Vogtle RO
9-25-15

ANSWER KEY REPORT
for Test Test Form: 0

#	ID	Points	Type	Answers 0
1	002K6.03 1	1.00	MCS	A
2	003K5.02 1	1.00	MCS	D
3	003K6.04 1	1.00	MCS	D
4	004K2.06 1	1.00	MCS	B
5	004K5.30 1	1.00	MCS	B
6	005K2.01 1	1.00	MCS	B
7	006A3.03 1	1.00	MCS	B
8	007A3.01 1	1.00	MCS	A
9	007EK1.05 1	1.00	MCS	B
10	008AA1.03 1	1.00	MCS	D
11	008G2.4.4 1	1.00	MCS	A
12	008K1.01 1	1.00	MCS	A
13	009EA1.06 1	1.00	MCS	A
14	010K4.02 1	1.00	MCS	A
15	011EK3.01 1	1.00	MCS	C
16	011K2.02 1	1.00	MCS	D
17	012A1.01 1	1.00	MCS	B
18	012K6.03 1	1.00	MCS	A
19	013A1.04 1	1.00	MCS	C
20	013A4.02 1	1.00	MCS	C
21	015AA2.11 1	1.00	MCS	C
22	015K5.09 1	1.00	MCS	A
23	016A4.01 1	1.00	MCS	B
24	022A1.04 1	1.00	MCS	A
25	022AK1.03 1	1.00	MCS	D
26	024AA1.23 1	1.00	MCS	D
27	025AK2.02 1	1.00	MCS	A
28	026A4.05 1	1.00	MCS	A
29	026AG2.4.46 1	1.00	MCS	B
30	029EA2.05 1	1.00	MCS	B
31	033A3.02 1	1.00	MCS	D
32	034K1.04 1	1.00	MCS	A
33	035K3.01 1	1.00	MCS	B
34	036AK3.03 1	1.00	MCS	B
35	038EK1.02 1	1.00	MCS	B
36	039A2.04 1	1.00	MCS	A
37	039K5.08 1	1.00	MCS	D
38	054AK3.04 1	1.00	MCS	A
39	056AA2.20 1	1.00	MCS	D
40	057AG2.4.35 1	1.00	MCS	D
41	059AG2.1.23 1	1.00	MCS	A
42	059G2.4.11 1	1.00	MCS	B
43	061K6.01 1	1.00	MCS	C
44	062AK3.01 1	1.00	MCS	D
45	062K1.04 1	1.00	MCS	C
46	063K1.03 1	1.00	MCS	B

Vogtle RO
9-25-15

ANSWER KEY REPORT
for Test Test Form: 0

#	ID	Points	Type	Answers 0
47	064A4.01 1	1.00	MCS	D
48	065AA1.04 1	1.00	MCS	D
49	071A1.06 1	1.00	MCS	D
50	073A2.02 1	1.00	MCS	A
51	074EA1.17 1	1.00	MCS	B
52	076K3.01 1	1.00	MCS	C
53	078K4.03 1	1.00	MCS	D
54	079K4.01 1	1.00	MCS	B
55	086G2.2.22 1	1.00	MCS	B
56	103A2.05 1	1.00	MCS	B
57	103K3.03 1	1.00	MCS	A
58	G2.1.15 1	1.00	MCS	C
59	G2.1.17 1	1.00	MCS	C
60	G2.1.27 1	1.00	MCS	B
61	G2.2.42 1	1.00	MCS	C
62	G2.2.44 1	1.00	MCS	C
63	G2.3.11 1	1.00	MCS	C
64	G2.3.12 1	1.00	MCS	A
65	G2.4.1 1	1.00	MCS	C
66	G2.4.14 1	1.00	MCS	C
67	G2.4.37 1	1.00	MCS	C
68	WE01EK2.01 1	1.00	MCS	C
69	WE03EA2.02 1	1.00	MCS	D
70	WE04EK2.01 1	1.00	MCS	C
71	WE05EK2.02 1	1.00	MCS	D
72	WE12EG2.4.20 1	1.00	MCS	B
73	WE13EK3.04 1	1.00	MCS	A
74	WE14EK1.02 1	1.00	MCS	B
75	WE16EA2.02 1	1.00	MCS	D
SECTION 1 (75 items)		**75.00**		

HL20 NRC RO Exam Provided References Index

1. EOP 19030-C Step 50 – Control RCS Pressure and Charging
2. AOP 18016-C Attachment 1 – Turbine Load Restrictions based on Steam Flow

1.

Initial conditions:

- Unit 1 reactor trip and SI occurred due to a LOCA.
- 1NAA de-energized due to a fault.

Current conditions:

- 19200-C, "Critical Safety Function Status Trees," is initiated.
- RCS pressure is 1800 psig and stable.

- All RCP 1E breaker handswitch red lights are lit.
- RCPs #2 and #4 non-1E breaker handswitch red lights are lit.
- RCPs #1 and #3 non-1E breaker handswitch green lights are lit.

Which one of the following completes the following statement?

The RVLIS dynamic range level indication __(1)__ providing accurate input to the Core Cooling status tree,

and

the RVLIS level indication __(2)__ density compensated.

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

2.

Initial conditions:

- Unit 1 is at 20% reactor power following an outage.
- 12004-C, "Power Operation (Mode 1)," is in progress.

Current conditions:

- An automatic reactor trip occurred due to a grid disturbance.
- 19001-C, "Reactor Trip Response," is in progress.
- All RCP 1E breakers are open.
- All RCP non-1E breakers are closed.

Which one of the following completes the following statement?

The reactor automatically tripped due to __(1)__,

and

per the bases of Tech Spec LCO 3.3.1, "RTS Instrumentation," this automatic reactor trip ensures __(2)__.

A. (1) RCS two loop low flow

(2) the RCPs are protected from excessive current

B. (1) RCS two loop low flow

(2) sufficient RCP coastdown time to avoid violating DNBR

C. (1) RCP underfrequency

(2) the RCPs are protected from excessive current

D. (1) RCP underfrequency

(2) sufficient RCP coastdown time to avoid violating DNBR

3.

Initial conditions:

- Unit 2 is at 100% reactor power.
- 2BY1B is de-energized due to a fault.

Current condition:

- Unit 2 reactor trip and SI occur due to a LOCA.

Which one of the following completes the following statement?

ACCW flow to the RCP thermal barrier __(1)__ isolated,

and

RCP seal return flow is currently being directed to the __(2)__.

	__(1)__	__(2)__
A.	is	VCT
B.	is	PRT
C.	is NOT	VCT
D.	is NOT	PRT

4.

Initial conditions:

- Unit 1 is at 100% reactor power.
- Letdown flow is 120 gpm.
- Pressurizer level control is selected to CH 459 / 460.

Current conditions:

- One 120 VAC vital bus de-energized.
- Letdown flow remains at 120 gpm.

Which one of the following identifies the specific 120 VAC vital bus that de-energized?

A. 1AY1A

B. 1AY2A

C. 1BY1B

D. 1BY2B

5.

Initial conditions:

- Unit 1 is in Mode 5 on solid plant pressure control.
- RHR Train 'A' is in service for temperature control.
- RHR letdown is in service.
- 1FIC-121, Charging Line Control, is in manual.
- 1PIC-131, LP Letdown Control, is in manual.

Current condition:

- CCW Train 'A' pumps trip on low surge tank level.

Which one of the following completes the following statement?

Over the next 10 minutes with no operator action, letdown flow rate will __(1)__,

and

charging flow rate will __(2)__.

	__(1)__	__(2)__
A.	rise	rise
B.	rise	lower
C.	lower	rise
D.	lower	lower

6.

Initial conditions:

- Unit 2 is in Mode 4.
- RHR Train 'A' is aligned for ECCS injection.
- RHR Train 'B' is in service for temperature control.

- 2BA03 is energized by the SAT.

Current conditions:

- Both RATs de-energize due to a lightning strike.
- Plant Wilson is NOT affected.

Which one of the following completes the following statement?

The 4160 VAC bus breaker supplying RHR pump 'A' is __(1)__,

and

the 4160 VAC bus breaker supplying RHR pump 'B' is __(2)__.

	__(1)__	__(2)__
A.	open	open
B.	open	closed
C.	closed	open
D.	closed	closed

7.

Initial condition:

- Unit 1 is at 100% reactor power.

Current condition:

- Unit 1 reactor trip and SI occurs.

Which one of the following completes the following statement?

The **white** indicating lights on handswitches 1HS-8508A and B, CCP RV to RWST Isolation, __(1)__ lit,

and

their associated valves, 1HV-8508A and B, will operate automatically in response to input from a(an) __(2)__ pressure transmitter signal.

	__(1)__	__(2)__
A.	are	RCS WR
B.	are	CCP discharge
C.	are NOT	RCS WR
D.	are NOT	CCP discharge

8.

Initial conditions:

- Unit 2 is in Mode 5.
- RHR Train 'A' is in service for shutdown cooling.

Current condition:

- ALB12-E02 PRZR REL TANK HI PRESS is received.

Which one of the following completes the following statement?

The RHR pump 'A' __(1)__ relief valve lifting will cause the PRT high pressure condition,

and

with no operator action, 2PI-469, PRT Pressure, on the QMCB will reach a maximum of __(2)__ psig before the rupture disk fails.

	__(1)__	__(2)__
A.	suction	100
B.	suction	115
C.	discharge	100
D.	discharge	115

9.

Initial condition:

- Unit 1 is at 100% reactor power.

Current conditions:

- Unit 1 reactor trips.
- Steam dumps are NOT available.
- RCS Tavg is stable and controlled by the ARVs in automatic.

Which one of the following completes the following statement?

Over the next 4 hours, with no operator action, ARV controller demand **output** will _____.

A. rise

B. lower

C. remain the same

D. rise and then lower

10.

Initial conditions:

- Unit 1 reactor trip and SI occurred due to a pressurizer steam space leak.
- 19012-C, "Post-LOCA Cooldown and Depressurization," was entered.

Current conditions:

- Crew is at the step to "Initiate RCS cooldown to cold shutdown."
- Steam dumps are in the Steam Pressure Mode.

Which one of the following completes the following statement?

Per 19012-C, the RCS cooldown rate will be monitored using RCS __(1)__ leg temperatures,

and

per 19012-C, the cooldown is initiated by __(2)__ demand on 1PIC-507, Steam Dump Control.

	__(1)__	__(2)__
A.	hot	lowering
B.	hot	raising
C.	cold	lowering
D.	cold	raising

11.

Initial conditions:

- Unit 1 is at 100% reactor power.
- CCW Train 'A' is in service.
- ALB36-A01 4160V SWGR 1AA02 TROUBLE is received and does NOT clear.
- Multiple CCW Train 'A' low pressure and low flow alarms are received, then clear.

Current condition:

- CCW Train 'A' pressure and flow are normal and stable.

Which one of the following completes the following statement?

One CCW Train 'A' pump has experienced a __(1)__,

and

entry into 18020-C, "Loss of Component Cooling Water," __(2)__ required.

	__(1)__	__(2)__
A.	locked rotor	is
B.	locked rotor	is NOT
C.	sheared shaft	is
D.	sheared shaft	is NOT

12.

Initial conditions:

- Unit 2 is at 100% reactor power.
- ACCW pump #2 is in service.
- ACCW pump #1 is in standby.

Current conditions:

- NSCW Train 'B' is shut down due to a piping break.

- No other operator action has been taken.

Which one of the following completes the following statement?

Cooling __(1)__ being provided to the ACCW pump #2 motor,

and

cooling __(2)__ being provided to the ACCW system loads.

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

13.

Given the following:

- Unit 1 reactor trip and SI occurred due to a LOCA.
- 19010-C, "Loss of Reactor or Secondary Coolant," is in progress.
- OATC is assigned to monitor CSFSTs per 19200-C, "Critical Safety Function Status Trees."

Which one of the following completes the following statement?

To ensure the CSFSTs are indicating correctly for the given plant conditions, the OATC is required to verify the IPC indicates Mode __(1)__,

and

on the IPC, an active CSFST RED path is depicted by a __(2)__ line.

	__(1)__	__(2)__
A.	0	solid
B.	0	hollow
C.	3	solid
D.	3	hollow

14.

Initial conditions:

- Unit 1 is at 25% reactor power.
- All pressurizer backup heaters are in automatic.
- Variable pressurizer heaters are in the ON position.
- Due to a pressurizer level control malfunction, pressurizer level lowers to 15% and pressurizer pressure lowers to 2180 psig.

Current conditions:

- Pressurizer level is 25% and slowly rising.
- Pressurizer pressure has returned to 2215 psig.

Which one of the following completes the following statement?

Assuming no operator action, the pressurizer variable heaters are __(1)__,

and

the pressurizer backup heaters are __(2)__.

	__(1)__	__(2)__
A.	off	off
B.	off	on
C.	on	off
D.	on	on

15.

Initial condition:

- Unit 1 reactor trip and SI occurred due to a large break LOCA.

Current conditions:

- 19000-C, "Reactor Trip or Safety Injection," UO Initial Actions are in progress.
- Containment pressure is 22.5 psig.

Which one of the following completes the following statement?

For the given conditions, the main steam lines are verified isolated to __(1)__,

and

handswitch 1HS-3007A, SLI Actuation, __(2)__ send an actuation signal to the Train 'B' MSIVs and Train 'B' BSIVs.

A. (1) prevent a return to criticality

(2) will

B. (1) prevent a return to criticality

(2) will NOT

C. (1) distinguish between a primary and secondary break

(2) will

D. (1) distinguish between a primary and secondary break

(2) will NOT

16.

Initial conditions:

- Unit 1 is at 100% reactor power.
- Loss of off-site power to 1AA02 and 1BA03 occurs.

Current conditions:

- DG1B starts, re-energizes its associated bus, and completes the loading sequence.
- DG1A will NOT start.

Which one of the following completes the following statements?

The power supplies to the Tech Spec pressurizer heater groups are __(1)__.

Based on the current conditions, Tech Spec LCO 3.4.9, "Pressurizer," __(2)__ met.

	__(1)__	__(2)__
A.	1NB08 and 1NB09	is
B.	1NB08 and 1NB09	is NOT
C.	1NB01 and 1NB10	is
D.	1NB01 and 1NB10	is NOT

17.

Initial condition:

- Unit 2 is at 70% reactor power.

Current conditions:

- Pressurizer pressure control malfunction causes pressurizer pressure to rise.
- RCS Tavg is constant.

Which one of the following completes the following statement?

Based on the given conditions, the OT delta T reactor trip **setpoint** will __(1)__,

and

the OP delta T reactor trip **setpoint** will __(2)__.

	__(1)__	__(2)__
A.	rise	rise
B.	rise	not change
C.	lower	rise
D.	lower	not change

18.

Initial conditions:

- Unit 1 is at 100% reactor power.
- 1PT-456, Pressurizer Pressure, fails off-scale **high**.

Current condition:

- All bistables associated with 1PT-456 have been placed in their Tech Spec required state.

Which one of the following completes the following statement?

The **minimum** number of **additional** Pressurizer Pressure channels failing **high** required to initiate a reactor trip is __(1)__,

and

the **minimum** number of **additional** Pressurizer Pressure channels failing **low** required to initiate a safety injection is __(2)__.

	__(1)__	__(2)__
A.	1	1
B.	1	2
C.	2	1
D.	2	2

19.

Initial conditions:

- Unit 1 reactor tripped from 35% reactor power.
- MFP 'A' is running.

Current conditions:

- 19001-C, "Reactor Trip Response," is in progress.
- Crew is at Step 4 to "Limit RCS Cooldown."

- SG NR levels are 33% in each SG.
- MDAFW flow is throttled to 50 gpm to each SG.

Which one of the following completes the following statement?

Based on the current conditions, when the UO trips MFP 'A', the MDAFW pump discharge valves will __(1)__,

and

the MDAFW pump discharge valves' handswitch **white** lights __(2)__ be **lit.**

	__(1)__	__(2)__
A.	re-open fully	will
B.	re-open fully	will NOT
C.	remain throttled	will
D.	remain throttled	will NOT

20.

Initial condition:

- Unit 2 reactor trip and SI occurred due to a LOCA.

Current conditions:

- Reactor Trip Breaker 'B' will NOT open.
- RCS pressure is 22 psig.

Which one of the following completes the following statement?

The Train 'B' SI signal __(1)__ be reset,

and

the Train 'B' CVI signal __(2)__ be reset.

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

21.

Initial conditions:

- Unit 1 reactor is tripped due to a total loss of ACCW.
- All RCPs are stopped.
- 19221-C, "Response to Inadequate Core Cooling," is in progress.

Current conditions:

- SGs are depressurized to less than 200 psig.
- CETCs are 1220 °F and rising.
- SG #1 NR level is 40%.
- The crew is at the step to "Check if an idle RCS cooling loop is available."

Which one of the following completes the following statement?

Based on the given conditions, **normal** RCP support conditions __(1)__ required prior to starting an available RCP,

and

19221-C requires a **minimum** SG NR level in an idle RCS loop prior to starting an RCP to minimize the risk of __(2)__.

	__(1)__	__(2)__
A.	are	creep rupture failure
B.	are	pressurized thermal shock
C.	are NOT	creep rupture failure
D.	are NOT	pressurized thermal shock

22.

Initial conditions:

- Unit 1 is at 90% reactor power.
- All control systems are in automatic.
- Power Range N41 fails **high**.

Current condition:

- 18002-C, "Nuclear Instrumentation System Malfunction," is entered.

Which one of the following completes the following statements?

Based on the given conditions, automatic rod motion __(1)__ occur.

Per 18002-C, the Movable Incore Detector System __(2)__ used to confirm QPTR.

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

23.

Initial condition:

- Unit 1 is at 100% reactor power.

Current condition:

- One Loop 1 NR temperature instrument fails **low**.

Which one of the following completes the following statement?

To remove the Loop 1 Tavg input to the rod control system, the operator is required to __(1)__,

and

completing this action __(2)__ remove the Loop 1 Tavg input to the Low Tavg Feedwater Isolation (FWI) circuit.

A. (1) place 1TS-412T, Tavg Defeat Sel switch, to the affected loop

(2) will

B. (1) place 1TS-412T, Tavg Defeat Sel switch, to the affected loop

(2) will NOT

C. (1) trip the associated temperature instrument's bistables

(2) will

D. (1) trip the associated temperature instrument's bistables

(2) will NOT

24.

Initial conditions:

- Unit 1 reactor tripped due to an inadvertent SI.
- All equipment automatically aligned as required.

Current conditions:

- SI has been reset.
- NSCW Train 'A' header pressure is lowering.
- NSCW Train 'A' return header flow is lowering.
- Containment sump levels are rising.

Which one of the following completes the following statement?

Based on the given conditions, a rupture has occurred in the cooling coils of a __(1)__ Cooling Unit,

and

NSCW flow to the leaking Cooling Unit __(2)__ be isolated from the QMCB.

	__(1)__	__(2)__
A.	Containment	can
B.	Containment	can NOT
C.	Reactor Cavity	can
D.	Reactor Cavity	can NOT

25.

Initial condition:

- Unit 1 is at 100% reactor power.

Current conditions:

- The following alarms are received:
  - ALB07-A05 REGEN HX LTDN HI TEMP
  - ALB07-B06 CHARGING LINE HI / LO FLOW
  - ALB07-D03 LTDN HX OUT HI TEMP
  - ALB08-F06 RCP SEAL WATER INJ LO FLOW
- No operator action has been taken.

Which one of the following completes the following statement?

Based on the given conditions, __(1)__ has failed **closed**,

and

pressurizer level is __(2)__.

	__(1)__	__(2)__
A.	1HV-182, Seal Flow Control	rising
B.	1HV-182, Seal Flow Control	lowering
C.	1FV-121, Charging Flow Control	rising
D.	1FV-121, Charging Flow Control	lowering

26.

Initial conditions:

- Unit 2 is at 70% reactor power.
- Control rods are stepping out without demand.
- Reactor will NOT trip from the QMCB.
- 19211-C, "Response to Nuclear Power Generation / ATWT," is entered.
- Boric Acid Transfer Pump (BATP) 'A' is started to establish emergency boration.

Current condition:

- BATP 'A' trips.

Which one of the following completes the following statement?

BATP 'B' __(1)__ automatically start when BATP 'A' trips,

and

per 19211-C, the minimum **charging** flow is required to be greater than __(2)__ gpm as indicated on 2FI-121, Charging Flow.

	__(1)__	__(2)__
A.	will	30
B.	will	42
C.	will NOT	30
D.	will NOT	42

27.

Initial conditions:

- Unit 1 is in Mode 5.
- RHR pump 'A' is in service for shutdown cooling.

Current conditions:

- RCS level is 187 feet and lowering due to a leak.
- RCS temperature is 190 °F.
- 18019-C, "Loss of Residual Heat Removal," is in progress.

Which one of the following completes the following statements?

Per 18019-C, the operating crew __(1)__ required to stop RHR pump 'A'.

Per 18019-C, if no pump is available, the preferred gravity drain path to restore inventory is through the __(2)__ pumps to the RCS cold legs.

	__(1)__	__(2)__
A.	is	RHR
B.	is	SI
C.	is NOT	RHR
D.	is NOT	SI

28.

Initial conditions:

- Unit 1 reactor trip and SI occurred due to a LOCA.
- OATC manually actuated Containment Spray (CS) from the QMCB 'C' panel.

Current condition:

- Containment pressure is 23.8 psig.

Which one of the following completes the following statement?

To manually actuate CS, the OATC __(1)__ required to **simultaneously** operate both CS Actuation handswitches, 1HS-40010 and 1HS-40011, on the 'C' panel,

and

based on the current condition, if the OATC takes both the CS Reset handswitches to the RESET position, the CS actuation signal __(2)__ reset.

	__(1)__	__(2)__
A.	was	will
B.	was	will NOT
C.	was NOT	will
D.	was NOT	will NOT

29.

Initial conditions:

- Unit 1 is at 100% reactor power.
- CCW pumps #1 and #3 are running.

Current conditions:

- ALB02-A05 CCW TRAIN A SURGE TK LO-LO LVL is received.
- CCW pump #3 trips.
- CCW pump #1 is running.

- The following alarms are received:

  - ALB02-A06 CCW TRAIN A LO HDR PRESS
  - ALB02-B06 CCW TRAIN A LO FLOW
  - ALB02-D06 CCW TRAIN A RHR HX LO FLOW
  - ALB02-E05 CCW TRAIN A RHR PMP SEAL LO FLOW

Which one of the following completes the following statement?

CCW pump #3 __(1)__ trip due to a CCW Train 'A' Surge Tank level transmitter failing **low**,

and

the standby CCW pump will automatically start due to low CCW header __(2)__.

	__(1)__	__(2)__
A.	did	flow
B.	did	pressure
C.	did NOT	flow
D.	did NOT	pressure

30.

Initial conditions:

- Unit 1 is at 100% reactor power.
- Containment mini-purge is in service for pressure relief.

Current conditions:

- Unit 1 experiences an ATWT.
- 19211-C, "Response to Nuclear Power Generation / ATWT," is in progress.
- Crew is at the step to "Check Containment Ventilation Isolation."
- Train 'A' CVI MLBs are lit.
- Train 'B' CVI MLBs are NOT lit.

Which one of the following completes the following statement?

Based on the current conditions, the mini-purge flow path from containment __(1)__ isolated,

and

per 19211-C, the Train __(2)__ CVI dampers and valves are required to be closed manually.

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

31.

Initial conditions:

- A fuel shuffle is in progress on Unit 2.
- **All** SFP cooling pumps are in service.

Current condition:

- Unit 2, SFP cooling pump 'A' seal fails.

Which one of the following completes the following statement?

With no operator action, SFP inventory loss will stop due to uncovering the __(1)__,

and

SFP water level __(2)__ remain above the **minimum** required by Tech Spec LCO 3.7.15, "Fuel Storage Pool Water Level."

	__(1)__	__(2)__
A.	siphon breaker	will
B.	siphon breaker	will NOT
C.	pump suction piping	will
D.	pump suction piping	will NOT

32.

Initial conditions:

- Unit 1 is in Mode 6 for a refueling outage.
- Control rod latching and verification is in progress.
- Source Range **N31** is providing audible indication.

Current condition:

- Source Range **N32** fails low.

Which one of the following completes the following statements?

TR 13.9.6, "Source Range Monitor Audible Indication," __(1)__ met.

Based on the given conditions, core alterations are required to be suspended __(2)__.

	__(1)__	__(2)__
A.	is	immediately
B.	is	in no later than 15 minutes
C.	is NOT	immediately
D.	is NOT	in no later than 15 minutes

33.

Initial conditions:

- Unit 1 is in Mode 3.
- A steam leak is reported in the Turbine Building.

Current condition:

- The UO actuates SLI.

Which one of the following completes the following statement?

A steam line break has the greatest reactivity impact on the reactor at the __(1)__ of core life,

and

assuming no additional operator action, RCS temperature will stabilize at approximately __(2)__ °F.

	__(1)__	__(2)__
A.	end	557
B.	end	561
C.	beginning	557
D.	beginning	561

34.

Initial condition:

- Fuel shuffle is in progress in the Unit 2 SFP.

Current conditions:

- An irradiated fuel assembly is dropped.
- ARE-2532A and B are in **high** alarm.
- 18006-C, "Fuel Handling Event," is entered.

Which one of the following completes the following statement?

Per 18006-C, to ensure proper FHB HVAC alignment, the UO is required to __(1)__ one FHB Post-Accident Exhaust unit,

and

establishing this required alignment is done to limit the __(2)__.

	__(1)__	__(2)__
A.	stop	airborne concentrations in the FHB
B.	stop	off-site release
C.	start	airborne concentrations in the FHB
D.	start	off-site release

35.

Initial conditions:

- Unit 2 reactor trips due to a 175 gpm SGTR on SG #1.
- RCS pressure is 2100 psig.
- SG #1 pressure is 990 psig.
- 19030-C, "Steam Generator Tube Rupture," is entered.

Current conditions:

- RCS pressure is 1260 psig.
- SG #1 pressure is 1120 psig.
- SG #1 NR level is 81% and slowly rising.
- Pressurizer level is 76%.
- Containment pressure is 0.1 psig.
- Crew is at the step to "Control RCS pressure and charging flow to minimize RCS-to-secondary leakage."

Which one of the following completes the following statement?

The current SG leak rate is approximately __(1)__ gpm,

and

based on the current conditions, the OATC __(2)__ required to continue depressurization of the RCS to control primary to secondary leakage.

REFERENCES PROVIDED

	__(1)__	__(2)__
A.	80	is
B.	80	is NOT
C.	135	is
D.	135	is NOT

36.

Initial condition:

- Unit 1 is at 100% reactor power.

Current condition:

- 1PT-506, Turbine Power, fails **low**.

Which one of the following completes the following statement?

The QMCB 'B' panel STEAM DUMP ARMED light on ZLB-2 __(1)__ be lit,

and

per 18001-C, "Systems Instrumentation Malfunction," the steam dumps __(2)__ required to be placed in the Steam Pressure Mode.

	__(1)__	__(2)__
A.	will	are
B.	will	are NOT
C.	will NOT	are
D.	will NOT	are NOT

37.

Initial conditions:

- Unit 1 experienced an ATWT at EOL conditions.
- 19211-C, "Response to Nuclear Power Generation / ATWT," is in progress.

Current conditions:

- Emergency Boration can NOT be established.
- Crew is at Step 23 to "Check reactor power."
- Reactor power is 8%.
- IR SUR is negative.
- RCS temperature is 563 °F and slowly rising.
- RCS pressure is 2285 psig.

Which one of the following completes the following statement?

Based on the given conditions, per 19211-C, the crew __(1)__ required to dump steam to lower RCS temperature,

and

per 19211-C, the RCPs __(2)__ required to be stopped.

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

38.

Initial conditions:

- Unit 1 reactor tripped due to a loss of feedwater.
- Reactor Trip Breaker 'A' is NOT open.
- Reactor Trip Breaker 'B' is open.

Current conditions:

- 19231-C, "Response to Loss of Secondary Heat Sink," is in progress.
- RCS bleed and feed is in progress.
- The crew is re-establishing feedwater using a MFP.

Which one of the following completes the following statement?

The Bypass Feedwater Isolation Valves (BFIVs) were closed __(1)__,

and

to re-establish feedwater flow, the Reactor Trip Breakers are cycled to allow the __(2)__ signal to be reset.

A. (1) automatically due to the Feedwater Isolation (FWI) signal

(2) FWI

B. (1) automatically due to the Feedwater Isolation (FWI) signal

(2) SI

C. (1) manually by the UO when verifying FW isolation valves closed

(2) FWI

D. (1) manually by the UO when verifying FW isolation valves closed

(2) SI

39.

Initial conditions:

- Unit 1 is at 100% reactor power.
- RAT '1A' de-energizes due to a fault.
- DG1A starts and re-energizes its associated bus.
- Load sequencing is complete.

Current conditions:

- 18031-C, "Loss of Class 1E Electrical Systems," is entered.
- Unit 1 reactor power is 100.8%.
- AFW flow indications are as follows:
  - SG #1 is 408 gpm.
  - SG #2 is 410 gpm.
  - SG #3 is 405 gpm.
  - SG #4 is 406 gpm.
- No operator action has been taken.

Which one of the following completes the following statement?

To lower TDAFW pump flow, the UO will use the __(1)__ control mode on controller 1PDIC-5180A, TDAFW Cntl Delta P-Feed to Stm,

and

the MDAFW pumps __(2)__ operating as expected for the given conditions.

	__(1)__	__(2)__
A.	delta-P	are
B.	delta-P	are NOT
C.	speed	are
D.	speed	are NOT

40.

Initial conditions:

- Unit 1 is at 100% reactor power.
- 1BY2B is de-energized.

Current condition:

- Systems Operator transferred 1BY2B to its alternate power source.

Which one of the following completes the following statements?

The alternate power source for 1BY2B is a(n) __(1)__.

If off-site power is lost, based on the current conditions the Train 'B' sequencer __(2)__ start DG1B.

	__(1)__	__(2)__
A.	inverter	will
B.	inverter	will NOT
C.	regulated transformer	will
D.	regulated transformer	will NOT

41.

Initial conditions:

- Unit 1 is in a refueling outage.
- Turbine building drains are being pumped down.

Current condition:

- 1RE-0848, Turbine Building Drains, is in **high** alarm.

Which one of the following completes the following statement?

The turbine building normal drain flow path __(1)__ automatically isolate,

and

per 17100-1, "Annunciator Response Procedure for the Process and Effluent Radiation Monitoring System (RMS)," the Systems Operator is required to verify that the turbine building drains are aligned to the __(2)__.

	__(1)__	__(2)__
A.	will	Dirty Drain Tank
B.	will	Waste Water Retention Basin
C.	will NOT	Dirty Drain Tank
D.	will NOT	Waste Water Retention Basin

42.

Initial conditions:

- Unit 2 is at 100% reactor power.
- Feedwater heaters 4A and 5A extraction steam valves fail closed due to a common mode failure.

Current conditions:

- 18016-C, "Condensate and Feedwater Malfunction," is in progress.
- Operators reduced turbine load and power is stable at 100% RTP.

Which one of the following completes the following statement?

During the initial loss of feedwater heaters, the PR NIs will indicate __(1)__ than actual reactor power,

and

per 18016-C, the operators __(2)__ required to commence additional turbine load reduction.

REFERENCES PROVIDED

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

43.

Initial conditions:

- Unit 1 experienced a loss of heat sink.
- TDAFW pump governor developed a hydraulic oil leak.
- TDAFW pump tripped on overspeed.
- 1HS-15111, TDAFW Trip and Throttle Valve, green and amber lights are lit.

Current condition:

- OAO is dispatched to reset the TDAFW pump mechanical overspeed trip.

Which one of the following completes the following statement?

The amber light on 1HS-15111 will **extinguish** when __(1)__,

and

with the failed governor valve, the TDAFW pump __(2)__ be operated locally.

A. (1) 1HS-5106A, TDAFW Steam Supply, is taken to the close position

(2) can

B. (1) 1HS-5106A, TDAFW Steam Supply, is taken to the close position

(2) can NOT

C. (1) the mechanical trip linkage is manually reset

(2) can

D. (1) the mechanical trip linkage is manually reset

(2) can NOT

44.

Initial conditions:

- Unit 1 is at 100% reactor power.
- NSCW Train 'A' was shutdown due to the loss of pumps #3 and #5.

Current conditions:

- NSCW pump #3 has been repaired.
- NSCW pumps #1 and #3 are being started simultaneously from standby.

Which one of the following completes the following statement?

NSCW Train 'A' discharge header is repressurized by __(1)__,

and

this method of repressurization is designed to limit __(2)__.

	__(1)__	__(2)__
A.	its discharge valve throttling	DG1A current
B.	its discharge valve throttling	water hammer
C.	flow through a bypass line	DG1A current
D.	flow through a bypass line	water hammer

45.

Initial conditions:

- Unit 1 is operating at 60% reactor power with a plant startup in progress.
- ACCW pump #1 is in service.

Current conditions:

- Both Unit 1 RATs de-energize.
- Both DGs start and re-energize their respective buses.
- No other switchyard components are affected.

Which one of the following completes the following statement?

With no operator action, **one minute after** the RATs de-energize, the Reactor Trip Breakers will be __(1)__,

and

per 18031-C, "Loss of Class 1E Electrical Systems," the crew is required to __(2)__ one ACCW pump.

	__(1)__	__(2)__
A.	open	stop
B.	open	start
C.	closed	stop
D.	closed	start

46.

Initial conditions:

- Unit 1 is at 100% reactor power.
- A loss of off-site power occurs.

Current conditions:

- DG1A starts and re-energizes its associated bus.
- DG1B will NOT start.
- 1BD1 bus voltage is 103 VDC.

Which one of the following completes the following statements?

Two battery chargers in service on 1BD1 __(1)__ the normal operational alignment.

Based on the given conditions, per 18031-C, "Loss of Class 1E Electrical Systems," the **minimum** required action is to __(2)__.

A. (1) is

(2) open its associated battery breaker

B. (1) is

(2) shutdown its associated inverter and then open its battery breaker

C. (1) is NOT

(2) open its associated battery breaker

D. (1) is NOT

(2) shutdown its associated inverter and then open its battery breaker

47.

Given the following:

- Unit 1 is at 100% reactor power.
- DG1A is paralleled to the grid and loaded to 7000 kW.

Which one of the following completes the following statement?

Based on the given conditions, DG1A __(1)__ operating in the UNIT mode,

and

to directly change the kVAR / reactive loading of DG1A, the UO is required to depress the __(2)__ CONTROL pushbuttons on the QEAB.

	__(1)__	__(2)__
A.	is	SPEED
B.	is	VOLTAGE
C.	is NOT	SPEED
D.	is NOT	VOLTAGE

48.

Initial condition:

- Unit 1 is at 100% reactor power.

Current conditions:

- 1PI-9377, Service Air Header Pressure, is 92 psig and slowly lowering.
- 18028-C, "Loss of Instrument Air," is in progress.

Which one of the following completes the following statement?

Based on the given conditions, 1PV-9375, Service Air Dryer Inlet Isolation Valve, __(1)__ closed,

and

per 18028-C, a Systems Operator will be dispatched to manually align a back-up __(2)__ to supply the River Intake Air System.

	__(1)__	__(2)__
A.	is	nitrogen bottle
B.	is	air compressor
C.	is NOT	nitrogen bottle
D.	is NOT	air compressor

49.

Initial conditions:

- Unit 1 transfer of Gas Decay Tank #2 contents to Gas Decay Tank #4 is in progress.
- Auxiliary Building Supply and Exhaust HVAC is in service.

Current conditions:

- 1RE-0039A, Waste Gas Decay Tank - Radiogas, is in **high** alarm.
- 1RE-0039B, Waste Gas Compressor - Radiogas, is in **high** alarm.
- 1RE-12442C, Plant Vent Radiogas Particulate (Low Range), is in **high** alarm.

Which one of the following completes the following statement?

Per 17100-C, "Annunciator Response Procedure for the Process and Effluent Radiation Monitoring System (RMS)," the operators are required to __(2)__.

A. manually start the Piping Penetration Units

B. manually secure all Auxiliary Building HVAC

C. manually secure only the Auxiliary Building Normal Supply Units

D. continue monitoring radiation levels, but no additional action associated with Auxiliary Building HVAC is required

50.

Valve names as follows:

- 1FV-1150, Blowdown Inlet Isolation Valve
- 1HV-7600, Blowdown Recycle Isolation Valve

Initial condition:

- Unit 1 is at 100% reactor power.

Currrent condition:

- 1RE-0021, SG Blowdown Liquid, fails **high**.

Which one of the following completes the following statement?

Unit 1 thermal power, as indicated by UQ-1118, __(1)__ be affected by the failure,

and

per 17100-1, "Annunciator Response Procedure for the Process and Effluent Radiation Monitoring System (RMS)," the operators will verify that blowdown isolation valve __(2)__ is closed.

	__(1)__	__(2)__
A.	will	1FV-1150
B.	will	1HV-7600
C.	will NOT	1FV-1150
D.	will NOT	1HV-7600

51.

Initial conditions:

- Unit 2 reactor tripped.
- 19221-C, "Response to Inadequate Core Cooling," was entered.

Current condition:

- The crew is depressurizing all intact SGs to 200 psig.

Which one of the following completes the following statement?

The depressurization of all intact SGs is stopped when SG pressures reach 200 psig to prevent _____.

A. excessive cooldown of the SG U-tubes

B. injection of accumulator nitrogen into the RCS

C. a pressurized thermal shock condition of the reactor vessel

D. voiding in the reactor vessel head and loss of pressurizer level

52.

Initial conditions:

- Unit 1 is at 100% reactor power.
- TPCW pump #1 is in service.
- TPCCW pump #1 is in service.
- TPCCW heat exchanger #1 is in service.

Current condition:

- TPCW pump #1 breaker trips.

Which one of the following completes the following statements?

Over the next 30 minutes, TPCCW temperature __(1)__ expected to rise.

Any temperature changes in TPCCW will **directly** affect the __(2)__ Coolers.

	__(1)__	__(2)__
A.	is	MFP Lube Oil
B.	is	Main Generator Stator
C.	is NOT	MFP Lube Oil
D.	is NOT	Main Generator Stator

53.

Given the following:

- Unit 1 is at 100% reactor power.
- Turbine Plant Cooling Water (TPCW) flow and pressure lower due to a significant system leak.

Which one of the following completes the following statement?

With no operator action, the running rotary air compressor will trip due to __(1)__,

and

an emergency cooling water source to the air compressors is supplied from the __(2)__ water system.

	__(1)__	__(2)__
A.	low cooling water pressure	demin
B.	low cooling water pressure	utility
C.	high discharge temperature	demin
D.	high discharge temperature	utility

54.

Initial condition:

- Both units are at 100% reactor power.

Current conditions:

- Unit 1 instrument air pressure is lowering.
- 18028-C, "Loss of Instrument Air," is in progress.

- Unit 2 instrument air pressure is stable.
- Four air compressors **total** on both units are running.
  (one air compressor on Unit 1, three air compressors on Unit 2)

Which one of the following completes the following statements?

Per 18028-C, the Unit 1 and Unit 2 instrument air headers __(1)__ allowed to be cross-tied.

If the instrument air headers were cross-tied, the Unit 2 instrument air header __(2)__ automatically isolate from the Unit 1 instrument air header in response to continuously lowering air header pressure.

	__(1)__	__(2)__
A.	are	would
B.	are	would NOT
C.	are NOT	would
D.	are NOT	would NOT

55.

Initial condition:

- Both units are at 100% reactor power.

Current condition:

- North Fire Water Storage Tank empties due to a significant leak.

Which one of the following completes the following statement?

The normal makeup source to the Fire Water Storage Tanks is __(1)__ water,

and

per 92040-C, "Fire Protection Operability and LCO Requirements," Fire Protection LCO 4.3, "Suppression System Operability," __(2)__ met.

	__(1)__	__(2)__
A.	well	is
B.	well	is NOT
C.	river	is
D.	river	is NOT

56.

Initial conditions:

- Unit 2 is at 100% reactor power.
- Rapid containment entry is in progress to check an RCP oil drain tank level.

Current condition:

- All containment lighting extinguishes.

Which one of the following completes the following statements?

Per 00303-C, "Containment Entry," personnel inside containment __(1)__ required to immediately exit.

If the containment airlock inner door would NOT close when the personnel exited, the Tech Spec LCO 3.6.2, "Containment Air Locks," Required Action would be to close the outer airlock door __(2)__.

	__(1)__	__(2)__
A.	are	immediately
B.	are	in no later than 1 hour
C.	are NOT	immediately
D.	are NOT	in no later than 1 hour

57.

Initial conditions:

- Unit 1 is in a refueling outage.
- Core reload is in progress.

Current condition:

- The inner emergency air lock door is open and NOT capable of being closed.

Which one of the following completes the following statement?

Per Tech Spec 3.9.4, "Containment Penetrations," the equipment hatch must be capable of being closed and held in place with a minimum of __(1)__ bolts,

and

per Tech Spec 3.9.4, core reload __(2)__ allowed to continue.

	__(1)__	__(2)__
A.	4	is
B.	4	is NOT
C.	8	is
D.	8	is NOT

58.

Given the following:

- On-coming OATC is relieving the shift following 7 days off.

Which one of the following completes the following statement?

Per 10004-C, "Shift Relief," the OATC is required to review, as a **minimum**, the narrative logs for the preceding __(1)__ days,

and

the OATC __(2)__ required to review all active Night Orders.

	__(1)__	__(2)__
A.	7	is
B.	7	is NOT
C.	3	is
D.	3	is NOT

59.

Given the following:

- Planned maintenance will cause multiple control room alarms.
- Expected alarms have been flagged.

Which one of the following completes the following statement?

Per NMP-OS-007-001, "Conduct of Operations Standards and Expectations," for the expected alarms, subsequent recurring alarms associated with this same maintenance activity __(1)__ require a verbal announcement,

and

for the expected alarms, the associated ARP compensatory actions __(2)__ required to be performed.

	__(1)__	__(2)__
A.	do	are
B.	do	are NOT
C.	do NOT	are
D.	do NOT	are NOT

60.

Initial condition:

- Unit 1 is at 100% reactor power.

Current conditions:

- ALB10-C05 RPI NON URGENT ALARM is received.
- DRPI Data 'A' Failure LEDs are lit.
- General Warning LED for rod M12 is lit.

Which one of the following completes the following statement?

The purpose of the DRPI display console is to provide __(1)__ rod position indication,

and

based on the given conditions, the DRPI accuracy for rod M12 is __(2)__ steps.

	__(1)__	__(2)__
A.	actual	-10, +4
B.	actual	+10, -4
C.	demanded	-10, +4
D.	demanded	+10, -4

61.

Initial condition:

- Unit 1 is at 100% reactor power.

Current condition:

- Pressurizer Safety Valve 'A' is declared inoperable due to a discrepancy found in previous test data.

Which one of the following completes the following statement?

Per Tech Spec LCO 3.4.10, "Pressurizer Safety Valves," the required lift setting for the pressurizer safety valve is __(1)__ ± 50 psig,

and

per Tech Spec LCO 3.4.10, the inoperable safety valve must be restored to OPERABLE status in **no later than** __(2)__ or a unit shutdown will be required.

	__(1)__	__(2)__
A.	2345	15 minutes
B.	2345	1 hour
C.	2460	15 minutes
D.	2460	1 hour

62.

Initial condition:

- Unit 2 reactor power is 12% with a shutdown in progress.

Current conditions:

- Intermediate Range N36 fails full-scale **high**.
- No operator action has been taken.

Which one of the following completes the following statement?

Based on the current conditions, an automatic reactor trip __(1)__ occur,

and

the P-6 SR HIGH FLUX TRIP block __(2)__ require **manual** RESET when reactor power lowers below its associated reset setpoint.

	__(1)__	__(2)__
A.	did	will
B.	did	will NOT
C.	did NOT	will
D.	did NOT	will NOT

63.

Initial condition:

- Unit 1 reactor trip and SI occurred due to a SGTR on SG #3.

Current condition:

- 19030-C, "Steam Generator Tube Rupture," is in progress.

Which one of the following completes the following statement?

Per 19030-C, the ruptured SG ARV lift setpoint is adjusted to __(1)__,

and

the reasons for this adjustment are to __(2)__.

A. (1) 1120 psig

(2) minimize radiation releases through the ARV and prevent lifting of MSSVs

B. (1) 1120 psig

(2) promote thermal stratification and prevent SG depressurization

C. (1) 1160 psig

(2) minimize radiation releases through the ARV and prevent lifting of MSSVs

D. (1) 1160 psig

(2) promote thermal stratification and prevent SG depressurization

64.

Initial condition:

- Unit 1 is at 100% reactor power.

Current condition:

- Containment entry is to be performed per 00303-C, "Containment Entry."

Which one of the following completes the following statement?

Per 00303-C, the area inside the bioshield is posted as a __(1)__ Area,

and

per 00303-C, entry into the __(2)__ is prohibited.

	__(1)__	__(2)__
A.	Very High Radiation	elevator
B.	Very High Radiation	261 foot mezzanine
C.	Locked High Radiation	elevator
D.	Locked High Radiation	261 foot mezzanine

65.

Procedure titles as follows:

- 19000-C, "Reactor Trip or Safety Injection"
- 19100-C, "Loss of All AC Power"

At time 1105:

- Unit 1 is in Mode 4.
- Multiple alarms are received on the QMCB and the QEAB.

Approximately 45 seconds later:

- Two of three white pot lights (left and center lights) are NOT lit on the QEAB for **both** 1AA02 and 1BA03.

- No operator action has been taken.

Which one of following completes the following statement?

Based on the current conditions, direct entry into __(1)__ is required,

and

when performing the Immediate Operator Actions, the Reactor Trip Breaker status indication on the QMCB __(2)__ available.

	__(1)__	__(2)__
A.	19000-C	is
B.	19000-C	is NOT
C.	19100-C	is
D.	19100-C	is NOT

66.

Initial condition:

- Unit 1 is at 100% reactor power.

Current condition:

- The crew is implementing EOPs following a reactor trip.

Which one of the following completes the following statement?

Per 10020-C, "EOP and AOP Rules of Usage," when performing steps in the EOPs, the crew __(1)__ required to complete each step before continuing to the next step,

and

continuous action steps that are skipped by procedure step transitions __(2)__ required to be applied.

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

67.

Initial condition:

- Unit 1 reactor trip and SI occurred due to a SGTR.

Current conditions:

- Crew is initiating the Foldout Page of 19000-C, "Reactor Trip or Safety Injection."
- Containment pressure is 1.4 psig.
- All SG NR levels are 8% and rising.

Per 10020-C, "EOP and AOP Rules of Usage," which one of the following completes the following statements?

Based on the given conditions, the UO __(1)__ allowed to take early operator action to isolate AFW to the ruptured SG.

Shift Supervisor permission __(2)__ required prior to performing early operator actions.

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

68.

Initial conditions:

- Unit 2 reactor trip and SI occurred due to a faulted SG.
- 19020-C, "Faulted Steam Generator Isolation," is in progress.

Current conditions:

- UO reports an uncontrolled level rise on SG #1.
- Crew transitions to 19005-C, "Rediagnosis."
- Crew is at the step to "Check if this procedure should be implemented."

Which one of the following completes the following statement?

CSFST monitoring __(1)__ suspended while performing 19005-C,

and

the required conditions for implementation of 19005-C __(2)__ met.

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

69.

At time 1200:

- Unit 1 reactor trip and SI occurred due to a LOCA.

At time 1230:

- RCS WR Tcold is 510 °F and stable.
- 19012-C, "Post-LOCA Cooldown and Depressurization," is in progress.
- Crew is at the step to "Initiate RCS cooldown to cold shutdown."

Which one of the following completes the following statement?

Per 19012-C, the crew __(1)__ allowed to lower RCS WR Tcold to 425 °F over the next 30 minutes,

and

the RCS cooldown rate is limited to reduce tensile stresses on the __(2)__ reactor vessel wall.

	__(1)__	__(2)__
A.	is	outer
B.	is	inner
C.	is NOT	outer
D.	is NOT	inner

70.

Initial condition:

- Unit 1 reactor trip and SI occurred due to a LOCA.

Current condition:

- 19112-C, "LOCA Outside Containment," is in progress.

Which one of the following completes the following statement?

Per 19112-C, to attempt to stop the leak the CCP discharge piping __(1)__ be isolated,

and

the indication that will be used to determine when the inter-system LOCA has been isolated is __(2)__.

	__(1)__	__(2)__
A.	will	RCS WR pressure rising
B.	will	Auxiliary Building rad monitors lowering
C.	will NOT	RCS WR pressure rising
D.	will NOT	Auxiliary Building rad monitors lowering

71.

At time 1000:

- Unit 2 reactor tripped with a RED path on Heat Sink.
- 19231-C, "Response to Loss of Secondary Heat Sink," is entered.
- Containment pressure is 1.8 psig.
- RCS pressure is 2290 psig.
- SGs #1 and #4 WR levels are 16%.
- SGs #2 and #3 WR levels are 37%.
- CCP 'A' is in service.

At time 1008:

- SGs #1 and #4 WR levels are 12%.
- SGs #2 and #3 WR levels are 31%.
- CETCs are 560 °F and slowly rising.
- MDAFW pump 'A' has been returned to service.

Which one of the following completes the following statement?

Based on the given conditions, bleed and feed criteria __(1)__ met,

and

when AFW flow is initially restored, feed flow rates __(2)__ limited to between 30 and 100 gpm to the selected SG.

	__(1)__	__(2)__
A.	are	are
B.	are	are NOT
C.	are NOT	are
D.	are NOT	are NOT

72.

Initial conditions:

- Unit 1 reactor trip and SI occurred.
- 19121-C, "Uncontrolled Depressurization of All Steam Generators," is in progress.
- SI is reset.

Current conditions:

- Crew is at the step to "Check if RHR Pumps should be stopped."
- RAT '1A' de-energizes due to a fault.
- DG1A starts and re-energizes its associated bus.
- RCS pressure is 200 psig.

Which one of the following completes the following statement?

RHR pump 'A' __(1)__ required to be manually started,

and

the __(2)__ are required to be manually started.

	__(1)__	__(2)__
A.	is	Containment Coolers in high speed
B.	is	Post-LOCA Cavity Purge Units
C.	is NOT	Containment Coolers in high speed
D.	is NOT	Post-LOCA Cavity Purge Units

73.

Initial conditions:

- Unit 1 reactor trip occurred.
- Both RATs de-energized due to a switchyard fire.

Current conditions:

- 19232-C, "Response to Steam Generator Overpressure," is in progress.
- SG #2 pressure is 1250 psig.
- SG #2 NR level is 85%.

Which one of the following completes the following statements?

Per 19232-C, the UO is required to lower SG #2 pressure using __(1)__.

When SG NR level is greater than 92%, steam flow is NOT initiated because of the risk of __(2)__.

	__(1)__	__(2)__
A.	ARVs	water hammer
B.	ARVs	excessive steam dryer delta P
C.	steam dumps	water hammer
D.	steam dumps	excessive steam dryer delta P

74.

Initial conditions:

- Unit 1 is at 100% reactor power.
- Containment Spray pump 'A' is tagged out.

Current conditions:

- Large break LOCA occurs.
- 19010-C, "Loss of Reactor or Secondary Coolant," is in progress.
- Containment Spray pump 'B' trips.
- Containment pressure is 22 psig.
- Containment hydrogen concentration is 5.1%.

Which one of the following completes the following statement?

The **preferred** method for reducing containment hydrogen concentration is __(1)__ the containment atmosphere,

and

a(n) __(2)__ path entry condition exists for 19251-C, "Response to High Containment Pressure."

	__(1)__	__(2)__
A.	diluting	RED
B.	diluting	ORANGE
C.	purging	RED
D.	purging	ORANGE

75.

Initial conditions:

- Unit 1 reactor trip and SI occurred due to a LOCA.
- Crew is evaluating CSFSTs.

Current conditions:

- Containment integrated dose is calculated to be 10^5 Rads.
- 1RE-002, Containment - Low Range, is 800 mR/hour.
- 1RE-003, Containment - Low Range, is 875 mR/hour.
- Containment pressure is 3.5 psig.

Which one of the following completes the following statement?

Based on the given conditions, adverse EOP values __(1)__ required to be used,

and

per the major actions of 19253-C, "Response to High Containment Radiation Level," the operators are required to verify __(2)__ alignment.

	__(1)__	__(2)__
A.	are	CIA
B.	are	CVI
C.	are NOT	CIA
D.	are NOT	CVI