Final Submittal
(Blue Paper)

ST. LUCIE
2008-301

# FINAL SRO

# WRITTEN EXAMINATION

# AND REFERENCES

St. Lucie Initial Exam 2008
Table of Contents
Handouts
For the Written Examination

1. 2-NOP-3.05, Appendix C, SDC & LPSI Pump Flow Requirements pages 142-148
2. ONP- 72.01, Response to Security Events
3. EPIP-01, Attachment 1, Emergency Classification Table, pages 15-39
4. TS 3.6.2.1, Depressurization and Cooling Systems
5. 1-EOP-99, Figure 1A, RCS Pressure Temperature
6. 1-EOP-99, Figure 1B, RCS Pressure Temperature
7. 1-EOP-99, Figure 2, Safety Injection Flow Vs RCS Pressure
8. 2-EOP-99, Figure 1A, RCS Pressure Temperature
9. 2-EOP-99, Figure 1B, RCS Pressure Temperature
10. 2-EOP-99, Figure 2, Safety Injection Flow Vs RCS Pressure

# U.S. Nuclear Regulatory Commission

## Site-Specific SRO Written Examination

| Applicant Information | |
|---|---|
| Name: | |
| Date: 8/01/08 | Facility/Unit: St. Lucie Plant |
| Region: I ☐ II ☒ III ☐ IV ☐ | Reactor Type: W ☐ CE ☒ BW ☐ GE ☐ |
| Start Time: | Finish Time: |

**Instructions**

Use the answer sheets provided to document your answers. Staple this cover sheet on top of the answer sheets. To pass the examination you must achieve a final grade of at least 80.00 percent overall, with 70.00 percent or better on the SRO-only items if given in conjunction with the RO exam; SRO-only exams given alone require a final grade of 80.00 percent to pass. You have 8 hours to complete the combined examination, and 3 hours if you are only taking the SRO portion.

**Applicant Certification**

All work done on this examination is my own. I have neither given nor received aid.

_____
Applicant's Signature

| Results | |
|---|---|
| RO/SRO-Only/Total Examination Values | _____ / _____ / _____ Points |
| Applicant's Scores | _____ / _____ / _____ Points |
| Applicant's Grade | _____ / _____ / _____ Percent |

Question 1

Unit 2 tripped from 100% power. 2-EOP-02, "Reactor Trip Recovery," is being implemented. Reactor power is 5 X $10^{-4}$% as indicated on Wide Range Instrumentation.

Which ONE of the following correctly describes the status of the Nuclear Startup Channels <u>at this time</u>?

A. Energized. They automatically energize at $10^{-4}$% power.

B. NOT energized. They will energize if the Startup Channel switches are placed in "on".

C. Energized. They automatically energize on the reactor trip signal.

D. NOT energized. They will NOT energize if the Startup Channel switches are placed in "on".

Question 2

Unit 1 has tripped from 100% power due to a Loss of Offsite power. On the trip, PORV 1402 opened and was NOT able to be closed / isolated.

While in EOP-03, "LOCA", the following conditions exist:

- Pressurizer level is 40% and rising
- RCS Thot is 522°F and stable
- Rep CET is 528°F and stable
- Pressurizer pressure is 890 psia and lowering
- Reactor Vessel Level Monitoring System indicates 4-8 covered
- 1A SG NR level is 62% and steady, feeding at 100 gpm
- 1B SG NR level is 45% and slowly dropping, feeding at 100 gpm

HPSI throttling criteria is NOT MET due to Inadequate:

A. Pressurizer Level.

B. Rx Vessel level.

C. AFW flow.

D. Subcooling.

Question 3

Unit 1 was manually tripped due to an RCS leak.

The following is the sequence of events:

0000 Reactor trip
0011 SIAS actuation
0015 1-EOP-01, "SPTA," is complete / 1-EOP-99, "Appendix J," is complete
0017 1-EOP-03, "LOCA," is entered

Current Plant conditions:

- Containment Pressure 2.8 psig
- Containment Temperature 117°F
- RCS Pressure 575 psia
- RCS Temperature 450°F

Which ONE of the following describes the correct action required and the reasons, based on current plant conditions?

A. Trip one RCP in each loop to minimize leak flow from the RCS.

B. Trip all RCPs to ensure RCP seal integrity.

C. Trip one RCP in each loop due to inadequate RCP NPSH.

D. Trip all RCPs due to insufficient subcooling.

Question 4

A LOCA /LOOP has occurred on Unit 1.

The following are current plant conditions:

- Containment Pressure 12 psig ↑
- Containment Temperature 205°F ↑
- RCS Pressure 680 psia ↓
- RCS Thot 497°F ↔
- RCS Tcold 496°F ↔
- Rep CET Temperature 510°F ↔
- Figure 2 SI Flow 700 gpm ↔
- Steam Generator Levels 45% WR ↑
- Aux Feed Flow 220 gpm / Generator ↔

Which ONE of the following describes the status of Natural Circulation at this time?

A. Single phase natural circulation is currently being met.

B. Single phase natural circulation will be met when Rep. CET temperature is <485°F.

C. Two-phase natural circulation is currently being met.

D. Two-phase natural circulation will be met when safety injection flow is >780 gpm.

Question 5

During operation at 80% power, the Unit 2 Reactor Coolant Pumps' seal readings indicate as follows:

| | PRESSURE (PSIG) | | | FLOW (GPM) | TEMPERATURE |
|---|---|---|---|---|---|
| PUMP | Bleedoff Cavity | Upper Seal Cavity | Middle Seal Cavity | Controlled Bleedoff | Controlled Bleedoff |
| 2A1 | 156 | 1080 | 1170 | 1.9 | 173 |
| 2A2 | 124 | 685 | 1588 | 1.1 | 148 |
| 2B1 | 176 | 180 | 2221 | 2.8 | 187 |
| 2B2 | 119 | 782 | 1505 | 0.9 | 143 |

Based on these indications, the operating crew should:

A. Monitor and record RCP seal parameters for additional degradation.

B. Begin unit shutdown, then monitor the affected RCP for further degradation.

C. Begin unit shutdown, then stop the affected RCP after the TCB's are open.

D. Manually trip the reactor and turbine, then trip the affected RCP(s).

Question 6

Unit 2 is at 100% power. Only 2A charging pump is in service and trips due to an electrical fault. All other charging pumps and letdown valves are in Auto.

1) Which ONE of the following describes the correct operator action?

2) What is the result if operator action is NOT taken?

A. 1) Manually start another charging pump.
   2) V2520, "Ion Exchanger bypass valve," will open and divert letdown flow to the Holdup tanks.

B. 1) Manually isolate letdown.
   2) V2515, "Letdown isolation valve," will close on high Regen HX outlet temperature.

C. 1) Manually start another charging pump.
   2) The designated back-up charging pump will auto start on pressurizer level deviation.

D. 1) Manually isolate letdown.
   2) V2516, "Letdown isolation valve," will close on high $\Delta P$ across the regen HX.

Question 7

Unit 2 is in mode 4, solid pressure control in service, with the following conditions:

- RCS pressure is 265 psia
- RCS temperature is 245°F
- No RCP's are operating
- A loss of Shutdown Cooling occurs

Which ONE of the following is the MAXIMUM RCS pressure that would be reached prior to overpressure protection actuation?

A. 275 psia

B. 350 psia

C. 470 psia

D. 530 psia

Question 8

A CCW leak has developed on Unit 2. Normal CCW Surge Tank makeup is not available.

Which ONE of the following describes backup makeup capability?

A. Auto makeup from Demin Water System.

B. Manual makeup from Primary Water system.

C. Auto makeup from the Domestic Water System.

D. Manual makeup from Fire Water System.

Question 9

Unit 2 is at 100% power.

Evaluate the following SELECTED controller malfunctions and determine which ONE would require entry into a Tech Spec LCO in the shortest period of time, assuming no operator action.

SELECTED Pressurizer:

A. Pressure channel fails high.

B. Pressure channel fails low.

C. Level channel fails low.

D. Level channel fails high.

Question 10

A Steam Generator Tube Rupture / LOOP has occurred on Unit 2 and 2-EOP-04, "SGTR", is in progress. 2-EOP-99, "Appendix R, S/G Isolation," has been performed.

The current plant conditions are:

- RCS pressure is 820 psia
- RCS temperature is 509°F Thot
- Isolated S/G pressure is 730 psia
- Isolated S/G level is 42% Narrow Range

Which ONE of the following is the strategy / reason concerning pressure control of the RCS?

Maintain RCS pressure:

A. lower than isolated S/G pressure to maintain affected S/G level 60% to 70% NR.

B. higher than the isolated S/G pressure to prevent a potential reactivity event.

C. lower than the isolated S/G to prevent further contamination of the S/G.

D. higher than the isolated S/G to prevent loss of subcooling.

Question 11

The following temperatures exist after an Excess Steam Demand event in which the 2B S/G has blown dry:

- Loop 2A T-cold: 432°F
- Loop 2A T-hot: 464°F
- Loop 2B T-cold: 424°F
- Loop 2B T-hot: 456°F

The US has directed the RCO to stabilize RCS pressure and temperature.

Which ONE of the following pressures should the 2A Atmospheric Steam Dump controller setpoint be adjusted to in order to stabilize temperature with the MINIMUM amount of RCS heatup?

A. 322 psia

B. 351 psia

C. 449 psia

D. 486 psia

Question 12

Given the following conditions:

- The Unit Supervisor has entered 2-EOP-06, "TLOF"
- A total loss of feedwater has occurred on Unit 2
- All efforts to restore feedwater have been unsuccessful
- Both S/Gs are <15% Wide Range

Which ONE of the following describes the appropriate sequence of procedural selection for this condition?

A. Exit EOP-06; enter EOP-15, "Functional Recovery."
After performing Operator Initial Actions in EOP-15, establish once through cooling, "RCS and Core Heat Removal, success path 3."

B. Continue efforts to restore feedwater in EOP-06 AND establish once through cooling in accordance with EOP-15, "RCS and Core Heat Removal", concurrently with EOP-06.

C. Establish once through cooling in accordance with EOP-15, "RCS and Core Heat Removal, success path 3," and then exit EOP-06 and GO TO EOP-15.

D. Enter EOP-15, establish once through cooling in accordance with "RCS and Core Heat Removal, success path 3." Assess remainder of Safety Functions in EOP-15, then exit EOP-06.

Question 13

Given the following conditions:

- Unit 2 tripped from 100% power and is in a Station Blackout
- All 125VDC busses are being supplied by their respective batteries

Assuming the 2A Battery Bank voltage was 132 VDC at time of Blackout, and is discharging at a constant rate of 300 Amps / hour, how long will the 2A Batteries last until they reach the cutoff voltage?

A. 4 hours

B. 8 hours

C. 12 hours

D. 16 hours

Question 14

Given the following conditions:

- Unit 2 tripped from 100% power due to a LOOP
- The 2A Emergency Diesel Generator tripped on overspeed
- SPTAs are complete

For the ADV's, what operation is available from the Plant Auxiliary Control Board (PACB)?

2A atmospheric steam dump in:

A. Auto/Manual, 2B atmospheric steam dump in Auto/Manual.

B. Manual/Manual, 2B atmospheric steam dump in Auto/Auto.

C. Auto/Auto, 2B atmospheric steam dump in Manual/Manual.

D. Auto/Manual, 2B atmospheric steam dump in Auto/Auto.

Question 15

Given the following conditions:

- Unit 1 is at 100% power, steady state.
- G-26, "FW REG SYS OPERATING ON STANDBY PWR," is in alarm

Shortly after annunciator G-26 comes in, numerous other annunciators come in, some of which include:

- 3A(B), 4A(B), 5A(B) HTR LEVEL HIGH/LOW
- 1A and 1B S/G LEVEL HIGH/LOW

Which ONE of the following:

1) describes the failure that has occurred?
2) states the response of the secondary?
3) are the required Operator actions?

A. 1) Loss 120V AC Vital bus.
   2) Heaters and SG levels are low.
   3) Perform a rapid downpower to stabilize the plant.

B. 1) Loss 1C 125V DC bus.
   2) Heaters and SG levels are low.
   3) Perform a rapid downpower to stabilize the plant.

C. 1) Loss 120V AC Vital bus.
   2) Heaters and SG levels are high.
   3) Manually close alternate drains on FW heaters.

D. 1) Loss 1C 125V DC bus.
   2) Heaters and SG levels are high.
   3) Take manual control of FW Reg. valves.

Question 16

Given the following conditions:

- Unit 1 tripped from 100% power
- The 1A 125V DC bus de-energized on the trip
- All other equipment operated as designed

Which ONE of the following actions is required and the reason for this action?

A. Locally close the 1A EDG output breaker.
Loss of 1A DC bus resulted in loss of Startup Transformer breaker closure and loss of DC control power to the 1A EDG breaker.

B. Locally close the 1A EDG output breaker.
Loss of 1A DC bus resulted in SIAS start of the EDG but loss of breaker DC control power requires a manual breaker closure.

C. Place the PORV switch to OVERRIDE for V1402 and/or V1404 to close the PORV's. PORV's have opened as a DIRECT result of loss of 1A 125V DC bus.

D. Place the PORV switch to OVERRIDE for V1402 and/or V1404 to close the PORV's. PORV's have opened due to High Pressurizer Pressure signal from the RPS.

Question 17

Given the following conditions:

- Unit 2 is in a Station Blackout and preparing to receive power to the 2AB 4.16KV bus from the 1A Emergency Diesel Generator (the only running Unit 1 Diesel) via the Station Blackout crosstie
- The RO performing 2-EOP-99, "Appendix V, Receiving AC Power from Unit 1 using SBO Crosstie," places the 2B ICW pump switch to Pull-to Lock

Which ONE of the following describes the primary reason for this manipulation?

A. To prevent the 2B ICW pump from starting on a depressurized header.

B. To ensure 2B Component Cooling Water pump is started before 2B ICW pump to prevent possible saltwater contamination of the CCW system.

C. To enable the interlock that will allow 2C ICW pump to be run when power is restored.

D. To ensure 2B ICW pump is not started due to diesel loading concerns in this electrical configuration.

Question 18

A grid disturbance has occurred in South Florida. Both Units are at 100% power with the following parameters:

- Unit 1 MVARS 25 in the lag (out)
- Unit 2 MVARS 0

Which ONE of the following describes the voltage regulator adjustments that will have to be made by the ROs on EACH unit if the system dispatcher requests BOTH units to be at St. Lucie administrative limit of minimum vars?

A. Unit 1 must lower voltage; in response, Unit 2 maintains voltage at its current value.

B. Unit 1 must lower voltage; while Unit 2 must raise voltage.

C. Unit 2 must raise voltage; Unit 1 does not have to perform an action.

D. Unit 2 must raise voltage; in response, Unit 1 must raise voltage.

Question 19

Given the following conditions:

- CEA #10 has drop fully into the core from UEL
- Unit 1 is now at 96% power
- Operators have performed all required actions and are preparing to withdraw CEA #10.

As the RO attempts to withdraw CEA #10, annunciator R-26, "CEDS TROUBLE / CONTINUOUS GRIPPER VOLTAGE HIGH," locks in. The SNPO in the cable spreading room identifies CEA #11 as the source of the alarm.

Which ONE of the following is the correct operator action / reason concerning the CEA anomalies?

A. Continue realignment of CEA #10, then place CEA #11 on the hold bus.
The Tech Spec Action that applies to CEA #10 takes precedence over the administrative requirements that apply to CEA #11.

B. Place CEA #11 on the hold bus, then realign CEA #10.
Coil damage could occur to CEA #11 if not placed on the hold bus within a shorter period of time than the time to realign CEA #10.

C. Continue realignment of CEA #10, then place CEA #11 on the hold bus.
CEA #10 and CEA #11 are in the same subgroup and it will be impossible to withdraw CEA #10 if its subgroup is placed on the hold bus.

D. Place CEA #11 on the hold bus, then realign CEA #10.
R-26 is a common annunciator with no reflash capability and is procedurally required to be clear prior to withdrawal of any CEAs.

Question 20

Unit 1 is at 100% power when the following annunciator is received:

- H-19, "PZR CHANNEL X LEVEL HIGH/LOW"

Which ONE of the following malfunctions would have caused this alarm?

A. Tref pressure transmitter fails high.

B. Tref pressure transmitter fails low.

C. Tcold control channel fails low.

D. Tcold control channel fails high.

Question 21

Unit 2 is in a Refueling outage and moving fuel.
Startup Nuclear Instrumentation channel 2A has just failed LOW.

Which ONE of the following describes the correct action concerning core alterations?

Core alterations:

A. can continue because only one startup channel is required to be operable.

B. must be suspended until the 2A Startup channel is restored to operable.

C. can continue when one Appendix R Excore Nuclear Monitoring channel has been determined to be operable and available.

D. must be suspended until Reactor Engineering approves the use of an additional Wide Range Nuclear Instrumentation channel.

Question 22

A steam generator tube leak of about 50 gpm has occurred on Unit 2. The crew is performing a downpower and is at 90% power. Steam Generator Blowdown Monitors are in HIGH alarm.

As the downpower reaches 60%, the leak increases to 70 gpm.

Which ONE of the following states the expected indication of the Steam Generator Blowdown PC11 indication (PLP-121) Blowdown activity for this increased leak rate?

PLP-121 Blowdown activity will:

A. NOT change due to the monitored sample being in a stagnant fluid.

B. NOT change due to the lower power level, even though a higher leak rate.

C. INCREASE due to the increased leak rate.

D. DECREASE due to the lower power level.

Question 23

A fire has occurred in the Unit 1 Control Room and the Control Room has been evacuated. 1-ONP-100.02, "Control Room Inaccessability "is being implemented.

The following Appendices are complete and control is established at the Remote Shutdown Panel:

- RCO A Subsequent Actions
- RCO B Subsequent Actions
- US Subsequent Actions
- SNPO subsequent Actions

A Loss of Offsite Power JUST occurred.

Which ONE of the following states the status of the Emergency Diesel Generators (EDG's)?

A. Both EDG's will require a manual start. When started, the output breakers will AUTOMATICALY close.

B. Both EDG's will require a manual start. When started, the output breakers will require a MANUAL closure.

C. Both EDG's are operating with the output breakers OPEN.

D. Both EDG's are operating with the output breakers CLOSED.

Question 24

Given the following conditions:

- Unit 1 is at 100% power
- Increased RCS activity has warranted entry into 1-ONP-01.06, "Excessive RCS Activity"
- Dose Equivalent Iodine 131 has stabilized at .05 uCi/gram and a plant shutdown is NOT required.

Which ONE of the following is an action required by the off-normal procedure and the reason for the action?

A. Isolate letdown to prevent high gamma radiation areas in the RCA.

B. Maximize letdown to allow better clean-up of the RCS.

C. Divert letdown to the hold-up tanks to capture contaminated RCS water.

D. Vent the VCT to the Waste Gas Decay tanks to prevent iodine airborne activity in the RCA.

Question 25

Given the following conditions:

- A loss of offsite power has occurred on Unit 1
- All equipment operated as designed
- It is desired to perform a controlled cooldown to 350°F in accordance with 1-0120039, "Natural Circulation Cooldown"

Which ONE of the following local (field) operator actions must be performed to facilitate the cooldown from the Control Room?

A. Reset Non-Essential Load Breakers.

B. Perform EOP-99, Appendix X, "Secondary Plant Post Trip Actions."

C. Perform EOP-99, Appendix H, "Operation of the 1A and 1B Instrument Air Compressors."

D. Crosstie Unit 1 CST with Unit 2 CST.

Question 26

The following conditions exist with both Units at 100% power:

- Unit 1 has received Annunciator H-6, "REACTOR HEAD SEAL PRESS LOW." PI-1118 indicates 1084 psig
- Unit 2 has received Annunciator H-15, "REACTOR HEAD SEAL PRESS HIGH." PI-1118 indicates 1900 psig

Which ONE of the following actions should be performed?

A. Unit 1 should enter 1-0120031, "Excessive Reactor Coolant System Leakage."

B. Unit 2 should enter 2-0120031, "Excessive Reactor Coolant System Leakage."

C. Both Units should enter "Excessive Reactor Coolant System leakage."

D. Both Units should enter ONP-22.01, "Rapid Downpower."

Question 27

Unit 2 has a Loss of Offsite Power with a Steam Generator tube rupture. During the downpower, SGBD and SJAE radiation monitors were in alarm. Due to AFW problems the crew has entered 2-EOP-15, "Functional Recovery", with the following conditions:

- RCS Thot is 520°F
- RCS pressure is 1650 psia
- Local radiation surveys indicate secondary activity
- CIAS monitors indicate no alarms or increasing trends

Which ONE of the following is the status of Containment Isolation Safety function?

Containment Isolation Safety function:

A. is currently met due to CIAS actuated.

B. is currently met due to CIAS monitors indicate no alarms or increasing trends.

C. will be met when offsite power restored and the faulted S/G is no longer steaming by ADV's.

D. will be met when the faulted Steam Generator is isolated per EOP-99, "Appendix R, Steam Generator Isolation."

Question 28

The 2A1 RCP has a failed lower and middle seal. Due to a failure in the upper seal, controlled bleedoff flow for the 2A1 RCP spiked to 12 gpm.

Which ONE of the following describes the status of total RCP controlled bleedoff flow? (Assume all other pumps normal)

Total (all pumps) controlled bleedoff flow is:

A. 3 gpm and is being directed to the quench tank.

B. 3 gpm and is being directed to the volume control tank.

C. 13 gpm and is being directed to the volume control tank.

D. 15 gpm and is being directed to the quench tank.

Question 29

It is desired to start 2A1 RCP. The amber start permissive light on RTGB 204 is NOT lit.

The following parameters are observed:

- CCW flow 203 gpm
- CCW pressure 24 psig
- Lift Pump Flow 6 gpm
- Lift Pump pressure 1925 psig

Which ONE parameter is NOT meeting the criteria to illuminate the amber start permissive light?

A. CCW flow

B. CCW pressure

C. Lift Pump flow

D. Lift Pump pressure

Question 30

Which ONE of the following describes how Tavg input is used to determine pressurizer level program?

Tavg is generated from the:

A. highest Thot/Average Tcold safety channels / Tref generated from main steam header pressure.

B. average of Thot and Tcold control channels / Tref generated from turbine first stage pressure.

C. highest Thot/Average Tcold safety channels / Tref generated from turbine first stage pressure.

D. average of Thot and Tcold control channels / Tref generated from main steam header pressure.

Question 31

Unit 1 is at 100% power, steady state. It is desired to place1B CVCS Ion Exchanger in service after resin replacement. It has been determined that 7862 gallons of water must be flushed through the ion exchanger to equalize boron concentration.

The following parameters exist:

- 1A BAMT boron concentration 5080 ppm
- 1B BAMT boron concentration 6053 ppm
- RCS boron concentration 650 ppm

Which ONE of the following is the correct blend ratio / method for the required evolution? (Assume 1A is the Tech Spec designated BAMT)

Blend at:

A. 6.8 /1 to the Charging Pump suction

B. 8.3 / 1 to the VCT

C. 6.8 / 1 to the VCT

D. 8.3 / 1 to the Charging Pump Suction

Question 32

Given the following conditions:

- 2A Shutdown Cooling Train is in operation
- RCS level is 29 feet 10 inches
- Reactor Vessel head is being removed

Which ONE of the following could result in RCS pressurization and a loss of inventory should a loss of Shutdown Cooling occur?

A. Removal of the Cold leg manways prior to removing the Hot leg manways.

B. Removal of the Hot leg manways prior to removing the Cold leg manways.

C. Installing the Cold leg Nozzle dams prior to installing the Hot leg Nozzle dams.

D. Installing the Pressurizer manway prior to installing the Hot leg manway.

Question 33

Unit 1 is in mode 5, entering a SNO for RCP seal replacement. The operators are performing the necessary lineups to enable them to drain down to below 33'.

Which ONE of the following:

1) describes the required configuration of the 1A and 1B shutdown cooling trains for the drain down?

2) is the reason for selecting this configuration?

The operators should place:

A. 1) 1A shutdown cooling train in service and 1B shutdown cooling train in standby.
   2) 1B is more susceptible to adverse suction conditions before 1A.

B. 1) 1A shutdown cooling train in service and 1B shutdown cooling train in standby.
   2) 1A is more susceptible to adverse suction conditions before 1B.

C. 1) 1B shutdown cooling train in service and 1A shutdown cooling train in standby.
   2) 1B is more susceptible to adverse suction conditions before 1A.

D. 1) 1B shutdown cooling train in service and 1A shutdown cooling train in standby.
   2) 1A is more susceptible to adverse suction conditions before 1B.

Question 34

Which ONE of the following describes how NPSH for the safeguards pumps is maintained during transfer of the suction flowpaths on the receipt of a Recirculation Actuation Signal?

Containment Sump outlet valves:

A. will be fully open within 90 seconds and the RWT outlet valves will be fully closed within 30 seconds.

B. will be fully open before the RWT outlet valves begin to close.

C. will be fully open within 30 seconds and the RWT outlet valves will be fully closed within 90 seconds.

D. will not be fully open until the RWT outlet valves are fully closed.

Question 35

Unit 1 tripped from 100% power due to a LOOP. A few minutes after the trip, the RCO noticed:

- Quench Tank pressure is at 78 psig and rising
- Slight increase in Containment gas and particulate
- Pressurizer level is at 41% and rising
- Pressurizer pressure is 1810 psia and lowering
- RCS subcooling is lowering

Which ONE of the following contingency actions would the crew be expected to take while in EOP-01, "Standard Post Trip Actions"?

A. Cooldown using the ADV's.

B. Stop the running Charging pumps.

C. Close PORV block valves.

D. Ensure Pressurizer spray valves closed.

Question 36

Unit 2 has the following CCW alignment at 100% power:

- 2A and 2B CCW pump running
- 2C CCW pump is started for surveillance testing
- 2AB 4.16 KV bus has been aligned to the 2A 4.16KV bus
- A Loss of Offsite power (LOOP) occurs
- On the LOOP, a differential current lockout occurs on the 2B3 4.16 KV bus

Which ONE of the following describes the response of the Unit 2 CCW pumps to the LOOP?

2A CCW pump will _____
2B CCW pump will _____
2C CCW pump will _____

A. Automatically restart.
Automatically restart.
Automatically restart.

B. Automatically restart.
NOT Automatically restart.
NOT Automatically restart.

C. Automatically restart.
NOT Automatically restart.
Automatically restart.

D. NOT Automatically restart.
NOT Automatically restart.
Automatically restart.

Question 37

Given the following conditions:

- A steam generator tube leak has occurred on Unit 2
- During the downpower, the CCW "N" header developed a leak
- After the "N" header automatically isolated, the operators manually tripped the reactor and turbine
- The "N" header leak has been isolated
- LA-10, "CCW SURGE TANK COMPARTMENT A LEVEL LOW," locked in
- LB-10, "CCW SURGE TANK LEVEL HIGH/COMPARTMENT B LEVEL LOW," locked in
- Chemistry has requested that cooling be restored to the sample heat exchangers to allow S/G samples to be taken

Based on the above conditions, which ONE of the following describes the MINIMUM action(s)/conditions that must occur to open the CCW "N" header isolation valves?

The CCW "N" header valves:

A. will open if the control switches are placed in "closed/override" and then placed in "open".

B. can be locally opened by failing the air supply to the valves.

C. will open if the control switches are placed in the "open" position.

D. cannot be opened until level is restored to the surge tank.

Question 38

Operators are conducting a heatup on Unit 2.

The following conditions exist:

- RCS pressure is 1700 psia
- RCS temperature is 480°F
- 2A1, 2B1 and 2B2 RCP's are operating
- A loss of the 2A1 6.9 KV bus occurs
- SE-02-2, "Loop 2A2 Charging Isol," has failed closed

Which ONE of the following describes the method(s) of controlling pressurizer pressure in the current plant configuration?

Pressurizer pressure can:

A. ONLY be controlled by the Auxiliary Spray Valve.

B. ONLY be controlled by Main Spray Valve PCV 1100E.

C. be controlled by Main Spray Valve PCV 1100F and Auxiliary Spray Valve.

D. be controlled by Main Spray Valves PCV 1100E and 1100F.

Question 39

Given the following conditions:

- Unit 2 is in mode 2, reactor startup in progress
- CEA Group 5 @ 42", reactor NOT critical
- "B" channel SUR indication failed LOW, RPS bistable is bypassed
- "A" channel TM/LP indication failed LOW, RPS bistable is NOT bypassed

Which ONE of the following failures would enable an interlock that would prevent withdrawing rods to criticality?

A. RPS channel "A" Variable High Power fails HIGH.

B. Thot Safety channel "C" fails LOW.

C. SUR indication "D" channel spikes to pre-trip setpoint.

D. Steam Generator Pressure Safety Channel "B" fails LOW.

Question 40

Unit 1 is at 100% power with the following:

- The 1MA Instrument Bus in on the maintenance bypass bus due to the Inverter being out of service
- A loss of the 1MC Instrument bus then occurs

Which ONE of the following states the plant response and the proper mitigation strategy?

A. 4 Trip Circuit Breakers (TCB's) open.
Place the MC Instrument bus on its respective maintenance bypass bus.

B. 4 Trip Circuit Breakers (TCB's) open.
Notify Electrical Maintenance to investigate loss of MC Inverter.

C. 2 Trip Circuit Breakers (TCB's) open.
Place the MC Instrument bus on its respective maintenance bypass bus.

D. 2 Trip Circuit Breakers (TCB's) open.
Notify Electrical Maintenance to investigate loss of MC Inverter.

Question 41

Unit 2 is at 100% power when the 1B channel Steam Generator Low Pressure MSIS in the MA ESFAS cabinet fails LOW.

Prior to any operator action, which ONE of the following would cause ESFAS actuation?

A. The MC 120VAC Instrument Inverter trips due to an electrical fault.

B. The MA 1A steam generator pressure MSIS measurement channel fails low.

C. The MB 1A steam generator pressure MSIS measurement channel fails low.

D. The MA 120VAC Instrument Inverter trips due to an electrical fault.

Question 42

Given the following conditions:

- Unit 2 is at 100% power
- Containment Fan Coolers 1A, 1B and 1D are running, 1C is in standby with its control switch in AUTO
- A loss of offsite power occurs
- 2A and 2B Emergency Diesel Generators start and load as expected

Which ONE of the following describes the expected condition of the Containment Fan Coolers in this event?

A. All fan coolers running in fast speed.

B. ONLY 1A, 1B and 1D fan coolers running in slow speed.

C. All fan coolers running in slow speed.

D. ONLY 1A, 1B and 1D fan coolers running in fast speed.

Question 43

Which ONE of the following MANUAL operator actions, if not performed prior to the receipt of a Recirculation Actuation Signal (RAS), could result in an unmonitored radioactive release to the environment?

A. Unit 1 / Removing power inhibit from SI recirc valves.

B. Unit 2 / Aligning ECCS sumps to the reactor cavity sump.

C. Unit 1 / Isolating Low Pressure Safety Injection pump manual recircs.

D. Unit 2 / Isolating Containment Spray pump manual recircs.

Question 44

Unit 1 was operating at 100% power when the 1B MFW header ruptures at the 1B S/G feedwater nozzle.

Which ONE of the following ESFAS actuations would be expected to occur due to this failure?

A. MSIS on low S/G pressure / AFAS 1 on low level in 1A S/G.

B. MSIS on low S/G pressure / AFAS 1/2 on low levels in 1A & 1B S/Gs.

C. MSIS on high containment pressure / AFAS 1 on low level in 1A S/G.

D. MSIS on high containment pressure / AFAS 1/2 on low levels in 1A & 1B S/Gs.

Question 45

Unit 2 tripped from 100% power. During EOP-01, "Standard Post Trip Actions," the following trends were noted:

- RCS pressure ↓
- RCS temperature ↓
- RCS subcooling ↑
- Pressurizer level ↓
- Containment pressure ↑
- Containment temperature ↑
- 2A S/G level ↓
- 2B S/G level ↓
- 2A S/G pressure ↓
- 2B S/G pressure ↓

Which ONE of the following events is taking place?

A. Feed line break upstream of the check valve.

B. Cold Leg break upstream of the RCP.

C. Feed line break downstream of the check valve.

D. Steam line break downstream of the MSIV.

Question 46

Unit 2 is performing a rapid downpower due to condenser vacuum problems. The NPO notifies the control room that there is a large instrument air leak under the Turbine deck leading to the B Main Feedwater station.

The following annunciators are locked in:

- G-15, "FW REG VALVE SUPPLY AIR PRESS LOW"
- G-9, "2B S/G LEVEL HIGH / LOW"

If the downpower continues and no operator action is taken, which ONE of the following describes the level trend of the 2B Steam generator?

2B Steam Generator level is trending:

A. high due to the MFRV failing as is.

B. low due to the MFRV failing closed.

C. high due to the MFRV failing open.

D. low due to the MFRV failing as is.

Question 47

Given the following conditions:

- Unit 1 was at 100% power with 1C Auxiliary Feedwater pump out of service
- A loss of offsite power occurred and all required equipment operated as expected
- Operators took all required actions as necessary in EOP-01, "SPTAs," to stabilize the plant and are now implementing EOP-09, "LOOP/LOFC"

Thirty minutes into the event, the following observation is made:

- 1A Steam Generator Level is 25% NR and DECREASING
- 1B Steam Generator Level is 34% NR and INCREASING
- No manipulations to Auxiliary Feedwater / AFAS have been made since EOP-01

Which ONE of the following describes the reason for the difference in Steam Generator levels / trends?

A. Feed flow to 1B S/G is much greater than feed flow to 1A S/G.

B. AFAS 1 was manually initiated, AFAS 2 automatically initiated.

C. Steam flow from 1A S/G is much greater than steam flow from 1B S/G.

D. AFAS 1 automatically initiated, AFAS 2 was manually initiated.

Question 48

Unit 2 tripped from 100% power due to a LOCA.

Given the following conditions:

- A loss of offsite power has occurred
- Cooldown in progress with Atmospheric Steam Dumps in AUTO/MANUAL
- Auxiliary Feedwater is throttled after AFAS actuation

Which ONE of the following describes the manual operator action that must be taken after automatic SIAS actuation to continue with the same cooldown rate?

A. Reduce flow on AFW header valves.

B. Increase output of ADVs.

C. Increase flow on AFW header valves.

D. Reduce output of ADVs.

Question 49

Given the following conditions:

- Unit 2 tripped from 100% power due to a Loss of Offsite Power
- The SNPO has reported the following 2B EDG parameters:
  - Cooling water temperature is 201°F and constant
  - Oil pressure is 22 psig and constant
  - Crankcase pressure is 0.5 "$H_20$ and constant
- System Load Dispatcher has just restored power to the switchyard

Which ONE of the following explains the method to close the 2B3-2B2 tie breaker?

1) CLOSE 2B3-2B2 tie breaker with Synchroscope at 1200 moving SLOW in the_____.

2) Shortly after the 2B3-2B2 tie breaker closes, the Cooling water temperature rises to 208°F. Cooling water temperature will_____ .

A. 1) COUNTER CLOCKWISE direction.
   2) NOT result in the 2B EDG tripping.

B. 1) COUNTER CLOCKWISE direction.
   2) result in the 2B EDG tripping.

C. 1) CLOCKWISE direction.
   2) NOT result in the 2B EDG tripping.

D. 1) CLOCKWISE direction.
   2) result in the 2B EDG tripping.

Question 50

The AB Battery Charger is in hot standby mode. It is desired to transfer the 2AB 125 VDC Bus from the 2B 125 VDC Bus to the 2A 125 VDC Bus.

Given the following steps:

1. Close the "A" side breakers
2. Place the AB Battery Charger on the 2AB 125 VDC Bus
3. Open the "B" side breakers
4. Place the AB Battery Charger in the equalize mode

Which ONE of the following selections is the correct sequence for this transfer?

A. 4, 2, 3, 1

B. 2, 3, 1, 4

C. 2, 4, 3, 1

D. 4, 2, 1, 3

Question 51

Given the following conditions:

- A loss of offsite power has occurred on Unit 2
- Both Emergency Diesel Generators successfully started and loaded on their respective busses
- The 2B CCW Pump failed to start as expected and when the operators attempted to manually start the pump, the 2B Emergency Diesel Generator tripped

Which ONE of the following annunciators can the SNPO expect to find locked in at the local control panel?

A. 8-1, "GENERATOR $\Delta$ CURRENT TRIP"

B. 7-4, "GENERATOR LOSS OF EXCITATION TRIP"

C. 7-2, "GENERATOR OVERCURRENT TRIP"

D. 7-3, "GENERATOR REVERSE POWER TRIP"

Question 52

Which ONE of the following Unit 1 Letdown Monitor radiation trends would be indicative of fuel failure?

A. Iodine increase that remains significantly above prior levels during steady state operation.

B. Iodine remains constant concurrent with a gross activity increase during a plant load change.

C. Iodine increase that remains significantly above prior levels during a plant load change.

D. Iodine remains constant while gross activity increases during steady state operation.

Question 53

Unit 2 is at 100% power, steady state. An Equipment Clearance order is being executed to remove 2B Intake Cooling Water (ICW) pump from service for a motor inspection. It is desired to align 2C ICW pump to replace 2B.

Which ONE of the following describes the MINIMUM electrical alignment that will meet the requirements of the Technical Specifications LCO for the 2C ICW pump?

A. ONLY the 2AB 4.16 KV bus aligned to the B 4.16 KV side.

B. ONLY the 2AB 4.16 KV AND 2AB DC bus aligned to the B 4.16 KV and B DC side.

C. The 2AB 4.16 KV bus aligned to the B 4.16 KV side and the 2AB 480 V bus and the 2AB DC bus aligned to either the B side OR the A side.

D. The 2AB 4.16 KV bus, 2AB 480 V bus AND the 2AB DC bus aligned to the B side.

Question 54

Unit 1 is in mode 6, refueling in progress.

Which ONE of the following describes the normal configuration of compressed air supply to containment in this plant condition?

Containment air is being supplied from the:

A. crosstied instrument and station air headers supplied by the Construction Air Compressors.

B. instrument air header ONLY being supplied by the 1C / 1D Instrument Air Compressors.

C. station air header ONLY being supplied from the Station Air Compressor.

D. instrument air header only being supplied by the Containment Instrument air Compressors.

Question 55

Which ONE of the following describes the Unit 1 Technical Specification design basis for containment pressure and the equipment that ensures the design bases is not exceeded?

A. Design pressure of 44 psig with two trains of Containment Spray and one train of Containment Cooling.

B. Design pressure of 41.6 psig with one train of Containment Spray and two trains of Containment Cooling.

C. Design pressure of 44 psig with one train of Containment Spray and one train of Containment Cooling.

D. Design pressure of 41.6 psig with two trains of Containment Spray and one train of Containment Cooling.

Question 56

Unit 2 is in Mode 2 with the following:

- 1 X $10^{-5}$% power
- CEA's are in manual sequential being withdrawn with CEA group 5 at 62 inches
- CEA #59 drops fully into the core

Which ONE of the following interlocks will prevent continued CEA motion in manual sequential?

A. CEA withdrawal prohibit (CWP).

B. CEA motion inhibit (CMI).

C. Auto withdraw prohibit (AWP).

D. Power Dependent Insertion Limit (PDIL).

Question 57

Unit 2 has evacuated the Control Room. All Operator actions in the Control Room were performed prior to evacuation. A cooldown at the Remote Shutdown Panel is to be performed.

Which ONE of the following states how RCS pressure is controlled and how subcooling is monitored?

A. Operate Auxiliary Spray valves and monitor subcooling using indicated T-cold + 50°F and Pressurizer Pressure.

B. Operate Main Spray valves and monitor subcooling using indicated T-hot and Pressurizer Pressure.

C. Operate Main Spray valves and monitor subcooling using indicated T-cold + 50°F and Pressurizer Pressure.

D. Operate Auxiliary Spray valves and monitor subcooling using indicated T-hot and Pressurizer Pressure.

Question 58

Unit 2 is operating at 100% power. Channel "X" for Pressurizer Level control is selected when Pressurizer Level control channel "Y" has failed LOW.

Which ONE of the following states the current status of Pressurizer heaters and the actions necessary to regain some or all Pressurizer Heaters?

A. All heaters are off.
Select "Level" on Backup Interlock Bypass Keyswitch.
Reset/Close on all 480V heater power supplies to regain all "A" and "B" Pressurizer Heaters.

B. Only the "B" side Pressurizer heaters are de-energized.
Select "Level" on Backup Interlock Bypass Keyswitch.
Close "B" 4.16 KV heater transformer breaker on the "B" side to regain all "B" heaters.

C. All heaters are off.
Select "Level" on Backup Interlock Bypass Keyswitch.
Reset/Close on all "A" 480V heater power supplies to regain all "A" heaters.

D. Only the "B" side Pressurizer heaters are de-energized.
Select "Level" on Backup Interlock Bypass Keyswitch.
Reset/Close on all "B" 480V heater power supplies to regain all "B" heaters.

Question 59

Given the following conditions:

- Unit 1 is at 100% power
- Linear Range Channel #10 is supplying RPS Power Ratio Calculator

Which ONE of the following would be the system response if Channel 10 Upper detector failed HIGH?

A. Actual ASI as indicated on the Power Ratio Recorder would exceed the negative setpoint and an alarm would be generated.

B. The Lower setpoint for ASI as indicated on the Power Ratio Recorder would become more negative. No alarm would be generated.

C. Actual ASI as indicated on the Power Ratio Recorder would exceed the positive setpoint and an alarm would be generated.

D. The Upper setpoint for ASI as indicated on the Power Ratio Recorder would become more positive. No alarm would be generated.

Question 60

Unit 1 is performing an incore fuel shuffle moving 'recently irradiated fuel'. Train 'A' Containment Purge system is in service. A spent fuel bundle is damaged while being withdrawn from the upender.

Containment Isolation Monitors indicate:

- MA 85 mR/hour
- MB 94 mR/hour
- MC 80 mR/hour
- MD 92 mR/hour

Which ONE of the following describes the status of the Containment Purge system?

The Containment Purge system:

A. remains in its current configuration.

B. aligns to the Shield Building exhaust system.

C. suction is re-aligned to the refueling canal.

D. automatically isolates.

Question 61

Unit 1 is experiencing a SGTR on the 1A SG and is cooling down with SBCS PCV-8801 in manual, with the following conditions:

- RCS pressure is 1710 psia
- RCS temperature is 524°F
- SG pressures are 840 psia
- 1A SG Narrow Range level is 42%
- 1B SG Narrow Range level is 15%
- One RCP in each loop is operating

The cooldown has stopped at approximately 517°F; RCS pressure is at 1610 psia.

Which ONE of the following is the most likely reason the cooldown has stopped?

A. MSIS has closed the MSIV's.

B. AFAS has stopped feeding both SG's.

C. Main Steam Pressure permissive has closed the SBCS PCV-8801.

D. RCP's are stopped due to loss of minimum subcooling.

Question 62

The Unit Supervisor has ordered a manual Reactor trip due to lowering SG levels. The Reactor has tripped and a manual Turbine trip was initiated but the Turbine still did NOT trip.

Which ONE of the following EOP-01, "SPTAs," actions should be performed?

A. Place both DEH pumps in 'Pull to Lock' position.

B. Open the East and Mid Generator breakers.

C. Open the Generator Exciter Supply Breaker.

D. Close both Main Steam Isolation valves.

Question 63

Unit 1 has established a vacuum in preparation for startup with the following:

- A and B AFW pumps running
- 1A Condensate pump running

Which ONE of the following will have the LARGEST impact on condenser vacuum?

A. TCV-22-61, "Turbine Exhaust Hood sprays," fails closed.

B. FCV-12-1, "Condensate Header Recirc To Condenser," fails closed.

C. PCV-12-29, "Steam Jet Air Ejector Main Steam pressure regulator," fails open.

D. PCV-12-34, "Auxiliary Priming Ejectors Main Steam pressure regulator," fails closed.

Question 64

Unit 2 is performing a unit startup and is currently at 52% power. Both Main Feedwater Pumps are in service with 2A and 2C Condensate pumps in service.

A differential ($\Delta$) current lockout occurs on the 2B2 4.16 KV bus.

Which ONE of the following will be the response of the Main Feedwater Pumps and WHY?

A. BOTH Main Feedwater pumps trip on low suction pressure due to loss of 2C Condensate pump and 2B Heater Drain pump.

B. BOTH Main Feedwater pumps remain in service, due to the initial low power feedwater flow.

C. The 2B Main Feedwater Pump trips as a direct result of 2C Condensate pump trip.

D. The 2B Main Feedwater Pump trips as a direct result of the differential current lockout.

Question 65

Unit 1 is at 34% power with the 1B1 Circulating Water pump out of service. The 1B2 Circulating water pump trips.

The following conditions exist after the 1B2 CWP trips:

- Backpressure is 4.2" Hg.
- Condenser differential pressure is 2.3" Hg.
- $\Delta$T across the condenser is 31°F
- Discharge canal temperature is 102°F

Which ONE of the following should be performed?

A. Trip the reactor and the turbine due to high condenser backpressure.

B. Begin a turbine / reactor shutdown and attempt to restore at least one circulating water pump.

C. Trip the reactor and the turbine due to high condenser differential pressure.

D. Begin a turbine / reactor shutdown until $\Delta$T across the condenser is less than 30°F.

Question 66

The 1B CVCS Ion Exchanger has been placed in service following resin replacement. Although the RO rinsed the ion exchanger for 1 hour, after 10 minutes of in service time, the following conditions exist:

- Reactor Power 10 MIN_AVG DCS calorimetric indicates 100.6%
- Highest Nuclear Power indicates 100.0%

According to Operations Department Policy OPS-503, which ONE of the following is correct concerning power reduction guidance?

A. Immediately commence emergency boration to reduce reactor power to $\leq$100% within 30 minutes.

B. Reduce reactor power to $\leq$100% within 15 minutes.

C. Reduce reactor power to $\leq$100% within 30 minutes.

D. No action is required unless the highest Nuclear Power exceeds 100%.

Question 67

Given the following conditions:

- Local Annunciator on Unit 2, YA-5 AUTO GAS ANALYZER % $O_2$ HI-HI is in alarm
- The Orbisphere oxygen monitor indicates 2.2%
- Chemistry samples on the in-service gas decay tank indicate the same reading

Which ONE of the following actions should be taken?

A. Suspend all additions of waste gasses and add nitrogen to the in-service gas decay tank until oxygen is less than 2%.

B. Suspend all additions of waste gasses and add nitrogen to the gas surge tank until oxygen is less than 2%.

C. Isolate the gas decay tank and line-up waste gas directly to the Plant Vent.

D. Release the in-service gas decay tank directly to the Plant Vent.

Question 68

Given the following conditions:

- Unit 1 is at 100% power
- Tavg is 572°F
- The RCO adjusts SG Blowdown from 40 gpm per S/G to 120 gpm per S/G

Which ONE of the following describes the Plant Adjustment that the RO will have to make to compensate for the change in steam generator blowdown?

A. Borate the RCS.

B. Lower Feedwater flow.

C. Lower Turbine load.

D. Dilute the RCS.

Question 69

Which ONE of the following manual Operator actions must be performed during EOP-01, "SPTAs," on Unit 2, but NOT on Unit 1? (Assume uncomplicated Reactor trip from 100% power)

A. Close the MSR block valves.

B. Close the MSR warmup valves.

C. Place the Boron Dilution Alarm System in operation.

D. Open SG fill isolation V09218 15-20 turns.

Question 70

Unit 2 is performing a RCS inventory balance in accordance with 2-OSP-01.03, "RCS Inventory Balance."

Which ONE of the following could result in an inaccurate or invalid calculation? (Assume inventory balance 100% power steady state)

A. 50 gallons of primary water added to Charging pump suction.

B. A Charging pump seal leak resulted in seal tank level increase of 1 (one) inch.

C. The Quench Tank was drained to 60% and refilled to 67% for cooling purposes.

D. Running Charging pump recirc valve was found to be leaking by seat about 0.5 gpm.

Question 71

A PSL employee is performing work in the Pipe Tunnel. The dose rate in the area is 210 mR/hr. The employee's exposure record to date for the year is 280 mrem.

What is the maximum time the employee can stay in this area without exceeding his TEDE annual administrative FPL limit?
(Assume NRC form 4 on file)

A. 48 minutes

B. 205 minutes

C. 634 minutes

D. 1348 minutes

Question 72

Unit 1 is in Mode 6. No fuel movement is in progress. You are the Board RCO when Channel MA Containment radiation monitor is in alarm reading HIGH HIGH. The other channels are reading normal.

Which ONE of the following is the correct sequence to be performed?

A. Announce Evacuation of the Containment. Notify HP to evaluate radiological conditions. Verify the validity of the alarm from the Control Room.

B. Verify the validity of the alarm from the Control Room. If valid alarm, announce evacuation of the Containment. Notify HP to evaluate radiological conditions.

C. Verify validity of the alarm from the Control Room. Notify HP to evaluate radiological conditions. If valid, announce Evacuation of the Containment.

D. Notify HP to evaluate radiological conditions. Announce Evacuation of the Containment. Verify the validity of the alarm from the Control Room.

Question 73

Which ONE the following crew member responsibilities are performed during EOP-01, "Standard Post Trip Actions," after a trip from 100% power? (assume MINIMUM Control Room staffing)

A. Desk RCO will complete the MVA safety function, and then begin contingency actions to restore vital 4.16KV power to the unit with a blackout.

B. Board RCO performs a RCS cooldown to regain subcooling, if lost, while performing RCS pressure control safety function.

C. Desk RCO closes MV-08-814, "Spillover Bypass", after all other safety functions have been addressed.

D. Board RCO restores CCW to the RCP's (Appendix J), if lost, after addressing RCS pressure control.

Question 74

Unit 1 is in 1-EOP-15, "Functional Recovery," with the following Safety Function status:

| SAFETY FUNCTION | SUCCESS PATH | |
|---|---|---|
| **Reactivity control** | RC-1 CEA Insertion | X |
| | RC-2 Boration via CVCS | |
| | RC-3 Boration via SIAS | |
| **Maint. Of Vital Aux – DC** | MVA – DC – 1 Batteries/Charger | X |
| **Maint. Of Vital Aux – AC** | MVA – AC – 1 Startup Transformers | |
| | MVA – AC – 2 EDG's | X |
| | MVA – AC – 3 Unit Crosstie | |
| **RCS Inventory Control** | IC – 1 CVCS | |
| | IC – 2 Safety Injection | O |
| **RCS Pressure Control** | PC - 1 Subcooled Controlled | |
| | PC – 2 PORV's / Pzr Vent | |
| | PC – 3 Saturated Control | X |
| **RCS & Core Heat** | HR – 1 S/G Without SIAS | |
| | HR – 2 S/G With SIAS | O |
| | HR – 3 Once Through Cooling | |
| **Containment Isol** | CI – 1 Automatic / Manual Isol | O |
| **Cntmt Press & Temp** | CTPC – 1 Normal Cntmt Fans | |
| | CTPC – 2 Cntmt Coolers | |
| | CTPC – 3 Cntmt Spray | X |
| **Cntmt Comb Gas** | CCGC – 1 Hydrogen <3.5% | X |
| | CCGC – 2 Hydrogen >3.5% | |

**O Not Met / X Met**

What Success Path should be addressed first and the reason?

A. Implement MVA-AC-2, EDGs.
Reason: the EDG success path is evaluated to ensure power will be maintained to the equipment needed to support other safety functions.

B. Implement IC-2, Safety Injection.
Reason: without adequate RCS inventory, core cooling will be challenged.

C. Implement HR-2, S/G with SIAS:
Reason: RCS saturation margin needs to be maintained to ensure adequate core cooling.

D. Implement CI-1, Automatic / Manual Isol.
Reason: Containment integrity ensures release to the public is minimized.

Question 75

Unit 1 has tripped and is performing 1-EOP-01, "Standard Post Trip Actions."

Which ONE of the following is observed to verify that CCW flow to the running RCP's is adequate?

A. Controlled bleedoff temperature to ensure temperature is <250°F.

B. Local verification of CCW flow.

C. At least one CCW pump operating with the 'N' header valves open.

D. RCP CCW low flow annunciator is NOT in alarm.

Question 76

Unit 1 is at 50% power with the 1B Main Feedwater pump out of service. A loss of the 1A Main Feedwater pump results in a manual trip.

Post Trip conditions are as follows:

- CEA 56 indicates 132 inches
- RCS subcooling indicates 22°F
- Pressurizer level is 32% and stable
- 1A AFW Pump was out of service prior to the trip
- 1C AFW pump was manually started but tripped on overspeed
- 1A SG level indicates 20% Narrow Range level
- 1B SG indicates 30% Narrow Range level
- A Bus Lockout occurs on 1A1 6.9 KV bus

After the SPTA's are complete:

1) What procedure will the SRO transition to?

2) What direction will be given to the RO?

A. 1) EOP-02, "Reactor Trip Recovery."
   2) Recover the 1A1 6.9 KV bus in accordance with 2-ONP-47.02, "Loss of a Non-Safety Related A.C. Bus."

B. 1) EOP-02, "Reactor Trip Recovery."
   2) Depressurize the RCS to between 1800 and 1850 psia.

C. 1) EOP-09, "LOOP / LOFC."
   2) Depressurize the RCS to between 1800 and 1850 psia.

D. 1) EOP-09, "LOOP / LOFC."
   2) Recover the 1A1 6.9 KV bus in accordance with 2-ONP-47.02, "Loss of a Non-Safety Related A.C. Bus."

Question 77

Unit 2 post trip conditions indicate the following conditions:

- Pressurizer pressure is 650 psia
- RCS temperature is 440°F
- Containment temperature is 205°F
- Containment pressure is 12.2 psig
- Containment radiation is $10^2$ mR / hour

Based on the above conditions, which ONE of the following is the required action and appropriate procedure?

A. Depressurize the RCS to maximize Safety Injection Flow.
Refer to EOP-99, Figure 2, "SI flow Vs. RCS pressure."

B. Cooldown at 50°F / hour.
Implement 2-GOP-305, "Reactor Plant Cooldown – Hot Standby to Cold Shutdown."

C. Depressurize the RCS to < 350 psia.
Establish shutdown cooling per 2-NOP-03.05, "Shutdown Cooling."

D. Cooldown at 100°F / hour to establish shutdown cooling entry conditions.
Implement 2-0120039, "Natural Circulation Cooldown."

Question 78

Given the following conditions:

- Unit 1 has experienced a SGTR on the 1A SG
- SIAS and CIAS have NOT occurred and is NOT anticipated
- An Instrument air line ruptures on HCV-14-1, "CCW to the RCPs"
- The affected SG has been isolated
- It is desired to re-start the 1A1 RCP to facilitate cooling the isolated SG

1) Which ONE of the following manipulations will restore CCW to the 1A1 RCP?

2) What procedure is this manipulation documented?

A. 1) Close the instrument air supply to HCV-14-1. Attach the nitrogen flex hose to the male quick disconnect fitting in the air supply line and verify the valve has opened.
   2) ADM-17.18, "Temporary System Alteration."

B. 1) Close the instrument air supply to HCV-14-1. Attach the nitrogen flex hose to the male quick disconnect fitting in the air supply line and verify the valve has opened.
   2) 0-NOP-100.01, "Equipment Out of Service."

C. 1) Close the solenoid vent valve on HCV-14-1. Attach the HCV solenoid vent line male flex hose to the female quick disconnect fitting. Verify the HCV has opened.
   2) ADM-17.18, "Temporary System Alteration."

D. 1) Close the solenoid vent valve on HCV-14-1. Attach the HCV solenoid vent line male flex hose to the female quick disconnect fitting. Verify the HCV has opened.
   2) 0-NOP-100.01, "Equipment Out of Service."

Question 79

Unit 1 has the following post trip conditions:

- SJAE and 1B Main Steam line monitor are in HIGH alarm
- Containment Temperature is 102°F
- Containment Radiation indicates $10^3$ mR / hour
- Reactor Cavity Leakage indicates off scale HIGH
- Pressurizer level indicates off scale LOW

What EOP is entered and what is the mitigation strategy?

A. EOP-04, "Steam Generator Tube Rupture."
Cooldown the RCS to $T_{cold}$ is <510 °F and isolate the 1B SG.

B. EOP-04, "Steam Generator Tube Rupture."
Cooldown the RCS to $T_{hot}$ <510°F and isolate the 1B SG.

C. EOP-15, "Functional Recovery."
Cooldown the RCS to $T_{cold}$ is <510°F and isolate the 1B SG.

D. EOP-15, "Functional Recovery."
Cooldown the RCS to $T_{hot}$ <510°F and isolate the 1B SG.

Question 80

Unit 1 is in Mode 3 performing a plant startup after refueling. The startup is on hold due to 1A EDG being declared out of service one hour ago.

The following conditions exist:

- RCS pressure is 910 psia
- RCS temperature is 398°F
- 1A1, 1A2 and 1B2 RCP's are running

A loss of the 1B DC bus occurs.

Which ONE of the following states the procedural implementation order for the stated conditions?

A. Perform safety functions for 1-ONP-01.01, "Plant Condition 1, SG Heat Removal LTOP NOT in Effect." When directed by 1-ONP-01.01, implement 1-0030136, "Loss of a Safety Related DC Bus."

B. Perform safety functions for 1-ONP-01.02, Plant Condition 2, SG Heat Removal LTOP in Effect." When directed by 1-ONP-01.02, implement 1-0030136, "Loss of a Safety Related DC Bus."

C. Implement 1-0030136, "Loss of A Safety Related DC Bus." When directed by 1-0030136, perform safety functions for 1-ONP-01.01, "Plant Condition 1, SG Heat Removal LTOP NOT in Effect."

D. Implement 1-0030136, "Loss of A Safety Related DC Bus." When directed by 1-0030136, perform safety functions for 1-ONP-01.02, "Plant Condition 2, SG Heat Removal LTOP in Effect."

Question 81

Given the following conditions:

- Unit 1 is at 100% power
- Containment pressure is 2.5 psig and slowly rising
- Annunciator F-46, "CNTMT AIR OUTLET PRESS LOW," is in alarm
- MV-18-1, "Inst. Air to Cntmt," is open
- PCV-18-5, "Backup Instrument Air Supply to Cntmt," is open
- PIS-18-5 on RTGB-102 indicates 65 psig and lowering

Which ONE of the following states the:

1) possible cause of Annunciator F-46 and
2) the required actions?

A. 1) An instrument air leak in the Plant instrument air system.
   2) Restore Containment Pressure to ≤2.4 psig within 6 hours OR
   Be in Hot Standby within the next 6 hours.

B. 1) An instrument air leak in the Plant instrument air system.
   2) Restore Containment Pressure to ≤2.4 psig within 6 hours OR
   Be in Hot Standby within the next 12 hours.

C. 1) An Instrument air leak in the Containment Instrument air system.
   2) Restore Containment Pressure to ≤2.4 psig within 1 hour OR
   Be in Hot Standby within the next 12 hours.

D. 1) An Instrument air leak in the Containment Instrument air system.
   2) Restore Containment Pressure to ≤2.4 psig within 1 hour OR
   Be in Hot Standby within the next 6 hours.

Question 82

Unit 2 has tripped with the following conditions:

- 2C Charging pump was out of service prior to the trip
- A loss of the 2A2 480V LC occurred after the trip
- The 2B charging pump was started but the recirc valve failed to close
- Six CEA's failed to insert on the Reactor trip
- RCS pressure is 2150 psia and stable
- RCS temperature is 528°F and stable
- Reactor power is $2 \times 10^{-3}$ %

1) Which ONE of the following states the procedure implementation after EOP-01?

2) What is the required Safety Function success path to achieve adequate Shutdown Margin?

A. 1) Exit to EOP-02, "Reactor Trip Recovery."
   2) Manually start SIAS and depressurize the RCS to establish SI flow ≥40 gpm.

B. 1) Exit to EOP-02, "Reactor Trip Recovery."
   2) Initiate Emergency Boration ≥40 gpm AND commence a RCS cooldown.

C. 1) Exit to EOP-15, "Functional Recovery."
   2) Manually start SIAS and depressurize the RCS to establish SI flow ≥40 gpm.

D. 1) Exit to EOP-15, "Functional Recovery."
   2) Initiate Emergency Boration ≥40 gpm AND commence a RCS cooldown.

Question 83

Unit 2 is in Mode 6 with fuel movement occurring in the containment. The refueling machine is lowering a spent fuel element over the upender when a cable slack light appears about half way into the upender.

Shortly afterward, the following indications are observed on the PC-11 in the Control Room:

- RC-26-3 CIS indicates MAGENTA
- RC-26-4 CIS indicates RED
- RC-26-5 CIS indicates YELLOW
- RC-26-6 CIS indicates RED

1) Which ONE of the following states the status of CIAS?

2) What actions will the Unit Supervisor direct?

A. 1) CIAS has NOT actuated.
   2) Obtain a new release permit and implement 2-0530021, "Controlled Gaseous Batch Release To Atmosphere."

B. 1) CIAS has NOT actuated.
   2) Notify Chemistry and implement 2-0530031, "Uncontrolled Release of Radioactive Gas."

C 1) CIAS actuated.
   2) Obtain a new release permit and implement 2-0530021, "Controlled Gaseous Batch Release To Atmosphere."

D 1) CIAS actuated.
   2) Notify Chemistry and implement 2-0530031, "Uncontrolled Release of Radioactive Gas."

Question 84

Given the following conditions:

- A fire has occurred in the cable spreading room on Unit 1
- The Control Room has been evacuated
- ALL Control Room Operator actions were performed in accordance with 1-ONP-100.02, "Control Room Inaccessibility," prior to leaving the Control Room
- The decision was made to cooldown the unit to establish Shutdown Cooling

1) Which component train CAN be relied on during the cooldown?

2) Which procedure will contain additional guidance during the cooldown?

A. 1) ONLY "A" train components can be relied on.
   2) ONOP 1-0120039, "Natural Circulation Cooldown."

B. 1) ONLY "B" train components can be relied on.
   2) ONOP 1-0120039, "Natural Circulation Cooldown."

C. 1) ONLY "A" train components can be relied on.
   2) 1-GOP-305, "Reactor Plant Cooldown – Hot Standby to Cold Shutdown."

D. 1) ONLY "B" train components can be relied on.
   2) 1-GOP-305, "Reactor Plant Cooldown – Hot Standby to Cold Shutdown."

Question 85

A containment penetration that is normally closed must be opened to facilitate repairs in the Containment while Unit 2 is in Mode 4.

Which ONE of the following is an acceptable means to comply with Technical Specifications during these repairs?

A. Station an Operator in the Containment with instructions to secure all repair work and evacuate the Containment in an accident situation.

B. Station an Operator at the penetration with constant communications to the Control Room, to close the penetration in an accident situation.

C. Designate an Operator with constant communications to the Control Room to enter the Containment with instructions to secure all repair work then close the open penetration immediately upon notification.

D. Designate an Operator with constant communications to the Control Room to close the penetration within 30 minutes of notification.

Question 86

Given the following conditions:

- Unit 2 is entering a refueling outage
- RCS temperature is 112°F at atmospheric pressure
- 2A LPSI pump is running with V3545, "Crosstie valve," OPEN
- 2B LPSI is in standby lineup
- Pressurizer level is 10% Cold Cal
- Reactor has been subcritical for 130 hours
- CCW temperature is 85°F
- Shutdown Cooling flow is 3200 gpm

A loss of the 2A LPSI pump occurs and the 2B LPSI pump is started and placed In service.

Which ONE of the following is the MINIMUM Technical Specification SDC flow rate and MAXIMUM SDC System flow rate?

| | T.S. MINIMUM Flow | SYSTEM MAXIMUM Flow |
|---|---|---|
| A. | 1850 GPM | 3490 GPM |
| B. | 3000 GPM | 3000 GPM |
| C. | 1850 GPM | 3000 GPM |
| D. | 3000 GPM | 3490 GPM |

Question 87

Given the following conditions:

- Unit 1 is at 100% power
- I&C personnel are troubleshooting a vibration problem on HVS-1B, "Containment Cooling Fan"
- It is desired to stop the 1B Containment Cooling Fan and return the control switch to AUTO for approximately one hour, while troubleshooting continues
- All other Containment Cooling Fans are in operation

Which ONE of the following describes the administrative requirement while the 1B Containment Cooling Fan is NOT running and in this configuration?

Declare the:

A. 1A Emergency Diesel Generator inoperable.

B. 1A Offsite Power Circuit inoperable.

C. 1B Emergency Diesel Generator inoperable.

D. 1B Offsite Power Circuit inoperable.

Question 88

Given the following conditions:

- Unit 2 is at 100% power
- HVS-1A, "Containment Fan Cooler," was declared out of service due to breaker problems at 1200 on 7/26/08
- HVS-1B, "Containment Fan Cooler," tripped at 1300 on 7/26/08 and can not be restarted
- 2B Containment Spray Pump was declared out of service due to high vibration at 1200 on 7/28/08

Which ONE of the following states when the plant must be in HOT STANDBY in accordance with Technical Specifications?

A. 1300 on 7/29/08

B. 1900 on 7/29/08

C. 1200 on 7/31/08

D. 1800 on 7/31/08

Question 89

Given the following conditions:

- Unit 1 is at 100% power
- 1A EDG surveillance is in progress and the Diesel is fully loaded
- The 1B MFW trips and the crew manually trips the Reactor
- A LOOP occurs on the trip and the 1B EDG trips after the LOOP

1) Which ONE of the following procedures should be implemented after exiting 1-EOP-01?

2) 25 minutes after the Unit trip, the 1C AFW pump trips and cannot be recovered. What procedure would be implemented?

A. 1) 1-EOP-09, "Loss of Offsite Power."
   2) Continue in 1-EOP-09.

B. 1) 1-EOP-09, "Loss of Offsite Power."
   2) 1-EOP-06, Total Loss of Feedwater.

C. 1) 1-EOP-10, "Blackout."
   2) Continue in 1-EOP-10.

D. 1) 1-EOP-10, "Blackout."
   2) 1-EOP-15, "Functional Recovery."

Question 90

Given the following conditions:

- Unit 1 is at 100% power
- 1A and 1B Intake Cooling Water pumps are operating on their respective headers
- 1C Intake Cooling Water pump is in standby aligned to the A header
- The 1B Intake Cooling Water pump trips unexpectedly

1) Which ONE of the following states the acceptability of an immediate attempt to restart the 1B Intake Cooling water pump?

2) If the 1C Intake Cooling Water pump valve alignment was configured to the B side but the electrical alignment remained to the A side, what would be the required actions if the pump started?

A. 1) One restart attempt IS allowed for the stated conditions.
   2) The respective offsite power source AND the 1B Intake Cooling train must be declared out of service.

B. 1) One restart attempt IS NOT allowed for the stated conditions.
   2) ONLY the 1B Intake Cooling train must be declared out of service.

C. 1) One restart attempt IS allowed for the stated conditions.
   2) ONLY the 1B Intake Cooling train must be declared out of service.

D. 1) One restart attempt IS NOT allowed for the stated conditions.
   2) The respective offsite power source AND the 1B Intake Cooling train must be declared out of service.

Question 91

Unit 1 was just tripped from 100% power with the following conditions:

Time: 0700, started SPTAs
- Pressurizer level could not be maintained with all charging pumps running and letdown isolated
- Containment Radiation levels are rising
- Loss of Offsite Power has occurred
- 1B EDG is Out of Service

Time: 0712, exited EOP-01
- All ADV's are open 80%
- 1A SG level is 20% Narrow Range
- 1B SG level is 17% Wide Range
- RCS pressure is 200 psia
- SI flow is 500 gpm

Time: 0732
- All ADV's are open 100%
- 1A SG level is 30% Narrow Range
- 1B SG level is 14% Wide Range
- RCS pressure is 200 psia
- SI flow is 500 gpm

At 0732, which ONE of the following:

1) indicates the status of core cooling?
2) actions are required for the conditions and what procedure is to be implemented?

A. 1) Inadequate when Reactor vessel level indicates sensors 1-6 are uncovered.
   2) Increase SI flow and implement EOP-03, "LOCA."

B. 1) Inadequate when CET temperatures indicate 23°F superheat.
   2) Increase SI flow and implement EOP-15, "Functional Recovery."

C. 1) Inadequate when Reactor vessel level indicates sensors 1-6 are uncovered.
   2) Increase AFW flow to the 1B S/G and implement EOP-03, "LOCA."

D. 1) Inadequate when CET temperatures indicate 23°F superheat.
   2) Initiate Once-Through-Cooling and implement EOP-15, "Functional Recovery."

Question 92

Given the following conditions:

- Unit 1 is performing a full core offload
- Fuel Pool temperature is 98°F
- One of the two running Fuel Pool pumps has stopped and cannot be restarted

1) What is the major concern of this event?
2) What action will be required?

A. 1) Exceeding decay heat load calculation for full core offload.
   2) Stop core offload.

B. 1) Degradation of the "Boraflex" inserts in the spent fuel pool.
   2) Stop core offload.

C. 1) Potentially damaging Fuel Pool Purification filters.
   2) Bypass Fuel Pool Purification Filters and continue with core offload.

D. 1) Potentially damaging Fuel Pool Ion Exchangers.
   2) Bypass Fuel Pool Ion Exchangers and continue with core offload.

Question 93

Unit 1 is performing a resin discharge from an ion exchanger to the spent resin tank. During the resin transfer, an Area Radiation monitor RE-26-20, "North wall of VCT hallway," goes into HIGH-HIGH alarm. The Control Room has determined it to be a valid alarm.

As the SRO, on station, for the resin transfer, which ONE of the following actions should be taken for this alarm?

A. Inform the Control Room this is an expected alarm for the resin transfer.

B. Direct HP to perform a survey of the area to determine if the resin transfer was the cause of the HIGH-HIGH alarm.

C. Announce evacuation of the affected area.

D. Stop the resin transfer and flush the transfer piping until radiation levels equal background level.

Question 94

Unit 1 is at 100% power when CEA 62, in Group 7, slips from the UEL to 102".

The following conditions now exist:

- CEA 62 can NOT be moved
- I & C reports the cause to be an electrical problem in the Containment
- It has been determined that CEA 62 IS TRIPPABLE (assume all other CEA's at UEL)

Which ONE of the following states the required actions?

A. Commence Emergency Boration AND
Be in Hot Standby within six hours.

B. Ensure adequate Shutdown Margin within hour AND
Be in Hot Standby within six hours.

C. Reduce power to ≤70% AND
Declare the CEA inoperable and align all other CEA's in the affected group to within 7.5 inches of the inoperable CEA.

D. Reduce power to ≤70% AND
Verify operability of all other CEA's in the affected group by performing Appendix A of 1-0110030, "CEA Off-Normal Operation and Realignment."

Question 95

Unit 1 is at 100% power when Chemistry reports that secondary chemistry sodium has increased to Action Level 2. The crew has entered 1-0610030, "Secondary Chemistry – Off Normal."

3 hours later, the Unit is at 45% when Chemistry reports the cause has been found and corrected. Sodium is now at Action level 1 values.

Which ONE of the following is required for the above conditions?

A. Continue the downpower to 28% - 32%.

B. Continue the downpower until the Unit is offline.

C. Stabilize power at the current value.

D. Return the Unit to full power.

Question 96

Given the following conditions:

- Unit 1 is performing a Reactor Startup and has just gone critical
- PCV-8801, "Steam Bypass Control Valve," drifts open
- Tave is 514°F and slowly lowering

Which ONE of the following states the required actions?

A. Restore Tave to ≥515°F within 15 minutes OR
Place the Unit in Mode 3 within the next 15 minutes.

B. Restore Tave to ≥515°F within 30 minutes OR
Place the Unit in Mode 3 within the next 15 minutes.

C. Restore Tave to ≥525°F within 15 minutes OR
Place the Unit in Mode 3 within the next 30 minutes.

D. Restore Tave to ≥525°F within 30 minutes OR
Place the Unit in Mode 3 within the next 30 minutes.

Question 97

Given the following conditions:

- Unit 2 is at 100% power
- HVE-41A, "Intake Structure Ventilation fan," has been removed from service due to a bad bearing

Which ONE of the following states:

1) the status of the 2A ICW electrical train?

2) what actions are to be taken?

A. 1) OPERABLE.
   2) Verify operability of HVE-41B.

B. 1) OPERABLE.
   2) Monitor intake structure room to determine temperature can be maintained <120°F during expected daily peak temperature.

C. 1) INOPERABLE.
   2) Install temporary ventilation. When temporary ventilation installed, AND If peak intake structure room temperature verified <120°F, declare 2A ICW electrical train operable.

D. 1) INOPERABLE.
   2) Monitor intake structure room to determine temperature can be maintained <120°F during expected daily peak temperature. If peak temperature verified <120°F, declare 2A ICW electrical train operable.

Question 98

Unit 1A AFW pump has completed an oil change.

Which ONE of the following Post Maintenance Testing is required?

A. Bearing Temperature Monitoring AND Pump Operation Check – Monitor bearing temperature until they stabilize. The pump should be run for a minimum of 20 minutes.

B. IST Code Run AND Bearing Temperature Monitoring – IST Code run in accordance with applicable Operations Surveillance Procedure. Monitor bearing temperature until they stabilize. The pump should be run for a minimum of 20 minutes.

C. IST Code Run ONLY – in accordance with applicable Operations Surveillance Procedure.

D. Pump Operational Check ONLY – Start pump and run sufficient time to verify adequate discharge pressure or flow, no overheating, abnormal noise / vibration. No seal or external leakage.

Question 99

You are reviewing a Liquid Release Permit in preparation to release the 1B Waste Monitor Tank. The Liquid Release Radiation Monitor R-6627 has been out of service for 10 days.

Which ONE of the following would you expect to see attached to the Liquid Release permit as a result of R-6627 being out of service?

A. Two independent release rate calculations.

B. Plant General Manger letter giving permission to release the tank.

C. Chemistry Supervisor letter giving permission to release the tank.

D Temporary System Alteration documenting R-6627 being out of service.

Question 100

The following event has occurred:

- St. Lucie County Sheriff Department has notified Security that five armed men have taken control of a Brinks Armored vehicle and are heading toward the Plant.
- Two minutes later, Security notifies the Control Room the Brinks vehicle has pulled into Unit 1 (North) parking lot.
- Security personnel and St. Lucie County Sheriff have surrounded the truck and gunfire has erupted.

Which ONE of the following actions should be taken?

A. Direct a trip of Unit 1 and 2.
Implement EPIP-01, and classify the event as UNUSUAL EVENT.

B. Direct a trip of Unit 1 and 2.
Implement EPIP-01, and classify the event as ALERT.

C. Direct a rapid downpower of Unit 1 and 2.
Implement EPIP-01, and classify the event as UNUSUAL EVENT.

D. Direct a rapid downpower of Unit 1 and 2.
Implement EPIP-01, and classify the event as ALERT.

St. Lucie NRC Exam HLC-18

| Question | Answer | New | Bank | Modified | K/A | Comp. | Mem. |
|---|---|---|---|---|---|---|---|
| 1 | D | X | | | EK2 | | X |
| 2 | D | X | | | AA1.02 | X | |
| 3 | D | X | | | EK3.21 | X | |
| 4 | D | X | | | EK.01 | X | |
| 5 | C | X | | | AK2.10 | X | |
| 6 | B | X | | | AK3.02 | X | |
| 7 | B | X | | | AA2.05 | X | |
| 8 | D | X | | | AA1.03 | | X |
| 9 | A | X | | | AA2.04 | X | |
| 10 | B | X | | | EK3.01 | X | |
| 11 | A | | X | | EA1.03 | X | |
| 12 | C | X | | | EA2.1 | | X |
| 13 | B | X | | | EK1.01 | | X |
| 14 | C | X | | | 2.1.28 | X | |
| 15 | A | X | | | 2.2.44 | X | |
| 16 | D | X | | | AK3.02 | X | |
| 17 | D | X | | | AK3.03 | | X |
| 18 | D | X | | | AA2.04 | X | |
| 19 | B | X | | | AK3.04 | X | |
| 20 | C | X | | | AA2.01 | X | |
| 21 | C | X | | | 2.2.40 | | X |
| 22 | A | X | | | AA1.13 | X | |
| 23 | C | X | | | AA1.21 | | X |
| 24 | B | X | | | AK3.06 | X | |
| 25 | C | X | | | AK2.2 | X | |
| 26 | A | X | | | AK1.3 | | X |
| 27 | D | | X | | EK1.1 | | X |
| 28 | B | | X | | K1.03 | X | |
| 29 | B | X | | | K6.14 | | X |
| 30 | B | X | | | K5.16 | | X |
| 31 | B | X | | | A4.15 | X | |
| 32 | A | | X | | K3.01 | X | |
| 33 | B | X | | | 2.1.32 | | X |
| 34 | C | X | | | K4.08 | | X |
| 35 | C | X | | | A2.01 | X | |
| 36 | C | | | X | K4.01 | | X |
| 37 | D | X | | | A3.05 | X | |
| 38 | C | | X | | A4.01 | X | |
| 39 | D | X | | | K3.01 | X | |
| 40 | B | X | | | A2.02 | X | |
| 41 | A | X | | | A3.01 | X | |
| 42 | A | | X | | A4.01 | | X |
| 43 | A | X | | | K4.09 | X | |

| Question | Answer | New | Bank | Modified | K/A | Comp. | Mem. |
|---|---|---|---|---|---|---|---|
| 44 | A | | X | | A3.02 | X | |
| 45 | C | X | | | K3.04 | X | |
| 46 | A | | X | | A2.12 | X | |
| 47 | D | X | | | A1.01 | X | |
| 48 | A | X | | | K5.01 | X | |
| 49 | B | X | | | K4.05 | | X |
| 50 | A | | X | | A4.01 | X | |
| 51 | A | X | | | K4.02 | | X |
| 52 | A | X | | | A1.01 | | X |
| 53 | D | X | | | K2.01 | | X |
| 54 | A | X | | | K1.02 | | X |
| 55 | C | X | | | 2.2.25 | | X |
| 56 | B | | X | | K4.03 | X | |
| 57 | A | X | | | A1.04 | | X |
| 58 | C | X | | | K2.02 | X | |
| 59 | A | X | | | K6.01 | X | |
| 60 | D | | | X | A3.01 | X | |
| 61 | C | X | | | A4.05 | X | |
| 62 | D | X | | | 2.4.49 | | X |
| 63 | B | | X | | K3.01 | X | |
| 64 | C | | X | | K1.03 | X | |
| 65 | B, D | X | | | A2.02 | | X |
| 66 | B | | X | | 2.1.2 | | X |
| 67 | A | X | | | 2.1.26 | | X |
| 68 | C | X | | | 2.1.37 | X | |
| 69 | A | X | | | 2.2.3 | | X |
| 70 | C, A | X | | | 2.2.12 | | X |
| 71 | B | X | | | 2.3.4 | X | |
| 72 | A | X | | | 2.3.13 | | X |
| 73 | A | X | | | 2.4.13 | | X |
| 74 | B | X | | | 2.4.22 | X | |
| 75 | D | | X | | 2.4.31 | | X |
| SRO EXAM | | | | | | | |
| 76 | B | X | | | EA2.1 | X | |
| 77 | D | X | | | 2.4.6 | X | |
| 78 | A | X | | | 2.4.35 | X | |
| 79 | D | X | | | EA2.01 | X | |
| 80 | C | X | | | 2.1.20 | X | |
| 81 | D | X | | | AA2.01 | X | |
| 82 | C | X | | | AA2.05 | X | |
| 83 | C | X | | | AA2.01 | X | |
| 84 | B | X | | | 2.2.37 | X | |
| 85 | B | X | | | AA2.02 | | X |

| | Answer | New | Bank | Modified | K/A | Comp. | Mem. |
|---|---|---|---|---|---|---|---|
| Question | | | | | | | |
| 86 | A | X | | | 2.1.25 | X | |
| 87 | B | X | | | 2.2.37 | | X |
| 88 | D | X | | | 2.2.42 | X | |
| 89 | D | X | | | A2.16 | X | |
| 90 | D | X | | | A2.01 | | X |
| 91 | B | X | | | A2.02 | X | |
| 92 | A | X | | | A2.02 | X | |
| 93 | C | X | | | 2.1.20 | X | |
| 94 | C | X | | | 2.1.7 | X | |
| 95 | C | X | | | 2.1.34 | X | |
| 96 | A | X | | | 2.1.32 | X | |
| 97 | D | | X | | 2.2.14 | X | |
| 98 | D | X | | | 2.2.21 | | X |
| 99 | A | | X | | 2.3.6 | | X |
| 100 | D | X | | | 2.4.29 | X | |

Overall

| A | B | C | D | New | Bank | Modified | Comp | Mem |
|---|---|---|---|---|---|---|---|---|
| 27 | 24 | 24 | 25 | 82 | 16 | 2 | 64 | 36 |

SRO

| A | B | C | D | New | Bank | Modified | Comp | Mem |
|---|---|---|---|---|---|---|---|---|
| 5 | 5 | 6 | 9 | 23 | 2 | 0 | 20 | 5 |

RO

| A | B | C | D | New | Bank | Modified | Comp | Mem |
|---|---|---|---|---|---|---|---|---|
| 22 | 19 | 18 | 16 | 59 | 14 | 2 | 44 | 31 |