

Final Submittal
TURKEY POINT DEC. 2003
EXAM 50-250/2003-301

DECEMBER 3 - 15, 2003

1. Senior Operator Written Examination

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

1. Which ONE of the following is the basis for reducing charging flow to the minimum required to maintain RCP Seal Injection following a loss of 120V Vital Instrument Panel 3P06, as required by Step 3.a, of 3-ONOP-003.6, "Loss of 120V Vital Instrument Panel 3P06?"
- A. Reducing charging flow assures proper **back** pressure on the RCP # 2 seal and ensures the # 2 seal is not cocked.
 - B. Reducing charging flow extends **the** time for recovery without tripping the Reactor on high pressurizer level.
 - C. Minimizing the fill rate of the pressurizer extends the time for recovery without lifting a **pressurizer** PORV due to compressing the bubble.
 - D. Minimizing charging pump speed ensures that a loss of charging does not occur due to low oil pressure to **ensure** that RCP Seal Injection is maintained.

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2. Which ONE of the following is the correct group of immediate operator actions for a loss of RHR, in accordance with 3-ONOP-050, Loss of RHR?
- A. Have a local operator stay near the RHR pump until **normal** RHR flow is restored; calculate RCS heatup rate; determine the time required to reach saturation in RCS; and check that the Loop RHR Pump Suction Stop Valves are OPEN.
 - B. Have a local operator maintain communication with the control room; have a local operator stay near the RHR pump until normal RHR flow is restored; and check that the RHR Discharge To Cold Leg Isolation Valves are OPEN.
 - C. **Have** a local operator maintain communication with the control room and check RHR pump amps locally for signs of cavitation; calculate RCS heatup rate; determine the time required to reach saturation in RCS; **and check that** the Loop RHR Pump Suction Stop Valves are OPEN.
 - D. Check RHR pump amps for signs of cavitation; check that the RHR Discharge To Cold Leg Isolation Valves are OPEN; and plot core exit temperature every minute for 5 minutes to determine RCS heatup rate.

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3. 3-OY-041. 3 Pressurizer Relief Tank, Step 7.4.2.7 directs an operator to be "stationed at the Waste/Boron Panel to operate the PRT drain to sump valve LCV-3-1003B if necessary "while removing air from the PRT following maintenance.

Which ONE of the following is the basis for dispatching a plant operator to the Waste/Boron Panel?

It will ensure that if a:

- A. rapid **pressure** increase **occurs**, the drain valve could be **immediately opened**.
- B. rapid **level decrease** occurs, **the** drain valve could be immediately **closed**.
- C. **vacuum** is drawn in the PRT, the drain valve could be immediately **closed**.
- D. **level** increase begins, the drain valve could be immediately **opened**.

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4. 3-ONOP-047.1, **L**oss of Charging Flow In Modes ■ Through 4, Step 4.1, states to "Attempt to reestablish charging."

Which ONE of the following statements is correct if charging flow is lost due to charging pump failure?

The operator should try to start:

- A. **only an operable** charging pump. If charging is reestablished, then normal operation can continue.
- B. **any available** charging pump, even if it is not operable. If charging is reestablished, then normal operation can continue.
- C. **only an operable** charging pump. If charging is reestablished prior to closing Excess Letdown and RCP **S**eal Return Isolation Valve, MOV-3-6386, normal operation can continue.
- D. **any available** charging pump, even if it is not operable provided that all post maintenance testing had been completed when the event occurred.

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5. Unit 3 is at 100% power with the 38 Containment Spray Pump **tagged** out-of-service for maintenance.

The unit experiences a design basis LOCA with the following conditions present:

- Containment pressure 30 psig increasing
- 3A Containment **Spray** Pump Failed due to a **seized** shaft
- 3A Emergency Containment Cooler (3A ECC) Running
- 3C Emergency Containment Cooler (3C ECC) Failed to auto **start**
- EOP-E-0 Reactor Trip or **Safety Injection** Immediate actions complete

The STA informs you, as the SRO, that containment pressure is above the pressure for an **ORANGE path** to EOP-FR-Z.1, Response to High Containment **Pressure**

Which ONE of the following describes the action that must be performed and the reason for this action?

- A. Continue in E-0 and manually start the '35' and '3C' ECCs to ensure that Containment pressure **will not** exceed equipment qualification envelopes.
- B. Enter FR-Z.1 and manually start the '3C' ECC to ensure that Containment **pressure will not** exceed equipment qualification envelopes.
- C. Continue in E-0 and **manually start the '3C' ECC** to ensure that Containment pressure will not exceed Containment **Design pressure**.
- D. Enter FR-Z.1 and manually **start the '3C' ECC** to ensure that Containment pressure will not **exceed** Containment **Design pressure**.

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6. ONOP-041.5, Pressurizer Pressure Control Malfunction, contains a caution prior to Step 1 that states "The Master Controller should be operated carefully (Normal controller output for 2235 psig is 42.5 percent demand; 92 percent demand will open PCV-3-455C)."

Which ONE of the following describes why the Master Controller must be operated in this fashion?

Pressurizer pressure does not affect the Master Controller's output when operating:

- A. in MANUAL. Pressurizer pressure responds to the input to PCV-3-455C.
- B. in AUTO. Pressurizer pressure responds to the input to PCV-3-455C.
- C. in MANUAL. Pressurizer pressure responds to the output demand of PC-3-444J.
- D. in AUTO. Pressurizer pressure responds to the output demand of PC-3-444J.

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7.

Unit 3 is at 100% reactor power when the following occurs:

- An RCS leak has caused Pressurizer pressure to decrease to 1950 psig.
- Power remains near 90% and efforts to manually trip the reactor are unsuccessful.

The operators are performing Step 1 of E-0, Reactor Trip or Safety Injection, when Pressurizer level decreases to 10%.

Which ONE of the following **describes** the correct direction to give the crew?

- A. Continue with E-0 and manually initiate **SI**.
- B. Transition to **FR-S.3, Response to Nuclear Power Generation/ATWS** and manually initiate **SI**.
- C. Continue with E-0 and **DO NOT** manually initiate **SI**.
- D. Transition to **FR-S.1, Response to Nuclear Power Generation/ATWS** and **DO NOT** manually initiate **SI**.

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8.

The Unit is operating at 100% power. Intermediate Range channel **N36** is tagged out of service **because** of a power supply problem. Subsequently, IR channel **N35** fails. I&C informs you that it will take approximately 12 hours or longer to fix **N36**.

Which **ONE** of the following action(s) **should be taken** with respect to plant operation?

- A. Do not change plant power level until at least one IR channel is restored to operable status.
- B. Proceed to HOT STANDBY condition within the next 6 hours. The reactor **must** be shutdown under these circumstances.
- C. Place the **N35** IR channel LEVEL TRIP switch in the BYPASS position, **and** continue normal plant power operations.
- D. Verify the **N35** IR channel LEVEL TRIP switch in the NORMAL position, **and** continue normal plant power operations.

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9. Which ONE of the following is correct in accordance with procedure 3-ONOP-033.2, Refueling Cavity Seal Failure?

This procedure will:

- A. provide instructions for placing alternate cooling pumps in service to ensure levels can be maintained.
- B. instruct the operator to **stop** all fuel movement within the SFP in the event SFP level decreases below the siphon holes.
- C. instruct engineering support to be required to re-establish an adequate flowpath for level restoration.
- D. NOT allow irradiated **fuel** to be placed in the RCC change out **baskets** until an engineering evaluation is completed.

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10.

Given the following:

- Unit 3 is at 100% power.
- A failure in the steam **dump** control circuitry cause 1 steam **dump** to condenser valve to slowly open.

Which ONE of the following describes the approximate **power level** the plant could reach, and what action(s) will mitigate the event ?

Power **could** rise to approximately:

- A. 103%.
Insert control rods to maintain power less than 100%.
- B. 103%.
Reduce turbine load to maintain power less than 100%
- C. 107%.
Insert control rods to maintain power less than 100%
- D. 107%.
Reduce turbine load to maintain **power less** than 100%.

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11. Unit 4 is operating at 100% power with **the 4A EDG** out of service when the following sequence of events occur:
- The operators respond to an ATWS using FR-S.1. "Response to Nuclear Power Generation/ATWS."
 - The reactor trips due to a loss of off-site power.
 - The **4B EDG** lacks out and cannot be restarted.

Which ONE of the following describes the correct operator response?

- A. Complete the actions of FR-S.1 and then go to ECA-0.0, "Loss of All AC Power." Power will be restored to a 4KV bus using the appropriate ONOP upon completion of ECA-0.0.
- B. Complete the actions of FR-S.1 and then go to ECA-0.0, "Loss of All AC Power." Power will be restored to a 4KV bus using the appropriate ONOP while performing the actions of ECA-0.0.
- C. Stop performance of FR-S.1 and immediately go to ECA-0.0, "Loss of All AC Power." Power will be restored to a 4KV bus using the appropriate ONOP upon completion of ECA-0.0.
- D. Stop performance of FR-S.1 and immediately go to ECA-0.0, "Loss of All AC Power." Power will be restored to a 4KV bus using the appropriate ONOP while performing the actions of ECA-0.0.

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12.

Unit 3 is in a refueling outage, currently performing refueling operations, when containment radiation Area Monitor RI-3-1402B reaches 12 mrem/hr. The RCO identifies the alarming channel on ARMS Panel R-30.

Which ONE of the following **describes** the correct priority of operator response?

- A. 1) Notify HP to survey the area.
2) Using the page, notify personnel to clear the area.
3) Confirm validity of the alarm by pressing the HIGH alarm PB on Panel R-30.
- B. 1) Confirm validity of the alarm by **pressing** the HIGH alarm PB on Panel R-30.
2) **Using the page**, notify personnel to clear the area.
3) Notify HP to survey the area.
- C. 1) **Using the page**, notify personnel to clear the area.
2) Confirm validity of the alarm by pressing the HIGH alarm **PB** on **Panel R-30**.
3) **Notify HP** to survey the area.
- D. 1) Using the page, notify personnel to clear the area.
2) Notify HP to survey **the area**.
3) Confirm validity of the alarm by pressing **the** HIGH alarm PB on Panel R-30.

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13. O-ONOP-013, Loss of Instrument Air, states to Determine the Actual Instrument Air Pressure on PI-3-1444 AND PI-4-1444 (VPA for each Unit).

Which ONE of the following should the SRO direct with respect to O-ONOP-013, if instrument air pressure cannot be maintained?

- A. If either unit is experiencing symptoms of a loss of Instrument Air AND system pressure reaches 95 psig and is still decreasing, trip the affected unit's reactor and start the temporary diesel air compressor.
- B. If Instrument Air pressure reaches 95 psig and is still decreasing OR the available Instrument Air compressor(s) is/are unable to restore pressure, then trip the affected unit(s).
- C. If Instrument Air pressure cannot be maintained above 90 psig AND nitrogen backup systems cannot be maintained, then trip the affected unit(s).
- D. If Instrument Air pressure reaches 65 psig and is still decreasing AND the available Instrument Air Compressor(s) is/are unable to restore pressure, then trip the affected unit(s).

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14.

Unit 3 is at 100% power when an alarm is received on the fire panel for the Auxiliary Transformer. Subsequently annunciators F5/4, AUX TRANSFORMER PANEL TROUBLE and 16/6 XFMR HYDROGEN SEAL OIL DELUGE OPERATING, alarm. Investigation reveals a major fire on the Unit 3 Auxiliary Transformer.

Which ONE of the following actions should be directed by the NPS?

- A. Transfer loads to the Startup Transformer, shutdown rapidly using ONOP-100, Fast Load Reduction.
- B. Remain on the Auxiliary Transformer, commence a shutdown using GOP-103, Power Operation to Hot Standby.
- C. Transfer loads to the Startup Transformer, commence a shutdown using GOP-103, Power Operation to Hot Standby.
- D. Remain on the Auxiliary Transformer, parallel the '3A' and '3B' Emergency Diesel Generators to their respective buses for backup power. Shutdown rapidly using ONOP-100, Fast Load Reduction.

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15.

Unit 3 has experienced a reactor trip and safety injection due to a **Large Break Loss of Coolant Accident (LOCA)**.

The following complications have occurred:

- Three control rods **have** failed to fully insert.
- **Only** the 'A' AFW pump **has started** and problems with its turbine is limiting feedwater flow.
- Containment Spray **pumps** have failed to start.
- **The crew has** been able to **get** only one Emergency Containment Cooler unit running.

The crew is at Step 22 of E-0, Reactor Trip or Safety Injection, for verifying proper AFW flow, preparing to transition to FR-H.1, Response to Loss of Secondary Heat Sink, per the Step 22 RNO.

The STA reports the following Critical Safety Function status per FR-F.0, Critical Safety Function Status Trees:

- Subcriticality is ORANGE
- Core Cooling is RED
- Heat Sink is RED
- Containment is RED

Which ONE of the following is the correct procedure to implement based on the above information?

- A. FR-S.1, Response to Nuclear Power Generation/ATWS, **base!** on the Subcriticality **ORANGE** path.
- B. FR-C.1, Response to Inadequate Core Coding, based on the Core Cooling **RED** path,
- C. FR-H.1 **based** on the Heat Sink RED path and the direction from E-0 Step 22 RNO.
- D. FR-Z.1, Response to High Containment Pressure, based on the Containment **RED** path.

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16. The following conditions exist on Unit 3, while in Mode 3 with operators preparing for a reactor startup:

- The Shift Manager receives word that the containment air lock has failed the leakage rate surveillance test due to excessive air lock leakage.

Which ONE of the following is correct concerning the containment personnel access airlock?

(Reference Provided)

Restore the air lock to OPERABLE status within 24 hours or be in COLD SHUTDOWN within the following:

- A. 30 hours. Entry into MODE 2 is not permissible
- B. 36 hours. Entry into MODE 2 is not permissible.
- C. 30 hours. Entry into MODE 2 is permissible.
- D. 36 hours. Entry into MODE 2 is permissible.

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17.

Unit 4 is in Mode 1, being shutdown when the following conditions are noted:

- Pressurizer pressure: 2205 psig
- RCS dissolved O₂: 0.05 ppm
- 4A S/G tube leakage: 0.5 gpm
- RCS Loop A T_{avg}: 543 °F

Which ONE of the following identifies **the** Tech. Spec. Limiting Condition for Operation that is NOT satisfied?

- A. TS 3.2.5, DNB Parameters
- B. TS 3.4.7, Chemistry
- C. TS 3.4.8.2 Operational Leakage
- D. TS 3.1.1.4, Minimum Temperature for Criticality

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18. The unit is at 100% power with all safety-related systems, structures, and components OPERABLE.

Which ONE of the emergent maintenance items below MUST be considered Priority "AA" maintenance per 0-ADM-701, "Control of Plant Work Activities" ?

- A. "A" Charging Pump must be removed from service for motor repair
- B. Surveillance testing has not been performed on the "B" Containment Spray Pump within its required surveillance interval.
- C. The "A" Auxilliary Feedwater Pump is inoperable due to a bearing failure.
- D. Two RPIs are determined to be inoperable.

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19. Which ONE of the following correctly identifies the maximum Spent Fuel Pool (SFP) temperature allowed for the commencement of refueling core off-load **AND** the SFP temperature at which core off-load shall be suspended?

	<u>Start Off-Load</u>	<u>Stop Off-Load</u>
A.	120 °F	270 °F
B.	120 °F	140 °F
C.	100 °F	170 °F
D.	100 °F	140 °F

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20.

A plant worker is unconscious and presumed badly injured in a Very High Radiation Area.

A 50-year-old volunteer member of the rescue team is attempting to reach the man. The rescuer has already received a whole body exposure of 4 REM.

Which **ONE** of the following identifies the additional allowable exposure the rescue worker may receive in **this** rescue attempt?

- A. 1 REM
- B. 6 REM
- C. 27 REM
- D. No Limit

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21.

Unit 3 is at 100% reactor power when the following annunciators are received:

- B-2/2, POWER RANGE UPPER DET HI FLUX DEV/AUTO DEFEAT
- B-6/4, POWER RANGE CHANNEL DEVIATION
- B-9/2, AXIAL FLUX TILT
- B-9/3, SHUTDOWN ROD OFF TOP/DEVIATION

Which ONE of the following describes the event that has occurred and the appropriate action to be taken?

- A. Control Rod B-10 (bank 'B', edge of the core) dropped to 110 steps. Implement ONOP-028.1, RCC Misalignment.
- B. Control Rod H-8 (bank 'D', middle of the core) dropped to 110 steps. Implement ONOP-028.1, RCC Misalignment.
- C. Control Rod B-10 (bank 'B', edge of the core) fully dropped. Implement ONOP-028.3, Dropped RCC.
- D. Control Rod H-8 (bank 'D', middle of the core) fully dropped. Implement ONOP-028.3, Dropped RCC.

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22.

Which ONE of the following identifies the Major Action Categories in their proper order for responding to a Steam Generator Tube Rupture (SGTR) using EOP-E-3, "Steam Generator Tube Rupture"?

- A. Identify and isolate the ruptured Steam Generator.
Depressurize RCS to restore inventory.
Cool down to **establish** RCS subcooling margin.
Terminate SI to stop primary to secondary leakage.
Prepare for cooldown to cold shutdown.
- B. Identify and isolate the ruptured Steam Generator.
Cool down to establish RCS subcooling margin.
Terminate SI **to** stop primary to secondary leakage.
Depressurize RCS to restore inventory.
Prepare for cooldown to cold shutdown.
- C. Identify and isolate the ruptured Steam Generator.
Cool down to establish RCS subcooling margin.
Depressurize RCS to restore inventory.
Prepare for cooldown to cold shutdown.
Terminate SI to stop primary to secondary leakage.
- D. Identify and isolate the ruptured Steam Generator.
Cool down to establish RCS subcooling margin.
Depressurize RCS to restore inventory.
Terminate SI to stop primary to secondary leakage.
Prepare for cooldown to cold shutdown.

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23.

EOP-ECA-1.2, LOCA Outside Containment, Step 1 directs the operator to check RHR pump suction stop valves, MOV-750 and 751, position on the alternate shutdown panel.

Which ONE of the following is the basis for checking the valve position on the alternate shutdown panel?

- A. Power is removed from the RHR loop suction valves. Therefore, control room position indication lights are also de-energized.
- B. Control room indication is not reliable because actual valve position and indicated valve position are not linked. All alternate shutdown valve positions are powered from a vital DC source. Actual position is equal to indicated position.
- C. RHR pump suction stop valves can only be manipulated from the alternate shutdown panel because any flow path which is isolated to stop a LOCA outside containment is required to be maintained isolated during subsequent recovery actions.
- E. RHR pump suction stop valves have no Control Room position indicating lights. The only place valve position can be verified is at the alternate shutdown panel.

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24.

Operators are performing EOP-FR-H.1, **Response to Loss of Secondary Heat Sink**, and have successfully initiated **Bleed and Feed**.

The BOP subsequently announces secondary heat sink is restored using "A" Standby Steam Generator Feed Pump.

Which ~~one~~ of the following describes the correct operator response?

- A. Continue performing FR-H.1 to completion.
- B. Return to procedure and step in effect when feed flow is verified to be > 345 gpm.
- C. Return to procedure and step in effect when narrow range level in any S/G is > 6% [32%].
- D. Return to procedure and **step in effect** only when narrow range levels in **all S/Gs** are > 6% [32%].

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25

A Steam Generator Tube Rupture and a Loss of Coolant Accident has occurred

EOP-ECA-3.2, SGTR With LOCA - Saturation Recovery Desired, Step 6, states "Initiate RCS Cooldown to Cold Shutdown by dumping **steam** to the condenser from the intact SG(s)."

SGs "B" and "C" are NOT available.

SG "A" is faulted and ruptured.

Which ONE of the following actions is correct if the steam dump to condenser control system is not functioning from the control room?

- A. Immediately isolate the accumulators locally and depressurize the RCS to 700 psig and reinitiate SI.
- B. Immediately isolate the accumulators locally and depressurize the RCS to less than 250 psig and commence RHR shut down cooling.
- C. If RHR is NOT in service, then manually dump steam (using steam dump to atmosphere valves) from the "A" SG.
- D. Check RHR in service then manually dump steam (using steam dump to atmosphere valves) from the "A" SG.

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1. Which ONE of the following describes the initial response of the unit to a dropped rod at 100% reactor power assuming the unit does not trip?
 - A. Pressurizer level increases and letdown flow decreases.
 - B. Pressurizer level decreases and letdown flow decreases.
 - C. Pressurizer level increases and letdown flow increases.
 - D. Pressurizer level decreases and letdown flow increases.

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2. The following conditions exist on Unit 4:

- All Reactor Coolant Pumps (RCPs) are running.
- Reactor Power is being held at 45% per a request from Chemistry
- NIS Power Range Channels read:
N41 = 44%; N42 = 46%; N43 = 45%; N44 = 46%

Which ONE of the following describes the effect on the RPS if the high pressure root line for RCS flow on LOOP 'B' breaks? (Disregard any effects on containment.)

RPS will see a:

- A. low flow signal on all channels of 'R' LOOP and will send a reactor trip signal.
- B. low flow signal for only one channel of 'B' LOOP flow and give annunciator B-1/2, "RX COOLANT LOOP B LO FLOW."
- C. high flow signal on only one channel of 'B' LOOP. No reactor trip will occur.
- D. high flow signal on all channels of 'B' LOOP and therefore will be unable to process a low flow reactor trip for 'B' LOOP.

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3. Which ONE of the following describes the operation of the letdown isolation valve, LCV-460, from the control room?
- (Assume the Normal/Bypass, keylock switch is in Normal.)
- A. LCV-460 cannot be closed unless all orifice isolation valves (CV-200's) are shut first.
 - B. LCV-460 cannot be opened unless an orifice isolation valve (CV-200's) is open.
 - C. When pressurizer level is less than 14%, LCV-460 will shut followed by the shutting of all orifice isolation valves (CV-200's).
 - D. LCV-460 must be closed prior to opening any orifice isolation valve (CV-200's).

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4. Unit 3 is in Mode 5 on RHR coding. The temperature out of the KHR heat exchanger is being maintained at 125 °F.

Which ONE of the following describes the normal operation of HCV-758, RHR Heat Exchanger Outlet Flow Control Valve, and FCV-605, KWR Heat Exchanger Bypass Flow Control Valve?

- A. HCV-758 automatically modulates to maintain heat exchanger outlet temperature and FCV-605 automatically modulates to maintain total RHR flow.
- B. HCV-758 must be manually adjusted to maintain total RHR flow and FCV-605 automatically modulates to maintain heat exchanger outlet temperature.
- C. HCV-758 must be manually adjusted to maintain heat exchanger outlet temperature and FCV-605 automatically modulates to maintain total RHR flow.
- D. HCV-758 automatically modulates to maintain heat exchanger outlet temperature and FCV-605 must be manually adjusted to maintain total RHR flow.

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5. Control room operators are **responding** to a Loss of Coolant Accident (LOCA). An operator monitoring the critical **safety** function status trees **observes** a RED path on CORE COOLING indicating implementation of EOP-FR-C.1, Response to inadequate Core Coding.

Which ONE of the following is the FIRST action to be taken if HHSI flow cannot be established to restore core cooling?

- A. Depressurize the RCS to inject accumulators
- B. Increase AFW flow to maximum.
- C. Depressurize the RCS to allow low head safety injection.
- D. Start charging **pumps** to deliver maximum flow.

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6.

Unit 4 letdown relief valve, RV-203, lifted and **has subsequently** been closed and reseated. When RV-203 lifted, annunciator A 7/1, PRESSURIZER RELIEF TANK HI TEMP/HI LEVEL HI PRESS/LOW LEVEL, alarmed.

The following conditions currently exist in the PRT:

- Temperature is 130 °F
- Pressure is 15 psig
- Level is 85%

Which ONE of the following **describes** the action that should be performed first in order to restore the PRT parameters?

- A. Reduce PRT temperature.
- B. Reduce PRT level.
- C. Reduce PRT pressure.
- D. Obtain a grab **sample** from the PRT.

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7. **The following events occur on Unit 4 while the Turbine Test Handle is in TEST:**

- A loss of feed water has occurred.
- Reactor trip breaker 'A' is open.
- Reactor trip breaker 'B' failed to open.
- AMSAC has actuated.

Which ONE of the following will cause the turbine auto stop oil to dump?

- A. AMSAC via solenoid 20 ASB.
- B. AMSAC via solenoid 20 AST.
- C. Reactor trip breakers via solenoid 20 ASR
- E?. Reactor trip breakers via solenoid 20 AST.

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8. The crew is responding in accordance with E-1. **Loss** of Reactor or Secondary Coolant. Pressurizer level has risen continuously even though the RCS pressure has been dropping **steadily**. **All** Reactor Coolant pumps are in operation.

Which **ONE** of the following leak locations is consistent with the plant conditions just described?

Weld break **or**:

- A. the pressurizer **sample** line.
- B. one of the CRDM nozzle penetrations.
- C. the line to Pressurizer PORV Block valve MOV-536.
- D. the Charging header connection to the RCS.

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9. The following conditions exist on Unit 4 in Mode I:

- 4A CCW pump is running.
- 4B CCW pump VPB Control Switch is in AUTO.
- 4C CCW pump is aligned to Train 'A' with its VPB Control Switch in AUTO.

The 4A CCW pump momentarily experiences an overcurrent condition and the 4A CCW pump trips.

Which **ORE** of the following describes the automatic actions that **take** place to restore CCW flow?

The CCW **pumps** will sequentially **start** with the:

- A. 4B CCW pump starting first after a 20 second time delay and the 4C CCW pump starting 30 seconds after the 4B CCW pump start if needed to further increase discharge flow rate.
- B. 4B CCW pump starting first after a 20 second time delay and the 4C CCW pump starting 10 seconds after the 4B CCW pump start if needed to further increase discharge flow rate.
- C. 4B CCW pump starting first after a 20 second time delay and the 4C CCW pump starting 10 seconds after the 4B CCW pump start if needed to further increase discharge pressure.
- D. 4A CCW pump starting first after a 10 second time delay, the 4B CCW pump starting 10 seconds after the 4A CCW pump start, and the 4C CCW pump starting 10 seconds after the 4B CCW pump start if needed to further increase discharge pressure.

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10. Unit 3 is at **100% power** when the following events occur in the order shown:
- PRMS channels R-17A/17B alarm.
 - CCW HEAD **TANK** level increases rapidly.
 - Annunciator **A 1/1**, RCP THERMAL BARR COOLING WATER HI FLOW, alarm and seals in.
 - Pressurizer level decreases and the running charging pump speed goes to **maximum**.
 - Annunciator **A 9/4**, PZR LO LEVEL/HEATER OFF/LTDN SECURED, alarms and seals in.

Which ONE of the following **describes** the event that has occurred?

- A. An RCP thermal barrier leak has occurred and MOV-620, RCP Thermal Barrier Outlet, valve has failed to close.
- B. An RCP thermal barrier leak has occurred and protective functions have responded as **designed**.
- C. A CVCS letdown non-regenerative tube has burst and LCV-460, High Press L/D Isol, valve has failed to close.
- D. A CVCS letdown non-regenerative tube **has** burst and protective functions have responded as **designed**.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

11. The following **have** been verified after receiving Alarms associated with the Loss of a 120V Vital Instrument Panel:
- Pressurize: Master Controller Auto/Manual Station is in Auto lockup
 - Both Pressurizer Spray valves Auto/Manual Stations are in Auto lockup
 - 3C Feedwater Regulating valva is in Auto lockup.

Which ONE of the following identifies the Vital Instrument Panel that has been lost?

- A. 3P09
- E. 3P08
- C. 3P07
- D. 3P06

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

12.

A large **break LOCA** occurred while Unit 4 was operating at 100% power. The operators are responding **per E-0, Reactor Trip or Safety Injection**.

Which ONE of the following describes the reason the RCO verifies the **Feedwater Isolation** signal closed the **Main and Bypass Feedwater Control valves** in Step 5 of E-0?

- A. To minimize the potential for RCS cooldown due to S/G overflow.
- B. To ensure the subsequent availability of AFW flowpaths.
- C. To ensure the subsequent availability of **secondary heat sink water sources**.
- D. To minimize Steam Generator pressure drop to ensure adequate steam pressure is available for **AFW pump** operation.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

13. Which ONE of the following statements **describes** the correct actions, in accordance with ONOF-049.1, Deviation or Failure of Safety Related or Reactor Protection Channels, if plant conditions are such that all bistables cannot be tripped due to an undesired ESF actuation?

Assume the Unit is in Mode 1.

- A. Immediately enter Technical Specification 3.0.3 and shutdown/cooldown until a Mode is entered in **which** the Technical Specification is not applicable.
- B. Commence a shutdown to place the Unit in Mode 3 within 6 hours and trip all required bistables upon entry into Mode 3.
- C. Do not trip **any associated** bistables and follow actions of Technical Specifications for those bistables not tripped.
- D. Place **only the bistables which will not cause an ESF actuation in the test/tripped** position and follow Technical Specifications for those bistables not tripped.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

14.

Unit 3 Reactor power has been stabilized at 1×10^{-8} amps when the following occurs:

- PT-444, Pressurizer Pressure Control Channel, fails high.

Which ONE of the following describes the response of the plant to this condition?

(Assume no operator action)

- A. A reactor trip will occur at 1835 psig due to low pressurizer pressure.
- B. SI actuation will occur at 1730 psig due to low pressurizer pressure.
- C. Pressurizer pressure will decrease and pressurizer heaters will energize and compensate for the pressure decrease.
- D. Pressurizer pressure will stabilize when PORV PC-455C is shut at 2000 psig by the protective channels supplying the "block auto open" signal.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

15. Which ONE of the following indications would be indicative of only an RCP Number 2 seal failure?
- A. RCP Thermal Barrier Low Differential Pressure.
 - E. RCP High Standpipe level.
 - C. RCP Thermal Barrier Cooling Water High temperature.
 - D. RCP Seal Leakoff High Flow.

QUESTIONS REPORT
for Tutkey Point Final Exam 2003-301 Questions

16. Which ONE of the following describes NIS Power Range Channel 4 (N-44) function in comparison with the other **Power Range Channels**?
- A. Power Range Channels 1, 2, and 3 provide input to the **Had Control** system whereas **Power Range Channel 4** does not.
 - B. Power Range Channel 4 is the only channel that provides input to the Overpower Rod Stop.
 - C. Power Range **Channel 4** is the only channel that provides input to the OPDT and OTDT runback circuitry.
 - D. Power Range Channels 1, 2, and 3 provide input to the OPDT and OTDT reactor **trips** whereas Power Range Channel 4 does not.

QUESTIONS REPORT

for 'Turkey Point Final Exam 2003-301 Questions

17.

Units 3 and 4 are at 100% power when annunciator F-1/2, VITAL AC BUS INVERTER TROUBLE, alarms as a result of '3C' Vital Inverter low output voltage.

Which ONE of the following describes the status of Vital Instrument bus '3P06' following receipt of the alarm and identifies the procedure operators will use to restore normal plant configuration?

- A. '3P06' is de-energized.
Restore plant configuration using 3-ONOP-003.6, Loss of 120V Vital Instrument Panel 3P06.
- B. '3P06' is de-energized.
Restore plant configuration using 0-OP-003.3, 120V Vital Instrument AC System.
- C. '3P06' is powered from the CVT.
Restore plant configuration using ONOP-003.6, Loss of 120V Vital Instrument Panel 3P06.
- D. '3P06' is powered from the CVT.
Restore plant configuration using 0-OP-003.3, 120V Vital Instrument AC System.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

18. Unit 4 is in Mode 5 on RHR cooling with 'A' RHR pump in **service**. The 'B' RHR pump was taken out of service 10 hours ago for replacement of a bearing that was overheating.
- The 'A' RHR pump has tripped on overcurrent and the crew has entered ONOP-050, Loss of KHK.
- Which ONE of the following describes the actions required to monitor RCS heatup rate per ONOP-050?
- A. Plot core exit temperature every minute for 5 minutes. Repeat every 15 minutes until RHR cooling is restored.
 - B. Plot T_{hot} every minute for 5 minutes. Repeat every 15 minutes until RHR cooling is restored.
 - C. Plot core exit temperature every minute for 5 minutes. Repeat every 15 minutes until natural circulation is verified established.
 - D. Plot T_{hot} every minute for 5 minutes. Repeat every 15 minutes until natural circulation is verified established.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

19. Which ONE of the following describes the operation of the Normal Containment Coolers (NCCs)?
- A. The NCC is started by placing the control switch in the ON position, the NCC fan starts and its associated suction and discharge dampers open automatically on the start signal.
 - B. The NCC is started by placing the control switch in the ON position, the NCC fan starts and its associated discharge damper automatically opens on the start signal.
 - C. The NCC discharge damper is manually opened, the control switch is placed in the ON position to start the NCC.
 - D. The NCC is started by placing the control switch in the ON position, the NCC fan starts and its associated discharge damper will fully open when fan discharge flow increases above a pre-set flowrate.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

20.

A control room evacuation has occurred and the crew is performing the actions of ONOP-105, Control Room Evacuation. The Unit 3 RCO is emergency borating from the Boric Acid Storage Tanks (BAST) per Attachment 3, Step 23 of ONOP-105 using the '3B' Charging pump.

- The '3B' Charging pump **speed controller is set at 12 psig.**
- RCP Seal **leakage is constant at 12 gpm.**
- Emergency boration has been in progress for 100 minutes.

After 100 minutes of emergency borating the '3B' Charging pump speed controller is changed to 6 psig.

Which ONE of the following identifies approximately how many minutes [in addition to the 100 minutes) the RCO will need to emergency borate with the controller set at 6 psig to **satisfy** the requirements of Step 23 of ONOP-105 for borating from the **BAST**?

Assume the RCP Seal leakage remains constant at **12 gpm.**

(References Provided)

- A. 36 minutes for a total of 136 minutes of emergency boration.
- B. 71 minutes for a total of **171 minutes** of emergency boration.
- C. 100 minutes for a **total** of 200 minutes of emergency boration.
- D. 136 minutes for a total of 236 minutes of emergency boration.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

21.

Unit 3 is in Mode 5, "COLD SHUTDOWN," with the following plant conditions:

- All CET's read 195 °F and are stable.
- 'A' S/G's **secondary** side manway is in the **process** of being removed.
- 'B' and 'C' S/G Narrow range levels are 20%.
- 'B' and 'C' S/G secondary water temperatures are 20 °F higher than RCS cold leg temperatures.
- I-1-3-487, PRZ Level Cold Calib., is at 15%.
- All RCP's are Off.
- RCS pressure is 325 psig and **stable**.
- Train 'A' RHR is in service.
- Train 'B' RHR is inoperable for repairs.
- All systems aligned in their normal configuration for the present plant conditions.

A loss of 'A' RHR pump has just occurred and cannot be restored. RCS temperature is increasing.

Which ONE of the following is the preferred method for heat removal under these conditions in accordance with ONOP-050, "Loss of RHR"?

- A. One train of **SI valves** aligned for injection and a High-Head Safety Injection **pump** running, **spill** through the Pressurizer PORVs.
- B. Charging Pump injecting flow through the normal charging line, spill through the Pressurizer PORVs.
- C. Natural Circulation RCS flow with all available S/G steam dump to atmosphere valves open, Standby Feedwater flow established.
- D. An RCP running with forced RCS flow with all available S/G steam dump to atmosphere valves open, Standby Feedwater flow established.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

22.

Unit 3 experienced a **LQCA**. Operators have **responded** with the EOP network and have **just** reset SI in E-0, Reactor Trip or **Safety** Injection. **Containment** pressure subsequently exceeds 20 psig.

Which **@NE** of the following describes **the** response of the Containment Spray pumps and their discharge MOVs?

- A. Both Containment Spray pumps will start. Both MOV-880A & B will open.
- B. Both Containment **Spray** pumps will **start**. Neither MOV-880A & B will open.
- C. Neither Containment Spray pump will start. Both MOV-880A & B will **open**,
- D. Neither Containment Spray pump will start. Neither MOV-880A & B will open.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

23.

Unit 4 is operating at 90% power with all controls in Automatic.
PT-444 begins to drift down.

Which ONE of the following describes the effect this will have on PC-444J, Pressurizer Pressure Master Controller, output, and the system response as a result of this failure?

PC-444J output will:

- A. decrease, pressurizer heaters output will increase, and actual RCS pressure will increase.
- B. increase, pressurizer heater output will lower, spray valves will open, and actual RCS pressure will decrease.
- C. increase, pressurizer heater output will increase, and actual RCS pressure will increase.
- D. decrease, pressurizer heater output will lower, spray valves will open, and actual RCS pressure will decrease.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

24.

Which ONE of the following describes the **design** and purpose of the Emergency Containment Filters (ECF)?

The **ECF** units contain

- A. both high efficiency particle filters and charcoal filters which remove iodine from the containment atmosphere post LOCA and provide cooling to the charcoal filters while the iodine decays.
- B. only high efficiency particle filters **which** remove 95% of all fission products from the containment atmosphere post **LOCA and** provide cooling to the **filters** while the fission products decay.
- C. only charcoal filters which removes iodine from the containment atmosphere post LOCA **and** provide cooling to the charcoal filters while the iodine **decays**.
- D. both high efficiency particle filters and charcoal **filters** which remove iodine from the containment atmosphere post LOCA and provide backup for containment spray containment **pressure** reduction.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-30 I Questions

25.

During operation at 100% reactor power, the following annunciators **alarmed**:

- A-8/4, PZR LO-LO LEVEL ALERT
- A-9/3, PZR CONTROL HI/LO LEVEL
- A-9/4, PZR LO LEVEL/HEATER CUTOFF/LTDN SECURED

The operator noticed that LI-459A, Pressurizer Level instrument has failed low. Pressurizer level is no longer on program.

Which **ONE** of the following describes the required actions?

- A. Place the CHANNEL **SELECT PRESSURIZER LEVEL CONTROL** switch in the CH 1&2 position **and** restore letdown and heaters to service **using** ONOP-041.6, Pressurizer Level Control Malfunction.
- B. Place the CHANNEL **SELECT PRESSURIZER LEVEL CONTROL** switch in the CH 2&3 position **and** restore letdown and heaters to service **using** ONOP-041.6, Pressurizer Level Control Malfunction.
- C. Place **the** CHANNEL **SELECT PRESSURIZER LEVEL CONTROL** switch in the CH 1&3 position, **and** start additional charging pumps to restore pressurizer level.
- D. Start additional charging pumps to restore pressurizer level **and** restore **letdown** and heaters to service **using** ONOP-041.6, Pressurizer Level Control Malfunction, **and** take action **using** ONOP-049.1, Deviation or Failure of **Safety Related** Protection Channels.

QUESTIONS REPORT

for Turkey Paint Final Exam 2003-301 Questions

28.

With a containment purge in progress the following events automatically happen:

- Containment **Purge** supply and exhaust fans tripped.
- Containment Purge **supply** and exhaust **valves** shut.

Which ONE of the following could **cause the** above events?

- A. Control Room HVAC Intake Hi Radiation, RAI 6643, in alarm.
- B. Manual initiation of **Safety** injection.
- C. Plant Vent Gas Monitor, channel R-14, in alarm.
- D. Automatic Phase B Containment Isolation Signal.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

27. The following events occurred in the order shown:

- The crew is responding to an ATWS.
- FR-5.1, **Response to Nuclear Power Generation/ATWS**, has been entered.
- The RCO has **started alignment for emergency boration per Step 4 of FR-S.1.**
- **The RCO has taken the switch for MOV-350, Emergency Boration Valve, to OPEN.**
- **Reactor is tripped and all rods fully insert.**
- **MOV-350 Valve Position Indication on the control board indicates GREEN.**

Which ONE of the following describes the next action(s) required of the operators per FR-S.1?

- A. Emergency boration is no longer required and the switch for MOV-350 should be *taken* back to the CLOSED position.
- B. Open HCV-121, Charging Flow to Regen Heat Exchanger, verify Loop A Charging Isolation, CV-310A, is open and establish greater than 60 gpm boration flow on FI-110.
- C. Open FCV-113A, Boric Acid to Blender, FCV-113B. Blender Flow to **Charging Pump**, and Manual Emergency Boration Valve, 3-356. Then close FCV-113B.
- D. Take the **switch** for MOV-350 back to CLOSE, and dispatch an Operator to verify the breaker to MOV-350 is **closed** and re-attempt to open MOV-350.

QUESTIONS REPORT

for Turkey Point Final Exam 2303-301 Questions

28.

I&C just completed a surveillance on the high voltage power source to the Source Range (SR) nuclear instruments. I&C determined the voltage was 1800 Vdc, (200 Vdc lower than the normal 2000 Vdc).

Which ONE of the following describes the effect (and the reason) this lower than normal voltage has on SR nuclear instrument performance.

SR indication will...

- A. ...not be affected because the high voltage only supplies power to the electronic circuitry of the amplifier.
- B. ...increase because the reduced voltage in the high voltage power supply results in more ion pairs reaching the electrodes due to lower potential applied to the detector.
- C. ...decrease because smaller pulses are generated by the alpha decay of U235 and gamma interactions.
- D. ...decrease because the reduced voltage in the high voltage power supply results in fewer ion pairs reaching the electrodes due to lower potential applied to the detector.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

29.

Which ONE of the following design features of the Spent Fuel Pool Cooling (SFPC) system mitigates inadvertent draining of the Spent Fuel Pool?

- A. All piping system openings, including pumps and valves, are located at or above the top of the fuel assemblies.
- B. The SFPC suction piping is provided with an anti-siphon hole.
- C. The SFPC demineralizer water supply valve automatically opens on a SFP low level alarm.
- D. The SFPC discharge piping is provided with an anti-siphon hole.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

33.

Which ONE of the following describes how the Main Steam Line radiation monitor, DAM-1, can be used to identify a ruptured Steam Generator?

- A. The **DAM-1 system** monitors all six S/Gs simultaneously and has manual valves that must be operated and the display checked.
- B. The operator can access the DAM-1 and SPINC-4 information through ERDADS to determine the affected S/G, no local manipulation is necessary.
- C. The affected Unit's DAM-1 system monitors the three S/Gs simultaneously and has manual valves that must be operated and the display checked.
- D. The local display on DAM-1 can be checked since it has flow and radiation display locally for each sample line, no local manipulation is necessary.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

31. Which ONE of the following is a fundamental reason for keeping water out of the Main Steam lines?
- A. Water in the lines increases the corrosion and wear product buildup.
 - B. Water elimination decreases heat losses therefore increasing plant efficiency.
 - C. Water in the lines increases the possibility of detrimental water hammer.
 - D. Water elimination reduces the number of steam traps required.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

32.

Unit 3 has experienced a **steam** line break outside of containment downstream of the MSIVs. The crew unsuccessfully attempted to close the MSIVs in Step 13 of E-0, Reactor Trip or Safety Injection.

The SRO transitions to E-2, Faulted Steam Generator Isolation, and then to ECA-2.1, Uncontrolled Depressurization of All Steam Generators.

The crew has Justestablished feedwater flow to the Steam Generators using the 3A Main Feedwater Pump when the RCO reports the following update on **Steam** Generator Pressures:

3A S/G	3B S/G	3C S/G
FI-474 decreasing	PI-484 stable	PI-494 increasing
Pi-475 decreasing	PI-485 decreasing	PI-495 increasing
PI-476 decreasing	PI-488 stable	PI-496 stable

Which CNE of the following **describes** the actions required?

- A. Stay in ECA-2.1.
- R. Return to E-2.
- C. Transition to E-3, Steam Generator Tube Rupture.
- D. Transition to ES-0.0, Rediagnosis.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

33. Unit 3 **has** experienced a loss of Instrument Air.

Which ONE of the following **describes** the correct operation of the Unit 3 Steam Dump to Atmosphere **valves**?

Operate the Steam Dump to Atmosphere valve controllers in

- A. MANUAL only. If operated in AUTO, the valves will remain closed.
- B. MANUAL only. If operated in AUTO, the valves will fail open.
- C. AUTO only. If operated in MANUAL; the valves will remain closed.
- D. AUTO only. If operated in MANUAL, the valves will fail open.

QUESTIONS REPORT
for Turkey Point Final Exzm 2003-301 Questions

34. Unit 4 startup is in progress following a refueling outage. The turbine load was being increased per GOP-301, Hot Standby to Power Operation, when Annunciator E-5/3, CONDENSER LO VACUUM, alarmed.

Both sets of SJAE's are in service and the hogging jet is in service. Turbine load is currently at 300 MWe and condenser vacuum is 24 inches Hg and stable.

Which ONE of the following actions should be taken by the crew to respond to this event?

- A. Secure from the load increase and immediately start reducing load per GOP-103, Power Operation to Hot Standby.
- B. Secure from the load increase, stabilize the plant at the current power level, and monitor condenser vacuum.
- C. Monitor condenser vacuum and continue with the load increase.
- D. Trip the reactor and turbine and perform the immediate actions of EOP-E-0, Reactor Trip or Safety Injection.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

35.

Unit 3 experienced an event 2 minutes ago and the following conditions now exist:

- Reactor power is 100% and stable.
- RCS T_{avg} is at normal operating temperature and **STABLE**.
- RCS pressure is at normal operating pressure and **STABLE**.
- Containment pressure is **INCREASING**.

The following conditions now exist on Unit 3 Steam Generators:

	"A"	"B"	"C"
Steam Flow	STABLE	STABLE	STABLE
Feed Flow	PEGGED HIGH	STABLE	STABLE
Pressure	STABLE	STABLE	STABLE
Level	DECREASING	STABLE	STABLE

Which ONE of the following events is in progress?

- A. **3A** Feed Flow indicator has failed HIGH.
- B. Main Feed Line break INSIDE containment.
- C. Main Steam Line break INSIDE containment.
- D. **3A** Main Feedwater Regulating valve has failed OPEN.

QUESTIONS REPORT

for Turkey Paint **Final Exam 2003-301 Questions**

36,

Unit 3 is experiencing a **Loss of All AC Power**. The crew is performing the actions of **ECA-0.0, Loss of All AC Power**. **The operators have been unable to restore power.**

Which **ONE** of the following describes the actions required for the safeguards equipment **and** why?

- A. The control switches for the safeguards equipment are placed in Pull-to-Lock to prevent the possibility of an uncontrolled cooldown and depressurization of the RCS when power is restored.
- E. The control switches for the **safeguards** equipment are **placed** in Pull-to-Lock to prevent a potential bus overload when power is restored.
- C. The control switches for the safeguards equipment are verified to be in automatic alignment on the 4KV bus(es) that get power back so if SI is required, it will occur without operator action.
- D. The control switches for **the** safeguards equipment for QNE train are **placed** in Pull-to-Lock and the control switches for the other train are verified to be in automatic. This ensures alignment for injection without operator action.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

37.

Unit 4 has lost off-site power and is maintaining MODE 3 steady-state conditions.

Which ONE of the following is an indication that Natural Circulation is successfully occurring in the RCS?

- A. RCS subcooling indication is decreasing.
- B. S/G pressure indications are increasing.
- C. Core Exit thermocouple temperatures are decreasing.
- D. RCS hot leg temperatures are increasing

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

38.

Which ONE of the following describes the purpose and function of the Seal Water to the Condensate Pump(s) and when operators must ensure it is in service?

- A. Provides a seal between the atmosphere and the vacuum in the condenser which prevents air introduction into the condenser and is required to be in service only when a condensate pump is in service.
- B. Serves to lubricate the seal faces and the upper condensate pump bearings to prevent excessive wear and is required to be in service only when a condensate pump is in service.
- C. Serves to lubricate the seal faces and the upper condensate pump bearings to prevent excessive wear and provides a seal to prevent the introduction of air into the condensate system which could cause condensate pump cavitation and is required to be in service any time there is a vacuum in the condenser, a condensate pump is running and the pump discharge valve is open.
- D. Provides a seal between the atmosphere and the vacuum in the condenser which prevents air introduction into the condenser, it also serves to lubricate the seal faces and the upper condensate pump bearings to prevent excessive wear and is required to be in service any time there is a vacuum in the condenser and the pump suction valve is open.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

39. Unit 3 in at 100% power with all systems in normal alignment when 120V Vita; Instrument panel 3P09 loses power.

In the absence of operator response, which ONE of the following describes the response of Unit 3 S/G narrow range levels?

- A. 3A S/G: Trending toward program level
3B S/G: Lowering Uncontrollably
3C S/G: Trending toward program level
- B. 3A S/G: Trending toward program level
3B S/G: Rising Uncontrollably
3C S/G: Trending toward program level
- C. 3A S/G: Rising Uncontrollably
3B S/G: Trending toward program level
3C S/G: Trending toward program level
- D. 3A S/G: Lowering Uncontrollably
3B S/G: Trending toward program level
3C S/G: Trending toward program level

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

40.

Unit 3 is at 100% power. A loss of DC Bus 3D01 occurs. Off-site power is still available.

Which ONE of the following will occur as a result of the loss of 3D01 DC Bus?

- A. Loss of AFW pump 'C' control and protection.
- B. All Main Steam Isolation Valves will close.
- C. The 3B Emergency Diesel Generator will lose DC power.
- D. All Safeguards actuation will be lost.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

41. Which ONE of the following conditions will result in a Main Feedwater pump trip?
- A. "A" Main Feedwater pump will trip if the lube oil pressure decreases to 7 psig.
 - B. "A" and "B" Main Feedwater pumps will trip on a wide range S/G HI level trip signal of 93%.
 - C. "B" Main Feedwater pump will trip if suction pressure decreases to 250 psig for > 5 seconds.
 - D. "A" Main Feedwater pump will trip if a loss of voltage condition occurs on "A" 4160Kv bus.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

42.

Unit 4 has experienced a loss of feedwater at 100% reactor power which resulted in a reactor trip. The transient has also resulted in a break in the RCS which has caused Containment temperature to increase to 185 °F. The crew is performing the actions of E-0, Reactor Trip or Safety Injection.

The crew has experienced problems with controlling Auxiliary Feedwater (AFW) flow and have one AFW pump running. Operators are working to get a second AFW pump running. The crew has initiated the monitoring of Critical Safety Functions using F-0, Critical Safety Function Status Trees.

Which ONE of the following describes when the limits for establishing bleed and feed cooling have been reached?

- A. Narrow range level in any Steam Generator drops below 32% with AFW flow less than 345 gpm to that Steam Generator.
- B. Wide range level in any Steam Generator drops below 32% with AFW flow less than 345 gpm to that Steam Generator.
- C. Narrow range level in all Steam Generators drops below 32% with total AFW flow less than 345 gpm.
- D. Wide range level in all Steam Generators drops below 22% regardless of AFW flow.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Qirestians

43.

Which ONE of the following would be a consequence of fire involving the "A" Auxiliary Feedwater (AFW) pump, rendering it inoperable?

- A. Unit 3 safe shutdown capability would be compromised because there would be inadequate AFW flow for decay heat removal.
- B. Unit 3 safe shutdown capability would **NOT** be compromised because adequate AFW flow **would** remain available for decay heat removal.
- C. Both Standby Feedwater **pumps must** be verified operable within 2 hours and Unit 3 must be **placed** in Mode 3 within the next 6 hours for compliance with Technical Specification action requirements.
- D. Unit 3 would be required to be in at least Mode 3 in 6 hours and in Mode 4 within the following 6 hours for compliance with Technical Specification action requirements.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

44.

With both units initially at 100% power, operators were forced to evacuate the control room. Both units are stable in Mode 3 with all initial actions of ONOP-105, Control Room Evacuation, having been completed successfully.

All sequencers have been disabled.

A loss of offsite power occurs.

Which ONE of the following describes the required operator actions PRIOR to closing the '3B' Emergency Diesel Generator (EDG) breaker?

- A. At the EDG panel 3C12B, the EDG Master Control switch must be placed to NORMAL.
- B. At the EDG panel 3C12B, the EDG Synchronizing switch must be placed in OFF.
- C. At the Alternate Shutdown Panel, transfer switches for the '3B' 4Kv bus loads and associated Load Center loads must be placed in REMOTE.
- D. At the Alternate Shutdown Panel, control switches for the '3B' 4Kv bus loads and associated Load Center loads must be placed in STOP/TRIP.

QUESTIONS REPORT

far Turkey Puint Final Exam 2003-301 Questions

45.

A Vital Instrument inverter developed a **fault** that caused auto-transfer. **After the transfer, the fault immediately cleared.**

Which **ONE** of the following **describes** the automatic operation of the inverter?
(Assume the RETRANSFER switch is in its normal position)

The AUTOMATIC STATIC TRANSFER **switch** transferred the load to the

- A. CVT. **The load must be manually transferred back to the NORMAL inverter.**
- B. SPARE inverter. **The load must be manually transferred back to the NORMAL inverter.**
- C. CVT **and automatically transferred back to the NORMAL inverter.**
- D. SPARE inverter **and automatically transferred back to the NORMAL inverter.**

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

46.

All AC power was lost on Unit 4 and subsequently restored to one 4Kv bus. The crew has made a transition to ECA-0.2, Loss of All AC Power Recovery With SI Required.

Which ONE of the following describes the operator action(s) contained in ECA-0.2 with regards to safeguards equipment?

Operator actions in accordance with ECA-0.2 will:

- A. cause the sequencer to load on the SI equipment in the proper order.
- B. manually start safeguards equipment in the same order as would the sequencer.
- C. verify proper safeguards equipment lineup using E-0, Reactor Trip or Safety Injection.
- D. manually start ICW and CCW pumps first to provide cooling to the other safeguards equipment prior to their operation.

QUESTIONS REPORT

for Turkey Pain! Final Exam 2003-301 Questions

47,

Which ONE of the following identifies the AFW steam supply MOV's that may be deenergized in the event of a loss of vital DC power?

- A. MOV-1403, 3A Stm Supply to Aux Feedwater Pumps
MOV-1404, 3B Stm Supply to Aux Feedwater Pumps
MOV-1405, 3C Stm Supply to Aux Feedwater Pumps
- B. MOV-1404, 3B Stm Supply to Aux Feedwater Pumps
MOV-1405, 3C Stm Supply to Aux Feedwater Pumps
- C. MOV-1403, 3A Stm Supply to Aux Feedwater Pumps
MOV-1405, 3C Stm Supply to Aux Feedwater Pumps
- D. MOV-1403, 3A Stm Supply to Aux Feedwater Pumps
MOV-1404, 3B Stm Supply to Aux Feedwater Pumps

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

48.

Which ONE of the following describes the sequencer operation if an SI actuation occurs while the sequencer is sequencing on Loss of Off-site Power (LOOP) loads?

- A. The sequencer opens then re-closes the DG output breaker and subsequently loads all SI and LOOP equipment.
- B. The LOOP signal will lock out the SI signal and no additional SI equipment is loaded.
- C. The sequencer resets and then sequences all SI and LOOP equipment.
- D. SI mode sequence begins after the LOOP sequence times out and then the additional SI equipment is loaded.

QUESTIONS REPORT

for Turkey Paint Final Exam 2003-301 Questions

49.

There is a fire in the hydrogen generator cooling system. Initial fire fighting efforts caused the Fire Main header pressure to drop to 81 psig. The Fire Main pressure slowly increased and has subsequently stabilized at 87 psig.

Which ONE of the following describes the current status of the fire pumps?

- A. The Diesel Fire pump auto started and the Electric Fire pump remained in standby.
- B. The Electric Fire pump act, started, then the Diesel Fire pump auto started.
- C. The Electric Fire pump auto started and the Diesel Fire pump remained in standby.
- D. The Diesel Fire pump auto started, then the Electric Fire pump auto started.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

50.

A release is in progress from Waste Gas Decay Tank 'A'. A loss of instrument bus 3P08 occurs.

Which ONE of the following describes the effect that this failure will have on the **Waste Gas** discharge in progress?

(Assume all systems operate normally.)

RCV-014, Waste Disposal System **Gas Decay** Tank Discharge valve, will

- A. automatically close due to loss of power resulting in the trip of the Auxiliary Building exhaust fans.
- B. automatically close due to loss of power to PRMS-R-14, Plant Vent Gas Monitor.
- C. have to be manually closed since the loss of power resulted in the loss of automatic protection from PRMS-R-14, Plant Vent Gas Monitor.
- D. have to be manually closed since the loss of power resulted in the loss of power to the Waste Boron Recycle Panel.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

51.

The Waste Disposal Liquid release line radioactivity monitor PRMS (R-18) uses a _____ and causes _____ when its high radiation alarm setpoint is reached.

- A. **G-M** tube; Liquid Effluent Discharge valve, RCV-18, to automatically close
- B. **G-M** tube; no automatic action
- C. Scintillation detector; Liquid Effluent Discharge valve, RCV 18, to automatically close
- D. Scintillation detector; no automatic action

QUESTIONS REPORT

for Turkey Pain! Final Exam 2003-301 Questions

52.

Unit 3 is at 100% power with the '3C' ICW Pump out of service. Annunciator E-2/2, TURB BEARING HI TEMP, is in alarm.

The SNPO reports a massive grass influx has resulted in ICW/CCW and ICW/TPCW basket strainer clogging.

The following conditions exist:

- Component Cooling Water heat exchanger outlet temperature is currently 118 °F and stable.
- Turbine bearing temperatures are 181 °F and slowly increasing.
- '3A' and '3B' TPCW heat exchangers are at 4200 gpm ICW flow.
- '3A', '3B', and '3C' CCW heat exchangers are at 3000 gpm ICW flow each.

Which ONE of the following describes the actions that should be taken due to the above conditions?

- A. Trip the reactor and turbine and enter EOP-E-0, Reactor Trip or Safety Injection.
- B. Reduce turbine load as necessary to return temperatures within normal bands and implement ONOP-01 ■ Screen Wash System/Intake Malfunction.
- C. Increase cooling water flow to the turbine lube oil cooler to reduce bearing temperatures and implement ONOP-011, Screen Wash System/Intake Malfunction.
- D. Enter into Technical Specification 3.0.3 and commence a reactor shutdown per GOP-103, Power Operation to Hot Standby.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

53.

Unit 3 is at 100% power. The 'B' Intake Cooling Water (ICW) pump breaker is racked out when an SI signal occurs.

Which ONE of the following describes the ICW pumps that will receive an automatic start signal?

- A. 'A' only.
- B. 'C' only.
- C. 'A' and 'C' if the 'D' bus is aligned to 'A' bus.
- D. 'A' and 'C' if the 'D' bus is aligned to 'R' bus.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

54.

Which ONE of the following will cause letdown orifice isolation valve, CV-200A, to close?

A. Loss of Instrument Air to containment.

B. Manual initiation of Safety Injection.

C. VCT level increase to 86%.

D. Annunciator A-9/3, PZR CONTROL HI/LO LEVEL, alarms under no load conditions.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

55.

Unit 3 and Unit 4 Instrument Air systems are in their normal alignment with both units operating at 100% reactor power. The Instrument Air system on Unit 3 develops a leak and pressure in the system starts to decrease,

Which ONE of the following describes the actions that will occur as a result of the Instrument air pressure decrease?

Instrument Air header isolation valves CV-3-1605 and CV-4-1605 will automatically throttle:

- A. closed to protect Unit 4 and Service Air supply valve 40-2059 will automatically open to supply Service Air to the Unit 3 Instrument Air system.**
- B. closed to protect Unit 4 and Service Air supply valve 40-2059 should be manually opened to supply Service Air to the Unit 3 Instrument Air system.**
- C. open in an attempt to raise Unit 3 Instrument Air pressure and Service Air supply valve 40-2059 should be manually opened to supply Service Air to the Instrument Air system if Instrument Air pressure drops below 75 psig.**
- D. open in an attempt to raise Unit 3 Instrument Air pressure and Service Air supply valve 40-2059 will automatically open to supply Service Air to the Instrument Air system if Instrument Air pressure drops below 75 psig.**

QUESTIONS REPORT
for **Turkey** Point Final Exam 2003-301 Questions

56.

Which ONE of the following describes the type of fire suppression **system** that is installed in the Inverter Rooms (Zones 108A and 108B) and **what** are the hazards to personnel if they are in the room **during** system actuation?

- A. A deluge manual sprinkler **system** is installed. An electrical shock hazard exists due to the large amounts of water used to combat the fire.
- B. An automatic high pressure wet pipe system is installed. An electrical shock hazard exists due to the large amounts of water used to combat the fire.
- C. An automatic halon system is installed. An asphyxiation hazard **exists** due to the oxygen scavenging attributes of the halon.
- D. A manual Carbon Dioxide (CO₂) system is **installed**. An asphyxiation hazard **exists** due to the resulting heavy concentrations of CO₂.

QUESTIONS REPORT

for Turkey Point **Final Exam 2003-301 Questions**

57.

Which **ONE** of the following describes the complete action an **AUTOMATIC safety injection signal will have** on the Unit 3 Containment systems?

- A. Close all containment isolation Phase 'B' valves, stop the containment purge fans and start the 'A' and 'C' ECCs,
- B. Close all containment isolation Phase 'R' valves, start the containment purge fans and start the 'A', 'B', and 'C' ECCs.
- C. Close all containment isolation Phase 'A' valves, stop the containment purge fans and start the 'A' and 'C' ECCs.
- D. Close all containment isolation Phase 'A' valves, start the containment purge fans and start the 'A', 'B', and 'C' ECCs.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-2004 Questions

58.

Unit 3 is currently at 100% reactor power. Annunciator G-5/1, AXIAL FLUX T.S. LIMIT EXCEEDED, has just been declared inoperable. I&C does not expect to get the parts needed for repair of the annunciator for several days.

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

- A. Reduce thermal power to less than 50% within 30 minutes and reduce the Power Range Neutron Flux - High Trip setpoint to less than or equal to 55% within the next 4 hours.
- B. Monitor and log the indicated AFD at least once per hour for the first 24 hours and at least once per 30 minutes thereafter.
- C. Monitor and log the indicated RPI at least once per hour for the first 24 hours and at least once per 30 minutes thereafter.
- D. Reduce thermal power to less than 50% within 30 minutes and implement ONOP-059.4, Excess Axial Flux Difference.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

59. Which ONE of the following describes the use of the foldout page in EOPs and ONOPs?

The foldout page contains information or action steps that are:

- A. only applicable while executing steps in the right-hand column of the procedure in use.
- B. only applicable while executing steps in the left-hand column of the procedure in use.
- C. applicable during the execution of any step in the procedure in use, unless stated otherwise by the SRC.
- D. applicable during the execution of any step in the procedure in use, unless stated otherwise in the procedure.

QUESTIONS REPORT
for Turkey Point Final Exzm 2003-301 Questions

60. Which ONE of the following completes the description of the ECCS design basis single failure criteria for the injection phase of an accident?

The ECCS is designed to withstand any single _____ failure and still perform its intended safety function.

- A. active
- B. passive
- C. active or passive
- D. active and passive

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

61. Which ONE of the following describes a procedure change that would be allowed to be approved as a One Time Only OTSC?
- A. Changing a definition in 0-EPIP-20101, **Duties** of the Emergency Coordinator.
 - B. Changing an instruction in an Administrative Procedure.
 - C. Deleting a form contained in an Operations Surveillance Procedure for an operator log taken via the NOMS Program.
 - D. Changing a responsibility in a Quality Instruction (QI) procedure.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

62.

Refueling operations are in **progress** on Unit 3 when the following takes place:

- Annunciator X-4/1, **ARMS HI RADIATION**, alarms
- Area Radiation Monitor, R-7, in the Spent Fuel Pit is the affected channel

Operators quickly entered ONOP-066, High Area Radiation Monitoring System Alarm, **and** determined that the high alarm is not valid **and** the R-7 **has** failed.

Which **ONE** of the following is correct regarding the Refueling operations in progress?

Refueling operations...

- A. ... **are** unaffected and may continue without restrictions.
- B. ... shall be stopped immediately. Refueling operations can continue if a **portable** radiation monitor with an alarm is **used** in the **Spent** Fuel Pit.
- C. ... **shall** be **stopped** until HP has completed surveys to ensure there is no source of high radiation in the Spent Fuel Pit area.
- D. ... shall be stopped immediately. Refueling Operations can continue **ONLY** after ARM R-7 has been repaired and declared **OPERABLE**.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

63.

Operators are reducing unit load with the control rods in AUTO.
During the load reduction, T_{ref} decreases to 4 °F below T_{avg} .

Based on this T_{avg}/T_{ref} mismatch, which ONE of the following identifies the speed at which rods should be inserting?

- A. 8 steps/min.
- B. 24 steps/min.
- C. 40 steps/min.
- D. 72 steps/min.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

64.

Given the following conditions at a work site:

- Radiation level is 40 mrem/hr
- Radiation level with shielding is 10 mrem/hr
- Time for one worker to install and remove shielding is 15 minutes
- Time to conduct the task with one worker is 1 hour
- Time to conduct the task with two workers is 20 minutes

Assumptions:

- A dose rate of 40 mrem/hr will be received while installing and removing the shielding.
- Shielding is installed and removed by one worker only.

Which ONE of the following would result in the lowest total whole body dose?

Conduct the task with:

- A. two workers with shielding.
- B. two workers without shielding.
- C. one worker with shielding.
- D. one worker without shielding.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

65.

Which ONE of the following describes an operational concern associated with initiating a containment purge?

An uncontrolled radioactive release can result if the:

- A. Containment Purge Exhaust Isolation Valves (POV-2602 & POV-2603) are opened before the Containment Purge Supply Isolation Valves (POV-2600 & POV-2601) are opened.
- B. Containment Purge Exhaust fan is started without the equipment hatch and emergency hatch secured and at least one personnel door is closed.
- C. Containment Purge Supply fan is started without the equipment hatch and emergency hatch secured and at least one personnel door is closed.
- D. Containment Purge Exhaust fan is started before the Containment Purge Supply Fan.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

66.

Which ONE of the following describes the basis for isolating feedwater to a faulted Steam Generator in ~~EORE2~~ Faulted Steam Generator Isolation?

- A. Prevent inadequate Auxiliary Feedwater flow to the intact Steam Generators.
- B. Minimize RCS cooldown and mass energy release.
- C. To ensure a steam supply to the Auxiliary Feedwater pumps.
- D. Prevents cold feeding of a hot dry Steam Generator which could result in a Steam Generator tube rupture.

The following events have occurred:

- All Main Steam Isolation valves (MSIVs) and bypass valves closed.
- Containment Isolation Phase 'B' actuated.
- Sequencer equipment begins to load.
- Containment Spray pumps started.

Which ONE of the following was the initiating event?

- A. High pressure inside Containment.
- B. High Steam flow coincident with Lo Tavg only.
- C. High Steam flow coincident with either Lo S/G pressure or Lo Tavg.
- D. High Steam line differential pressure coincident with Lo Pressurizer pressure.

QUESTIONS REPORT
for Turkey Point Final Exam 2003.301 Questions

68.

Step 7 of EOP-ES-1.1, SI Termination, **states** to check if Containment Spray should be stopped. Step 7.c of ES-1.1 states to verify that Containment Temperature is less than **122 °F**.

Which **ONE** of **the** following is correct concerning the 122 °F temperature limit for resetting the Containment Spray signal?

The _____ event is a much shorter duration event than the _____ event. Therefore, the **122 °F** Containment Spray termination criterion _____ apply for the shorter duration event.

- A. Loss of Coolant Accident (LOCA); Main Steam Line Break (MSLB); does NOT
- B. Loss of Coolant Accident (LOCA); Main Steam Line Break (MSLB); does
- C. Main **Steam** Line Break (MSLB); Loss of Coolant Accident (**LOCA**); does NOT
- D. Main Steam Line Break (MSLB); Loss of Coolant Accident (LOCA); does

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

69.

EOP-ECA-1.2, LOCA Outside Containment, Step 3, states "Check If Break Is Isolated."
If the break is not isolated, Step 3 directs you to EOP-ECA-1.1, Loss of Emergency
Coolant Recirculation, Step 1.

Which ONE of the following is the reason the RNO column directs you to
EOP-ECA-1.1, Step 1?

- A. RCS water level is approaching mid-loop which will cause the RHR pumps to cavitate.
- B. A phase "A" isolation caused a loss of Instrument Air in containment. Subsequently, emergency coolant recirculation is not available until Phase "A" has been reset.
- C. There is no inventory in the containment sump.
- D. A Containment Ventilation Isolation signal caused a loss of Instrument Air in containment. Subsequently, emergency coolant recirculation is not available until the Containment Ventilation Isolation signal has been reset.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

70.

EOP-FR-H.1, Response to Loss of Secondary Heat Sink. Step 1 states: "Check if Secondary Heat Sink is Required.!"

Which ONE of the following statements is correct for a Large Break Loss of Coolant Accident (LOCA) where the RCS will depressurize below intact S/G pressures?

- A. The secondary heat sink is NOT required and actions to restore secondary heat sink are NOT necessary.
- B. Feed and bleed **MUST** be established within 30 minutes and before intact S/G wide range level reaches 22%.
- C. Feedwater **MUST** be established prior to intact S/G wide range levels reaching 22% to avoid thermal stress damage to the S/G(s).
- D. Feed and bleed **MUST** be established within 30 minutes or before core exit thermocouples reach 700 °F.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

71.

EOP-FR-P.1, Response to **Imminent Pressurized Thermal Shock Condition**, states in Step 7, to "Check If SI Should Be Terminated."

Which ONE of the following events may result in a condition where analysis shows SI flaw may NOT be able to be terminated?

- A. **Small Break Loss of Coolant Accident (SBLOCA).**
- B. Ruptured Steam Generator
- C. **Steam line break upstream of the MSIVs.**
- D. Steam line break downstream of the MSIVs.

QUESTIONS REPORT

for Turkey Point Final Exam 2003-301 Questions

72.

EOP-ES-0.4, Natural Circulation Cooldown With Steam Void in Vessel (Without RVLMS), Step 6 **states** "Establish Pressurizer Level To accommodate Void Growth." Prior to this step, there is a note that **states** "Saturated conditions in the pressurizer are required to be established before trying to **decrease** pressurizer level."

Which ONE of the following choices is correct with respect to the thermodynamic relationship between Pressurizer pressure and Pressurizer level and their effect on the plant?

If the Pressurizer is not saturated, decreasing Pressurizer **level** (using charging and letdown) will cause the Pressurizer pressure to than if the Pressurizer were **saturated**. Though the Pressurizer **pressure still** decreases **when level** is reduced under **saturated conditions**, the rate of decrease is since vapor is created as the pressure drops.

A. increase slower; faster

B. increase slower; slower

C. decrease faster; faster

D. decrease faster; slower

QUESTIONS REPORT

for Turkey Point final Exam 2003-301 Questions

73.

EOP-ECA-1.1, Loss of Emergency Coolant Recirculation, Step 12 directs operators to "Verify NO Backflow from RWST to Sump."

Which ONE of the following identifies the condition with the minimum number of open valves in which backflow from the RWST to the containment sump could exist?

- A. **Both** Recirculation sump suction line valves MOV-860A AND MOV-861A are OPEN when **both** RHR Pump Suction Isol. valves MOV-862A AND MOV-862B are OPEN.
- B. **Both** Recirculation sump suction line valves MOV-860A AND MOV-860B are OPEN when **both** RHR Pump Suction Isol. valves MOV-862A AND MOV-862B are OPEN.
- C. **Either** Recirculation sump suction line valve MOV-860A OR MOV-861A is OPEN when **either** RHR Pump Suction Isol. valve MOV-862A OR MOV-862B is OPEN.
- D. **Either** Recirculation sump suction line valve MOV-860A OR MOV-860B is OPEN when **either** RHR Pump Suction Isol. valve MOV-862A OR MOV-862B is OPEN.

QUESTIONS REPORT
for Turkey Point Final Exam 2003-301 Questions

74.

EOP-ECA-2.1, Uncontrolled Depressurization of All Steam Generators, Step 42, states "Verify SI Flow NOT Required."

Which ONE of the following describes the basis for this step?

The combination of _____ ensures that RCS conditions are under adequate operator control. Loss of control will require SI flow.

- A. pressurizer level and narrow range SG level
- B. subcooling and adequate core flow
- C. subcooling and pressurizer level
- D. adequate core flow and wide range SG level

QUESTIONS REPORT

for Turkey Paint Final Exam 2003-301 Questions

75.

Operators are performing EOP-ECA-1.1, Loss of Emergency Coolant Recirculation, and have established two Emergency Containment Coolers (ECCs) and one Containment Spray pump (CSP) running as directed by ECA-1.1.

Containment pressure subsequently exceeds 20 psig and operators transition to EOP-FR-Z.1, Response to High Containment Pressure.

Step 8 of FR-Z.1 directs operators to start the second CSP.

Step 10 of FR-Z.1 directs operators to verify ECCs running.

Which ONE of the following describes the correct operator response to the directions given by FR-Z.1?

- A. Start the **second** CSP as directed by FR-Z.1.
Verify only **two** ECCs are running.
- B. Start **the** second CSP as directed by FR-Z.1
Verify three ECCs are running.
- C. Maintain only one CSP running.
Verify only **two** ECCs are running.
- D. Maintain only one CSP running.
Verify three **ECCs** are running.