Question # 001
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 001A4.03
Question:
During a plant heatup, the control rods were withdrawn 5 steps in the BANK-SELECT position to prevent "thermal lock-up" of the rods during the heatup. Which ONE of the following would result if the control rods were NOT fully inserted using BANK-SELECT prior to withdrawing rods using MANUAL?

a. Rod upper limit stop malfunction.

b. Rod bank overlap malfunction.

c. Rod bottom lights malfunction.

d. Rod Position Indication malfunction.

Answer
b.
Reference:
RO4-02-LPD12,Normal Operations Day 12
New
KNOWLEDGE

Question # 002
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 001AK3.01
Question:
Given the following plant conditions:

- Plant at 65% power.
- Impulse pressure transmitter, PT-485, fails HIGH causing rods to step at 72 steps per minute.
- Rods were placed in MANUAL causing rod motion to stop 14 steps from their original position.

Which ONE of the following describes the appropriate course of action?

a. Ensure turbine load remains constant and dilute to restore original rod position.

b. Reduce turbine load to compensate for the rise in reactor power.

c. Withdraw rods manually to restore T_{avg} to program.

d. Insert rods manually to restore T_{avg} to program.

Answer
d.
Reference:
SD-49 Control Rod Drive
RO2-05-LP049, CRD
RO4-06-SED01, Abnormal/emergency ops - Day 1
A-TB-54, Section 4.11
NEW
COMPREHENSION

Question # 003
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 001K1.05
Question:
Given the following:

- Unit power is 66%
- Control Rods are in Automatic
- No operator actions

Which ONE of the following would cause rods to initially move in.

a. Red Channel Th fails low

b. PT-485 fails high

c. Blue Channel Tc fails low

d. PR channel N-41 fails high

Answer
d.
Reference:
RO2-05-LP049, CRD System
RO4-06-SED01, Abnormal/Emergency Ops Day1
NEW
COMPREHENSION

Question # 004
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 002K5.10
Question:
Given the following:

- 90% power and ramping up.
- Rods are in automatic with Bank D at 218 steps
- The operator has met all requirements to raise turbine load and has pressed the turbine control GO button
- Turbine control valves are opening and megawatts are rising
- T_{avg} is on program

Which ONE of the following describes T_{ref}/T_{avg} behavior assuming no dilution by the operator as the turbine load is raised to bring the unit to 100%?

a. T_{avg} and T_{ref} will rise and continue to be matched.

b. T_{ref} will rise, but T_{avg} will remain constant.

c. T_{avg} and T_{ref} will remain constant.

d. T_{ref} will rise and T_{avg} will drop.

Answer
d.
Reference:
RO2-05-LP049, CRD
NEW
COMPREHENSION

Question # 005
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 003A2.02
Question:
Given the following:

- 25% power
- Annunciator 47011-I, RxCP 'A' #1 SEAL OUTLET TEMPERATURE HIGH is in alarm
- RxCP 'A' Bearing Water Temperature is at 240°F and increasing.
- Annunciator 47013-I, RxCP 'A' SEAL LEAK OFF FLOW HIGH/LOW is in alarm
- RxCP 'A' Seal Leak Off flow is at 8.3 gpm and increasing.

Which ONE of the following describes the correct actions for the control room crew?

a. Trip the Rx and go to E-0, Rx Trip or Safety Injection.

b. Go to N-O-04, 35% Power to Hot S/D Conditions.

c. Go to A-O-3, Rapid Power Reduction.

d. Go to A-RC-36C, Abnormal RxCP Operation to remove the pump from service.

Answer
a.
Reference:
RO2-01-LP36A, Rx Coolant Pumps
A-RC-36C, Abnormal RxCP operation
INPO BANK
COMPREHENSION

Question # 006
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 004K4.04
Question:
While performing a Dilution of the RCS the Reactor Makeup Mode Selector Switch was placed in the Alt. Dilution position. Identify the position of CVC- 403; 406; and 408 with the mode switch in the Alt. Dilute position.

Once the valves are in the proper position for an Alt. Dilution the CVC system loses Instrument Air. Identify the failure positions for each of the valves for this condition.

	ALT Dilute Position	CVC-403 Open/Closed	CVC-406 Open/Closed	CVC-408 Open/Closed
	Loss of IA	Open/Closed	Open/Closed	Open/Closed
a.		Open Closed	Closed Open	Open Open
b.		Closed Open	Open Open	Closed Open
c.		Closed Open	Open Closed	Open Closed
d.		Open Closed	Open Closed	Open Closed

Answer
c.
Reference:
RO2-05-LP035, Chemical and Volume Control System
SD35
NEW
COMPREHENSION

Question # 007
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 004K5.04
Question:
Which ONE of the following is the primary reason for maintaining a hydrogen cover gas in the VCT during normal at power operations?

a. to assure N-16 concentrations are ALARA.

b. to maintain RCS pH within limits.

c. to maintain conductivity below .017 micro Mhos.

d. to maintain oxygen concentration within required upper limits.

Answer
d.
Reference:
RO2-05-LP035, Chemical and Volume Control system
NEW
KN OWLEDGE

Question # 008
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 005AK3.02
Question:
Given the following plant conditions:

- Reactor power is at 90% with a power rise in progress using control rods.
- The operator determines that Control Bank D rod C-7 is immovable and at 191 steps
- Bank D rods are at 204 steps.
- Reactor Engineering has now determined that C-7 is repaired and movable
- The Crew is performing A-CRD-49, "Abnormal Rod Control System Operations"

Which ONE of the following describes how control rod C-7 will be realigned to control bank D and how control bank insertion limit will change following the realignment?

a. Control Bank D will be realigned to control rod C-7 and control bank D insertion limit will be higher.

b. Control Bank D will be realigned to control rod C-7 and control bank D insertion limit will remain the same.

c. Control rod C-7 will be realigned to Control Bank D and control bank D insertion limit will be lower.

d. Control rod C-7 will be realigned to Control Bank D and control bank D insertion limit will remain the same.

Answer
b.
Reference:
RO2-05-LP049, Control Rod Drive
RO4-06-SED01, Simulator
A-CRD-49 Attachment 'A'
INPO BANK
COMPREHENSION

Question # 009
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 005K5.03
Question
Given the following:

- Plant is in Intermediate Shutdown
- RxCP 'A' running.
- RHR train 'A' has JUST been placed in service when the Reactor Operator notes source range counts suddenly rising.

Which ONE of the following describes the correct action?

a. Commence a boration per E-CVC-35 Emergency Boration to add negative reactivity.

b. Start RxCP 'B' and secure the RxCP 'A' to ensure thorough mixing of the RCS volume.

c. Start "B" Train RHR and secure "A" train RHR to reestablish pre-event conditions.

d. Allow RCS to heat up to add negative reactivity.

Answer
a.
Reference:
SD 34 RHR
RO2-05-LP034
INPO BANK
COMPREHENSION

Question # 010
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 006A1.11
Question
Given the following plant conditions:

- A SGTR has occurred on SG A.
- ES-3.1, "Post SGTR Cooldown Using Backfill", is in progress.
- Ruptured SG level is 25%.
- RCS is at 390°F.
- RCS is at 400 psig.
- Cooling down using steam dumps to condenser.
- RxCP B in service.

ES-3.1 step 11 requires a return to step 3 if RCS temperature is greater than 200°F. Step 3 requires the operator to ensure adequate shutdown margin. Why is it necessary to reverify adequate shutdown margin at this point in the procedure?

a. The RCS temperature change during cooldown will cause significant boron concentration changes due to PZR outsurge.

b. Charging to maintain PZR level during cooldown will cause significant boron concentration changes.

c. The secondary fluid in the ruptured SG will cause significant boron concentration changes.

d. The auxiliary spray will cause significant RCS boron concentration changes.

Answer
c.
Reference:
RO4-04-LP029, ES-3.1, Post-SGTR Cooldown using Backfill
IPEOP BKGD. Doc. ES-3.1 pages 15, 16, and 17 of 38
NEW
COMPREHENSION

Question # 011
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 006K1.07
Question
Given the following conditions:

- The plant is operating at 100% power.
- Inadvertent Safety Injection occurred
- AFW-2A/CV-31315, 1A AFW Pump FLow CV failed open.
- SG 'B' PORV opened momentarily after the reactor trip and developed a large packing leak.

Which ONE of the following would cause the initial main feedwater isolation during this transient?

a. SG 'A' level reached 83%.

b. The safety injection actuation signal.

c. T_{avg} dropping to 564°F following the reactor trip.

d. When SG 'B' pressure decreases below 500 psig due to the PORV packing leak.

Answer
b.
Reference:
RO2-05-LP055
INPO BANK
COMPREHENSION

Question # 012
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 008AK1.01
Question
Given the following:

- The Unit is stable at 100% power
- A pressurizer safety valve opens and fails to reseat and the Unit trips

Which ONE of the following indications would the operator expect to see as a result of this event over the next 30 min?

a. Safety tailpipe temperature would increase to greater than 600°F and then slowly decrease.

b. Safety tailpipe temperature would increase to greater than 600°F and then slowly increase.

c. Safety tailpipe temperature would increase to between 220°F and 330°F and then slowly decrease and stabilize.

d. Safety tailpipe temperature would increase to between 220°F and 330°F and then slowly increase and stabilize.

Answer
c.
Reference:
O-FND-LP1.4.5
INPO BANK
COMPREHENSION

Question # 013
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 008K1.02
Question:
Which ONE of the following correctly describes the uses of Component Cooling Water in the Reactor Building?

a. Make up to RxCP standpipes, RxCP thermal barriers, and Seal Water Hx.

b. RxCP oil coolers, Excess Letdown Hx and Regen Hx.

c. Make up to RxCP standpipes, RxCP thermal barriers and Non-Regen Hx.

d. RxCP oil coolers, RxCP thermal barriers and Excess Letdown Hx.

Answer
d.
Reference:
RO2-01-LP031
New
MEMORY

Question # 014
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 009EA2.39
Question:
Which ONE of the following explains why it is preferable to leave the RxCP's running during a small break LOCA if the RCS subcooling requirement for the RxCP trip criteria on the foldout page are met but there is no SI flow?

a. To provide heat removal through the break and the S/G's.

b. To maintain two phase mixture level above the break longer.

c. To limit single phase inventory loss out of the break.

d. To prevent boron stratification in the core.

Answer
a.
Reference:
RO4-040LP002
INPO BANK
MEMORY

Question # 015
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 010K3.01
Question
Given the following:

- Pressurizer pressure is 2230 psig and rising.
- The variable heaters are energized.
- The spray valves are closed.
- The Master Pressure Controller, HC-431K, fails to a constant output equivalent to 2230 psig.
- Pressurizer Pressure Control is selected to the 2-3 position.

Which ONE of the following describes the response of the pressure control system if the operator takes no further action?

a. Pressure will rise until PORV's PR-2A and PR-2B open to control pressure.

b. Pressure will rise until PORV PR-2B opens to control pressure.

c. Pressure will rise until the spray valves open to control pressure.

d. Pressure will cycle on the variable heaters at a higher setpoint.

Answer
b.
Reference:
RO2-05-LP36C
INPO BANK
COMPREHENSION

Question # 016
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 011A3.03
Question
Given the following:

- The Unit is at 50% power.
- All automatic control systems are in their normal lineup.
- Pressurizer level program fails to an output corresponding to 50% load.
- Assume no operator action is taken.

Which ONE of the following describes the effect on charging flow and PZR level as the plant load is raised to 100%?

a. Charging flow rises to maintain actual PZR level constant.

b. Charging flow drops and actual PZR level drops.

c. Charging flow drops to maintain actual PZR level constant.

d. Charging flow remains constant and actual PZR level rises.

Answer
c.
Reference:
RO2-05-LP36D
New
COMPREHENSION

Question # 017
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 011EA1.04
Question:
Given the following plant conditions:

- The Unit tripped due to a Large Break LOCA.
- Containment pressure = 37 psig
- RWST level = 20%.
- Containment Emergency Sump level = 2 feet.
- Only ONE (1) CFCU fan coil unit is running.
- RHR Swapover to the Containment Sump could not be performed.
- The operating crew has transitioned to ECA - 1.1, "Loss of Emergency Coolant Recirculation."
- The crew is performing step 7 of ECA - 1.1, "Loss of Emergency Coolant Recirculation", to determine the proper Containment Spray pump alignment and operation.

Which ONE of the following actions will result in the Containment Spray pumps being in the proper alignment under the existing plant conditions?

a. Leave both Containment Spray pumps running until RWST level drops to 8%.

b. Stop both Containment Spray pumps and place handswitches in "pull-to-lock."

c. Stop one Containment Spray pump and allow the remaining pump to take suction from the RWST.

d. Stop both Containment Spray pumps, until suction can be aligned to the Containment Sump, then restart one pump.

Answer
c.
Reference:
RO4-04-LP022
INPO BANK
COMPREHENSION

Question # 018
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 011EK2.2
Question
A Large Break LOCA (DBA) has occurred approximately 5 minutes ago, which ONE of the following describes the expected conditions of the pumps?

a. SI and RHR pumps running and injecting into the RCS, ICS pumps OFF

b. SI pumps running and injecting into the RCS, RHR pumps running, ICS pumps OFF

c. SI pumps running and injecting into the RCS, RHR and ICS pumps running

d. SI and RHR pumps running and injecting into the RCS, ICS pumps running

Answer
d.
Reference:
RO2-05-LP033
KNPP Bank
COMPREHENSION

Question # 019
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 012K6.10
Question:
Given the following plant conditions:

- T_{avg} - 548°F and decreasing rapidly
- Main Turbine - Latched
- Main Feedwater Control Valves, FW-7A/B - Open
- Steam Dumps - NOT Armed
- RXCP Loop 1B Flow Low alarm - LIT
- RXCP B Breaker Open Alarm - LIT
- Single Loop Low Flow Reactor trip Alarm - LIT
- Reactor Trip Breakers green light - LIT

Which ONE of the following permissive circuits failure is indicated by this event?

a. P-2 circuit

b. P-4 circuit

c. P-7 circuit

d. P-8 circuit

Answer
b.
Reference:
RO2-05-LP472
KNPP Bank
ANALYSIS

Question # 020
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 013.K2.01
Question
The plant was initially operating at 100% power when a major plant transient occurred. Following the event, the following plant conditions exist:

- Steam Generator 'A' narrow range level is 2% and lowering.
- Steam Generator 'A' pressure is 250 psig and lowering.
- Containment pressure is 2.1 psig and lowering.
- 4160 kV Bus 5 voltage meter indicates zero volts.

What is the status of the Emergency Core Cooling System (ECCS) equipment?

a. All ECCS equipment is operating.

b. None of the ECCS equipment is operating.

c. Only 'A' Train ECCS equipment is operating.

d. Only 'B' Train ECCS equipment is operating.

Answer:
d.
Reference:
RO2-05-LP033
INPO BANK
MEMORY

Question # 021
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 013K6.01
Question
Given the following plant conditions:

- Reactor power is 100%
- Pressurizer pressure channel I, 429, has been removed from service for surveillance testing with it's associated bistables tripped.
- Pressurizer pressure channel IV, 449, fails LOW.

Which ONE of the following describes the result of these conditions?

a. Reactor trip, but NO Safety Injection
Pzr PORV, PR-2A remains closed

b. Reactor trip and Safety Injection
Pzr PORV, PR-2A remains closed.

c. Reactor trip but NO Safety Injection
Pzr PORV, PR-2A opens.

d. Reactor trip and Safety Injection
Pzr PORV, PR-2A opens.

Answer
a.
Reference:
RO2-05-LP055
INPO BANK
COMPREHENSION

Question # 022
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 014A4.01
Question
Given the following:

- Operators are preparing for a reactor startup
- All shutdown banks are fully withdrawn
- All control banks are fully inserted
- At this point in the startup the rod control system startup reset switch is depressed in error

Which ONE of the following describes the required actions to proceed with the startup?

a. Restore the P/A converter to 226 steps

b. Restore the shutdown group step counters to 226 steps

c. Restore the bank overlap unit to 226 steps

d. Reinsert all shutdown banks

Answer:
b.
Reference:
RO2-05-LP049, CRD Pg. 22 of 48; pg. 43 of 48; l.6
INPO BANK
COMPREHENSION

Question # 023
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 015G2.2.12
Question
The plant has been operating at 100% for the last 60 days. While performing SP-87-125 Shift Instrument Channel Checks - Operating, the NCO records the following information:

- Power - 99.9%
- N-41 indication - 99.3%
- N-42 indication - 99.5%
- N-43 indication - 98.7%
- N-44 indication - 100.2%

Which ONE of the following describes the required action?

a. A Daily Calibration should be performed.

b. Enter TS action statement for Table 3.5-2 for Nuclear Instrumentation.

c. Request Reactor Engineering to perform a flux map.

d. Enter A-CRD-49, to address misaligned Control Rod.

Answer:
a.
Reference:
RO2-05-LP048
T.S. 3.5 Table 3.5-2
NEW
ANALYSIS

Question # 024
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 015K4.06
Question:
While operating at 90% power, one power range channel of nuclear instrumentation Power Range has been removed from service which resulted in the OTΔT trip bistable being placed in a trip condition.

What is the coincidence for a NIS OTΔT reactor trip?

a. 2 out of 2

b. 2 out of 3

c. 1 out of 4

d. 1 out of 3

Answer
d.
Reference:
RO2-05-LP048
RO2-05-LP471/472
New
MEMORY

Question # 025
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 016K3.02
Question
Given the following:

- With Pressurizer Level Control Channel Selector switch ES-46327 which selects LT-426/LT-427/LT-428 is selected to position 2/3, the following SEQUENTIAL plant events occur due to a failure without operator action.

- Charging flow rises to maximum
- Pressurizer level begins to rise
- Letdown isolates and heaters turn off
- Pressurizer level eventually rises to the high level reactor trip

Which ONE of the following failures occurred?

a. Red channel failed high.

b. White channel failed high.

c. Yellow channel failed low.

d. Blue channel failed low.

Answer
d.
Reference:
RO2-05-LP36D
SD 36 RCS
INPO BANK
COMPREHENSION

Question # 026
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 017AK1.04
Question
Given the following plant conditions:

- Unit is operating at 30% power.
- All control systems are in AUTO.
- RxCP B has just tripped.

Which ONE of the following is the overall plant response?

a. Reactor trips on HIGH steam generator level when the B steam generator level "swells".

b. Unit power remains the same with steam flow rising on the other steam generator.

c. Unit power is reduced to approximately 15% power (1/2 of original power level).

d. The reactor trips on a reactor trip signal.

Answer
d.
Reference:
RO4-05-LP006
INPO BANK
COMPREHENSION

Question # 027
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 017K3.01
Question
If all core-exit thermocouples are inoperable during an event in which the RxCPs were tripped, what indication(s) may be used to verify that natural circulation cooling is occurring?

a. RCS hot leg temperatures only

b. RCS cold leg temperatures only

c. Both RCS cold leg and hot leg temperatures

d. SG pressure and AFW flow.

Answer
c.
Reference:
RO2-05-LP050
ES-0.2 Step 11
BKG ES-0.2 Step 11
New
MEMORY

Question # 028
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 022AG2.1.32
Question
During water Solid operations with letdown from RHR, N-RHR-34 requires that LD-10/CV-31099, PRESSURE CONTROL VALVE be open. Which ONE of the following describes the basis for this precaution?

a. To ensure maximum letdown flow rate for purification.

b. To ensure VCT level can be maintained under all charging flow conditions.

c. To ensure LD-10, Pressure Control Valve can control pressure transients.

d. To ensure RCS to RHR Suction Relief Valve (RHR-33) isn't challenged.

Answer
c.
Reference:
RO2-05-LP035
OPERXK 100-18 [LD-10]
INPO BANK
MEMORY

Question # 029
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 022G2.1.10
Question
Which ONE of the following correctly identifies the minimum allowable temperature per Tech Spec for the Containment temperature.

a. 30°F.

b. 40°F.

c. 50°F.

d. 60°F.

Answer
b.
Reference:
RO2-04-LP056
T.S. 3.6.e [NDTT +30]
New
MEMORY

Question # 030
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 022K4.03
Question
Given the following plant conditions:

- The plant is operating at 100% steady state power
- Containment Dome Fan A is running
- Containment Dome Fan B is off in AUTO
- Containment Fan Coil Units A and B are running
- Containment Fan Coil Units C and D are off in AUTO

Following a Reactor Trip and Safety Injection due to a Large Break LOCA.

Which ONE of the following describes the expected status of the Containment Cooling equipment?

	Containment Dome Fan A	Containment Dome Fan B	Containment Fan Coils A&B	Containment Fan Coils C&D
a.	ON	OFF	ON	OFF
b.	OFF	ON	OFF	ON
c.	ON	OFF	ON	ON
d.	ON	ON	ON	ON

Answer
d.
Reference:
RO2-05-LP055
XK-100-150 (logic print)
SD 18 section 3.3 and 3.6
NEW
MEMORY

Question # 031
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 024AK2.01
Question
A condition has occurred which warrants entry into E-CVC-35, "Emergency Boration". While attempting to borate, neither boric acid pump starts. Which ONE of the following Emergency Boration flowpaths should be used in this condition?

a. Manually initiate Safety Injection and verify SI flow on FI-925.

b. Direct the NAO to manually open CVC-440/MV-32127 Emergency Boration to charging pumps.

c. Open CVC-301/MV-32056 RWST supply to charging pumps and close CVC-1/MV-32057 VCT supply to charging pumps.

d. Open CVC-403/CV-31092 Boric Acid to blender and open CVC-408/CV-31093 BA blender to charging pumps

Answer
c.
Reference:
RO4-06-SED06
RO4-06-SED16
OPERXK100-36, 38
E-CVC-35, Emergency Boration
NEW
MEMORY

Question # 032
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 025AA2.07
Question
Given the following:

- RCS temperature is 118°F
- Reactor Vessel head is removed
- Reactor Upper Internals are installed in the reactor vessel
- Refueling Level is 10.2%
- RCS draining is in progress at 10 gpm
- RHR pump A is running with indicated flow of 2700 gpm
- RHR pump A begins to exhibit indications of cavitation

The cavitation and subsequent loss of RHR heat removal is occurring due to .....

a. draining with the upper internals in place, which reduced the RHR suction pressure.

b. steam binding of the RHR pump, caused by low recirculation flow.

c. air entrapment at the RHR suction inlet, caused by the high flow conditions.

d. draining with the upper internals in place, which reduced the RHR discharge pressure.

Answer
c.
Reference:
RO2-05-LP034
INPO BANK
COMPREHENSION

Question # 033
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 026A1.01
Question
Given the following:

- A Rx trip/Safety Injection has occurred due to a LOCA
- Containment Pressure is 5 psig
- Containment Pressure is rising at a rate of .2 psig per second

Which ONE of the following correctly identifies the time interval till Internal Containment Spray Pumps will start?

a. 60 seconds

b. 90 seconds

c. 125 seconds

d. 205 seconds

Answer
b.
Reference:
RO2-04-LP056
NEW
COMPREHENSION

Question # 034
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 026AK3.03
Question
Given the following conditions:

- 40% power.
- Component Cooling Water pump 'B' is running.
- A loss of off-site power simultaneously with an SI signal occurs.
- Both diesel generators have started and their output breakers have closed on their respective buses.

Which ONE of the following describes the response of the Component Cooling Water pump 'B'?

a. Pump continues operation without interruption.

b. Pump stops and is restarted by ESF loading sequencer.

c. Pump stops and will not restart until off-site power is restored.

d. Pump stops and will restart on low discharge header pressure of 35 psig.

Answer
b.
Reference:
RO2-01-LP031
KNPP Bank
COMPREHENSION

Question # 035
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 027.AK3.03
Question
Pressurizer pressure instrument PT-429 (Red Channel) has failed LOW. During the performance of A-MI-87 "Bistable Tripping for Failed Reactor Protection or Safeguards Instruments", several different bistables are placed in UP (test), including bistable 429A Hi Press Trip. Placing bistable 429A Hi Press Trip in UP (test) is done to ensure _____.

a. the RPS High Pressurizer Pressure Trip will function in the event of another channel failure.

b. that Pressurizer PORV PR-2B/CV-31109 remains operable.

c. that Pressurizer PORV PR-2A/CV-31110 remains operable.

d. an RPS High Pressurizer Pressure Trip will NOT occur in the event of another channel failure.

Answer
a.
Reference:
RO2-05-LP36C
RO2-05-LP472
KNPP Bank
COMPREHENSION

Question # 036
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 029EA1.13
Question
Which ONE of the following is the NEXT action the operator is required to take if the main turbine does NOT trip automatically and CANNOT be tripped from the Main Control Room per FR-S.1, “RESPONSE TO NUCLEAR POWER GENERATION/ATWS”?

a. Place both EHC pumps control switches in Pullout.

b. Trip the turbine locally at the front standard.

c. Manually RUNBACK the turbine.

d. Shut the MSIVÆs.

Answer
c.
Reference:
RO4-04-LP008
NEW
MEMORY

Question # 037
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 029K1.02
Question
The following plant conditions exist:

- A Containment Purge is in progress.
- The following radiation monitors are in service:

  R-11, Containment System Vent Activity Air Monitor.
  R-12, Containment System Vent Air Monitor.
  R-21, Containment System Vent Air Monitor.

- R-11, and R-12 both indicate HIGH alarm.

Which ONE of the following Containment Purge Supply and Exhaust Duct Valves receive a high radiation closure signal?

a. RBV- 1,2, and 5

b. RBV- 1,4, and 5

c. RBV- 2,3, and 5

d. RBV- 2,4, and 5

Answer
c.
Reference:
RO2-04-LP018 pgs. 16 and 48
SD-45, Radiation Monitoring, R-11,12, and 21, section 3.3.2 and 3.3.3
NEW
MEMORY

Question # 038
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 032AK1.01
Question
Given the following conditions:

- Reactor Startup in progress
- Shutdown Banks withdrawn
- SR N32 indicates approximately 1000 cps
- SR N31 is in bypass

Which ONE of the following will occur if the control power fuse for SR N31 blows?

a. Lose indication for SR N31 on Main Control Board and NIS cabinets.

b. Both SR drawers deenergize and "non-operate" alarm acuates.

c. Reactor Trips.

d. Rod withdrawal is blocked.

Answer
c.
Reference:
RO2-05-LP048
INPO BANK
MEMORY

Question # 039
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 034K4.01
Question
During refueling operations, you are placing a fuel assembly into the core when the crane hoist stops. The Z-Z axis tape indicates the fuel assembly is NOT fully lowered into the core. Which ONE of the following lights should be LIT on the control console?

a. Gripper Up Diseng

b. Slack Cable

c. Gripper Tube Down

d. Overload

Answer
b.
Reference:
RO2-01-LP053
SD-053
KNPP Bank
MEMORY

Question # 040
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 035K1.09
Question
Given the following plant conditions:

- The reactor is operating at 50% power.
- Rod control is in MANUAL.
- Turbine control is in IMP-IN.
- 'B' S/G PORV fails OPEN.

Which ONE of the following describes the resulting steady-state conditions?
(Assume no reactor trip or operator action and turbine power remains constant)

a. Final T_{avg} < initial T_{avg} and final power > initial power.

b. Final T_{avg} < initial T_{avg} and final power = initial power.

c. Final T_{avg} = initial T_{avg} and final power > initial power.

d. Final T_{avg} = initial T_{avg} and final power = initial power.

Answer
a.
Reference:
RO2-05-LP06B
RO2-05-LP049
NEW
MEMORY

Question # 041
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 037AK3.07
Question
Given the following:

- A tube leak of approximately 30 gpm has been identified on SG 'B'.
- The operating crew has entered E-0-14, Steam Generator Tube Leak.
- Operators have completed Step 34 of E-0-14, and have isolated feed flow to S/G "B".

Which ONE of the following identifies the reason for the Caution warning against uncovering the affected SG U-Tubes?

a. To ensure that the pressure and temperature limits of the SG shell are maintained.

b. To prevent the RCS cooldown from causing depressurization of the affected SG.

c. To prevent SG overfill.

d. To prevent thermal shock to the tubes during RCS cooldown.

Answer
b.
Reference:
RO2-05-LP06B
E-0-14 Step 34 to 35 Caution and Note
NEW
COMPREHENSION

Question # 042
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 039A1.03
Question
Given the following plant conditions:

- Startup in progress.
- Operators are warming the main steam lines using the MSIV bypasses.
- The NCO observes that the RCS has cooled down 108°F, and the main steam lines have heated up 102°F in the past hour.

Which ONE of the following indicates the actions that should be taken by the operators and why?

a. Leave MSIV bypass valves open; RCS cooldown limit was exceeded.

b. Close the MSIV bypass valves; main steam line heat-up limit was exceeded.

c. Close the MSIV bypass valves; both RCS and main steam line limits were exceeded.

d. Leave MSIV bypass valves open; NO RCS or main steam line limits were exceeded.

Answer
c.
Reference:
RO2-02-LP06A
RO2-01-LP362
INPO BANK
COMPREHENSION

Question # 043
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 040AG2.4.6
Question
Given the following plant conditions:

- The Unit was at 100% power.
- A main steam line break occurred in the Turbine Building.
- Operators were unable to close the MSIVs and transitioned to ECA-2.1, Uncontrolled Depressurization of Both Steam Generators.
- 'B' MSIV is closed locally.
- The NCO observes the 'B' SG pressure rising slowly.

Which ONE of the following actions should be performed?

a. Transition to E-2, "Faulted SG Isolation".

b. Transition to ES-1.1, "SI Termination".

c. Remain in ECA-2.1 until RHR is in service.

d. Remain in ECA-2.1 until SI is terminated.

Answer
a.
Reference:
RO4-04-LP014
NEW
COMPREHENSION

Question # 044
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 041K3.04
Question
Given the following conditions:

- The Unit is at 80% power, EOL conditions.
- Turbine operating in IMP OUT.
- A steam dump valve inadvertently comes full open.
- All other control systems normal.

Which ONE of the following correctly describes the plant conditions, when the plant stabilizes, and assuming NO operator action?

a. Megawatts electrical same as initial; reactor power rises.

b. Megawatts electrical same as initial; reactor power drops.

c. Megawatts electrical drops; reactor power rises.

d. Megawatts electrical drops; reactor power drops.

Answer
c.
Reference:
RO2-02-LP06A
RO2-05-LP06C
NEW
MEMORY

Question # 045
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 045A3.05
Question
Given the following plant conditions:

- Plant operating at 100% power.
- All systems aligned normal.
- Turbine EHC control is in IMP OUT.
- Turbine is NOT on VPL.

Which ONE of the following describes turbine control valve operation while in IMP OUT mode?

a. Control valve position is adjusted to maintain generator load constant and will NOT respond to changes in system frequency.

b. Control valve position is adjusted to maintain generator load constant and will respond to changes in system frequency.

c. Maintains control valves at a set reference position and will NOT respond to changes in system frequency.

d. Maintains control valves at a set reference position but will respond to changes in system frequency.

Answer
d.
Reference:
RO2-02-LP54A
RO2-05-LP54B
NEW
MEMORY

Question # 046
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 051AA2.02
Question
The following plant conditions exist:

- The plant was operating at 100% power.
- Condenser vacuum is degrading.
- Turbine is being unloaded at a rate of 3%/min.
- Annunciator 47051-W, CONDENSER VACUUM LO, has just alarmed.
- Power Permissive 7 light is OFF

If the vaccum stabilizes at its current value and backdown is stopped at 250MWe, how is the operation of the plant affected?

a. The operator must immediately trip the reactor.

b. The operator has 10 minutes to restore vacuum or trip the reactor.

c. The operator must reduce load to < 23 MWe within 10 minutes or trip the turbine.

d. The operator has 10 minutes to restore vacuum or trip the turbine.

Answer
b.
Reference:
RO2-02-LP003
NEW
ANALYSIS

Question # 047
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 054AG2.4.48
Question
Given the following:

- The Unit is at 100% power.
- Annunciator 47062-A, S/G "A" PROGRAM LEVEL DEVIATION alarms
- The NCO observes S/G "A" level rising along with feedwater flow, however the S/G "B" level is constant.

Which ONE of the following describes the (1) cause, (2) required action and (3) consequence of no operator action?

a. (1) S/G "A" FRV is opening, (2) return S/G "A" level to program, (3) Auto Turbine Runback will initiate

b. (1) S/G "A" FRV is opening, (2) return S/G "A" level to program, (3) Feedwater Isolation will initiate

c. (1) S/G "A" Steam Flow instrument failed low, (2) control FRV in manual, (3) Auto Turbine Trip will initiate

d. (1) S/G "A" Feed Flow instrument failed high, (2) control FRV in manual, (3) Feedwater Isolation will initiate

Answer
b.
Reference:
RO2-02-LP05A
A-FW-05A, step 4.4.1
INPO BANK
COMPREHENSION

Question # 048
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 055EK3.02
Question
The following plant conditions exist:

- A Loss of All AC Power has occurred.
- A controlled depressurization of the S/Gs has been initiated as directed in ECA-0.0.

What is the basis for maintaining RCS Cold Leg temperatures above 334°F during the depressurization?

a. To prevent challenging the Integrity Critical Safety Function.

b. To prevent exceeding the Technical Specification cooldown limit.

c. To prevent introduction of nitrogen from the SI Accumulators into the RCS.

d. To prevent creating a void in the reactor vessel head and subsequent loss of Pressurizer level.

Answer
a.
Reference:
RO4-04-LP040
ECA-0.0, Rev. Y Step 26d
lPEOP BKGRD ECA-0.0, Rev N.4.Step 26
KNPP Bank
COMPREHENSION

Question # 049
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 055K3.01
Question
Given the following conditions:

- Reactor power is steady-state at 100%.
- Rod control is in automatic.
- A single set of air ejectors are in service

Which ONE of the following conditions result if NO operator action is taken in response to an air ejector steam supply control valve (MS-502) failing closed?

a. Rising megawatt output and rising steam seal header pressure.

b. Rising megawatt output and rising condenser hotwell level.

c. Dropping megawatt output and dropping condensate temperature.

d. Dropping megawatt output and rising condensate temperature.

Answer
d.
Reference:
RO2-02-LP003
INPO BANK
COMPREHENSION

Question # 050
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 056AK1.01
Question
Given the following:

- A Loss of Offsite Power has occurred
- The operating crew is currently performing a cooldown, in accordance with ES-0.2, Natural Circulation Cooldown

Which ONE of the following describes the maximum allowable cooldown rate?

a. <100°F in any one hour

b. <50°F in any one hour

c. <25°F in any one hour

d. <10°F in any one hour

Answer
c.
Reference:
RO4-04-LP006
ES-0.2 NC Cooldown
NEW
MEMORY

Question # 051
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 056G2.4.45
Question
Given the following plant conditions:

- The plant is at 70% power
- Condensate Pump 'A' white light is ON
- Two main feedwater pumps are operating
- Annunciator 47063-P, FEEDWATER BYPASS ALERT is in alarm
- C-13, LP Feedwater Heater bypass valve is OPEN
- Main feedwater pump suction pressure is 200 psig

Which ONE of the following procedures describes the actions to be taken in response to the given plant conditions?

a. A-FW-05A, Abnormal Feedwater System Operation

b. A-TB-54, Abnormal Turbine Generator Operation

c. A-CD-03, Condensate System Abnormal Operation

d. A-0-03, Rapid Power Reduction

Answer
c.
Reference:
RO2-02-LP003
KNPP Bank
COMPREHENSION

Question # 052
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 056K1.03
Question
Given the following:

- The unit is at 45% power.
- FWP 'B' is not running.
- FWP 'A' is in service.
- FWP 'A' Suction Valve is inadvertently closed.

Which ONE of the following describes the effect on continued plant operation?

a. FWP 'B' starts and Rx power must be reduced.

b. FWP 'B' starts and Rx power can remain at 45%.

c. FWP 'B' does not start and Rx trips.

d. FWP 'B' does not start and Rx power can remain at 45%.

Answer
c.
Reference:
RO2-02-LP05A
SD 05A
INPO BANK
COMPREHENSION

Question # 053
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 057AA2.18
Question
Instrument Bus BRA-113 was de-energized inadvertently. How are CVC-7 (Charging Control Charging Line) and CVC-200 (Seal Injection Filter Block valve) affected by the loss of power?

a. CVC-7 fails Open and CVC-200 fails Closed.

b. CVC-7 fails Open and CVC-200 fails Open.

c. CVC-7 fails Closed and CVC-200 fails Closed.

d. CVC-7 fails Closed and CVC-200 fails Open.

Answer
b.
Reference:
RO2-03-LP038
SD-038
OPERXK-100-36
E-845
NEW
MEMORY

Question # 054
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 059AA1.01
Question
Given the following:

- The unit is operating at 50% power
- Annunciator R-19 HI RAD alarms

Which ONE of the following correctly describes plant response and the actions of the control room operators?

a. No automatic action and operators verify alarm validity.

b. Operators verify SG Blowdown is isolated.

c. Operators verify hotwell level is maintained >30 %.

d. Operators verify containment isolation has occured.

Answer
b.
Reference:
RO2-02-LP07A.002
SD-007
INPO BANK
COMPREHENSION

Question # 055
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 059K3.03
Question
Given the following:

- The Unit is at 80% power with both FWP's in service.
- Controlling Steam Flow transmitter (FT-464) for S/G "A" fails high.
- Assume no operator action.

Which ONE of the following describes the effect on the Main Feed Water System?

a. FW Flow Control valve FW-7A begins to close and then both FWP's discharge pressure begins to rise.

b. FW Flow Control valve FW-7A begins to open and then both FWP's discharge pressure begins to rise.

c. FW Flow Control valve FW-7A begins to open and then both FWP's discharge pressure begins to drop.

d. FW Flow Control valve FW-7A begins to close and then both FWP's discharge pressure begins to drop.

Answer
c.
Reference:
RO2-02-LP05A
INPO BANK
COMPREHENSION

Question # 056
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 059K4.19
Question
Which ONE of the following does NOT directly generate a signal to close FW-7A(B), Main Feedwater Flow Control Valve(s)?

a. Low T_{ave} combined with Rx Trip.

b. Hi-Hi S/G level. (Hi S/G Level)

c. Containment Isolation (T)

d. Safety Injection (SI).

Answer
c.
Reference:
RO2-02-LP05A
E-1625 Integrated Logic Diagram- Feedwater System
KNPP Bank
MEMORY

Question # 057
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 061A1.04
Question
Which ONE of the following describes the base assumptions for minimum CST volume for a Loss of Offsite Power?

a. 2 hours in Hot Shutdown followed by 50°F/hr cooldown rate to Cold Shutdown.

b. Immediately cooldown at 50°F/hr cooldown rate to Intermediate Shutdown.

c. 4 hours of Decay Heat Removal during a loss of all AC power.

d. Immediately cooldown at 50°F/hr cooldown rate to Cold Shutdown.

Answer
c.
Reference:
RO2-02-LP05B
T.S. 3.4.c Basis
INPO BANK
COMPREHENSION

Question # 058
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 061AA1.01
Question
Which ONE of the following area radiation monitors will initiate a Containment Ventilation Isolation?

a. Auxiliary Building Ventilation Monitor, R-13.

b. Containment Gas Monitor, R-12.

c. New Fuel Pit, R-10.

d. Control Room Ventilation, R-23.

Answer
b.
Reference:
RO2-01-LP045
SD-45
INPO BANK
MEMORY

Question # 059
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 061K5.01
Question
Given the following:

- The reactor tripped from 100% power.
- The plant has stabilized in Hot Shutdown.

Which ONE of the following describes the effect on the heat transfer rate between the RCS and the steam generators? The heat transfer rate between the RCS and the Steam Generators will ...

a. rise if AFW flow rises.

b. rise if AFW temperature rises.

c. drop if AFW temperature drops.

d. drop if AFW flow rises.

Answer
a.
Reference:
RO2-02-LP05B
SD-05B
INPO BANK
COMPREHENSION

Question # 060
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 062A3.05
Question
Given that the following occurred in sequence:

- A small break LOCA occurred which resulted in a reactor trip and SI.
- The SI signal was reset during the performance of E-1, "Loss of Reactor or Secondary Coolant."
- A loss of offsite power occurred and the diesel generators loaded as designed.

Assuming no operator actions, which ONE of the following would be the status of the loads on the 4160V Emergency AC Bus?

a. All equipment powered from the Emergency AC Bus with the control board switch in automatic will be restarted.

b. No 4160V Emergency AC Bus loads are automatically restarted.

c. Equipment normally started during a loss of offsite power will be automatically restarted; SI and RHR pumps remain OFF.

d. All equipment that was operating prior to the loss of offsite power will be automatically restarted; All running ESF equipment will be reenergized

Answer
c.
Reference:
RO2-03-LP039
SD-39
INPO BANK
COMPREHENSION

Question # 061
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 062G2.4.24
Question
Given the following plant conditions:

- Turbine Bldg SW Selector switch is in the 1B position.
- An SI signal has been generated.
- During the performance of E-0, a loss of all AC power occurred.
- DG A was manually started and aligned to supply Bus 5, 5 minutes following the loss of power.
- Bus 6 remains deenergized.
- All required equipment was loaded onto Bus 5.
- Service Water Header A pressure is 97 psig.

When performing step 23 of ES-1.1 "SI Termination", which ONE of the following occurs when the operator depresses the Turb Bldg SW ESF Isol reset pushbutton?

a. SW-4A and SW-4B will open.

b. SW-4A will open and SW-4B will remain closed.

c. SW-4B will open and SW-4A will remain closed.

d. SW-4A and SW-4B will remain closed.

Answer
d.
Reference:
RO2-02-LP002
E-1633, Rev. AB
ES-1.1, Rev. P, step 23
INPO BANK
COMPREHENSION

Question # 062
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 063 K3.02
Question
Given the following:

- The Unit is at 100% power.
- "A" Train Safeguards DC Power has failed.

Which ONE of the following describes the response of the AFW pump "A" to a safeguards actuation?

a. Pump starts and supplies water to the "A" S/G.

b. Pump starts and supplies water to both S/Gs.

c. Pump starts but trips on low lube oil pressure.

d. Pump will NOT auto start.

Answer
d.
Reference:
RO2-03-LP038
KNPP Bank
MEMORY

Question # 063
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 064K2.03
Question
Given the following:

- The Unit is at 100% power
- Both Diesel Generators are in standby
- Annunciator 47093-A, "DIESEL GEN A CONTROL VOLT LOW" alarms

Which ONE of the following identifies how to clear the alarm?

a. Raise Bus 1-5 voltage

b. Energize BRA-104

c. Return the local panel Manual/Off/Auto voltage mode control switch to Auto

d. Return the generator Remote/Local transfer switch in the DG excitation and voltage control panel to Remote.

Answer
b.
Reference:
RO2-03-LP42A
NEW
COMPREHENSION

Question # 064
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 065AA1.01
Question
Given the following:

- The Unit is at 100% power
- Annuciator 47051-I "STATION AND INSTRUMENT AIR SYSTEM FAULT"
- Station Air pressure is slowly decreasing and is 58 psig

Which ONE of the following describes actions the operators should take?

a. Trip the reactor and go to E-0.

b. Shift AC power to alternate supply.

c. Allow compressors to start and stop automatically.

d. Start additional air compressors in manual.

Answer
a.
Reference:
RO2-02-LP001
SD-01
E-AS-01
A-AS-01
INPO BANK
MEMORY

Question # 065
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 067AK1.02
Question
Which ONE of the following is the most effective method of fire fighting in either Emergency Diesel Generator Room?

a. Auto actuation of sprinkler system

b. Auto actuation of fog system

c. Manual foam application

d. Auto actuation of CO_2 system

Answer
d.
Reference:
RO2-05-LP087
SD-87
INPO BANK
MEMORY

Question # 066
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 068AK3.18
Question
Evacuation of the Control Room is required due to a control room fire. The actions of E-O-6, "Fire in Alternate Fire Zone", prior to evacuating the control room, include which ONE of the following?

a. Trip both feedwater pumps and place in pullout.

b. Trip both RxCP's and place in pullout.

c. Initiate manual Safety Injection.

d. Start both diesel generators.

Answer
b.
Reference:
RO2-05-LP087
INPO BANK
MEMORY

Question # 067
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 068K1.07
Question
Which ONE of the following drains to the Laundry and Hot Shower Tanks in the Liquid Waste Processing System (LWP)?

a. The Sludge Interceptor Tank

b. The Respirator Cleaning Room drains

c. The Waste Holdup Tank

d. The Sample Sink and Hot Laboratory drains

Answer
b.
Reference:
AOI-82-LP32A
SD 32A
NEW
MEMORY

Question # 068
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 069AK2.03
Question
Given the following:

- The Unit is in the refueling mode.
- Reactor Vessel Head has NOT been de-tensioned.
- The Equipment hatch is closed, however both personnel airlock doors are open.

To meet Tech. Spec. containment integrity requirements you shall be capable of closing at least one (1) personnel air lock door. Which ONE of the following identifies the maximum time limit allowed per Technical Specifications?

a. 10 minutes.

b. 15 minutes.

c. 30 minutes.

d. 60 minutes.

Answer
c.
Reference:
RO2-04-LP056
N-CCI-56
T.S. 1.g.3 & 3.8.a.1.a
NEW
MEMORY

Question # 069
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 071A3.03
Question
A planned release of radioactive gas is in progress from Gas Decay Tank C. Which ONE of the following radiation monitoring channels in HIGH alarm will result in an automatic termination of the release in progress?

a. R-13, Aux Bldg Vent Monitor.

b. R-12, Containment Vent & Purge gaseous Monitor.

c. R-21, Containment System Vent Activity Monitor.

d. R-18, Waste Disposal System Effluent Monitor.

Answer
a.
Reference:
RO2-01-LP045
KNPP Bank
MEMORY

Question # 070
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 071K3.05
Question
A waste gas decay tank release is in progress. Which ONE of the following malfunctions occurring during the release could result in a release outside of permitted limits assuming no operator action?

a. Loss of instrument air to WG-36, waste gas effluent isolation valve.

b. R-14, waste gas processing rad monitor, fails high.

c. R-14, waste gas processing rad monitor, fails low.

d. Loss of power to WG-36, waste gas effluent isolation valve.

Answer
c.
Reference:
RO2-01-LP045
SD-32B
N-GWP-32B
INPO BANK
COMPREHENSION

Question # 071
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 072.A1.01
Question
The plant is operating at full power. Increasing radiation levels are noted on R-13 and R-14, Aux Building Ventilation Exhaust Radiation Monitors. A few minutes later, R-4, Charging Pump Room Area Monitor, alarms. Which ONE of the following malfunctions would be indicative of these conditions ?

a. Charging Pump relief valve lifting.

b. Steam Generator Blowdown tank leak.

c. Waste Gas Decay tank leak.

d. Boric Acid Transfer Pump leak

Answer
c.
Reference:
RO2-01-LP045
XK100-36
A204
A206
KNPP Bank
MEMORY

Question # 072
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 072G2.4.31
Question
Given the following:

- REFUELING Mode
- Fuel Movement is in progress
- Annunciator 47051D, CONTROL ROOM A/C SYSTEM ABNORMAL alarms

Which ONE of the following correctly describes the actions of the control room operators?

a. Verify Control Room Post Accident Recirculation Actuates.

b. Notify fuel handling crew to stop all fuel movement.

c. Verify Control Room A/C standby fan starts, if the running fan tripped.

d. Verify CRAC chiller shifts to alternate SW cooling supply.

Answer
c.
Reference:
RO2-04-LP025
A-ACC-25
INPO BANK
MEMORY

Question # 073
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 073A2.01
Question
Which ONE of the following describes the response of an Auxiliary Area Radiation Monitoring System Data Acquisition Module (DAM) to a loss of AC power?

a. The input to the central control console for the affected channels are lost.

b. The data to the Radiation Protection Office is lost.

c. The affected recorders in the Control Room will fail low.

d. The data to the system would be preserved.

Answer
d.
Reference:
RO2-01-LP045
KNPP Bank
MEMORY

Question # 074
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 074EA2.01
Question
Given the following:

- The Unit has tripped from 100% power with a LOCA in progress
- Pzr pressure is 900 psig
- RxCPs are tripped
- Core Exit thermocouples indicate 720 °F
- RVLIS indicates 36%
- T_{hot} for all loops range between 512 °F and 525 °F

Which ONE of the following describes the conditions existing in the core as applicable to the EOPs?

a. Subcooled conditions, which present no challenge to the fuel matrix and fuel cladding as long as the hot leg temperatures remain below saturated conditions.

b. Saturated conditions, which does not present a challenge to the fuel matrix and fuel cladding as long as the cold leg temperatures remain at saturated conditions.

c. Saturated conditions, which present a potential challenge to the fuel matrix and fuel cladding.

d. Super heated conditions, which present a imminent challenge to the fuel matrix and fuel cladding.

Answer
d.
Reference:
O-FND-LP1.4.2
Steam Tables
FR-C-2
INPO BANK
COMPREHENSION

Question # 075
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 075A4.01
Question
The following conditions exist:

- Service Water is operating with SW Pump 1A1, 1A2 and SW Pump 1B1 running.
- The Service Water headers are currently separated (SW-3A and SW-3B are closed).
- Service Water discharge header pressures (PI-41503 and PI-41506) read 108 psig and 106 psig, respectively.

What is the status of the Service Water Pumps with regard to pump minimum flow requirements?

a. All SW Pumps fail to meet their required minimum flow.

b. SW Pumps 1A1 and 1A2 fail to meet their required minimum flow.

c. SW Pump 1B1 fails to meet its required minimum flow.

d. All SW Pump flows meet their required minimum flow.

Answer
b.
Reference:
RO2-02-LP002
INPO BANK
ANALYSIS

Question # 076
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 076K2.08
Question
An SI sequence signal will drive the Containment Fan Coil Service Water Valves SW-903A and SW-903B open. Which ONE of the following identifies the power supply(s) for these valves?

	SW-903 A	SW-903B
a.	MCC 1-52A	MCC 1-62A
b.	MCC 1-52E	MCC 1-52E
c.	MCC 1-62E	MCC 1-62E
d.	MCC 1-62A	MCC 1-52A

Answer
b.
Reference:
RO2-02-LP002
NEW
MEMORY

Question # 077
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 078 2.4.11
Question
Procedure A-AS-01; Abnormal Station and Instrument Air System Operation contains the following NOTE:

"Switching Failure light is ON for any of these conditions:"

Which ONE of the following does NOT actuate the light for Instrument Air Dryer 1C?

a. Inlet Transfer Valve fails to repsond to timer signal

b. Instrument Air Dryer Bypass Valve fails to open

c. Purge Exhaust Valve fails to repond to timer signal

d. Either tower fails to repressurize

Answer
b.
Reference:
RO2-02-LP001
A-AS-01 NOTE: prior to step 4.5
NEW
MEMORY

Question # 078
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 079K4.01
Question
The Station Air Headers will be fully isolated via SA-200 and SA-400 when pressure drops below a specific setpoint. Which ONE of the following identifies the isolation setpoint?

a. 98 psig.

b. 95 psig.

c. 90 psig.

d. 80 psig.

Answer
c.
Reference:
RO2-02-LP001
INPO BANK
MEMORY

Question # 079
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 086G2.4.25
Question
Given the following:

- The Unit is at 100% steady state conditions.
- A fire is detected in the Auxiliary Building.
- The SM has determined the fire has the potential to affect equipment necessary to achieve/maintain safe shutdown.
- The CRS has transitioned to E-O-06, Fire in Alternate Fire Zone.
- A Spurious Safety Injection occurs.

Which ONE of the following identifies the required procedure transition for the given conditions?

a. Transition back to E-0, Reactor Trip or Safety Injection and concurrently perform E-FP-08, Emergency Operating Procedure - Fire.

b. Perform E-O-06, Fire in Alternate Fire Zone, while referring to ES-1.1 for SI termination actions.

c. Perform E-O, Reactor Trip or Safety Injection, then E-O-06, Fire in Alternate Fire Zone, when SI termination criteria is met.

d. Perform E-O-06, Fire in Alternate Fire Zone, while referring to other instructions as directed by E-O-06.

Answer
d.
Reference:
RO2-02-LP008
E-O-06, Fire in Alternate Fire Zone
NEW
COMPREHENSION

Question # 080
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 103A2.03
Question
Given the following:

- The Unit has experienced a Safety Injection
- The crew is performing step 11 of E-0, Rx Trip or Safety Injection when the NCO notes that Containment Pressure is 5 psig and Containment Isolation has not actuated.
- MSIV's are open

Which ONE of the following describes the action(s) required?

a. Manually actuate either Containment Isolation pushbutton (A or B), the MSIV's will close automatically on the manual Containment Isolation.

b. Manually actuate either Containment Isolation pushbutton (A or B), and manually close the MSIV's.

c. Manually actuate both Containment Isolation pushbuttons (A and B), the MSIV's will close automatically on the manual Containment Isolation .

d. Manually actuate both Containment Isolation pushbuttons (A and B), and do not close the MSIV's.

Answer
d.
Reference:
RO2-04-LP056
INPO BANK
MEMORY

Question # 081
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 2.1.2
Question
Which ONE (1) of the following statements is the correct response if a Limiting Condition for Operation (LCO) cannot be met and no ACTION statement exists for the specific circum?stance?

a. Within one hour action must be initiated to place the unit in a MODE in which the LCO does not apply

b. Within six hours action must be initiated to place the unit in a MODE in which the LCO does not apply

c. The unit should be tripped and stabilized in HOT STANDBY until a safety evaluation can be performed

d. Within one hour calculations must be made per the COLR to prove that no safety limit will be exceeded for the current conditions.

Answer
a.
Reference:
ROI-01-LPTS2
NEW
MEMORY

Question # 082
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 2.1.3
Question
A shift turnover has just been completed and the oncoming shift has assumed control of the plant. Which of the following actions are required of the oncoming NCO's as part of the turnover procedure?

1. Walk the Control Boards
2. Review the Control Room Log
3. Review the Tagout Book
4. Review the SER Disable/Enable Log

a. 1 and 2

b. 2 and 3

c. 1,2 and 3

d. 1,2,3, and 4

Answer
c.
Reference:
RO4-01-LPA09
GNP-03.17.07-1 Watchstanding Principles page 3
NEW
COMPREHENSION

Question # 083
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 2.1.32
Question
The following plant conditions exist:

- A LOCA has occurred.
- Venting and filtration of containment atmosphere through the shield building vent to control the hydrogen concentration is about to commence.

What is the limiting factor in setting the containment atmosphere release flow rate?

a. The capability of the Shield Building Ventilation system to maintain a negative pressure in the Shield Building Annulus with respect to the Auxiliary Building.

b. The capability of the Shield Building Ventilation system to maintain a negative pressure in the Shield Building Annulus with respect to the outside atmosphere.

c. The capability of the Aux Building Special Ventilation system to maintain a negative pressure in the Auxiliary Building with respect to the outside atmosphere.

d. The capability of the Aux Building Special Ventilation system to maintain a negative pressure in the Auxiliary Building with respect to the Shield Building Annulus.

Answer
a.
Reference:
RO2-04-LP024
N-RBV-18C caution prior to step 4.1.6.7.d.4
KNPP Bank
COMPREHENSION

Question # 084
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 2.2.12
Question
What does the NCO signature or initials in the body of the procedure indicate ?

a. The individual has completed the transfer of all field taken data onto the procedure Data Sheets.

b. The individual has either performed the steps of the procedure, or has received direct confirmation from the individual who has performed the step.

c. The individual has reviewed the ACCEPTANCE CRITERIA and verified all the criteria are satisfied only.

d. The individual has either performed the steps of the procedure or observed performance of the procedure, and the associated ACCEPTANCE CRITERIA are satisfied.

Answer
b.
Reference:
RO4-01-LPA09
SP-05B283A, Rev. ORIG, page 15.
Surveillance Performance, Rev. A, 4.2.2.1.
NAD 12.2
KNPP Bank
COMPREHENSION

Question # 085
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 2.2.13
Question
A Tagout is being removed that includes CVC-204A, 1A RXCP Seal Supply Throttle Valve. The valve was tagged in the OPEN position. The restoration position of CVC-204 is throttled 1/4 turn open. What is the requirement for restoration of CVC-204A ?

a. Independent Verification is required, perform the following action, ensure CVC-204A is fully closed and then open the valve 1/4 turn.

b. Independent Verification is required, observe the following action, open CVC-204A 1/4 turn.

c. Concurrent Verification is required, observe the following action, ensure CVC-204A is fully closed and then open the valve 1/4 turn.

d. Concurrent Verification is required, perform the following action, throttle CVC-204A to 1/4 turn open.

Answer
c.
Reference:
RO4-01-LPA09
GNP-03.03.01, Rev. K, 6.7.10.1
GNP-03.09.01, Rev. A, 6.3.2.4
KNPP Bank
COMPREHENSION

Question # 086
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 2.2.22
Question
Which ONE of the following statements describes the Technical Specification Safety Limit for Reactor Coolant System Pressure?

a. The Reactor Coolant System pressure shall not exceed 110% of 2385 psig with fuel assemblies installed in the reactor vessel.

b. The Reactor Coolant System pressure shall not exceed 120% of 2385 psig with reactor vessel temperature <RTNDT.

c. The Reactor Coolant System pressure shall not exceed 110% of 2485 psig with fuel assemblies installed in the reactor vessel.

d. The Reactor Coolant System pressure shall not exceed 120% of 2485 psig with reactor vessel temperature <RTNDT.

Answer
c.
Reference:
RO1-01-LPTS2
Technical Specification 2.2
NEW
MEMORY

Question # 087
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 2.3.1
Question
The plant is in the REFUELING Mode. A valve located in containment has the following radiation level readings:

- Bottom of valve: 2500 mR on contact, 1200 mR/hr @ 30 cm.
- Top of valve (bonnet area) - 100 mR/hr on contact and 48 mR/hr @ 30 cm.

This valve is located in the general area of containment and no enclosure exists.

Which ONE of the following describes the required radiological postings?

a. The valve should be roped off and posted as a High Radiation Area with a flashing light.

b. The valve should be roped off and posted as a High Radiation Area without a flashing light.

c. No posting is required as long as Containment is posted as High Radiation Area.

d. Containment should be posted as a "Very High Radiation Area".

Answer
a.
Reference:
RO4-01-LPA13
HP-01.019
T.S. 6.13.b
KNPP Bank
COMPREHENSION

Question # 088
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 2.3.4
Question
Which ONE of the following describes when a Specific Radiation Work Permit would be used?

a. Issued for jobs of a non-repetitive nature and is valid only during the time stated for completion of the job.

b. Issued for jobs of a repetitive nature and is valid for extended periods of time subject to periodic review.

c. Issued for jobs where job conditions are likely to change abruptly.

d. Issued for jobs where entry into an area exceeding 10 Rem/hr general area is required.

Answer
a.
Reference:
RO4-01-LPA04
NAD-08.03, Radiation Work Permit, Rev. G, Page 1
KNPP Bank
MEMORY

Question # 089
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 2.3.9
Question
The reactor is in Cold Shutdown and a containment purge using the 36" RBV valves is being initiated. Containment pressure is 1.8 psi. Which ONE of the following requirements and/or limitations apply during this evolution?

a. A gaseous discharge permit is required.

b. Fresh air is supplied by the Containment Ventilation Supply Unit to both the Reactor Building and Turbine Building.

c. Notification of the NRC is required.

d. A Containment Purge Exhaust Fan must be started prior to a Containment Vent Exhaust Fan.

Answer
a.
Reference:
RO4-01-LPA01
N-RBV-18B (2.7.1)
KNPP Bank
MEMORY

Question # 090
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 2.4.1
Question
Given the following:

- The Unit is at 100% power.
- A total Loss of 4160V Power occurs

Which ONE of the following describes the correct procedure and immediate operator action.

a. E-0, Rx Trip or Safety Injection, ensure Rx is tripped by all Rod bottom lights lit.

b. ECA-0.0, Loss of All AC Power, ensure Rx tripped by neutron flux decreasing.

c. FR-S.1, Nuclear Power Generation/ATWS, ensure Rx is tripped by neutron flux dropping.

d. ECA-0.0, Loss of All AC Power, ensure Rx tripped by all Rod bottom lights lit.

Answer
b.
Reference:
RO4-04-LP040
INPO BANK
COMPREHENSION

Question # 091
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 2.4.11
Question
The plant is at 100% power. Which ONE of the following conditions would require at least four core exit thermocouples per quadrant to be OPERABLE?

a. Rod G-3 misaligned by 13 steps from Control Bank D Group counter.

b. Two Rod Position Indicators in Control Bank A out of service.

c. Power Range NI Channel N42 upper detector out of service.

d. One movable detector in each quadrant is operable.

Answer
c.
Reference:
RO2-05-LP048
A-NI-48, Rev. S, step 2, 4.3.1.c
Technical Specifications 3.11.c
KNPP Bank
COMPREHENSION

Question # 092
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 2.4.16
Question
The following plant conditions exist:

- A loss of both offsite and onsite power has occurred, resulting in a reactor trip.
- Immediately the STA reports the status of Critical Safety Functions as follows:

  SUBCRITICALITY - Green
  CORE COOLING - Orange
  HEAT SINK - Red
  INTEGRITY - Green
  CONTAINMENT - Green
  INVENTORY - Yellow

Which ONE of the following procedures should the crew be implementing in response to the above conditions?

a. ECA-0.0, "Loss of All AC Power."

b. FR-C.1, "Response to Inadequate Core Cooling".

c. FR-H.1, "Response to Loss of Secondary Heat Sink".

d. FR-I.3, "Response to Voids in Reactor Vessel".

Answer
a.
Reference:
RO4-04-LP040
ECA-0.0, Rev. W, Step 1 NOTE.
lPEOP Background ECA-0.0, Rev. N, 4. Step 1
KNPP Bank
COMPREHENSION

Question # 093
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A 2.4.8
Question
The following plant conditions exist:

- A reactor trip with SI has occurred.
- The following parameters were noted:

While performing E-0 "Reactor Trip Or Safety Injection", SI cold leg injection flow has just been verified when a total loss of AFW flow is identified. What procedural guidance should be followed?

a. Immediately transition to FR-H.1, "Loss of Secondary Heat Sink," and then take actions as directed to restore flow to at least one Steam Generator.

b. From E-0, "Reactor Trip Or Safety Injection" loss of AFW step, transition to FR-H.1, "Loss of Secondary Heat Sink," and since the SG's are a heat source transition back to E-0, "Reactor Trip Or Safety Injection" and proceed with the next step.

c. From E-0, "Reactor Trip Or Safety Injection" loss of AFW step, transition to FR-H.1, "Loss of Secondary Heat Sink," and since the SG's are a heat sink, take actions as directed to restore flow to at least one Steam Generator.

d. From E-0, "Reactor Trip Or Safety Injection" If RCS is NOT intact step, transition to FR-H.1, "Loss of Secondary Heat Sink," determine if the SG's are a heat source/sink, then transition to E-1, "Loss of Primary or Secondary Coolant".

Answer
b.
Reference:
RO4-04LP002
E-0, Rev. U, Steps 16
lPEOP Background E-0, Rev. U, Step 16
FR-H.1, Rev. R, Step 1
NEW
COMPREHENSION

Question # 094
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A W/E02.EA1.2
Question
Given the following conditions:

- Plant is recovering from a reactor trip and safety injection due to a faulted SG.
- Faulted SG has completely blown down and has been isolated in accordance with the appropriate E-2 "Faulted Steam Generator Isolation".
- RCS pressure is 1900 psig and rising.

When terminating safety injection which ONE of the following combinations identifies the actions that result in a drop in the ECCS flow to the RCS?

1) Stopping the safety injection pumps.
2) Establishing Normal Letdown
3) Establishing normal charging.
4) Stopping the RHR pumps.

a. 1 and 3.

b. 3 and 4.

c. 1 and 2.

d. 2 and 4.

Answer
a.
Reference:
RO4-04-LP005
INPO BANK
COMPREHENSION

Question # 095
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A W/E03.EK2.2
Question
Given the following plant conditions:

- The plant has tripped due to a total loss of off-site power.
- During the trip, a Pressurizer PORV fails open and cannot be isolated.
- All other equipment and systems are functioning normally.

Which ONE of the following statements accurately describes these plant conditions?

a. Decay heat cannot be removed, the core will heat up and likely exceed temperature limits.

b. The RCS will continue to void and eventually decay heat will be removed by reflux cooling.

c. The combination of SI/break flow, auxiliary feedwater, and/or steaming paths should be sufficient to remove decay heat.

d. Natural circulation cooling cannot be verified and is the only method of removing decay heat under these conditions.

Answer
c.
Reference:
RO4-04-LP018
KNPP Bank
COMPREHENSION

Question # 096
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A W/E05.EA1.3
Question
Given the following plant conditions:

- Unit is operating at 100% power at EOL.
- Total loss of feedwater occurs and operators implement FR-H.1, "Loss of Secondary Heat Sink".
- No means of feedwater addition is available and the operators have initiated bleed and feed.
- Manual Safety Injection was initiated and when the operator attempted to open the pressurizer PORVs, PR-2A failed to open.

Which ONE of the following describes the correct operator mitigation strategy to respond to this problem?

a. Stop one Charging Pump to reduce loss of inventory through PORVs.

b. Close any open Pzr PORV to conserve RCS inventory and return to the steps to re-establish Main Feedwater.

c. Open all RCS high point vents since one pressurizer PORV may not be sufficient to maintain adequate RCS bleed flow.

d. Verify PORV, PR-2B, and it's block valve open to reduce RCS pressure since 1 Pzr PORV provides adequate heat removal capacity for a loss of heat sink.

Answer
c.
Reference:
RO4-04-LP018
FR-H.1 Step 19 contingency action a.
FR-H.1 Bkgd Doc step 19 basis (page 54)
INPO BANK
COMPREHENSION

Question # 097
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A W/E08.G2.4.18
Question
Step 1 of FR-P.1, "Pressurized Thermal Shock", has the operator check that RCS pressure is greater than 150 psig.

This step is based on which ONE of the following?

a. Preventing implementation of actions in FR-P.1 if a large break LOCA has occurred.

b. Ensuring adequate low head safety injection cooling prior to isolating RHR Pumps.

c. Preventing core exit temperatures from exceeding the required temperature to place RHR inservice.

d. Ensuring RHR system is in service to provide adequate mixing in the cold leg downcomer region.

Answer
a.
Reference:
RO4-04-LP016
INPO BANK
MEMORY

Question # 098
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A W/E10.EA2.2
Question
Given the following plant conditions:

- Reactor trip occurred with subsequent loss of RxCPs.
- Operators have implemented ES-0.2, "Natural Circulation Cooldown".
- A cooldown rate of 25°F/hour has been established.
- RCS depressurization has been initiated while maintaining subcooling > 50°F.
- Operators are monitoring PZR level and RVLIS for void formation.
- Current CST inventory is projected to be inadequate to reach RHR conditions at the present cooldown rate.

Which ONE of the following describes the appropriate procedural actions?

a. Stop the cooldown and remain in ES-0.2.

b. Raise the cooldown rate and remain in ES-0.2.

c. Transition to ES-0.3, "Natural Circulation Cooldown With Steam Voids in Vessel (With RVLIS) and lower the cooldown rate.

d. Transition to ES-0.3, "Natural Circulation Cooldown With Steam Voids in Vessel (With RVLIS) and raise the cooldown rate.

Answer
d.
Reference:
RO4-04-LP007
INPO BANK
COMPREHENSION

Question # 099
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A W/E11.EA1.3
Question
The following plant conditions exist:

- At 0600, a LOCA outside containment resulted in a Reactor Trip and Safety Injection.
- At 1200, the crew transitioned to ECA-1.1 "Loss of Emergency Coolant Recirculation" due to inadequate Sump 'B' level.
- SI Pump 'A' was then secured.
- SI Termination criteria has NOT been met.
- At 1500 (present time), SI Pump 'B' flow is locally throttled to 50 gpm.

Using the attached reference (Figure ECA-1.1-1), which ONE of the following choices describes the correct course of action ?

a. SI Pump 'B' flow should be increased by 50 gpm.

b. SI Pump 'A' should be manually started with a flowrate of 150 gpm.

c. SI Pump 'B' flow should be increased by 150 gpm.

d. SI Pump 'A' should be manually started with a flowrate of 50 gpm.

Answer
a.
Reference:
RO4-04-LP022
KNPP Bank
COMPREHENSION

Question # 100
Exam Date 2004/11/15
Facility 305
Reactor Type PWR-WEC2
Exam Level R
K/A W/E13.EK3.2
Question
During the performance of FR-H.2, "Response to Steam Generator Overpressure", operators are directed to verify T-hot less than 540°F if initial attempts to depressurize the SG(s) is unsuccessful.

Which ONE of the following is bases for this verification?

a. Ensures that the SG level instruments will be within the required accuracy during the depressurization.

b. Determines whether SG blowdown can be used as a method to depressurize the affected SG(s).

c. Ensures RCS saturation pressure is below shutoff head of SI Pumps in the event SGs become a heat SOURCE instead of a heat SINK.

d. Ensures excessive heat transfer from the RCS is NOT the cause for the SG overpressure.

Answer
d.
Reference:
RO4-04-LP036
INPO BANK
COMPREHENSION