrect, this bistable does not automatically reset must be reset manually.
- D. Correct, this bistable will automatically reset when the parameter returns to a non-tripped condition.

K/A 012A3.02 Ability to monitor automatic operation of the Reactor Protection System-Bistables. (3.6/3.6)

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

19. 012K6.02 001

- Unit 1 is at 100% with no equipment Out of Service.
- Power Panel Board 1KVIB's incoming breaker trips.

Which ONE of the following describes the trip logic on Unit 1 for the Reactor Protection System until repairs can be made?

- A. The "B" RPS channel will trip, and two of the remaining channels are required to cause a reactor trip.
- B. The B RPS channel will not trip, two out of three remaining channels are required to cause a reactor trip.
- C. The "B" RPS channel will trip, and one of the remaining channels are required to cause a reactor trip.
- D. The B RPS channel will not trip, the channel must be bypassed, then the logic will be two out of three channels to cause a reactor trip.

Oconee bank question modified to match K/A. IC 103 (236). Lesson plan OP-OC-IC-RPS objectives 18 and 20.

- A. Incorrect, the channel will trip, but only one of the remaining channels have to trip to cause a trip.
- B. Incorrect the channel will trip.
- C. Correct, the channel will trip and only one additional channel is required to trip the unit.
- D. Incorrect, the channel will trip and if it is bypassed two additional channels are required to cause a trip.

K/A: Knowledge of the effect that a loss or malfunction of the following will have on the Reactor Protection System: Redundant Channels. (2.9/3.1)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

20. 013K4.07 001

- Unit 3 Reactor Power is at 100%
- 3KVIB AC Vital Power Panelboard supply breaker trips OPEN

Which ONE of the following describes the protective systems response during the time that the breaker is open?

- A. Automatic ES actuation will be inoperable.
- B. Initiation occurs only when ES channels "A" and "C" actuate.
- C. Present Conditions require ES to meet a two out of three logic.
- D. Initiation occurs when either ES channel "A" or "C" actuate.

Question developed from two oconee bank questions, IC031215 and IC030802.
Lesson Plan OP-OC-IC-ES objectives 5 and 12, and page 14.

- A. Incorrect, only one more es channel needs to trip to cause an ES actuation.
- B. Incorrect, only one more es channel needs to trip to cause an ES actuation.
- C. Incorrect, only one more es channel needs to trip to cause an ES actuation.
- D. Correct, either A or C channels tripping will cause an ES actuation.

K/A: Knowledge of the ESFAS design features and or interlocks which provide for the following: Power Supply Loss. (3.7/4.1)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

21. 014A1.02 001

- Unit 1 Reactor Power is 92%
- Group 7 rods are being withdrawn in Automatic
- Group 7 rod 5 becomes stuck

Which ONE of the following would be the FIRST indication to the operator of the stuck rod?

- A. Amber rod Fault Light on the diamond panel illuminates.
- B. 1SA-01 E-1 CRD Sequence Fault statalarm illuminates.
- C. Individual rod Relative Position Indication stops moving.
- D. Individual rod amber Fault (alarm) light illuminates on PI panel.

Oconee Bank Question IC020703 (20). Needs to be verified.

- A. Incorrect, Diamond fault illuminates at 9", this would not be the first indication.
- B. Incorrect, Sequence SA comes from RPI which is not unaffected.
- C. Incorrect, RPI is driven by CRDM phase sequencing, which will continue to occur.
- D. Correct, Amber light indicates 7" misalignment using API.

K/A: 014A1.02 Ability to predict and or monitor changes in parameters associated with operating the Rod Position Indication system including control rod position indication on control room panels. (3.2/3.6)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

22. 015/017AA1.12 001

- Unit 1 is operating at 68% power.
- Amps for RCP 1A1 indicate approximately 70 amps.
- "A" loop RCS flow indicates approximately 40 E6 lbm/HR and is lowering.
- "B" loop RCS flow indicates approximately 73 E6 lbm/HR and is rising.

Which One of the following describes the event that has occurred and the actions that the operator should take?

- A. 1A1 RCP has tripped, trip the reactor and close LPSW 7 and 8.
- B. 1A1 RCP has a sheared shaft, trip the reactor and close LPSW 7 and 8.
- C. 1A1 RCP has tripped, Verify ICS re-ratios feedwater to establish approximately 0 degrees delta Tc.
- D. 1A1 RCP has a sheared shaft, Verify ICS re-ratios feedwater to establish 0 degrees delta Tc.

LESSON PLANS REACTOR COOLANT PUMP MOTOR OP-OC-PNS-CPM and
OP-OC--IC-RCI Enabling Objective # 4 of OP-OC-PNS-CPM.

This question needs to be verified, if the pump already trips will the crew trip the reactor?
(B or D may be correct)

- A. Incorrect, the pump has not tripped, the shaft is sheared.
- B. Incorrect, the correct action is to verify that ICS re-ratios fw flow.
- C. Incorrect, the pump has not tripped.
- D. Correct, the pump has a sheared shaft and this is the correct action.

K/A: 015AA1.12 Ability to operate and or monitor the following as they apply to RCP
malfunction: Reactor Coolant Pump Flow meters. (2.8/3.1)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

23. 016A2.01 001

Plant conditions on Unit 1 are as follows:

- The SASS Channel for Th loop B is in AUTOMATIC.
- The selected Th signal for loop B slowly increases until a mismatch of 4% with the nonselected signal has occurred.

Which ONE of the following describes the operation that places the "good" Th loop B signal in operation?

- A. SASS remains in AUTO and automatically selects the "good" signal.
- B. SASS remains in AUTO initiating a mismatch alarm and the operator selects the good signal with the normal select switch.
- C. SASS trips to manual and the operator must position the key switch to the "good" signal with the normal select switch on 1UB1.
- D. SASS trips to manual and the operator must position the toggle switch to the "good" signal in RPS Cabinet E.

Oconee Lesson Plan OP-OC-IC-RCI, pg 52-54 and Fig OP-OC-IC-RCI,
Temperature Indications
Obj. R11, R12, R36, R37, R38, R39

Question Needs to be verified.

K/A 016A2.01 (3.0/3.1) Non-Nuclear Instrumentation System Ability to a) predict the impacts of the following malfunctions or operations on the NNIS; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Detector Failure.

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

24. 017K5.02 001

- The Unit 1 subcooling margin monitors are selected to the ICCM mode
- RC Loop A WR Press 1 indicates 2085 psig
- PC-WR-RCS A Press indicates 2110 psig
- RC Loop B WR Press 1 indicates 2105 psig
- PC-WR-RCS B Press indicates 2135 psig
- RC Hot Leg A WR Temp indicates 605°F
- RC Hot Leg B WR Temp indicates 608°F
- Avg 5 highest ICCM Train A CETCs indicates 613°F
- Avg 5 highest ICCM Train B CETCs indicates 615°F

Which ONE of the following is the correct subcooling margin that would be displayed on the LOOP B?

- A. 29°F
- B. 31°F
- C. 36°F
- D. 38°F

Reference: Steam Tables.

Lesson plan OP-OC-IC-RCI pages 55-60, and objective 15

- A. Incorrect, this uses the correct temperature, but incorrect pressure (RC loop B WR press 1). $(644-615=29)$
- B Correct, correct temp (615) and pressure (2135 psig) $(646-615=31)$
- C Incorrect, Incorrect temperature and pressure.
- D. Incorrect, Incorrect pressure, correct temperature.

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

25. 022AA1.05 001

- Unit 1 1A HPIP is running with 1B HPIP in Auto
- HP RC PUMP INLET HEADER FLOW HI/LOW statalarm (1SA-2, B-2) has alarmed
- RCP Seal Injection flow indicates 4 gpm per RCP and decreasing
- NLO reports a leak on the RCP seal injection discharge header

Which ONE of the following actions is required for these conditions?

- A. Open 1-HP-116 (HPIP "1B" & "1C" DISCH CONNECTION). Start the "1C" HPI Pump to maintain pressurizer level > 80 inches.
- B. Open 1-HP-116 (HPIP "1B" & "1C" DISCH CONNECTION). Start the "1C" HPI Pump to maintain adequate seal injection flow.
- C. Close 1-HP-115 (1A & 1B HPIPs DISCH XCONN). Trip the "1B" HPI PUMP
- D. Close 1-HP-31 (RCP SEAL FLOW CONTROL). Trip the "1B" HPI PUMP

Oconee Bank Question 145

- A. Incorrect, Using the C HPIP will still be feeding the leak.
- B. Incorrect, Using the C HPIP will still be feeding the leak.
- C. Correct, By closing HP-115 and tripping the b HPIP, per enclosure 6. the leak will not be fed. The A HPIP will supply makeup CC will cool RCPS
- D. Incorrect, Only required if seal injection is lost.

K/A 022AA1.05 Loss of Reactor Coolant Makeup : Ability to operate and or monitor the following as they apply to the Loss of Reactor Coolant Pump Makeup: RCP seal back pressure regulator valves and flow indicators

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

26. 022K4.03 001

Which ONE of the following describes the isolations that will occur to the Unit 2 Reactor Building Cooling system as a direct result if ES Channel 5 were to inadvertently actuate? (Assume No Operator Action)

- A. 2LPSW-1054 (RBAC Supply Controller) and 2LPSW-1062 (RBAC Supply Controller) will close.
- B. 2LPSW-1055 (RBAC LPSW Supply Block) and 2LPSW-1061 (RBAC LPSW Return Block) will close.
- C. 2LPSW-1055 (RBAC LPSW Supply Block) and 2LPSW-1062 (RBAC Supply Controller) will close.
- D. 2LPSW-1054 (RBAC Supply Controller) and 2LPSW-1061 (RBAC LPSW Return Block) will close.

Oconee Lesson Plan OP-OC-PNS-RBC objective 15. Modified questions PNS 150502 and 150503.

- A. Incorrect, this valves get a direct signal on an ES channel 6 actuation.
- B. Correct, these valves get a direct signal to close on an ES Channel 5 actuation.
- C. Incorrect, first part channel 5, second part channel 6.
- D. Incorrect, first part channel 6, second part channel 5.

K/A: Knowledge of Containment cooling design features and or interlocks which provide for the following Automatic Containment Isolation. (3.6/4.0)

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

27. 024AK1.01 001

- Unit 1 is in UNPP (Unanticipated Nuclear Power Production) procedure as a result of an ATWS.

Which ONE of the following describes the effect the emergency boration will have on this event, and how it is controlled.

- A. RCS Temperature will decrease until the reactor is shutdown, emergency boration is then limited by throttling HPI per rule 6 to limit plant cooldown.
- B. Emergency Boration will have no effect on RCS temperature, and is controlled by adjusting letdown flow to limit RCS inventory.
- C. RCS Temperature will decrease until the reactor is shutdown, emergency boration is then limited by a throttling HPI per rule 6 to limit RCS inventory.
- D. Emergency Boration will have no effect on RCS temperature, and is controlled by adjusting letdown flow to limit plant cooldown.

New question developed using OP-OC-EAP-UNPP. Objective 7 and 13.
Many pages from lesson plan.

- A. Incorrect, Boration will cause temperature to decrease but after the plant is shutdown it has no effect on controlling temperature, throttling is performed to reduce RCS inventory.
- B. Incorrect, Boration will cause temperature to decrease.
- C. Correct, Boration will cause temperature to decrease, and throttling per HPI stops "emergency boration" and limits RCS inventory.
- D. Incorrect, Boration will cause temperature to decrease .

K/A: Knowledge of the operational implications of the following concepts as they apply to the Emergency Boration: Relationship between boron addition and changes in Tave. (3.4/3.8)

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

28. 025 AK3.02 001

- Unit 1 is performing a cooldown to begin a refueling outage.
- The RCS is intact and the RCS loops are full.
- "C" LPI operating in the switchover mode.
- A loss of 1TC, TD, and TE occurs.
- AP/26 "Loss of Decay Heat Removal" has been entered.

Which ONE of the following describes the actions that need to be taken to mitigate the event and why?

- A. IF RCS pressure approaches 125 psig close 1LP-3 (LPI Hot Leg Suction), to prevent overpressurization of the LPI system.
- B. IF RCS pressure approaches 295 psig close 1LP-3 (LPI Hot Leg Suction), to prevent overpressurization of the LPI system.
- C. IF RCS pressure approaches 125 psig close 1LP-3 (LPI Hot Leg Suction), to keep RCS pressure less than the RCS NDT limits.
- D. IF RCS pressure approaches 295 psig close 1LP-3 (LPI Hot Leg Suction), to keep RCS pressure less than the RCS NDT limits.

New Question developed to match K/A. Lesson Plan OP-OC-PNS-LPI objectives # 5, 10, 35, and AP/1/1700/026 "Loss of Decay Heat Removal".

- A. Incorrect, this is the correct action and reason but the pressure is for the normal mode of operation.
- B. Correct, this is the correct action and reason and this is the maximum pressure in the switchover mode.
- C. Incorrect, wrong pressure wrong reason.
- D. Incorrect, wrong reason.

K/A: 025AK3.02 Knowledge of the reasons for the following responses as they apply to Loss of RHR system: Isolation of RHR low-pressure piping prior to pressure increase above specified level. (3.3/3.7)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

29. 026K1.01 001

Which ONE of the following describes the interrelation of the reactor building spray system and the Low Pressure Injection system?

- A. Low pressure injection discharge supplies the reactor building spray pump suction source when aligned to the RBES.
- B. Reactor Building spray pumps take a suction from the Low Pressure Injection suction line when aligned to the RBES.
- C. Low Pressure injection coolers are aligned to cool the Reactor building spray pumps during extended periods of operation.
- D. Reactor Building spray pumps normally take a suction from the Low Pressure Injection coolers when the BWST is isolated.

New Question developed to match K/A. OP-OC-PNC-BS objective # 5.

- A. Incorrect, this is no longer the case according to the lesson plan.
- B. Correct, the low pressure injection suction line is connected to the RBES via LP -19 and LP-20.
- C. Incorrect, the Low pressure injection coolers are no longer aligned to RBS.
- D. Incorrect, the RBS takes a suction from the RBES when the BWST is isolated.

K/A: 026K1.01 Knowledge of the physical connections and or cause effect relationships between containment spray and the following: ECCS.

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

30. 027AK2.03 001

Unit 3 has had a LOHT event
RCS Pressure is 2490 psig and is slowly rising
RCS Temperature is rising rapidly
1/A/1800/001 "LOHT TAB" is in progress.
Rule 3 is being performed
No FDW or EFW has been established

Which ONE of the following describes the actions that the operator must perform to ensure the PORV in the required position.

- A. Verify selector switch for 1RC-66 to the HIGH Position and verify that the valve is open.
- B. Place selector switch for 1RC-66 to the OPEN Position and verify the valve opens.
- C. Place selector switch for 1RC-66 to the HIGH Position depress the open permit push button and verify the valve opens.
- D. Place selector switch for 1RC-66 to the OPEN Position, depress the open permit push button and verify the valve opens.

New question developed to meet K/A.

PORV should already be open at this pressure.

- A. Incorrect, selector switch should already be in the high position and the valve should already be open.
- B. Incorrect, just selecting open will not open the valve, open permit must be depressed.
- C. Incorrect, the selector switch should be in High already, and depressing open permit will not open the valve.
- D. Correct, according to the lesson plan in order to open the PORV manually 1RC-66 must be placed in open and the open permit push button depressed.

K/A: 027AK2.03 Knowledge of the interrelations between a pressurizer pressure control system malfunction and : Controllers and positioners. (2.6/2.8)

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

31. 027K2.01 001

- Unit 2 has just entered Mode 5 and has an increased level of Iodine in the Reactor Building.
- Chemistry requests that the reactor building purge system be run to lower iodine levels at a rate not to exceed 7500 cfm.

Which ONE of the following describes the fan that should be run and its correct power supply?

- A. Reactor Building Main Purge fan powered from 600 V MCC 2XR.
- B. Reactor Building Mini- Purge fan powered from 600 V MCC 2XR.
- C. Reactor Building Main Purge fan powered from 600V MCC 2XS1
- D. Reactor Building Mini- Purge fan powered from 600V MCC 2XS1

Lesson Plan PNS-RBP objective #10.

- A. Incorrect, the main purge fan can not be used at this rate.
- B. Correct, the mini purge fan can be used, and this is the correct power supply.
- C. Incorrect, the main purge fan can not be used at this rate, and this is the wrong power supply.
- D. Incorrect, correct fan wrong power supply.

K/A Knowledge of electrical power supplies to the following Containment Iodine Removal Fans. (3.1/3.4)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

32. 028K3.01 001

- Unit 1 has had an ES Actuation due to a Large Break LOCA.
- The reactor building Hydrogen Analyzers (RBHAs) have been placed in service.
- Heat tracing has just been lost on RBHA Channel 1A

Which ONE of the following describes the effect that a loss of heat tracing will have on the RBHAs?

- A. 1A channel must be declared inoperable, and should be manually tripped.
- B. 1A channel can continue to operate, heat tracing will have no effect on its operation.
- C. 1B hydrogen indication will read higher than the 1A hydrogen indication.
- D. 1B hydrogen indication will read lower than the 1A hydrogen indication.

Oconee Bank Question PNS100503. Lesson Plan OP-OC-HDC objective 3. Substituted Hydrogen Analyzers for Recombiners.

- A. Incorrect, does not have to be declared inoperable.
- B. Incorrect, the loss of heat tracing will have an effect.
- C. Incorrect, the loss of heat tracing will cause the 1A to read greater than 1B.
- D. Correct, the loss of heat tracing will cause the 1A to read greater than 1B.

K/A: 028K3.01 Knowledge of the effect that a loss or malfunction of the (Hydrogen analyzer) will have on the following: Hydrogen in containment. Oconee does not use a hydrogen recombiner (deleted). So analyzers were substituted. (3.3/4.0)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

33. 029EG2.2.22 001

Which ONE of the following actions is performed directly to help prevent the Unit from exceeding a Technical Specification Safety Limit during an ATWS?

- A. Tripping the main turbine
- B. Stopping all RCPs
- C. Opening 1-RC-4 and 1HP-5
- D. Tripping both Main Feed pumps

New Question developed to match K/A. Oconee lesson plan OP-OC-EAP-UNPP, objective # 12, and pages 8,9, and 12. Technical Specification 2.0 safety limits.

- A. Incorrect, this is an action that is performed but to limit plant cooldown not prevent exceeding a safety limit.
- B. Incorrect, this is an action that is performed in the RNO portion of the ATWS procedure but will not limit the RCS Pressure peak.
- C. Correct, opening the PORV block valve and letdown isolation allow paths for RCS pressure to be reduced limiting the challenge to the pressure safety limit of 2750 psig.
- D. Incorrect, this action is performed if an uncontrolled cooldown is in progress.

K/A: 029EG2.2.22 Knowledge of limiting conditions for operations and safety limits.
(3.4/4.1)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

34. 034K1.04 001

- Unit 2 is in the process of being defueled

Which ONE of the following correctly describes the NIs that must be operable to continue moving fuel?

- A. NI-3 (Wide Range) and NI-4 (Source Range)
- B. NI-2 (Source Range) and NI-3 (Wide Range)
- C. NI-3 (Source Range) and NI-1 (Source Range)
- D. NI-2 (Wide Range) and NI-1 Source Range)

Bank Question FH049 Ensure Monitors are correct. Lesson Plan OP-OC-FH-FHS # 19

- A. Incorrect, two source range instruments required.
- B. Incorrect, two source range instruments required.
- C. Correct, these two monitor will satisfy TS requirements.
- D. Incorrect, two source range instruments required.

K/A: 034K1.04 Knowledge of the physical connections and or cause effect relationships between Fuel Handling Equipement and the following NIS. (2.6/3.5)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

35. 035A4.02 001

- Unit 1 has had a loss of Main Feedwater
- "B" OTSG has boiled Dry
- Both RCPs in loop "B" have tripped and cannot be started.

Which ONE of the following describes the limitations on feeding the "B" OTSG?

- A. Neither EFDW or MFDW may be fed to the OTSG due to inducing unanalyzed OTSG tube to shell differential temperatures.
- B. Neither EFDW or MFDW may be fed to the OTSG due to inducing excessive RCS loop differential temperatures.
- C. EFDW or MFDW must be fed slowly to the OTSG to prevent further RCS overcooling and limit unanalyzed OTSG stresses.
- D. EFDW or MFDW must be fed via the auxiliary nozzles to prevent excessive stresses on the lower tube sheet.

Oconee Bank Question Part B 203. Lesson Plan OP-OC-EAP-EHT objective # 6.

- A. Incorrect, OTSG may be fed via the aux nozzles.
- B. Incorrect, OTSG may be fed via the aux nozzles.
- C. Incorrect, OTSG stresses have been analyzed, and the OTSG must be fed via aux nozzle.
- D. Correct, OTSG may be fed with either EFW or MFDW via the aux nozzle to prevent excessive stresses on the lower tube sheet.

K/A: 035 A4.02 Ability to manually operate and or monitor in the control room fill of dry steam generator (2.7/2.8)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

36. 039K5.05 001

Which ONE of the following describes the reason the operator is directed to place both TBV stations to HAND before resetting the Control Rod Drive Breakers?

- A. To ensure that the + 50 psi bias applied to the TBVs setpoint remains selected.
- B. To ensure that the TBVs are controlling primary temperature instead of the Turbine Master.
- C. The TBVs must be in hand in order for the reactor trip breakers to be reset.
- D. To prevent exceeding cooldown limits when the TBVs bias shifts to setpoint.

Bank Question STG 245. Objective R13 and 9.

- A. Incorrect, 50# bias is determined only by the load status flag which is always false (zero bias) below 10% CTP.
- B. Incorrect, Turbine of-line and in manual, will not be able to control. TBVs take THP control cue from Load Status flag which is not tied to CRD status.
- C. Incorrect, No interlock to TBVs. CRD interlocks are CC flow and group 1-7 rod in-limits.
- D. Correct Removes the 125# bias which causes the TBVs to open seeing a lower THP setpoint. This causes SG temp decrease and RCS temperature decrease.

K/A 039K5.05 (2.7/3.1) Knowledge of the operational implications of the following concepts as they apply to the Main and Reheat Steam system: Bases for RCS cooldown limits.

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

37. 045A2.17 001

- Unit 1 shutdown in progress.
- Main turbine speed is currently 70 rpm.
- Digital EHC "Active" speed signal is lost.

Which ONE of the following describes the impact of losing the "active" speed signal and the action(s) that the operator should take?

- A. The EHC signal will be the higher of the two passive signals and the turning gear will automatically engage when turbine RPM < 1 rpm, verify that the turning gear engages properly.
- B. The EHC signal will be the lower of the two passive signals and the turning gear will automatically engage when turbine RPM < 1 rpm, verify that the turning gear engages properly.
- C. When turbine speed is less than 60 rpm the turning gear will attempt to engage regardless of the speed of the main turbine, place turning gear in pull to lock, and engage turning gear manually when turbine stops.
- D. When turbine speed is less than 60 rpm the 1 hour permissive for chest and shell warming will prevent automatic engagement of the turning gear, after one hour verify that the turbine turning gear has engaged.

New question developed to match K/A. Lesson Plan OP-OC-STG-EHC objective # 22.3.

- A. Incorrect, both passive speed signals are lost when turbine rpm < 60 rpm.
- B. Incorrect, both passive speed signals are lost when turbine rpm < 60 rpm.
- C. Correct, both passive speed signals are lost when turbine rpm < 60 rpm, and with the active speed signal gone, the turning gear will attempt to engage.
Lesson plan pages 64 & 65.
- D. Incorrect, this circuit is no longer in place with the active speed channel lost.

K/A: Ability to predict the impacts of the following on the Main Turbine Generator and (b) use procedures to correct, control or mitigate the consequences of those abnormal operation: Malfunction of EHC Control (2.7/2.9)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

38. 054AA1.02 001

- Blackout in progress on Unit 2 **only**
- Unit 3 is in Mode 5 with secondary drained
- Unit 1 is in MODE 1 at 100% power
- Unit 2 TDEFWP is inoperable

Which ONE of the following describes the action to be taken next to feed Unit 2 steam generators per Rule 3 during blackout conditions?

- A. Manually start a Unit 3 MDEFW Pump.
- B. Manually start a Unit 1 MDEFW pump
- C. Start the SSF ASW pump
- D. Start the Station ASW pump

Modified from Oconee Bank Question EAP210301 (352). Lesson plan OP-OC-EAP-BO objective # 3 and page 9.

- A. Incorrect, Unit 3 secondary drained.
- B. Correct, Since Unit 2 TDEFWP is not available, an alternate units EFDW is the next priority.
- C. Incorrect, this would be correct if no EFW source available from any Unit.
- D. Incorrect, the Tornado Pump is the last resort used if no FDW nor the SSF ASW pump is available.

K/A: 054AA1.02 Ability to operate and or monitor the following as they apply to Loss of main feedwater: Manual startup of electric and steam driven AFW (EFW) pumps.
(4.4/4.4)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

39. 056AK1.04 001

- A loss of 1TA and 1TB has caused a reactor trip on Unit 1.
- A decision has been made to cooldown by Natural Circulation.

Which ONE of the following is the MINIMUM RCS pressure allowed for a CETC temperature of 445 °F in accordance with EP/1A/1800/001?

- A. 2155 psig
- B. 1800 psig
- C. 1510 psig
- D. 1495 psig

Question developed from Oconee bank question Part B122 (127) modified to be less than 450°F and testing the requirement to have 150 °F of subcooling.

- A. Incorrect, this is the pressure that would be maintained if temperature was > 450 °F
- B . Incorrect, this is the pressure that would be maintained if 200°F of subcooling were required.
- C. Correct, this is the minimum value that pressure could be reduced to maintain 150 °F of subcooling as required by EP/1A/1800/001
- D. Incorrect, this value is obtained by using the temperature and PSIA in stead of PSIG and would result in < 150 °F

K/A: Knowledge of the operational implications of the following concepts as they apply to the Loss of Offsite Power: Definition of saturation conditions and implication for the systems.
(3.1/3.2)

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

40. 057AA2.13 001

- Unit 1 is at 100% power.
- A loss of KVID occurs.

Which ONE of the following describes the effect that this will have on the LDST level indicators and HPI pump suction source?

- A. LDST level 1 will fail low and 1SA-02 B1 HP letdown tank level High/Low will alarm; 1HP-24 (1A HPI BWST Suction) will open, and 1SA-02 D5 HP LDST LEVEL INTERLOCK INITIATED will alarm.
- B. LDST level 1 will fail low and 1SA-02 B1 HP letdown tank level High/Low will alarm; 1HP-24 (1A HPI BWST Suction) will remain closed.
- C. LDST level 2 will fail low and 1SA-02 B1 HP letdown tank level High/Low will alarm; 1HP-25 (1B HPI BWST Suction) will open, and 1SA-02 D5 HP LDST LEVEL INTERLOCK INITIATED will alarm.
- D. LDST level 2 will fail low and 1SA-02 B1 HP letdown tank level High/Low will alarm; 1HP-25 (1B HPI BWST Suction) will remain closed.

New Question developed to match K/A. References 1SA-02 B1, and 1SA-02 D5.
Lesson Plan OP-OC-EL-VPC Objective #7. **(NEED TO VERIFY POWER SUPPLY)**

- A. Incorrect, 1 HP-24 will not open 2/2 logic.
- B. Correct, this powers LDST 1, it will fail low without power but 2/2 logic will keep valve closed.
- C. Incorrect, LDST level 1 will fail low and 1HP-25 will not stroke 2/2 logic.
- D. Incorrect, LDST level 1 will fail low.

K/A: Ability to interpret the following as they apply to Loss of Vital Inst. Bus: VCT level and pressure indications and recorders. (3.0/3.4)

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

41. 059A1.07 001

Which ONE of the following describes how FPT speed is controlled during start-up operation and with ICS in automatic?

- A. The Motor Gear Unit controls speed during start-up at 0 - 2800 RPM and the Motor Speed Changer controls speed with ICS in automatic at 2800 - 4900 RPM.
- B. The Motor Speed Changer controls speed during start-up at 0- 2800 RPM and the Motor Gear Unit controls speed with ICS in automatic at 2800- 4900 RPM.
- C. The Motor Gear Unit controls speed during start-up at 0-3500RPM and the Motor Speed Changer controls speed with ICS in automatic at 3500 - 5200 RPM.
- D. The Motor Speed Changer controls speed during start-up at 0 -3500 RPM and the Motor Gear Unit controls speed with ICS in automatic at 3500 - 5200 RPM.

New question developed to match K/A. Oconee lesson plan OP-OC-CF-FPT. Lesson Plan Objective # 7.

- A. Incorrect, the MSC controls speed during startup and the MGU controls speed when in automatic on ICS.
- B. Correct, MSC controls speed during startup and the MGU controls speed when in automatic on ICS. MSC 0-2800 and MGU 2800 - 4900 rpm.
- C. Incorrect, MSC controls speed during startup and the MGU controls speed when in automatic on ICS. RPM is not correct.
- D. Incorrect, the RPM is not correct.

K/A: 059A1.07 Ability to predict and or monitor changes in parameters associated with operation the Main Feedwater controls including Feed pump speed, including normal control speed for ICS. (2.5/2.6)

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

42. 059AK1.01 001

During maintenance activities in the turbine building the sample pump for 3RIA-54 "Turbine Building Sump" was placed in the off position.

Which ONE of the following describes the effect this will have on the Turbine Building Sump release?

- A. RIA-54 is an inline monitor and will continue to monitor the release and will isolate the release if high activity is sensed.
- B. RIA-54 is an off line monitor and the sample pump must be running to get a sample, the turbine building sump pumps will trip with the sample pump switch in off.
- C. RIA-54 is an inline monitor and but will not monitor the release if the sample pump is in off, the turbine building sump pumps will trip with the the sample pump switch in off.
- D. RIA-54 is an off line monitor and the sample pump must be running to get a sample, the turbine building sump pumps will continue to run and an unmonitored release could occur.

New question developed from lesson plan OP-OC--RAD-RIA page 25 and objective # 5.

- A. Incorrect, RIA54 is an offline monitor and the release will continue with the sample pump in off.
- B. Incorrect, first part correct but the release will continue with the pump in off
- C. Incorrect, RIA54 is an offline monitor and the release will continue with the sample pump in off.
- D. Correct, it is an offline monitor and the release will continue with sample pump in off.

K/A: Knowledge of the operational implications of the following concepts as they apply to accidental liquid radwaste release Types of radiation their units of intensity and the location of the sources of radiation in a nuclear power plant. (2.7/3.1)

QUESTIONS REPORT
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43. 061A3.03 001

- Unit 1 has tripped from 70% Reactor Power.
- Five minutes have elapsed since the reactor tripped.
- 1A MS pressure is 1000 psig and slowly lowering.
- 1B MS pressure is 450 psig and steadily decreasing
- 1SA-02 D-8 "AFIS HEADER B INITIATED" is illuminated

Which ONE of the following describes the operating Status of the Emergency Feedwater System with the above conditions?

ASSUME NO OPERATOR ACTIONS HAVE BEEN TAKEN

- A. The 1B MDEFWP and the TDEFWP will be off. 1FDW-42 (1B S/U FDW Block Valve), 1FWD-44 (1BS/U FDW Control Valve) and 1FDW-316 (1B OTSG EFW Control Valve) will be closed.
- B. The 1B MDEFWP and the TDEFWP will be off. 1FDW-42 (1B S/U FDW Block Valve) and 1FWD-44 (1BS/U FDW Control Valve) will be closed, and 1FDW-316 (1B OTSG EFW Control Valve) will be open.
- C. The 1A and 1B MDEFWP will be off and the TDEFWP will be running. 1FDW-42(1B S/U FDW Block Valve) and 1FDW-316 (1B OTSG EFW Control Valve) will be closed, 1FWD-44 (1BS/U FDW Control Valve) will be open.
- D. The 1A and 1B MDEFWP and the TDEFWP will be off and 1FDW-42(1B S/U FDW Block Valve) and 1FWD-44 (1BS/U FDW Control Valve) will be closed 1FDW-316 (1B OTSG EFW Control Valve) will be open.

Modified from Oconee bank question CF025802 (question 86 from CF bank)
Alarm Response Guide 1SA-02 D-8. Lesson Plan OP-OC-CF-EFW # 29.

- A. Incorrect, 1FDW-316 does not get a isolation signal on an AFIS actuation.
- B. Correct, The AFIS signal will close 1FDW-42 and 1FDW-44. The affected MDEFWP and the TDEFWP will be off.
- C. Incorrect, The TDEFWP will be off, and 1FDW-44 will be closed, 1FDW-316 will be open.
- D. Incorrect, The 1A MDEFWP will be running.

K/A: 061A3.03 Ability to monitor automatic operations of the Emergency Feedwater system including: Automatic EFW isolation. (41./4.2)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

44. 061K5.05 001

- Unit 2 is at 100% power.
- The "B" MDEFDW pump has been run for a PT.
- 2 Hours after the pump is secured, it is reported that the pump discharge temperature is 160 °F by contact pyrometer.

Which ONE of the following describes the condition that exists and its operational implications?

- A. The "B" MDEFDW pump 2FDW-382 (2B MDEFDWP Discharge Block) was inadvertently closed; this would cause a water hammer event if an auto start condition occurred.
- B. The "B" MDEFDW pump ARC valve failed open causing temperature to rise; this could result in steam/vapor binding of the pump if an auto start condition occurred.
- C. The "B" MDEFDW pump outlet check valve failed to reseal; this could result in pump run-out if an auto start condition occurred.
- D. The "B" MDEFDW pump outlet check valves failed to reseal; this could result in steam/vapor binding of the pump if an auto start condition occurred.

Bank Question from Summer NRC exam. Oconee lesson plan OP-OC-CF-EFW pages 48 and 49. Objective # 59 (R47).

- A. Incorrect, the FCV being closed would not cause the discharge temperature to rise.
- B. Incorrect, the mini-flow valve being closed should not cause the temperature to remain this high after two hours of the pump being secured.
- C. Incorrect, the cause is correct, however this would not cause pump run-out.
- D. Correct, this would cause these indications, and this is the correct implication.

K/A: Knowledge of the operational implications of the following concepts as they apply to the Auxiliary Feed water: feed line voiding and water hammer. (2.7/3.2)

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

45. 062AA2.01 001

- Unit 1 is at 100%.
- LPSW Header A/B Pressure is 80 psig and decreasing.
- RBNS Level is increasing
- LPSW RBCU "A" COOLER RUPTURE is in alarm.
- "A" DELTA FLOW INCR is determined to be 330 gpm
- RBCU "C" Outlet flow rate exceeds the inlet flow rate.

Which ONE of the following describes the location of the LPSW leak, and the action and reason be taken to mitigate the leak?

- A. The RBCU "C" is leaking, isolate the "C" RBCU outlet, then inlet to prevent LPSW pump runout.
- B. The RBCU "A" is leaking, isolate the A RBCU outlet, then inlet to prevent LPSW pump runout.
- C. The RBCU "C" is leaking, isolate the "C" RBCU inlet, then outlet to prevent having to call the LPSW and containment inoperable.
- D. The RBCU "A" is leaking, isolate the "A" RBCU inlet, then outlet to prevent having to call the LPSW and containment inoperable.

New question developed based on Oconee bank question PNS151021 (290).OP-OC-SSS-LPW Objectives, 10, 11, and 15.

- A. Incorrect, wrong valve manipulations, wrong cooler, wrong reason.
- B. Incorrect correct cooler, wrong valve manipulations, wrong reason.
- C. Incorrect, wrong cooler correct manipulations and reason.
- D. Correct, correct cooler, manipulations and reason.

K/A 062AA2.01 Ability to determine and interpret the following as they apply to Loss of Nuclear Service water, location of a leak in SWS. (2.9/3.5)

QUESTIONS REPORT
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46. 062K1.04 001

Unit 2 is at 100% power
230 KV Switchyard Yellow bus voltage is 225 KV and has been stable for 5 minutes.
Keowee Unit 1 output is 60 MWe.
ACB - 4 is closed.
Unit 2 has an ES1 and 2 actuation.

Which ONE of the following describes the effect this will have on the electrical system?

- A. ACB-1 will trip open and remain open.
ACB-4 will trip open may be reclosed after ACB-1 is closed.
- B. ACB-1 will trip open and remain open.
ACB-4 will remain closed.
- C. ACB-1 will trip open and re-close in 11 seconds.
ACB-4 will remain closed.
- D. ACB-1 will trip open and re-close in 11 seconds.
ACB-4 will trip open and may be reclosed after ACB-1 is closed.

Oconee Bank Question EL041105 (107). Lesson plan OP-OC-EL-EPD, objective 15.

- A. Incorrect, ACB-1 will reclose, and ACB-4 will not open.
- B. Incorrect, ACB-1 will reclose after 11 seconds.
- C. Correct, ACB 1 will re-close after 11 seconds, and ACB-4 will remain closed.
- D. Incorrect, ACB-4 will not trip open.

K/A Knowledge of the physical connections and or cause effect relationships between the AC electrical distribution system and the following: Off-site power sources. (3/7/4.2).

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

47. 063G2.1.30 001

Which ONE of the following describes the location of the Unit 3 Isolating diode Assemblies associated with the Essential DC power system?

- A. Unit 3 Cable Room near panel board KI.
- B. On the 3rd floor of the turbine building near the power battery chargers.
- C. On the 5th floor of the turbine building near the power Battery Room.
- D. Unit 3 Equipment Room near the CA battery charger.

Bank question EL197 (207). Lesson plan OP-OC-EL-DCD page 35 and objective # 6.

- A. Incorrect, the assemblies are located in the Equipment room.
- B. Incorrect, the assemblies are located in the Equipment room.
- C. Incorrect, the assemblies are located in the Equipment room.
- D. Correct, the assemblies are located in the Equipment room.

K/A: 063G2.1.30 DC Electrical distribution, Ability to locate and operate components including local controls. (3.9/3.4)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

48. 064G2.4.48 001

- Unit 1 has experienced a LOCA and RCS pressure decreased to 1500 psig.
- A loss of power has caused both Keowee Units to emergency start.
- MFBs have been re-energized through CT-4.

Which ONE of the following sets of actions is required to reset the Load Shed signals?

- A. Energize the start-up source and depress the load shed "reset" push buttons.
- B. Depress "Manual" on the load shed ES modules and then simultaneously depress the reset push buttons for MFB monitor panels load shed circuit.
- C. Reset "ES Channels 1 and 2" and then secure both Keowee Units.
- D. Restore an offsite power source to the 230KV "Yellow Bus" and reset both the Keowee emergency start signals in Unit 1 and 2 control room.

Oconee bank Question # EL050801 (133). Changed this K/A, and the question still may not match K/A exactly.

- A. Incorrect, no loadshed reset buttons, there are keowee reset buttons.
- B. Correct, depress manual on the load shed ES modules and simultaneously depress reset push buttons for MFB monitor panels load shed circuit.
- C. Incorrect securing keowee units not required.
- D. Incorrect, will not reset loadshed.

K/A: Emergency Diesel Generators (Keowe Hydro Units at Oconee). Ability to interpret control room indications to verify the status and operation of system, and understand how operator actions and directives affect plant and system conditions.
(3.5/3.8)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

49. 065AG2.1.27 001

- A loss of Instrument Air has occurred on Unit 1
- Auxiliary Instrument Air is in Automatic
- Unit 1 Reactor has been tripped

Which ONE of the following describes the actions that would be taken and the reason for the action?

- A. Trip the Main FDWPs and start EFW; a loss of condenser vacuum is imminent.
- B. Trip the Main FDWPs; Feed water control valves will fail as is and an excessive overfeed condition will occur
- C. Manually control the Feed water control valves; FWPT speed control has been lost
- D. Manually control FWPT speed; Feed water control valves have failed full open

Oconee bank question 599

- A. Incorrect, Condenser vacuum should be maintained. The FW pumps would auto trip at 21.5" vacuum decreasing.
- B. Correct, the main and startup feedwater control valves will fail as is and an OTSG overfeed would occur if the pumps were not tripped.
- C. Incorrect, FWPT speed control has not been lost, and the feedwater control valves will fail as is without air.
- D. Incorrect, the feedwater control valves will fail as is without air.

K/A 065AG2.1.27 Knowledge of system purpose and or function, for a loss of Instrument Air.

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

50. 067AK3.04 001

- The Fire Brigade has extinguished a Major Turbine Bulding Fire on Unit 1
- All HPI, Main and Emergency Feedwater Capability have been lost
- The SSF has been activated

Which ONE of the following actions is taken to prevent a subsequent overcooling in accordance with AP/1700/25?

- A. All RCPs are stopped.
- B. 1TA and 1TB switchgear are De-energized
- C. Flowpaths on the MS lines are isolated
- D. SG levels are established at 180" with SSF ASW

Oconee Bank Question 235 **May need to be revised**

- A. Incorrect, RCPs are stopped to decrease heatload, not prevent overcooling.
- B. Incorrect, RCP switchgear is isolated if a fire has occurred to prevent spurious RCP restarts which would add heat to the system
- C. Correct, the MS line flowpaths are isolated to prevent a subsequent overcooling event
- D. Incorrect, SG levels are raised to 240-260".

K/A 067AK3.04 (3.3/4/1) Knowledge of the reasons for the following responses as they apply to the Plant Fire on Site: Actions contained in EOP for plant fire on site.

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

51. 069AA2.01 001

Unit 1 is at 100% power.

1A CFT is experiencing inleakage.

It has been decided to drain the CFT to the MWHUT Via CF-7 "CF Bleed to Water Hold-Up Tank."

Which ONE of the following precautions must be adhered to when draining "1A" CFT?

- A. A Boric Acid concentration calculation **MUST** be performed prior to any level adjustment on a CFT.
- B. Heat Tracing for the drain line **MUST** be verified operable prior to draining a CFT to the MWHUT.
- C. An Operator, in constant communication with the control room **MUST** be stationed in the Penetration Room.
- D. An Operator, in constant communication with the control room **MUST** be stationed just outside the Penetration Room to maintain dose ALARA.

Oconee Bank Question PNS051202 (72). Need to verify this is still accurate.

- A. Incorrect, this is a precaution prior to makeup to the CFTs.
- B. Incorrect, this is not a caution statement in enclosure 4.16 for draining the CFT to the MWHUT.
- C. Correct, Since the reactor is at 100% power, containment isolation is required. When CF-7 is opened containment integrity is breached and the operator must remain in the vicinity of the valve which is in the penetration room.
- D. Incorrect, this is a requirement while performing a fill of the CFTs during plant startup.

K/A: 069AA2.01 Ability to determine and interpret the following as they apply to loss of containment integrity: Loss of containment integrity. (3.7/4.3)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

52. 073A4.01 001

Which ONE of the following correctly describes what will automatically terminate a Gaseous waste release on Unit 1?

- A. RIA-37 (NORM WD Gas) and 38 (HIGH WD Gas) must alarm, closes GWD release valves, and stops the Waste Gas Exhauster.
- B. RIA-37 (NORM WD Gas) or 38 (HIGH WD Gas) must alarm, closes GWD release valves, and stops the Waste Gas Exhauster.
- C. RIA-37 (NORM WD Gas) and 38 (HIGH WD Gas) must alarm, closes GWD release valves, an operator must manually stop the Waste Gas Exhauster.
- D. RIA-37 (NORM WD Gas) or 38 (HIGH WD Gas) must alarm, closes GWD release valves, an operator must manually stop the Waste Gas Exhauster.

New Question developed to match K/A. Oconee lesson plan OP-OC-RAD-RIA Objective 14.

- A. Incorrect, either 37 or 38 will isolate the GWD release and stop the exhauster.
- B. Correct, either 37 or 38 will isolate the GWD release and stop the exhauster.
- C. Incorrect, either 37 or 38 will isolate the GWD release and stop the exhauster.
- D. Incorrect, the exhauster will stop when 37 or 38 alarms.

K/A: 073A4.01 Ability to manually operate and or monitor in the control room: Effluent release. (3.9/3.9)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

53. 076G2.4.31 001

- Unit 1 is operating at 100%.
- 1SA-09/D8 HPSW JOCKEY PUMP OFF alarms.
- EWST Level indicates 90,000 gal.

Which ONE of the following describes the actions that the operator should perform in accordance with the response guide D-8

- A. Verify that 1HPSW-25 (Altitude Valve) will open to maintain system pressure.
- B. Verify that the STANDBY HPSW auto starts pump to maintain system pressure.
- C. Manually start the BASE HPSW pump to maintain system pressure.
- D. Verify that the BASE HPSW pump auto starts pump to maintain system pressure.

New question developed to match K/A. Reference Automatic actions of 1SA-09/D8.

- A. Correct, the first automatic action that will occur is that 1HPSW-25 will open to maintain pressure, the operator should then attempt to start the jockey pump one time.
- B. Incorrect, the base pump will autostart, but it will start on low level in the Elevated Storage Tank level, not pressure or jockey pump trip.
- C. Incorrect, the procedure does not direct the manual starting of the base or Standby pump unless they fail to autostart on appropriate level.
- D. Incorrect, the procedure does not direct the manual starting of the base or Standby pump unless they fail to autostart on appropriate level.

K/A: 076G2.4.31 Service Water Knowledge of annunciators, alarms, and indications and use of the response instructions. (3.3/3.4)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

54. 078K2.01 001

Which ONE of the following would result in a loss of power to Back-up Instrument Air Compressor "B"?

- A. Loss of B3T-4
- B. Loss of MCC 1XD
- C. Loss of MCC 1XF
- D. Loss of MCC 2XF

Oconee Lesson Plan OP-OC-SSS-IA objective # 50, and pages 14 and 22. Based on Bank Question SSS043501.

- A. Incorrect, this is the power supply to the Primary Instrument Air Compressor.
- B. Incorrect, this is the power supply to the "A" Back-up Instrument Air Compressor.
- C. Correct, this is the power supply to the "B" Back-up Instrument Air Compressor.
- D. Incorrect, this is the power supply to the "C" Back-up Instrument Air Compressor.

K/A: 078K2.01 Knowledge of the electrical power supplies to the following: Instrument Air Compressor (2.7/2.9).

QUESTIONS REPORT

for Oconee RO 2005-301 Draft Questions

55. 103A3.01 001

Which ONE of the following describes the effect that an inadvertent ES-5 actuation will have on the CC system?

- A. only CC-7 will close.
- B. only CC-8 will close.
- C. CC-7 will close and the running CC pump will trip.
- D. CC-8 will close and the running CC pump will trip.

Oconee lesson plan OP-OC-PNS-CC, objective 17 and pages 15 and 19. Modified from Question PNS021502 (39).

- A. Incorrect, CC-7 will close, but the CC pump will trip as a result.
- B. Incorrect, CC-8 will not close it gets a signal from ES-6.
- C. Correct, CC-7 will close, and the CC pump will trip as a result.
- D. Incorrect, CC-8 will not close but the pump will trip.

K/A: 103A3.01 Ability to monitor automatic operation of the containment including containment isolation (3.9/4.2)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

56. 103A4.01 001

- Unit 1 is making preparations to return to service after a refueling outage.
- Pressure Makeup to the 1A CFT is required.

Which ONE of the following describes the operator actions required to perform a CFT pressurization rate set-up to raise pressure in the 1A CFT?

- A. Open 1N-137 (CFT supply isol) and 1N-298 (N2 Fill Core Flood Tank 1A) from the control room, locally throttle 1N-128 (CFT 1A Supply) not to exceed 150 psig /15min. Raise pressure to required value then close 1N-298 and 1N-137.
- B. Open 1N-137 (CFT supply isol) and open 1N-128 (CFT 1A Supply) locally, then throttle 1N-298 (N2 Fill Core Flood Tank 1A) from the control room, raise not to exceed 150 psig /15min. Raise pressure to required value then close the valves.
- C. Open 1N-137 (CFT supply isol) locally, then open 1N-298 (N2 Fill Core Flood Tank 1A) from the control room, locally throttle 1N-128 (CFT 1A Supply) not to exceed 100 psig /15min. Raise pressure to required value then close 1N-298 and 1N-137.
- D. Open 1N-137 (CFT supply isol) and 1N-298 (N2 Fill Core Flood Tank 1A) from the control Room, Locally throttle 1N-128 (CFT 1A Supply) not to exceed 100 psig /15min. Raise pressure to required value then close the valves.

New Question developed to match K/A. Oconee Lesson plan OP-OC-PNS-CF objectives 5 and 7.

- A. Incorrect, N-137 is operated locally, N-298 is operated from the control room, and this is too high of a rate.
- B. Incorrect, N-298 is not a throttle valve, pneumatically controlled from the control room, wrong rate.
- C. Correct, this is the method described for pressure rate setup in the lesson material.
- D. Incorrect, N137 not controlled from control room.

K/A: 103A4.01 Containment: Ability to manually operate and or monitor in the control room; flow control, pressure control and temperature control valves including pneumatic valve controller

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

57. BA01AA1.2 001

Which ONE of the following automatic responses will result from the loss of "1A1" RCP while at 82% power?

(All systems are in automatic control with four RCPs initially running)

- A. An ICS runback to 74% at 25% per minute will occur with final FDW flow approximate to 100% in the "B" Loop.
- B. An ICS runback to 74% at 25% per minute will occur with the affected loop SG being on low level limits.
- C. An Initial 2:1 FDW ratio followed by a reactor trip due to RPS variable low pressure bistables tripping.
- D. Tave input to ICS from Loop 'A' selected and delta Tcold near zero.

Oconee Bank Question STG102301.

- A. Correct, 74% is load limit. No RPS trip due to initial powerlevel at 82%. Re-ratio will require approx. 5.5E6 lbm/hr in "B" header which equals the 100% value for that header.
- B. Incorrect FDW header flow in A header will be 2.5 lbm/hr well above that for 25" SU level and LLL.
- C. Incorrect, ratio will be 1:2, RPS trip will not be generated.
- D. Incorrect, loop "B" tave will be selected.

K/A: BA01AA1.2 Ability to operate and or monitor the following as they apply to plant runback; Operating behavior characteristics of the facility. (3.2/3.5)

QUESTIONS REPORT
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58. BA03AK3.3 001

- Unit 1 is at 100% power.
- Controlling Feedwater Delta P input has failed Low.

Which ONE of the following describes the action the operator is required to take and the reason for the action, in accordance with AP/28 "Feedwater Valve DP Failure"?

- A. Take either A or B Main Feedwater pump to hand to prevent a feedwater pump trip on high discharge pressure.
- B. Take both A and B Main Feedwater pumps to hand to prevent a feedwater pump trip on high discharge pressure.
- C. Take either A or B Main Feedwater pump to hand and raise feedwater pump speed to maintain proper feedwater flow.
- D. Take both A and B Main Feedwater pumps to hand and raise feedwater pump speed to maintain proper feedwater flow.

Licensee to develop another question to cover loss of KU.

New question written to match K/A. Used Section 4H of AP1/A/1700/028 "Feedwater Valve DP Failure". Lesson Plan OP-OC-IC-RCI objective 12.

- A. Incorrect, both feedpumps will go to the high speed stop, AP directs the operator to take both Main FDW PUMPs to hand to prevent a feedwater pump trip on high discharge pressure.
- B. Correct, both feedpumps will go to the high speed stop, AP directs the operator to take both Main FDW PUMPs to hand to prevent a feedwater pump trip on high discharge pressure.
- C. Incorrect, Both feed pumps are taken to hand, but speed will have to be reduced.
- D. Incorrect, Both feed pumps are taken to hand, but speed will have to be reduced.

K/A: Knowledge of the reasons for the following responses as they apply to Loss of NNI: Manipulation of controls required to obtain desired operating results during abnormal, and emergency situations. (2.5/3.0)

QUESTIONS REPORT
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59. BA07AK2.2 001

- AP/30 (Auxiliary Building Flood) is in progress
- LPSW has been determined to be the source of flooding water
- Steps for the isolation of LPSW to Auxiliary Building AHUs are being performed

A temporary drain hose has been attached to LPSW-1023 (CHILLED WATER HIGH POINT VENT).

LPSW-1023 is open and water is being directed via the hose to storm drains.

Which ONE of the following correctly describes the effect this will have on system operations?

- A. Ensures a return flow path of cooling water from the Unit 1&2 HPIPs.
- B. Ensures a return flow path of cooling water from the Unit 1&2 LPIPs.
- C. Provides a LPSW return flow path for the Auxiliary Building AHUs.
- D. Provides a LPSW return flow path for A&B Station Chillers.

Oconee Bank Question 256

Distractor C may need to be enhanced.

- A. Correct, Vent valve hose line provides an alternate return path for HPI motor coolers.
- B. Incorrect, Vent valve hose line provides an alternate return path for HPI motor coolers.
- C. Incorrect, LPSW piping to AB AHUs is being drained therefore a return path is not required.
- D. Incorrect, The A&B chillers will be removed from service.

K/A BA07AK2.2 (3.3/3.3) Knowledge of the interrelations between **Flooding** and the following: Facility's heat removal systems, including primary coolant, emergency coolant the decay heat removal systems, and relations between the proper operation of these systems to the operation of the facility.

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

60. BA13EG2.4.4 001

Which ONE of the following would cause the operator to enter Rule 2 (LOSCM) following a Reactor Trip?

- A. Subcooling margin digital indicators are lost.
- B. CETCs indicate negative numbers.
- C. Any subcooling margin indicates zero.
- D. An AFIS actuation occurs due to a main steam line break.

Oconee Bank Question EAP060101. (87)

- A. Incorrect, various indications are available to deemine SCM including ICCM, P/T displays, OAC data etc. If indication is lost, a transfer is not required until it is determined that a vlid LOSCM exists.
- B. Incorrect, this is indication of superheat and a transition to ICC is warranted.
- C. Correct, form the paralell actions page a transfer to the LOSCM tab should be made is any SCM = 0.
- D. Incorrect, this alone is not an entry condition for rule 2.

K/A: EOP Rules and Enclosures, Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for Emergency and Abnormal operating procedures. (4.0/4.3)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

61. BE02EK3.2 001

- A reactor trip has occurred on Unit 2 and IMAs and SAs are in progress.
- It has been determined that an ES actuation is not required.
- Enclosure 5.5 "PZR and LDST Level Control" is in progress
- Pressurizer level is approximately 85 ".

Which ONE of the following describes the action to be taken and the reason why?

- A. Immediately maximize HPI flow to raise level to 220 inches to establish normal plant conditons in preparation for restart.
- B. Control HPI flow to establish PZR level greater than 100 inches to maintain pressurizer heaters energized and enhance RCS pressure control.
- C. Immediately maximize HPI flow to raise level to 220 inches to enhance RCS pressure control.
- D. Control HPI flow to ensure LDST level 40"-50", to pevent having to close HP-5 "letdown isolation" and causing seal injection fluctuations.

New question developed from OP-OC-EAP-SA lesson plan, pages 19 and 20.
Objective # 10.

- A. Inccorrect, this action will increase pressurizer level, but will fill the pressurizer too fast and cause pressure control problems. Regaining pressurizer level should be at a control rate to also maintain pressure control. It would also be better to have PZR level closer to 100" for the restart.
- B. Correct, Controlling HPI flow to establish PZR level will allow heaters to remain energized and offer better pressure control and will be more optimum for restart.
- C. Incorrect. This will not enhance RCS pressure control it will make it more difficult.
- D. Incorrect, Letdown flow is not maintained 40-50" and it is allowed to close HP-5 if required.

K/A: BE02EK3.2 Knowledge of the reasons for the following responses as they apply to Reactor Trip Stabilization-Recovery: Normal abnormal and emergency operating procedures associated with VSSV. (3.0/4.0)

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62. BE04EG2.4.6 001

- Unit 1 has had a Loss of Main Feed Water
- LOHT has occurred
- LOHT tab is in progress
- RCS Pressure is 2210 psig and slowly increasing
- SGs are not being fed
- 1A and 1B SGs are intact
- 1FDW-313 and 1FDW-314 are open
- 2FDW-313 and 2FDW-314 are open

Which ONE of the following actions should be performed next?

- A. Confirm the ability to feed an intact Steam Generator
- B. Start Both Unit 2 MDEFWPs
- C. Start All Unit 2 EFWPs
- D. Start the Unit 2 TDEFWP

Oconee Bank Question 257 EAP 142602

- A Incorrect, Not at that point in Rule # 3 yet.
- B. Incorrect, MDEFWPs are not started if a TDEFW pump is available.
- C. Incorrect, No direction to start all EFWPs.
- D. Correct, Rule #3 step 22 starts the alternate unit's TDEFWP.

K/A: Inadequate Heat Transfer-Loss of Secondary Heat Sink Knowledge of symptom based EOP mitigation strategies. (3.4/4.0)

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63. BE05EA1.1 001

- Initial conditions:
- Unit 1 at 100% power
- Switchyard Isolation Occurs.

Conditions 10 minutes after the trip:

RCS Pressure is 1450 psig and slowly rising.

1"A" SG Pressure is 10 psig and stable.

1"B" SG Pressure is 500 psig and stable.

Tc is 435 °F and stable

PZR level is 85" and rising

Rule 5 has been completed.

Which ONE of the following describes the action required to be taken and the equipment that will be used?

- A. Reduce RCS pressure using the PORV to minimize SCM, then hold RCS temperature stable for 1 hour.
- B. Reduce RCS Temperature using ADVs to minimize SCM, then hold RCS temperature stable for 1 hour.
- C. Reduce RCS pressure using normal pressurizer spray valves, to minimize SCM, then hold RCS temperature stable for 1 hour.
- D. Reduce RCS Temperature using TBVs to minimize SCM, then hold RCS temperature stable for 1 hour.

Based on Oconee Bank Question EAP 081206 (154). Rule 8 From EHT.

- A. Correct, the correct way to reduce SCM is to reduce RCS pressure and the PORV is the only listed method available.
- B. Incorrect, the correct way to reduce SCM is to reduce RCS pressure.
- C. Incorrect, the correct way to reduce SCM is to reduce RCS pressure but the normal spray valves are not available due to no RCPs.
- D. Incorrect, the correct way to reduce SCM is to reduce RCS pressure.

QUESTIONS REPORT

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64. BE10EK1.1 001

- Unit 1 has a trip of both MFW pumps.
- The Reactor has been tripped.
- All RCPs continue to operate.
- EP1/A/1800/001 actions are in progress.

Which ONE of the following describes the emergency equipment that will start and the capacity that they will initially provide?

- A. All EFW pumps will start and deliver approximately 1800 gpm total flow to maintain SG levels with automatic control.
- B. Only the MDEFW pumps will start and deliver approximately 900 gpm total flow to maintain SG levels in manual control.
- C. Only the TDEFW pump will start and deliver approximately 880 gpm total flow to maintain both SG levels in automatic control.
- D. All EFW pumps will start and deliver approximately 2000 gpm total flow to maintain SG levels in manual control.

New Question developed to match K/A. Used EP1/A/1800/001 actions as guidance along with OP-OC-CF-EFW page 15 for capacities, and objective # 5.

- A. Correct, all EFW pumps will start on a loss of both MFW pumps, total Flow will be about 1800gpm ($450+450+880= 1780$ gpm).
- B. Incorrect, The TDEFW pump will also start, this is the correct capacity of 2 MDEFW pumps.
- C. Incorrect, All EFW pumps will start, this is the correct flow rate when feeding 2 SGs.
- D. Incorrect, All EFW pumps will start, however this is the flow rate for both MDFWPs and the TDEFW pump feeding two SG.

K/A: knowledge of the operational implications of the following concepts as they apply to Reactor Trip Stabilization/recovery: Components, capacity and function of emergency systems.

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65. BE14EK1.1 001

- A loss of Main Feedwater has occurred on Unit 1
- EFDW is supplying Feed water to the OTSGs
- 1A EFDW header flow is 900 gpm
- 1B EFDW header flow is 750 gpm
- MDEFDW pump 1A flow is 480 gpm
- MDEFDW pump 1B flow is 0 gpm
- EFDW suction is supplied from the UST
- Rule 7 applies.

Based on the above conditions which ONE of the following correctly describes the conditions of the EFW pumps?

- A. Only MDEFW pump "A" is exceeding its procedural capacity limits.
- B. Both the "A" MDEFW pump and the TDEFW pump are exceeding procedural capacity limits.
- C. Only the TDEFW pump is exceeding its procedural capacity limits.
- D. Both EFDW pumps are within their procedural limits.

Oconee Bank Question EAP050901 Reference EOP rule 7.

- A. Incorrect, The TDEFW pump exceeds 1000 gpm, and the A EFDW pump is with its allowed flow of 600 gpm.
- B. Incorrect, The A EFDW pump is with its allowed flow of 600 gpm.
- C. Correct, The TDEFW pump exceeds 1000 gpm, allowed value is 950 gpm.
- D. Incorrect, The TDEFW pump exceeds 1000 gpm.

K/A BE14EK1.1 Knowledge of the operational implications of the following concepts as they apply to the EOP Enclosures: components, capacity, and function of emergency systems.

QUESTIONS REPORT

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66. GEN 2.1.10 001

- Unit 2 is in core reload during a refueling outage.
- Due to valve leakage during the process a dilution to the refueling canal has occurred.
- Chemistry reports that the boron concentration of the canal is less than that required by the COLR.
- Fuel Insertion is in progress.

Which ONE of the following describes the actions that are required to be taken in accordance with technical specifications?

- A. Suspend Core Alterations immediately, initiate actions to restore boron concentration to within the limit within 30 minutes.
- B. Suspend Positive Reactivity additions immediately, initiate actions to restore boron concentration to within the limit within 30 minutes.
- C. Suspend Core Alterations, positive reactivity additions **and** initiate actions to restore boron concentration to within the limits immediately.
- D. Suspend Core Alterations and Positive Reactivity Additions immediately, **or** initiate action to restore boron concentrations to within limits immediately.

Oconee Technical Specifications 3.9.1 Boron concentration.

- A. Incorrect, first part correct, second part must be done immediately.
- B. Incorrect, first part correct, second part must be done immediately.
- C. Correct, these are the actions required by tech specs.
- D. Incorrect, all of these actions must be met, tech specs does not allow for an or.

K/A: Knowledge of conditions and limitations in the facility license. (2.7/3.9).

QUESTIONS REPORT

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67. GEN 2.1.19 001

- Unit 1 has had a MSLB on the 1B SG.
- 1B SG level is 0" XSUR
- 1B SG Delta T indicates + 110 °F on the OAC loop PT display.
- CETC (AVG of 5 highest) indicates 487 °F
- Tave is 478 °F
- SCM is 20 °F
- Computer PT. for 1B SG indicates shell temperature of 590 °F

Which ONE of the following describes the correct "B" SG Tube to Shell Delta T that the operator would use and the type of stresses felt by the SG tubes?

- A. +110 °F Delta T; Compressive Stresses.
- B. +110 °F Delta T; Tensile Stresses.
- C. +103 °F Delta T; Compressive Stresses.
- D. +103 °F Delta T; Tensile Stresses.

Modified Bank Question that has an Admin hold because manual calculation of delta T is not allowed by procedure. This question test the use of the OAC for information and also has the operator interpret this information.

- A. Incorrect, this is the correct Delta T, wrong stress.
- B. Correct, correct Delta T, correct stress.
- C. Incorrect, incorrect Delta T, incorrect stress.
- D. Incorrect, incorrect Delta T, correct stress.

K/A: G2.1.19 Ability to use plant computer to obtain and evaluate parameteric information on system or component.

QUESTIONS REPORT

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68. GEN 2.1.29 001

Which ONE of the following describes the method of verifying the position of a Locked throttled valve in accordance with NSD-700?

- A. Visually inspect the valve stem position to ensure valve is at the approximate position, then verify flow is correct when system is in operation.
- B. Close and reopen the valve counting the turns to verify that the valve is in the correct throttled position.
- C. Ensure the locking device is installed.
- D. Observe the initial positioning of the valve.

Modified from Bank question ADM 494. Lesson Plan ADM-SD objective # 9.

- A. Incorrect, when a valve is being verified in the throttled position the locking device is ensured to be in place.
- B. Incorrect, this is the way to initially position the valve, not verify it.
- C. Correct, this is the technique listed in NSD 700 to verify a throttled valve is in the correct position.
- D. Incorrect, this is not an independent verification as required by NSD 700.

K/A: Knowledge of how to conduct and verify valve line-ups (3.4/3.3)

QUESTIONS REPORT
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69. GEN 2.2.24 001

Refueling operations are in progress on Unit 2

Maintenance is requesting to disassemble a valve on a pipe in the auxiliary building that will establish a direct path from containment to the auxiliary building.

Which ONE of the following describes the correct actions the operator should take regarding the maintenance request?

- A. Allow the maintenance to begin, refueling operations are not impacted because containment integrity is not required at low RCS pressure and temperature.
- B. Defer the maintenance until after refueling, refueling operations in containment would be required to be suspended until the flow path was isolated.
- C. Allow the maintenance to begin, refueling operations are not impacted as long as the operations are limited to the area directly over the reactor vessel.
- D. Defer the maintenance until after refueling, refueling operations that involve movement of irradiated fuel in the spent fuel pool must be suspended until the flow path is isolated.

Oconee Bank question Part B 150 modified to meet K/A.

- A. Incorrect, maintenance is not allowed.
- B. Correct, the maintenance should not be allowed until after refueling is stopped.
- C. Incorrect, performing this maintenance will require that refueling be stopped.
- D. Incorrect, the maintenance should be deferred but not for this reason.

K/A G2.2.24 Ability to analyze the affect of maintenance activities on LCO status.
(2.6/3.8)

QUESTIONS REPORT
for Oconee RO 2005-301 Draft Questions

70. GEN 2.2.25 001

Which ONE of the following describes the bases for ADV flow path operability with the Unit 1 at 65% power and "B" HPI Train OOS?

- A. One ADV flowpath must be operable to maintain the Plant Auxiliary Service Water operable.
- B. Two ADV flowpaths must be operable to maintain the Plant Auxiliary Service Water operable.
- C. One ADV flowpath must be operable to mitigate certain small break loss of coolant accidents.
- D. Two ADV flowpaths must be operable to mitigate certain small break loss of coolant accidents.

Bank Question STG141102 (305). Modified slightly. Lesson Plan OP-OC-STG-MS objective # 7 and pages 11 and 12. TS Bases 3.7.4.

- A. Incorrect, this is not the bases for the technical specification on ADV operability.
- B. Incorrect, this is not the bases for the technical specification on ADV operability.
- C. Correct, Per TS 3.7.4 bases one ADV flow path for one SG must be operable as a compensatory measure in the event of an HPI train oos and power less than or equal to 75% during certain SBLOCAs.
- D. Only one is required.

K/A: G2.2.25 Knowledge of bases in technical specifications for limiting conditions for operations and safety. (2.5/3.7)

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71. GEN 2.2.3 001

Which ONE of the following describes the differences between the Oconee LPI System designs?

- A. Units 1&2 have a High Pressure Mode of LPI, Units 2&3 require the use of LP- 4 (Return Line Manual Block), Units 2&3 have LPI cooler bypass valves.
- B. Units 2&3 have a Switchover mode of LPI, Unit 3 requires the use of LP- 4 (Return Line Manual Block), Unit 3 has LPI cooler bypass valves.
- C. Units 1&2 have a High Pressure Mode of LPI, Units 1&2 require the use of LP- 4 (Return Line Manual Block), Unit 3 has LPI cooler bypass valves.
- D. Units 2&3 have a Switchover mode of LPI, Unit 1 requires the use of LP- 4 (Return Line Manual Block), Unit 1 has LPI cooler bypass valves.

Oconee Bank question PNS120702 (192). OP-OC-PNS-LPI objective # 7, pages 17 and 18.

- A. Incorrect, Units 1&2 require the Use of LP-4, and Unit 3 has cooler bypass valves.
- B. Incorrect, Unit 3 does not require switchover, or LP-4.
- C. Correct, HP mode must be used on units 1&2, they also require the use of LP-4 and unit 3 has LPI cooler bypass valves.
- D. Incorrect, Unit 3 does not require switchover, and unit 3 has LPI cooler bypass valves.

K/A: G2.2.3 Knowledge of the design, procedural and operational differences between units. (3.1/3.3)

QUESTIONS REPORT

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72. GEN 2.3.2 002

- Unit 1 is at 100% power
- A Crud Bust has occurred which resulted in increased radiation levels throughout the Auxiliary Building.
- A maintenance technician has a work order to repair a faulty vacuum breaker on the 1A BHUT.
- Radiation levels in the 1A BHUT room are 2000 mrem/hr.

Which ONE of the following correctly describes the requirements for entry into this room?

- A. No key is required for entry, authorization from RP must be obtained PRIOR to Entry.
- B. No key is required for entry, authorization from the Operations Shift Manager and RP must be obtained PRIOR to Entry.
- C. A Key must be obtained from RP and RP surveillance is required on INITIAL entry only.
- D. A Key must be obtained from RP and Continuous RP surveillance is required until the room is exited.

Oconee Bank Question Part B 484.

Needs to be verified by licensee, did not send an HP manual.

- A. Incorrect, this is a high radiation area, the room is required to be locked and continuous RP surveillance is required.
- B. Incorrect, this is a high radiation area, the room is required to be locked and continuous RP surveillance is required.
- C. Incorrect, this is a high radiation area, and continuous RP surveillance is required.
- D. Correct, this is a high radiation area, the room is required to be locked and continuous RP surveillance is required.

K/A: G2.3.2 Knowledge of the facility ALARA program. (2.5/2.9)

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73. GEN 2.3.9 001

- Unit 1 is at cold shutdown.
- Plans are to begin a Reactor Building Purge.
- Sample results for a reactor building purge were received at the beginning of the shift.
- Due to I&E testing on 1PR-1 and 1PR-6 valves, the reactor building purge will be delayed until the beginning of the next shift.

Which ONE of the following describes what must be done to begin the Purge when the I&E testing is complete?

- A. A new Reactor building purge sample request must be submitted and sample taken for the rescheduled purge based on the time delay.
- B. A new Reactor building purge sample request must be submitted and sample taken for the rescheduled purge due to possible meteorological condition changes.
- C. The Reactor Building purge may be started as soon as testing conditions permit not to exceed 36 hours.
- D. The Reactor Building purge may be started as soon as testing conditions permit not to exceed 24 hours.

Oconee bank question PNS616 (463).

- A. Incorrect, the sample is good for 24 hours, and a new sample is not required until then.
- B. Incorrect, the sample is good for 24 hours, and a new sample is not required until then.
- C. Incorrect, the sample is only good for 24 hours.
- D. Correct, the sample is good for 24 hours.

K/A: G2.3.9 Knowledge of the process for performing a containment purge. (2.5/3.6)

QUESTIONS REPORT
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74. GEN 2.4.11 002

- ICS is in normal automatic operation at 100% on Unit 2.
- A Tave instrument circuit failure has just occurred.

Which ONE of the following would indicate that Tave has failed low in accordance with AP/2/1700/28?

- A. Control Rod Insertion, Feedwater flow decrease, Feedwater flow re-ratio, Unit to Track due to Rx cross limits
- B. Control Rod Withdrawl, Feedwater flow decrease, Feedwater flow re-ratio, Unit to Track due to Rx cross limits.
- C. Unit to Track due to Rx cross limits, Control Rod Withdrawl, Feedwater flow increase.
- D. Unit to Track due to Rx cross limits, Control Rod Insertion, Feedwater flow increase.

New Question developed from AP/2/A.1700/028. Lesson Plan OP-OC-IC-RCI objectives 7 and 11.

- A. Incorrect, Unit to Track due to RX cross limits, Control Rod withdrawal, Feedwater flow decrease and feedwater re-ratio is indicative of a Tave instrument failed low IAW AP/28.
- B. Correct, Unit to Track due to RX cross limits, Control Rod withdrawal, Feedwater flow decrease and feedwater re-ratio is indicative of a Tave instrument failed low IAW AP/28.
- C. Incorrect, Feed water flow would need to decrease.
- D. Incorrect, this is indicative of a Tave failed high.

K/A: G2.4.11 Knowledge of Abnormal condition Procedures. (3.4/3.6)

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75. GEN 2.4.4 001

- Unit 1 plant conditions:
- Core SCM = 2 °F.
- PZR Level is 0 inches.
- 1"A" OTSG pressure is 430 psig and decreasing.
- 1"A" RC Loop Tc is 425°F and decreasing.
- RCS Pressure is 1500 psig and decreasing
- Reactor Building pressure is 1.7 psig and increasing.

Which ONE of the following describes the event in progress and the procedure that is required to be entered after IMAs and SA are completed?

- A. Small Break LOCA on 1A1 Tc leg, perform Rule 2 (Loss of SCM).
- B. Excessive Heat Transfer, perform Rule 8 (Pressurized Thermal Shock PTS).
- C. Small Break LOCA on 1A1 Tc leg, perform Rule 4 (Initiation of HPI Forced Cooling).
- D. Excessive Heat Transfer, perform Rule 5 (Main Steam Line Break).

Bank Question modified to meet K/A. Oconee bank question EAP080102 (140).
OP-OC-EAP-EHT Objective # 1.

- A. Incorrect, This is not a Small Break LOCA, and SCM is not required.
- B. Incorrect, this is a EHT event, but conditions are not met to go to SCM TAB.
- C. Incorrect, wrong event , but this would be the procedure to go to if this event were in progress.
- D. Correct, right event, correct procedure.

K/A: Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures. (4.0/4.3)