

PSL L-23-1 NRC INITIAL WRITTEN EXAM - RO

1.

Given the following:

- Unit 2 is 100% power
- The 2AB busses are aligned to the “A” train

Subsequently:

- Unit 2 tripped
- A loss of the 2A DC bus occurs
- 2-EOP-01, Standard Post Trip Actions (SPTA), is in progress

Which ONE of the following completes the statements?

In accordance with 2-EOP-01, the 2AB DC bus will be re-energized from the ____ (1) ____.

Prior to re-energizing the 2AB DC bus, 2A S/G Auxiliary Feedwater flow ____ (2) ____ be restored.

A.	(1)	2B DC bus
	(2)	can
B.	(1)	2B DC bus
	(2)	can NOT
C.	(1)	2AB Battery Charger
	(2)	can
D.	(1)	2AB Battery Charger
	(2)	can NOT

2.

Given the following:

- Unit 2 is 100% power

Subsequently:

- V1200, Pressurizer Safety Valve is LEAKING
- Annunciator LC-1, Pzr PORV/Safety Open, is in ALARM
- 2-AOP-01.10, Pressurizer Pressure and Level, is in progress

Which ONE of the following completes the statements?

The Pressurizer safety V1200 discharges to the ____ (1) ____.

In accordance with 2-AOP-01.10, V1200 leakby ____ (2) ____ be validated by an individual tailpipe temperature indicator for each Pressurizer Safety.

A.	(1)	Quench Tank
	(2)	can
B.	(1)	Quench Tank
	(2)	can NOT
C.	(1)	Reactor Drain Tank
	(2)	can
D.	(1)	Reactor Drain Tank
	(2)	can NOT

3.

Given the following:

- Unit 1 has experienced a Small Break LOCA
- 1-EOP-03, Loss of Coolant Accident (LOCA), is in progress
- Pressurizer Pressure is 980 psia and STABLE
- Total High Pressure Safety Injection (HPSI) Flow is 300 gpm

Which ONE of the following completes the statements?

The total EXPECTED High Pressure Safety Injection pump flow is ____ (1) ____ gpm.

In accordance with 1-EOP-03, Step 6, Verify Flow within Figure 2, Safety Injection Flow vs. RCS pressure, the MINIMUM required Safety Injection flow rate ____ (2) ____ MET.

REFERENCE PROVIDED

A.	(1)	200
	(2)	is
B.	(1)	200
	(2)	is NOT
C.	(1)	400
	(2)	is
D.	(1)	400
	(2)	is NOT

4.

Given the following:

- Unit 2 has experienced a Large Break LOCA
- 2-EOP-03, Loss of Coolant Accident (LOCA), is in progress
- Containment Spray has ACTUATED
- Containment pressure is 33 psig and STABLE
- Two Containment Fan Coolers are in OPERATION
- 2-EOP-99, Figure 2, SI Flow vs RCS Pressure is MET

Which ONE of the following completes the statements?

In accordance with 2-EOP-03, EARLY Containment Spray flow REDUCTION criteria ____ (1) ____ MET.

The released Iodine in Containment is maintained in solution with the Containment Trisodium Phosphate baskets ____ (2) ____.

A.	(1)	is
	(2)	ONLY
B.	(1)	is
	(2)	and injected Hydrazine
C.	(1)	is NOT
	(2)	ONLY
D.	(1)	is NOT
	(2)	and injected Hydrazine

5.

Given the following:

- Unit 2 is tripped due to a 2A1 RCP seal failure
- 2A1 RCP Control Bleed Off (CBO) flow is 3 gpm and RISING
- 2-EOP-02, Reactor Trip Recovery, is in progress

Which ONE of the following completes the statements?

In accordance with 2-EOP-02, DEPRESSURIZE the RCS to a MINIMUM pressure of ____ (1) ____ psia.

The CBO Excess Flow Check Valve ensures the 2A1 RCP CBO flow will NOT exceed a MAXIMUM of ____ (2) ____ gpm.

A.	(1)	1800
	(2)	4
B.	(1)	1800
	(2)	10
C.	(1)	1850
	(2)	4
D.	(1)	1850
	(2)	10

6.

Given the following:

- Unit 1 is 90% power and LOWERING
- 1-AOP-22.01, Rapid Downpower, is in progress
- A boration is in progress per 1-AOP-22.01, Attachment 1, RCS Boration Guide
- Annunciator N-40, Boric Acid Flow High/Low, is in ALARM

Subsequently:

- With NO operator action, Annunciator N-40, Boric Acid Flow High/Low, CLEARS

Which ONE of the following completes the statements?

Boric acid flow addition ____ (1) ____ STOPPED.

If normal boric acid addition is LOST, in accordance with 1-AOP-02.01, Boron Concentration Control System Abnormal Operations, the NEXT method to borate is ____ (2) ____.

A.	(1)	has
	(2)	open V2504, RWT to Charging pump suction
B.	(1)	has
	(2)	open V2514, Emergency Borate and cycle the Boric Acid Make up pump
C.	(1)	has NOT
	(2)	open V2504, RWT to Charging pump suction
D.	(1)	has NOT
	(2)	open V2514, Emergency Borate and cycle the Boric Acid Make up pump

7.

Given the following:

- Unit 1 is in Lowered Inventory Operations in accordance with 1-NOP-01.03, Draining the RCS
- 1A Shutdown Cooling (SDC) train is in service
- RCS Level is at 35 feet 9 inches and STABLE
- RCS Temperature is 110 °F
- SDC Flow is 3,100 gpm
- RCS Time to Boil is 45 minutes

Subsequently:

- 1A LPSI pump amps begin OSCILLATING
- 1-AOP-03.02, Shutdown Cooling Abnormal Operations, is in progress

Which ONE of the following completes the statements?

In accordance with 1-AOP-03.02;

The FIRST required action is to ____ (1) ____.

If the 1A LPSI pump is SECURED, initiating Containment Evacuation ____ (2) ____ required.

A.	(1)	trip the 1A LPSI pump
	(2)	is
B.	(1)	trip the 1A LPSI pump
	(2)	is NOT
C.	(1)	throttle CLOSED the LPSI Header Injection valves
	(2)	is
D.	(1)	throttle CLOSED the LPSI Header Injection valves
	(2)	is NOT

8.

Given the following:

- Unit 1 is 100% power
- Pressurizer Level Control is selected to Channel "X"
- 1A Charging Pump is running

Subsequently:

- LT-1100X, Pressurizer Level Transmitter, indicates 0%
- Annunciator H-13, Pzr Channel X Press Hi/Lo, is in ALARM
- 1-AOP-01.10, Pressurizer Pressure and Level, is in progress

Which ONE of the following completes the statements?

Following LT-1100X indications, ____ (1) ____ charging pumps will be running.

In accordance with 1-AOP-01.10, Attachment 5, Recovering Pressurizer Heaters, ____ (2) ____ pressurizer heaters can be recovered.

A.	(1)	2
	(2)	"B" Train ONLY
B.	(1)	2
	(2)	ALL
C.	(1)	3
	(2)	"B" Train ONLY
D.	(1)	3
	(2)	ALL

9.

Given the following:

- Unit 1 has experienced a Steam Generator Tube Rupture
- On the Reactor Trip, a Loss of Offsite Power (LOOP) occurred
- 1-EOP-04, Steam Generator Tube Rupture (SGTR), is in progress at step 11, INITIATE lowering RCS Temperature to less than 510 °F
- Subcooling is NOT MET

Which ONE of the following completes the statements?

In accordance with 1-EOP-04:

The RCS is cooled down to less than ____ (1) ____ of 510 °F.

When the required RCS temperature of 510 °F is reached, the RCS cooldown rate limit is ____ (2) ____ °F in any one hour.

A.	(1)	Thot
	(2)	30
B.	(1)	Thot
	(2)	100
C.	(1)	Rep CET
	(2)	30
D.	(1)	Rep CET
	(2)	100

10.

Given the following:

- Unit 2 has experienced a Steam Line Break
- 2-EOP-05, Excess Steam Demand (ESD), is in progress
- RCS Tc is 495 °F and LOWERING
- RCS Pressure 1700 psia and LOWERING

Which ONE of the following completes the statements?

In accordance with 2-EOP-05:

Trip ____ (1) ____ Reactor Coolant Pump(s).

If Component Cooling Water (CCW) is isolated to the RCPs, CCW must be restored within a MAXIMUM of ____ (2) ____ minutes to continue RCP operation.

A.	(1)	ONLY 1
	(2)	10
B.	(1)	ONLY 1
	(2)	30
C.	(1)	2
	(2)	10
D.	(1)	2
	(2)	30

11.

Given the following:

- Unit 1 has tripped due to a loss of Main Feedwater
- 1-EOP-02, Reactor Trip Recovery, is in progress
- AFAS ACTUATED following the reactor trip
- 1A Steam Generator Level is 22% Narrow Range and RISING
- 1B Steam Generator Level is 21% Narrow Range and RISING
- 1A and 1C Auxiliary Feedwater pumps supplying 350 gpm to each S/G
- 1B AFW pump TRIPPED

Subsequently:

- A Loss of Offsite Power (LOOP) occurs
- Annunciator G-46, 1C AFW Pump Turbine Failure / Trip / SS Isol, comes IN AND CLEARS

Which ONE of the following completes the statements?

Upon re-energization, the 1A AFW flow control valves will ____ (1) ____.

In accordance with 1-AOP-09.02, Auxiliary Feedwater, Attachment 1, restore the 1C AFW pump by resetting the ____ (2) ____ overspeed trip.

A.	(1)	go FULL OPEN
	(2)	electrical
B.	(1)	go FULL OPEN
	(2)	mechanical
C.	(1)	remain THROTTLED
	(2)	electrical
D.	(1)	remain THROTTLED
	(2)	mechanical

12.

Given the following:

- Unit 1 has experienced a Station Blackout
- 1-EOP-10, Station Blackout SBO, is in progress

Which ONE of the following completes the statements?

In accordance with 1-EOP-99, Appendices/Figures/Tables/Datasheets:

Table 7, Vital Power Breaker Configuration/Station Blackout, ____ (1) ____ train(s) of AC supply breakers will be opened.

Appendix V, Receiving AC Power from Unit 2 SBO Crosstie, ____ (2) ____ train(s) of Safety Related pump control switches will be placed in Pull to Lock.

A.	(1)	both
	(2)	both
B.	(1)	both
	(2)	the selected
C.	(1)	the selected
	(2)	both
D.	(1)	the selected
	(2)	the selected

13.

Given the following:

- Unit 1 has experienced a Loss of Offsite Power (LOOP)
- 1-EOP-09, Loss of Offsite Power/Loss of Forced Circulation LOOP/LOFC, is in progress

Subsequently,

- 1-AOP-02.03, Charging and Letdown, is in progress to restore Letdown to service
- Annunciator M-28, Regenerative Heat Exchanger Outlet Temp High, ALARMS

Which ONE of the following completes the statements?

In accordance with 1-AOP-02.03:

To restore Letdown, the Non-Essential sections of MCCs ____ (1) ____ are required to be reset.

Cycle valve ____ (2) ____ to clear Annunciator M-28 to support Letdown restoration.

A.	(1)	1A6 and 1B6 ONLY
	(2)	V2515, Letdown Stop Valve
B.	(1)	1A6 and 1B6 ONLY
	(2)	V2516, Letdown Cntmt Isolation Valve
C.	(1)	1A5, 1A6, 1A8, 1B5,1B6 AND 1B8
	(2)	V2515, Letdown Stop Valve
D.	(1)	1A5, 1A6, 1A8, 1B5,1B6 AND 1B8
	(2)	V2516, Letdown Cntmt Isolation Valve

14.

Given the following:

- Unit 2 is 100% power
- 2MC Instrument Bus is being supplied by its associated ALTERNATE source
- 2C Instrument Inverter maintenance is complete and is available

Subsequently:

- The 2MA Instrument Bus is lost
- 2-AOP-49.02, 120V Instrument AC System (CLASS 1E), is in progress
- The US has directed placing the 2MA Instrument Bus on its ALTERNATE source

Which ONE of the following completes the statement?

In accordance with 2-AOP-49.02, the 2MC Instrument Bus will be removed from the ____ (1) ____.

An interlock ____ (2) ____ prevent placing the 2A Instrument bus on its ALTERNATE source PRIOR TO restoring the 2C Instrument bus to its NORMAL source.

A.	(1)	Isolimiter
	(2)	does
B.	(1)	Isolimiter
	(2)	does NOT
C.	(1)	Maintenance Bypass Bus
	(2)	does
D.	(1)	Maintenance Bypass Bus
	(2)	does NOT

15.

Given the following:

- Unit 1 is 100% power

Subsequently:

- Annunciator A-28, 4.16Kv Swgr 1B3 / 480V LC 1B2 UV / UV Test / Ground, is in ALARM
- The 1B EDG output breaker FAILS TO AUTO CLOSE
- 1-AOP-47.01B, Loss of a Safety Related AC Bus – Train B, is in progress

Which ONE of the following completes the statements?

When the 1B EDG output breaker is CLOSED, restoration of the 1B and 1BB Battery Chargers ____ (1) ____ AUTOMATICALLY return to service on the 1B DC Bus.

IF the 1B EDG output breaker is NOT closed, Tech Spec LCO 3.8.2.3, D.C. Distribution – Operating, ____ (2) ____ require action within 1 hour.

A.	(1)	does
	(2)	does
B.	(1)	does
	(2)	does NOT
C.	(1)	does NOT
	(2)	does
D.	(1)	does NOT
	(2)	does NOT

16.

Given the following:

- Unit 2 has experienced a Steam Generator Tube Rupture
- 2-EOP-04, Steam Generator Tube Rupture (SGTR), is in progress
- Pressurizer pressure is 1650 psia and slowly LOWERING

Which ONE of the following completes the statement?

MV-21-2 and MV-21-3, Intake Cooling Water Header to Turbine Cooling Water Heat Exchangers (HXs), will _____.

A.	CLOSE; to ensure sufficient cooling flow to the CCW HXs
B.	CLOSE; to ensure the Intake Cooling Water Pumps will NOT be at runout flow
C.	remain OPEN; to ensure cooling flow to the Open Blowdown Cooling System HXs to support S/G sampling
D.	remain OPEN; to ensure cooling flow to the Open Blowdown Cooling System HXs to maintain isolated S/G level in band

17.

Given the following:

- Unit 1 is 60% power and LOWERING due to an Instrument Air Leak
- 1-AOP-22.01, Rapid Downpower, is in progress
- 1-AOP-18.01, Instrument Air Malfunction, is in progress
- The following instrument air system pressures are observed:

00:00	00:05	00:10	00:15	00:20
70 psig	66 psig	63 psig	58 psig	40 psig

Which ONE of the following completes the statements?

In accordance with 1-AOP-18.01, Reactor trip criteria is FIRST MET at time ____ (1) ____,
and at THAT time High Power Feed Reg Valves will be FAILED ____ (2) ____.

A.	(1)	00:10
	(2)	AS IS
B.	(1)	00:10
	(2)	CLOSED
C.	(1)	00:15
	(2)	AS IS
D.	(1)	00:15
	(2)	CLOSED

18.

Given the following:

- Unit 1 is 100% power
- System Operator reports that grid demand is high
- Main Generator is SUPPLYING the grid at 150 MVARs (OUT)

Subsequently:

- A grid disturbance occurs, resulting in grid voltage rising to 241 kV
- 0-AOP-53.03, High Switchyard Voltage, is in progress
- System requests the Unit 1 to lower switchyard voltage to 239 kV

Which ONE of the following completes the statements?

PRIOR to operator action, Unit 1 Main Generator MVARs will be supplying ____ (1) ____ than 150 MVARs (OUT).

In accordance with 1-NOP-99.07, Operations Hard Card Attachment 2, VAR Adjustments, Main Generator Voltage will be lowered using the ____ (2) ____ Regulator Adjuster control switch.

A.	(1)	greater
	(2)	AC
B.	(1)	greater
	(2)	DC
C.	(1)	less
	(2)	AC
D.	(1)	less
	(2)	DC

19.

Given the following:

- Unit 1 is 97% power and STABLE
- CEA #1 had dropped to the bottom of the core
- 1-AOP-66.01, Dropped or Misaligned CEA Abnormal Operations, is in progress
- CEA #1 is being recovered per Attachment 1, Dropped CEA Recovery with Reactor Critical and 1-NOP-99.07, Attachment 1, Rod Control System Operation
- CEA #1 is at 10 inches

Subsequently,

- Following the last TOUCH of the Out pushbutton, outward motion DOES NOT STOP

Which ONE of the following completes the statements?

Assuming NO operator action, S/G pressure will ____ (1) ____.

In accordance with 1-AOP-66.01, the FIRST immediate action the BRCO will take is ____ (2) ____.

A.	(1)	RISE
	(2)	trip the reactor
B.	(1)	RISE
	(2)	place Rod Control Operation Panel to OFF
C.	(1)	remain STABLE
	(2)	trip the reactor
D.	(1)	remain STABLE
	(2)	place Rod Control Operation Panel to OFF

20.

Given the following:

- Unit 2 has experienced a 2B Steam Generator Tube Rupture
- 2-EOP-04, Steam Generator Tube Rupture (SGTR), is in progress
- RCS cooldown is in progress using the Steam Bypass Control System

The following annunciators are in ALARM:

- P-8, MSIS Channel A Actuation Blocked
- P-20, MSIS Channel B Actuation Block Permissive

Which ONE of the following completes the statements?

MSIS will actuate at ____ (1) ____ psia.

If NO operator action is taken and the MSIS setpoint is reached, the 2A MSIV ____ (2) ____ AUTOMATICALLY CLOSE.

A.	(1)	600
	(2)	will
B.	(1)	600
	(2)	will NOT
C.	(1)	626
	(2)	will
D.	(1)	626
	(2)	will NOT

21.

Given the following:

- Unit 1 is performing a Liquid Release in accordance with 1-NOP-06.01, Controlled Liquid Release to the Circulating Water Discharge

Subsequently:

- Annunciator N-37, Liquid Waste Rad High, is in ALARM
- FR-6627, Liquid Waste Flow, indicates 50 gpm
- 1-AOP-06.02, Uncontrolled Release of Radioactive Liquids, is in progress

Which ONE of the following completes the statement?

In accordance with 1-AOP-06.02, FIRST CLOSE ____ (1) ____ and stop the Waste Monitor Tank pump ____ (2) ____.

A.	(1)	FCV-6627X, Liquid Waste Flow Valve
	(2)	from RTGB-106
B.	(1)	FCV-6627X, Liquid Waste Flow Valve
	(2)	locally at the pump
C.	(1)	V21462, Waste Monitor Pumps Disch to Disch Canal Isol
	(2)	from RTGB-106
D.	(1)	V21462, Waste Monitor Pumps Disch to Disch Canal Isol
	(2)	locally at the pump

22.

Given the following:

- Unit 2 is 100% power
- 2A Gas Decay Tank (GDT) release is in progress in accordance with 2-NOP-06.20, Controlled Gaseous Batch Release to Atmosphere

Subsequently:

- One hour after initiation of the GDT release, RS-26-18, Gaseous Discharge Monitor experiences a SYSTEM FAILURE

Which ONE of the following completes the statements?

In accordance 2-NOP-06.20, following the start of the gas release, the SNPO is required to RECORD GDT pressures every ____ (1) ____ minutes.

System Failure of RS-26-18, is indicated on the Radiation Monitor Control System (RMCS) display screen with a ____ (2) ____ status color.

A.	(1)	15
	(2)	gray
B.	(1)	15
	(2)	dark blue
C.	(1)	30
	(2)	gray
D.	(1)	30
	(2)	dark blue

23.

Given the following:

- Unit 1 has experienced a fire in the Main Transformers
- 1-AOP-100.01, Response to Fire, is in progress
- Annunciator F-8, Fire Pump Running, is in ALARM
- The Fire Brigade is dispatched

Subsequently:

- Loss of Off-site Power (LOOP) occurs
- Safety Injection actuation (SIAS) occurs

Which ONE of the following completes the statements?

To extinguish the fire, the Main Transformer ____ (1) ____ system will actuate.

Following emergency power restoration, in accordance with ADM-19.02, Pre-Fire Plan Standard Operating Procedure, the fire pumps ____ (2) ____.

A.	(1)	deluge
	(2)	will automatically restart
B.	(1)	deluge
	(2)	must be manually restarted
C.	(1)	wet pipe sprinkler
	(2)	will automatically restart
D.	(1)	wet pipe sprinkler
	(2)	must be manually restarted

24.

Given the following:

- Unit 1 is 45% power and STABLE

Subsequently:

- 1A MFW Pump trips resulting in a reactor trip
- ALL AFW pumps have FAILED
- 1-EOP-06, Total Loss of Feed (TLOF), is in progress
- 1A S/G WR level is 20% and slowly LOWERING
- 1B S/G WR level is 22% and slowly LOWERING

Which ONE of the following completes the statements?

In accordance with 1-EOP-06, the crew will use the 1B MFW pump to feed at a rate ____ (1) ____.

1-EOP-06, allows Feedwater flow to be raised after S/G level indication ____ (2) ____.

A.	(1)	as low as possible
	(2)	RISES
B.	(1)	as low as possible
	(2)	is restored to 31% Narrow Range
C.	(1)	limited to 150 gpm
	(2)	RISES
D.	(1)	limited to 150 gpm
	(2)	is restored to 31% Narrow Range

25.

Given the following:

- Unit 1 is 100% power
- Chemistry has reported I-131 Activity is 0.6 microcuries/gm
- 1-AOP-01.06, Excessive RCS Activity, is in progress

Subsequently;

- A Steam Generator Tube Leak occurs on the 1A Steam Generator
- 1-AOP-08.02, Steam Generator Tube Leak, is in progress
- A rapid downpower has commenced in accordance with 1-AOP-22.01, Rapid Downpower

Which ONE of the completes the statements?

PRIOR to the Steam Generator Tube Leak, I-131 activity ____ (1) ____ EXCEEDED the limit of Tech Spec LCO 3.4.8, Specific Activity.

During the rapid downpower, Main Steam Line Radiation Monitor indication will ____ (2) ____.

A.	(1)	has
	(2)	lower
B.	(1)	has
	(2)	remain the same
C.	(1)	has NOT
	(2)	lower
D.	(1)	has NOT
	(2)	remain the same

26.

Given the following:

- Unit 2 is in Mode 1
- PORV V1474 is ISOLATED due to excessive leakage

Subsequently:

- PORV V1475 begins to leak by
- PORV Block Valve V1477 is CLOSED, isolating the leak
- 2-AOP-01.10, Pressurizer Pressure and Level, is in progress

Which ONE of the following completes the statements?

Tech Spec LCO 3.4.6.2, RCS Operational Leakage limit for RCS leakage through the PORV is ____ (1) ____.

In accordance with Tech Spec LCO 3.4.4, PORV Block Valves, Mode 1 operation ____ (2) ____ continue.

A.	(1)	1 gpm
	(2)	can
B.	(1)	1 gpm
	(2)	can NOT
C.	(1)	10 gpm
	(2)	can
D.	(1)	10 gpm
	(2)	can NOT

27.

Which ONE of the following completes the statements?

The Reactor Coolant Pump Vapor Seal ____ (1) ____ designed to hold the Reactor Coolant System normal operating pressure during RCP pump coast down.

The RCP Vapor Seal leak off is routed to the ____ (2) ____.

A.	(1)	is
	(2)	Containment Floor Drain
B.	(1)	is NOT
	(2)	Containment Floor Drain
C.	(1)	is
	(2)	Reactor Coolant Drain Tank
D.	(1)	is NOT
	(2)	Reactor Coolant Drain Tank

28.

Given the following:

- Unit 1 is 100% power
- The 1A and 1B Charging Pumps are running
- LCV-2110Q, Level Control Valve, is in service
- LIC-2110, Letdown Level Controller, output FAILS to zero

Which ONE of the following completes the statements?

With NO operator action, over the NEXT two minutes:

Pressurizer Level will ____ (1) ____.

PIC-1100X/Y, Pressurizer Pressure Master Controller, output demand will ____ (2) ____.

A.	(1)	RISE
	(2)	RISE
B.	(1)	LOWER
	(2)	RISE
C.	(1)	RISE
	(2)	LOWER
D.	(1)	LOWER
	(2)	LOWER

29.

Given the following:

- Unit 1 is 100% power
- Instrument Air line to TCV-2223, Letdown Heat Exchanger Temperature Control Valve breaks

Which ONE of the following completes the statements?

TCV-2223 will fail ____ (1) ____.

With NO operator action, Reactor Power will ____ (2) ____.

A.	(1)	OPEN
	(2)	RISE
B.	(1)	OPEN
	(2)	LOWER
C.	(1)	CLOSED
	(2)	RISE
D.	(1)	CLOSED
	(2)	LOWER

30.

Given the following:

- Unit 2 is in Mode 5 on Shutdown Cooling (SDC)
- The 2B SDC train is in service
- The 2A SDC train is in standby
- The following annunciator is received:
- Annunciator A-13, 4.16KV SWGR 2B2 Δ CURRENT TRIP, is in ALARM

Which ONE of the following describes the response of the 2B Low Pressure Safety Injection pump?

A.	Continues in operation.
B.	Its supply breaker opens, but can be manually closed.
C.	Its supply breaker opens, but recloses following a time delay.
D.	Stops due to loss of AC power and its breaker cannot be reclosed.

31.

Given the following:

- Unit 2 is in Mode 5
- Unit 2 has been shutdown for 3 days
- 2A Shutdown Cooling Train (SDC) is in service in accordance with 2-NOP-03.05, Shutdown Cooling
- FCV-3306, SDC HX Bypass, is FULL OPEN
- HCV-3657, SDC HX Outlet Flow, is THROTTLED OPEN to 50 percent

Which ONE of the following completes the statements?

In accordance with 2-NOP-03.05, to maintain STABLE RCS temperature over THE NEXT 3 DAYS, THROTTLE ____ (1) ____ closed.

To increase RCS inventory using Primary Water, in accordance with Tech Spec 3.1.1.3, Boron Dilution, ____ (2) ____ gpm is the MINIMUM Shutdown Cooling Flow required.

A.	(1)	ONLY HCV-3657
	(2)	1850
B.	(1)	ONLY HCV-3657
	(2)	3000
C.	(1)	EITHER HCV-3657 or FCV-3306
	(2)	1850
D.	(1)	EITHER HCV-3657 or FCV-3306
	(2)	3000

32.

Given the following:

- Unit 1 is 100% power
- Charging Pump 1A is RUNNING

Subsequently,

- Unit 1 has experienced a Small Break LOCA
- The following parameters are observed:

Time	01:00	01:03	01:06	01:09
RCS Pressure	1900 psia	1750 psia	1650 psia	1550 psia
Containment Pressure	1.5 psig	3.6 psig	5.1 psig	6.5 psig
Pzr Level	0%	0%	0%	0%

Which ONE of the following completes the statements?

The EARLIEST time Safety Injection will have automatically actuated is ____ (1) ____.

Upon Safety Injection actuation, Charging Pump(s) ____ (2) ____ will have AUTOMATICALLY started.

A.	(1)	01:06
	(2)	1B ONLY
B.	(1)	01:06
	(2)	1B AND 1C
C.	(1)	01:09
	(2)	1B ONLY
D.	(1)	01:09
	(2)	1B AND 1C

33.

Given the following:

- Unit 1 was tripped
- RCS Pressure is 1850 psia and LOWERING
- Quench Tank Pressure PEAKED at 75 psig and is now LOWERING
- PORV Indications:

PORV	Valve Position Indication	Acoustic Monitor
V1402	RED	No LEDs Lit
V1404	GREEN	Two LEDs Lit

Which ONE of the following completes the statements?

PORV ____ (1) ____ is OPEN.

The Quench Tank Rupture Disk ____ (2) ____ EXCEEDED the rupture disk DESIGN PRESSURE SETPOINT.

A.	(1)	V1402
	(2)	has
B.	(1)	V1402
	(2)	has NOT
C.	(1)	V1404
	(2)	has
D.	(1)	V1404
	(2)	has NOT

34.

Given the following:

- Unit 1 is 100% power
- 1A and 1B Component Cooling Water (CCW) Pumps are RUNNING
- Annunciator S-6, CCW Surge Tank Level High/Compartment A Level Low, is in ALARM
- LS-14-1A "A" CCW Surge Tank Level Switch FAILS LOW

Which ONE of the following completes the statement?

CCW Indicated flow:

____(1)____ on the "A" CCW header,

and

____(2)____ on the "B" CCW header.

A.	(1)	LOWERS
	(2)	RISES
B.	(1)	LOWERS
	(2)	remains the same
C.	(1)	LOWERS
	(2)	LOWERS
D.	(1)	remains the same
	(2)	remains the same

35.

Which ONE of the following completes the statements?

The NORMAL source of makeup to the Component Cooling Water (CCW) Surge Tank is ____ (1) ____ water.

The BACKUP source of make up to the CCW Surge Tank is ____ (2) ____.

A.	(1)	Demin
	(2)	Fire
B.	(1)	Demin
	(2)	Service
C.	(1)	Primary
	(2)	Fire
D.	(1)	Primary
	(2)	Service

36.

Given the following:

- Unit 1 is 100% power

Subsequently:

- TIA-1103, SPRAY LINE 1B1 (Water Temperature), indicates 530 °F
- TIA-1104, SPRAY LINE 1B2 (Water Temperature), indicates 548 °F
- RCS pressure is 2210 psia and LOWERING

Which ONE of the following completes the statements?

In accordance with Tech Spec LCO 3.2.5, DNB Parameters, the limit for DNB ____ (1) ____ been exceeded.

Securing the ____ (2) ____ will MITIGATE the RCS Pressure drop.

A.	(1)	has
	(2)	1B1 RCP
B.	(1)	has
	(2)	1B2 RCP
C.	(1)	has NOT
	(2)	1B1 RCP
D.	(1)	has NOT
	(2)	1B2 RCP

37.

Given the following:

- Unit 1 is 100% power

Subsequently:

- A loss of the MA 120 VAC Instrument Bus occurs

Which ONE of the following ADDITIONAL failures would result in a Reactor Trip?

A.	Channel B Tcold fails LOW
B.	Channel D Thot fails HIGH
C.	Channel C WRNI fails HIGH
D.	Channel B CCW flow transmitter fails LOW

38.

Given the following:

- Unit 2 has experienced a Loss of Offsite Power (LOOP)
- Both Emergency Diesel Generators (EDGs) are loaded onto their respective buses

Which ONE of the following can be MANUALLY controlled from the EDG controls on the RTGB?

A.	Load (kW)
B.	Voltage (V)
C.	Frequency (Hz)
D.	Reactive Loading (kVAR)

39.

Given the following:

At time 00:00, Unit 1 tripped from 100% power

Subsequently, the following S/G Narrow Range Levels were observed:

Time:	00:01	00:03	00:06	00:07
S/G "A"	23%	17%	15%	14%
S/G "B"	28%	23%	19%	18%

Which ONE of the following is the expected status of AFW?

At time 00:07, the "B" AFW Header Flow Control Valves are ____ (1) ____.

At time 00:07, the "C" AFW Pump Steam Supply will be from S/G(s) ____ (2) ____.

A.	(1)	OPEN
	(2)	"A" ONLY
B.	(1)	OPEN
	(2)	"A" and "B"
C.	(1)	CLOSED
	(2)	"A" ONLY
D.	(1)	CLOSED
	(2)	"A" and "B"

40.

Given the following:

- Unit 2 is 100% power
- HVS-1A, 1B, and 1C, Containment Fan Coolers are RUNNING in FAST
- Containment Air Temperature is 92 °F

Subsequently:

- Annunciator T-12, Cntmt Fan Clr HVS-1C Ovrlid/Trip, is in ALARM
- 2-AOP-25.01, Loss of RCB Cooling Fans, is in progress

Which ONE of the following completes the statements?

HVS-1D ____ (1) ____ AUTOMATICALLY start.

If HVS-1D is required to be MANUALLY started in FAST speed, in accordance with 2-AOP-25.01, place the control switch in ____ (2) ____ .

A.	(1)	will
	(2)	TEST
B.	(1)	will
	(2)	START
C.	(1)	will NOT
	(2)	TEST
D.	(1)	will NOT
	(2)	START

41.

Given the following:

- Unit 1 is 100% power

Subsequently:

- HVS-2B, Reactor Cavity Cooling Fan, TRIPS
- 1-AOP-25.01, Loss of RCB Cooling Fans, is in progress

Which ONE of the following completes the statements?

In accordance with 1-AOP-25.01, Operator action is required within a MAXIMUM of ____ (1) ____ minutes from the loss of a Reactor Cavity Cooling Fan.

Running a Reactor Cavity Cooling Fan ensures the ____ (2) ____ remains within its design basis.

A.	(1)	45
	(2)	containment vessel
B.	(1)	45
	(2)	reactor vessel support structure
C.	(1)	60
	(2)	containment vessel
D.	(1)	60
	(2)	reactor vessel support structure

42.

Given the following:

- Unit 2 has experienced a Large Break LOCA
- Containment Spray Actuated (CSAS)
- The 2B Component Cooling Water (CCW) pump TRIPPED
- 2A Containment Spray header flow is 900 gpm
- 2B Containment Spray header flow is 2200 gpm
- 2-EOP-03, Loss of Coolant Accident (LOCA), Step 12, Check if Containment Spray actuation is required, is in progress

Which ONE of the following completes the statements?

The 2B Containment Spray pump seal ____ (1) ____ affected by the 2B CCW pump trip.

In accordance with 2-EOP-03 Step 12, the MINIMUM Containment Spray header flow ____ (2) ____ MET.

A.	(1)	is
	(2)	is
B.	(1)	is
	(2)	is NOT
C.	(1)	is NOT
	(2)	is
D.	(1)	is NOT
	(2)	is NOT

43.

Given the following:

- Unit 2 is performing a Main Steam warm up in accordance with 2-GOP-201, Reactor Plant Startup Mode 2 to Mode 1

Which ONE of the following completes the statements?

In accordance with 2-GOP-201:

____(1)____ Main Steam Isolation Valve (MSIV) Bypass Valve(s) is/are opened to warm up the Main Steam Line.

Following warm up, the MSIV Bypass Valve breaker control circuit switches are in the ____ (2) ____ position.

A.	(1)	One
	(2)	Defeat
B.	(1)	One
	(2)	Enable
C.	(1)	Both
	(2)	Defeat
D.	(1)	Both
	(2)	Enable

44.

Given the following:

- Unit 1 has experienced a “B” S/G Main Steam line break
- “A” S/G pressure is 900 psia and STABLE
- “B” S/G pressure is 600 psia and LOWERING
- “A” S/G level is 15% NR and SLOWLY LOWERING
- “B” S/G level is 5% NR and LOWERING

Which ONE of the following completes the statements?

AFAS-1 ____ (1) ____ will actuate.

The 1C AFW Pump will supply AFW flow to “A” S/G ____ (2) ____.

A.	(1)	ONLY
	(2)	ONLY
B.	(1)	ONLY
	(2)	and “B” S/G
C.	(1)	and AFAS-2
	(2)	ONLY
D.	(1)	and AFAS-2
	(2)	and “B” S/G

45.

Given the following:

- Unit 1 tripped from 100% power

Which ONE of the following completes the statements?

The Feed Reg Valve Controller will automatically position the ____ (1) ____ Power Feed Reg Valve to the 5% feedwater flow position.

To manually regain control of the automatically positioned Feed Regulating Valve prior to S/G Narrow Range level being recovered, the BRCO will depress the ____ (2) ____ Override pushbutton.

A.	(1)	Low
	(2)	Trip Manual
B.	(1)	Low
	(2)	High Level
C.	(1)	High
	(2)	Trip Manual
D.	(1)	High
	(2)	High Level

46.

Given the following:

- Unit 1 is 2% power and STABLE
- S/G water level is being maintained with the 1A and 1B AFW pumps

Subsequently:

- The 1A Auxiliary Feedwater pump trips

Which ONE of the following describes the expected plant response BEFORE the automatic Reactor Trip on Low S/G Level?

Reactor Coolant System (RCS) Pressure will _____.

A.	RISE, because the RCS temperature RISES
B.	RISE, because the RCS delta T power RISES
C.	LOWER, because the S/G level initially RISES (swell phenomenon)
D.	LOWER, because the boiling rate in the S/G tube bundle region RISES

47.

Given the following:

- Unit 2 is 55% power and stable
- 2B Turbine Cooling Water Pump is in operation

Subsequently:

- Breaker 2-20301, 2B2 4.16KV Bus Incoming Feeder from U.A. XFMR No. 2B, inadvertently OPENS

Which ONE of the following completes the statements?

The 2A Turbine Cooling Water Pump ____ (1) ____ automatically START.

Following restoration of Emergency Diesel Generator power to the 2B3 4.16KV Bus, the bus amps will ____ (2) ____ increase to NORMAL running current.

A.	(1)	will
	(2)	immediately
B.	(1)	will
	(2)	incrementally
C.	(1)	will NOT
	(2)	immediately
D.	(1)	will NOT
	(2)	incrementally

48.

Given the following:

- Unit 2 is 100% power
- 2-OSP-59.01A, 2A Emergency Diesel Generator Monthly Surveillance, is in progress
- Annunciator B-36, 2A Emerg D/G Local Alarm, is in ALARM
- SNPO reports 2A EDG Panel annunciator 2-2, Engine 2A1 Water Temp High, is in ALARM
- SNPO reports the 2A EDG Jacket Water Outlet Temperature is 205 °F and SLOWLY RISING

Which ONE of the following completes the statements?

In accordance with 2-ARP-06-A00-2-2, Engine 2A1 Water Temp High, manually trip the 2A EDG ____ (1) ____.

If a subsequent a Loss of Offsite Power event were to occur, the 2A EDG Lockout Relay ____ (2) ____ must be RESET to allow AUTOMATIC restart of the EDG.

A.	(1)	locally ONLY
	(2)	ONLY
B.	(1)	locally ONLY
	(2)	And Shutdown Relay
C.	(1)	locally OR remotely in the Control Room
	(2)	ONLY
D.	(1)	locally OR remotely in the Control Room
	(2)	and Shutdown Relay

49.

Given the following:

- Unit 1 is 100% power
- 1AA Battery Charger is Out of Service
- The 1AB Buses are aligned to the "B" train

Subsequently:

- Annunciator B-20, 125V DC Bus/1A Batt Chgr/Batt Rm Fan Trouble, is in ALARM
- 1-AOP-50.08, Loss Of 125v DC Station Battery Charger, is in progress

Which ONE of the following completes the statements?

The 1A Battery is rated to supply the 1A DC Bus for a MAXIMUM EMERGENCY PERIOD of ____ (1) ____ hours.

In accordance with 1-AOP-50.08, the NEXT selected replacement battery charger is the ____ (2) ____ Battery Charger.

A.	(1)	2
	(2)	1AB
B.	(1)	2
	(2)	1C or 1D
C.	(1)	4
	(2)	1AB
D.	(1)	4
	(2)	1C or 1D

50.

Given the following:

- Unit 1 is 100% power
- Annunciator B-28, 4Kv Swgr 1A3/480V Swgr 1A2 UV/UV Test/Ground, is in ALARM
- The 1A3 4.16KV Undervoltage Relay 27-1 is TRIPPED
- 1-AOP-99.01, Loss of Tech Spec Instrumentation, is in progress

Which ONE of the following completes the statements?

The 1A EDG ____ (1) ____ AUTOMATICALLY started.

In accordance with 1-AOP-99.01, Undervoltage Relay 27-1, ____ (2) ____ be tripped in the control room.

A.	(1)	has
	(2)	can
B.	(1)	has
	(2)	can NOT
C.	(1)	has NOT
	(2)	can
D.	(1)	has NOT
	(2)	can NOT

51.

Given the following:

- Unit 2 has experienced a 2A S/G tube leak
- 2-AOP-08.02, Steam Generator Tube Leak, is in progress

Subsequently:

- RS-26-5, "A" S/G Blowdown Rad Monitor, goes in HIGH ALARM

Which ONE of the following completes the statements?

S/G Blowdown flow will isolate on ____ (1) ____ S/G(s).

When Chemistry lines up and samples the 2A S/G, RS-26-5 ____ (2) ____ restored to service.

A.	(1)	BOTH
	(2)	is
B.	(1)	BOTH
	(2)	is NOT
C.	(1)	ONLY the "A"
	(2)	is
D.	(1)	ONLY the "A"
	(2)	is NOT

52.

Given the following:

- Unit 1 is 100% power
- 1A Component Cooling Water (CCW) Heat Exchanger (HX) has developed a tube leak

Subsequently:

- The crew is removing the 1A CCW HX from service in accordance with 1-NOP-14.02, CCW Water System Operation

Which ONE of the following completes the statements?

Due to the 1A CCW HX tube leak, CCW Surge Tank Level will ____ (1) ____.

When removing the 1A CCW HX from service, placing TIC-14-4A, 1A CCW HX TEMP, in manual at MINIMUM demand ____ (2) ____ isolate ALL Intake Cooling Water (ICW) flow through the 1A CCW HX.

A.	(1)	RISE
	(2)	does
B.	(1)	RISE
	(2)	does NOT
C.	(1)	LOWER
	(2)	does
D.	(1)	LOWER
	(2)	does NOT

53.

Given the following:

- Unit 1 has experienced a Loss of Offsite Power (LOOP)
- The crew has entered 1-EOP-09, Loss of Offsite Power/Loss of Forced Circulation LOOP/LOFC
- 1-EOP-99 Appendix H, Operation of the 1A and 1B Instrument Air Compressors, is COMPLETE

Subsequently:

- Annunciator F-5, Instr Air Press High/Low is in ALARM
- Annunciator F-13, 1A Instr Air Compr Trouble/Trip, is in ALARM
- PI-18-9, Instr Air Hdr Press, is 80 psig and STABLE
- Unit 2 reports that Unit 2 Instrument Air Header Pressure is 105 psig and STABLE

Which ONE of the following completes the statements?

Turbine Cooling Water ____ (1) ____ cooling the 1A and 1B Instrument Air Compressors.

The Instrument Air Header is being supplied by the 1B Instrument Air Compressor ____ (2) ____.

A.	(1)	is
	(2)	ONLY
B.	(1)	is
	(2)	and Instrument Air Cross-Tie from Unit 2
C.	(1)	is NOT
	(2)	ONLY
D.	(1)	is NOT
	(2)	and Instrument Air Cross-Tie from Unit 2

54.

Given the following:

- Unit 1 is in Mode 6
- Core Offload preparation is in progress in accordance with 0-NOP-67.05, Refueling Operation
- The reactor has been shutdown for 70 hours
- The equipment hatch is OPEN
- Emergency closure crew is in place in accordance with 1-GMM-68.02, Emergency Closure of Containment Penetrations, Personnel Hatch, and Equipment Hatch

Which ONE of the following completes the statements?

In accordance with Tech Spec LCO 3.9.3, Decay Time, the required Shutdown Time for Core Offload ____ (1) ____ been MET.

IF the requirements of Tech Spec LCO 3.9.3, Decay Time, are MET, Core Offload ____ (2) ____ be performed with the Equipment Hatch open with administrative controls in place.

A.	(1)	has
	(2)	can
B.	(1)	has
	(2)	can NOT
C.	(1)	has NOT
	(2)	can
D.	(1)	has NOT
	(2)	can NOT

55.

Given the following:

- Unit 1 is 100% power
- Annunciator K-26, Rod Control Urgent Failure, is in ALARM
- CEA Group 7 Rod Control Operation Panel URGENT ALARM is in ALARM

Which ONE of the following completes the statements?

CEDS Ovation Logic is powered by the ____ (1) ____.

Manual rod motion of the CEA Group 7 ____ (2) ____ allowed to occur prior to the alarm being RESET.

A.	(1)	“C” or “D” Instrument Buses
	(2)	is
B.	(1)	“C” or “D” Instrument Buses
	(2)	is NOT
C.	(1)	1C or 1D 120 VAC SAS / SUPS
	(2)	is
D.	(1)	1C or 1D 120 VAC SAS / SUPS
	(2)	is NOT

56.

Given the following:

- Unit 1 is 45% power and STABLE
- Pressurizer (PZR) Level Control Selector Switch is selected to the 'X' position
- Reactor Regulating System (RRS) Selector is in the RRS 1 position

Subsequently:

- LI-1110X indicates 100%
- 1-AOP-01.10, Pressurizer Pressure and Level, is in progress

Which ONE of the following completes the statements?

Reactor Coolant Inventory will ____ (1) ____.

In accordance with 1-AOP-01.10, the event will be mitigated by placing ____ (2) ____.

A.	(1)	increase
	(2)	RRS selector switch to the RRS-2 position
B.	(1)	increase
	(2)	PZR level control selector switch to the 'Y' position
C.	(1)	decrease
	(2)	RRS selector switch to the RRS-2 position
D.	(1)	decrease
	(2)	PZR level control selector switch to the 'Y' position

57.

Which ONE of the following completes the statements?

If the detector leads for ONE Core Exit Thermocouple (CET) become SHORTED, that CET would indicate a ____ (1) ____ than actual temperature.

The temperature input for the SHORTED CET detector ____ (2) ____ included in the Representative CET (Rep CET) calculation.

A.	(1)	lower
	(2)	is
B.	(1)	lower
	(2)	is NOT
C.	(1)	higher
	(2)	is
D.	(1)	higher
	(2)	is NOT

58.

Given the following:

- Unit 1 is 100% power
- The crew is performing an 8-hour Containment Mini-purge in accordance with 1-NOP-25.02, Hydrogen Purge System

Subsequently:

- 4 hours into the release, RSC-26-1, Plant Vent Stack Radiation Monitor, goes into HIGH ALARM

Which ONE of the following completes the statements?

Prior to the Plant Vent Stack Radiation Monitor alarm, this Containment Mini-purge is categorized as a ____ (1) ____ release.

When the Plant Vent Stack Radiation Monitor goes into HIGH ALARM, the Containment Mini Purge ____ (2) ____ AUTOMATICALLY isolate.

A.	(1)	Batch
	(2)	will
B.	(1)	Batch
	(2)	will NOT
C.	(1)	Continuous
	(2)	will
D.	(1)	Continuous
	(2)	will NOT

59.

Which ONE of the following completes the statements?

In accordance with Tech Spec LCO 3.9.11, Spent Fuel Storage Pool, a MINIMUM level of ____ (1) ____ feet over the top of irradiated fuel assemblies is required.

____ (2) ____ is(are) used on the SFP cooling return to prevent a passive leak from draining the Spent Fuel Pool.

A.	(1)	23
	(2)	A check valve
B.	(1)	23
	(2)	Siphon Breaker holes
C.	(1)	29.5
	(2)	A check valve
D.	(1)	29.5
	(2)	Siphon Breaker holes

60.

Given the following:

- Unit 2 is 100% power
- 2A S/G has experienced a 100 Gallon Per Minute (GPM) S/G tube leak
- 2-AOP-08.02, Steam Generator Tube Leak, is in progress
- RS-26-5, 2A S/G Blowdown Radiation Monitor, is out of service

Which ONE of the following completes the statements?

The FIRST radiation monitor indication of the 100 GPM S/G tube leak is the ____ (1) ____ Radiation Monitor.

The Steam Jet Air Ejector Exhaust is normally aligned directly to the ____ (2) ____.

A.	(1)	Main Steam Line
	(2)	atmosphere
B.	(1)	Main Steam Line
	(2)	Plant Vent Stack
C.	(1)	Steam Jet Air Ejector
	(2)	atmosphere
D.	(1)	Steam Jet Air Ejector
	(2)	Plant Vent Stack

61.

Given the following:

- Unit 2 tripped from 100% power
- The 2A EDG is out of service
- On the trip, the “A” train power failed to automatically swap from the Aux Transformers to the Start up Transformers
- Condenser backpressure is 5 inHgA and RISING rapidly
- 2-EOP-01, Standard Post Trip Actions (SPTA), is in progress

Which ONE of the following completes the statements?

As the condenser backpressure continues to degrade, the Steam Bypass Control System valves will automatically close at ____ (1) ____ inHgA.

In accordance with 2-EOP-01, the 2A S/G Atmospheric Dump Valve Controller will be placed in AUTO-AUTO at the ____ (2) ____.

A.	(1)	8.859
	(2)	PACB-2
B.	(1)	8.859
	(2)	RTGB
C.	(1)	12
	(2)	PACB-2
D.	(1)	12
	(2)	RTGB

62.

Given the following:

- Unit 1 is 85% power and STABLE
- 1A1, 1B1 and 1B2 Circulating Water Pumps (CWP) are running
- The crew is preparing to start the 1A2 CWP in accordance with 1-NOP-21.02, Circulating Water System Operations
- The 1A2 CWP Amber Start Permissive Light is LIT

Which ONE of the following completes the statement?

The 1A2 CWP Amber Start Permissive Light ____ (1) ____ verify that ALL of the 1A2 CWP Starting interlocks are MET.

If the 1B2 CWP breaker trips THREE minutes following the 1A2 CWP start, the 1A2 CWP ____ (2) ____ AUTOMATICALLY trip.

A.	(1)	does
	(2)	will
B.	(1)	does
	(2)	will NOT
C.	(1)	does NOT
	(2)	will
D.	(1)	does NOT
	(2)	will NOT

63.

Given the following:

- The Unit 2 Control Room Fire Notifier Panel trouble alarm is received

Subsequently:

- The crew has determined that the Unit 2 Control Room Fire Notifier panel has FAILED

Which ONE of the following completes the statements?

The crew will be informed of the TROUBLE alarm by an ____ (1) ____.

In accordance with 0-NOP-79.01, Fire Detection System, when the Notifier Fire Panel fails, the crew is required to ____ (2) ____.

A.	(1)	audible alarm ONLY
	(2)	notify Security to commence continuous roving fire watches to ALL vital areas on Unit 2
B.	(1)	audible alarm ONLY
	(2)	station a person at the FS-90 Master Local Fire Alarm Panel on Unit 2 to monitor and report fire alarms to the Unit 2 Control Room
C.	(1)	audible alarm AND a flashing strobe light
	(2)	notify Security to commence continuous roving fire watches to ALL vital areas on Unit 2
D.	(1)	audible alarm AND a flashing strobe light
	(2)	station a person at the FS-90 Master Local Fire Alarm Panel on Unit 2 to monitor and report fire alarms to the Unit 2 Control Room

64.

Which ONE of the following completes the statement?

In accordance with AD-AA-100-1006, Procedure and Work Instruction Use and Adherence, bulleted steps _____.

A.	can be performed in ANY order, when executing the step
B.	are performed on a CONTINUOUS basis, once the step is reached
C.	are to be performed in SEQUENTIAL order, when executing the step
D.	are to be performed on a CONTINUOUS basis, when the procedure is entered

65.

Given the following:

- Unit 1 is 100% power
- The Operator at the Controls (BRCO) has an under instruction watch enrolled in the initial licensed operator training program

Which ONE of the following completes the statements?

In accordance with OP-AA-100-1000, Conduct of Operations, to perform a reactivity manipulation, the BRCO in control of the trainee ____ (1) ____ required to receive a peer check from an ADDITIONAL licensed operator.

In accordance with OP-AA-103-1000, Reactivity Management, a separate reactivity brief ____ (2) ____ required for every dilution conducted during this shift.

A.	(1)	is
	(2)	is
B.	(1)	is
	(2)	is NOT
C.	(1)	is NOT
	(2)	is
D.	(1)	is NOT
	(2)	is NOT

66.

Which ONE of the following completes the statements?

In accordance with the PSL Tech Specs:

RATED THERMAL POWER shall be a total reactor core heat transfer rate to the reactor coolant of ____ (1) ____ MWt.

The Reactor Coolant System Tech Spec Safety Limit pressure shall not exceed ____ (2) ____ psia during Modes 1 - 5.

A.	(1)	3020
	(2)	2750
B.	(1)	3020
	(2)	3110
C.	(1)	3034
	(2)	2750
D.	(1)	3034
	(2)	3110

67.

Which ONE of the following completes the statements?

V2504, Refueling Water to Charging Pumps controlled drawing, CWD 8770-B-326 Sheet 162, can be verified for plant use using the ____ (1) ____.

Given CWD 8770-B-326 Sheet 162, if V2504 control power fuse blows, the Green Indicating Light ____ (2) ____ be LIT.

Note: NAMS – Nuclear Asset Management System

REFERENCE PROVIDED

A.	(1)	NAMS Asset Suite ONLY
	(2)	will
B.	(1)	NAMS Asset Suite ONLY
	(2)	will NOT
C.	(1)	NAMS Documentum Search or NAMS Asset Suite
	(2)	will
D.	(1)	NAMS Documentum Search or NAMS Asset Suite
	(2)	will NOT

68.

Given the following:

- Unit 1 is 10% power and STABLE
- A plant startup is in progress in accordance with 1-GOP-201, Mode 2 to Mode 1
- A very small RCS leak is suspected inside containment

Which ONE of the following completes the statements?

In accordance with 0-NOP-68.00, Containment Entries Modes 1 – 4, the Containment Evacuation Alarm is tested via ____ (1) ____.

Personnel ____ (2) ____ enter inside the biological shield wall to determine the location of the leak.

A.	(1)	Pushbutton at Unit Supervisor Desk
	(2)	can
B.	(1)	Pushbutton at Unit Supervisor Desk
	(2)	can NOT
C.	(1)	Key switch on the Rad Monitoring Panel D
	(2)	can
D.	(1)	Key switch on the Rad Monitoring Panel D
	(2)	can NOT

69.

Which ONE of the following completes the statements?

The Safety Function with the HIGHEST priority relates to ____ (1) ____.

During execution of 1-EOP-15, Functional Recovery, RCS Inventory Control, the STA reports that Maintenance of Vital Auxiliaries is NOT MET, the crew transitions ____ (2) ____ to address Maintenance of Vital Auxiliaries.

A.	(1)	Core Cooling
	(2)	immediately
B.	(1)	Core Cooling
	(2)	within 15 minutes
C.	(1)	Reactivity Control
	(2)	immediately
D.	(1)	Reactivity Control
	(2)	within 15 minutes

70.

Given the following:

- Unit 1 is at 100%
- 1A Heater Drain Pump tripped
- 1-AOP-09.04, Feedwater, Condensate, and Heater Drain Pump Abnormal Operations, is in progress
- 1-AOP-22.01, Rapid Downpower, is in progress

Subsequently:

- 15 minutes following the initiation of the downpower, Unit 1 is stabilized at 90% power

Which ONE of the following completes the statement?

To maintain Tc on program over the NEXT two hours, the BRCO will perform ____ (1) ____ due to ____ (2) ____

A.	(1)	dilutions
	(2)	Xenon-135 concentration increasing
B.	(1)	dilutions
	(2)	Xenon-135 concentration decreasing
C.	(1)	borations
	(2)	Xenon-135 concentration increasing
D.	(1)	borations
	(2)	Xenon-135 concentration decreasing

71.

Given the following:

- Unit 2 is at 100% power for 40 days after completing a refueling outage
- Core Cycle Engineering Change (EC) added Gadolinia as a burnable poison
- Samarium and Xenon are at equilibrium

Which ONE of the following completes the statements?

As a DIRECT result of the installed Gadolinia BURNOUT, the BRCO will ____ (1) ____ to maintain Tc on program.

This burnable poison is added to ensure the Moderator Temperature Coefficient is ____ (2) ____ at the beginning of core life.

A.	(1)	dilute
	(2)	less positive
B.	(1)	dilute
	(2)	less negative
C.	(1)	borate
	(2)	less positive
D.	(1)	borate
	(2)	less negative

72.

Given the following:

- Unit 2 is at $5 \times 10^{-4}\%$ power and STABLE
- The unit is 6 months into the core cycle
- The unit is starting up following a reactor trip 3 days ago
- BRCO is taking critical rod height data in accordance with 2-GOP-302, Reactor Plant Startup – Mode 3 to Mode 2
- Steam Bypass Control System is in service with PCV-8801 15% OPEN
- Main Feed is in service

Subsequently:

- PCV-8801 fails FULL OPEN

Which ONE of the following completes the statement?

Assuming NO operator action, Start-up Rate (SUR) will initially become ____ (1) ____; and reactor power will stabilize ____ (2) ____ the Point of Adding Heat (POAH).

A.	(1)	positive
	(2)	at
B.	(1)	positive
	(2)	above
C.	(1)	negative
	(2)	at
D.	(1)	negative
	(2)	above

73.

Given the following:

- Unit 1 has experienced a Loss of Coolant Accident
- Loss of Off-site Power (LOOP) occurred on the Reactor Trip
- 1-EOP-03, Loss of Coolant Accident (LOCA), is in progress
- Safety Injection Actuated
- Pressurizer Level is 60% and RISING
- Pressurizer Temperature 568 °F
- Pressurizer Pressure 1410 psia
- REP CET is 600 °F
- Thot is 568 °F

Which ONE of the following completes the statement?

The Pressurizer liquid is ____ (1) ____; and the RCS is ____ (2) ____.

REFERENCE PROVIDED

A.	(1)	saturated
	(2)	subcooled
B.	(1)	saturated
	(2)	superheated
C.	(1)	subcooled
	(2)	subcooled
D.	(1)	subcooled
	(2)	superheated

74.

Given the following:

- Unit 1 completed drawing a pressurizer bubble in accordance with 1-GOP-502, Attachment 2, Establishing a Bubble in the Pressurizer
- Pressurizer Pressure is 200 psia
- RCS temperature is 190 °F
- A PORV is passing fluid to a downstream pressure of 1.0 psig

Which ONE of the following is the expected PORV tailpipe temperature?

REFERENCE PROVIDED

A.	216 °F
B.	220 °F
C.	310 °F
D.	380 °F

75.

Given the following:

- Unit 1 is 10% power and STABLE

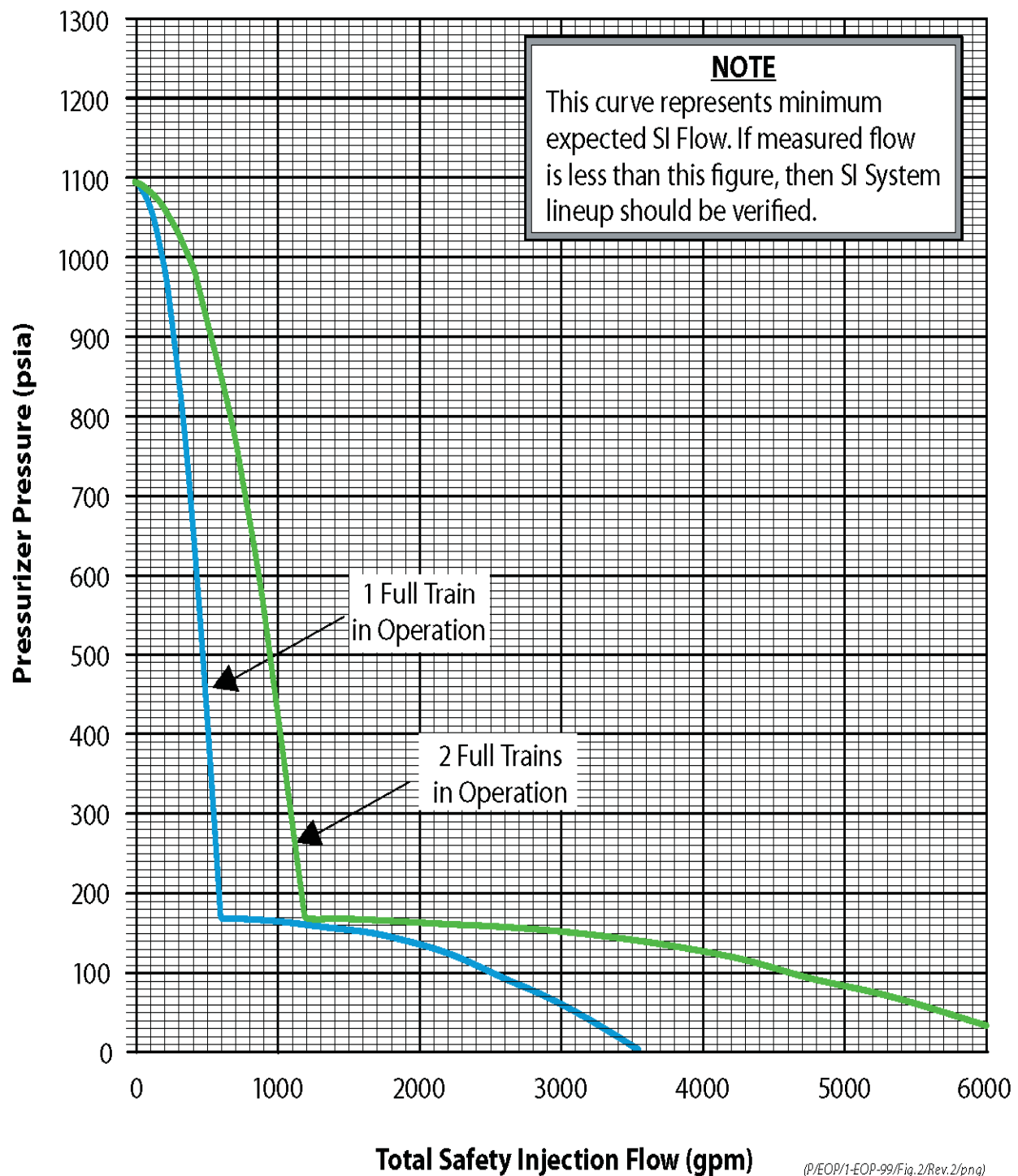
Which ONE of the following completes the statement?

The Local Power Density (LPD) Reactor Protection Trip ensures ____ (1) ____; this trip ____ (2) ____ currently bypassed.

A.	(1)	fuel centerline melt will NOT occur
	(2)	is
B.	(1)	fuel centerline melt will NOT occur
	(2)	is NOT
C.	(1)	the DNBR limit will NOT be reached
	(2)	is
D.	(1)	the DNBR limit will NOT be reached
	(2)	is NOT

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FIGURE 2
Safety Injection Flow VS RCS Pressure
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PSL L-23-1 NRC WRITTEN EXAM ANSWER KEY

<u>Q</u>	<u>ANSWER</u>	<u>Q</u>	<u>ANSWER</u>	<u>Q</u>	<u>ANSWER</u>	<u>Q</u>	<u>ANSWER</u>
1	A	26	C	51	D	76	C
2	A	27	A	52	D	77	B
3	C	28	A	53	D	78	B
4	C	29	A	54	C	79	C
5	B	30	B	55	D	80	D
6	B	31	B	56	D	81	A
7	D	32	B	57	B	82	C
8	D	33	D	58	B	83	D
9	B	34	D	59	B	84	A
10	C	35	A	60	B	85	C
11	A	36	B	61	C	86	A
12	B	37	B	62	C	87	B
13	A	38	B	63	B	88	B
14	B	39	D	64	A	89	C
15	A	40	D	65	B	90	B
16	A	41	B	66	A	91	C
17	C	42	B	67	B	92	C
18	C	43	A	68	B	93	C
19	B	44	A	69	C	94	A
20	A	45	A	70	A	95	C
21	B	46	A	71	C	96	D
22	D	47	B	72	B	97	D
23	B	48	D	73	D	98	A
24	A	49	C	74	C	99	D
25	C	50	D	75	A	100	A