

ILT 1909 Written Exam

1. Unit 3 is operating at 100% Rated Thermal Power (RTP) when a Loss of Offsite Power occurs. Which **ONE** of the following completes the statement below in accordance with 0-AOI-57-1A, Loss of Offsite Power (161 and 500 KV)/Station Blackout?

Diesel Generators (EDGs) are required to automatically start and tie on to their respective 4KV Shutdown Boards within _____ seconds.

- A. 5
- B. 6
- C. 10
- D. 14

ILT 1909 Written Exam

2. An event occurs on Unit 3 that results in 480V Load Shed. In accordance with 3-AOI-57-1D, 480V Load Shed, if the load shed logic cannot be reset, Battery Charger 3 may be returned to service by placing the charger select switch in **(1)** .

If Battery Charger 3 will not reset, Battery Charger **(2)** may be used as a spare.

- A. **(1)** EMERG
(2) 2A
- B. **(1)** EMERG
(2) 2B
- C. **(1)** OFF and then back ON
(2) 2A
- D. **(1)** OFF and then back ON
(2) 2B

ILT 1909 Written Exam

3. Which **ONE** of the following completes the statement below relative to the frequency of panel walkdowns in accordance with OPDP-1, Conduct of Operations?

The Unit Operator is to perform a panel walk down a minimum of once every _____.

- A. 1 hour
- B. 2 hours
- C. 4 hours
- D. 6 hours

ILT 1909 Written Exam

4. Which **ONE** of the following completes the statement below?

Regarding 4KV Start Bus transfer schemes, the _____ device generates a bus lockout and **MUST** be cleared prior to transfer.

A. 27

B. 51

C. 52

D. 86

ILT 1909 Written Exam

5. All three Units are operating at 100% RTP when the following conditions occur:
- 0-RM-90-259A, U1/U2 Control Room Ventilation Radiation Monitor indicates 120 cpm
 - 0-RM-90-259B, U3 Control Room Ventilation Radiation Monitor indicates 230 cpm

Given the conditions above, which **ONE** of the following completes the statements below?

The Control Room Ventilation System will automatically isolate on **(1)** .

Control Room Emergency Ventilation (CREV) will automatically respond with **(2)** CREV fan(s) starting.

- A. **(1) Unit 3 ONLY**
(2) ONLY the selected
- B. **(1) Unit 3 ONLY**
(2) BOTH
- C. **(1) ALL** three (3) Units
(2) ONLY the selected
- D. **(1) ALL** three (3) Units
(2) BOTH

ILT 1909 Written Exam

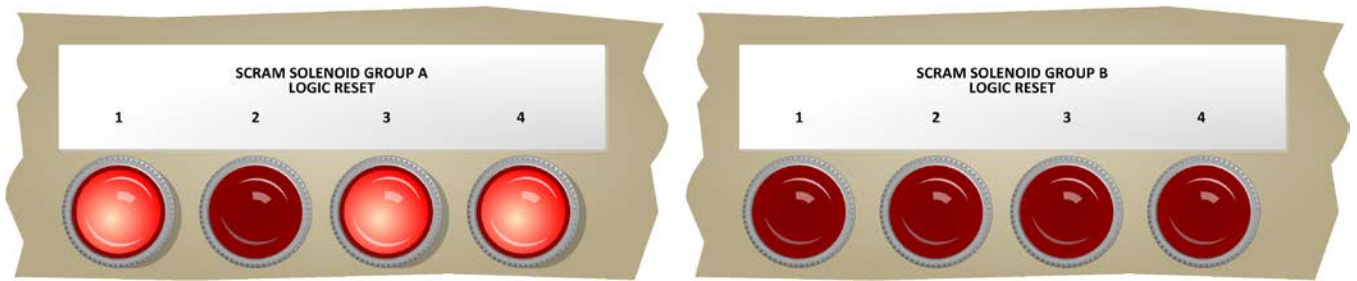
6. Which **ONE** of the following completes the statement below in regards to Simulated Thermal Power (STP)?

STP consists of an average of all Local Power Range Monitor (LPRM) signals from the Average Power Range Monitor (APRM) Channels with a _____ second filter applied.

- A. 2
- B. 6
- C. 10
- D. 37

ILT 1909 Written Exam

7.



Given that Reactor Protection System (RPS) Bus 'B' power has just been lost in conjunction with a **PREVIOUSLY** blown fuse on Group A, which **ONE** of the following completes the statements below?

In this condition, the loss of RPS Bus 'B' will **DIRECTLY** cause **(1)** of the Control Rods to SCRAM.

This condition will cause **(2)** Scram Discharge Volume(s) (SDV) to fill.

- A. **(1)** one quarter (1/4)
(2) BOTH
- B. **(1)** one quarter (1/4)
(2) ONLY the WEST
- C. **(1)** one half (1/2)
(2) BOTH
- D. **(1)** one half (1/2)
(2) ONLY the WEST

ILT 1909 Written Exam

8. Which **ONE** of the following completes the statement below?

The **NORMAL** electrical power supply to Unit 1's Condensate Pump 1A and Condensate Booster Pump 1A is _____ via a 4KV Unit Board.

- A. 4KV Start Bus 1A
- B. 4KV Start Bus 1B
- C. Unit Station Service Transformer 1A
- D. Unit Station Service Transformer 1B

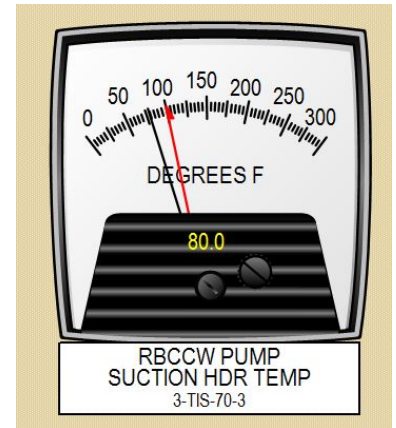
ILT 1909 Written Exam

9. Which **ONE** of the following completes the statements below?

The 3-TIS-70-3, RBCCW PUMP SUCTION HEADER TEMP indicator is located on Panel (1).

In relation to the Reactor Building Closed Cooling Water (RBCCW) System, Fuel Pool Cooling Heat Exchangers are considered (2) loop loads.

- A. (1) 3-9-4
(2) essential
- B. (1) 3-9-4
(2) non-essential
- C. (1) 3-9-21
(2) essential
- D. (1) 3-9-21
(2) non-essential



ILT 1909 Written Exam

10. Given the following conditions and indications on Unit 2:

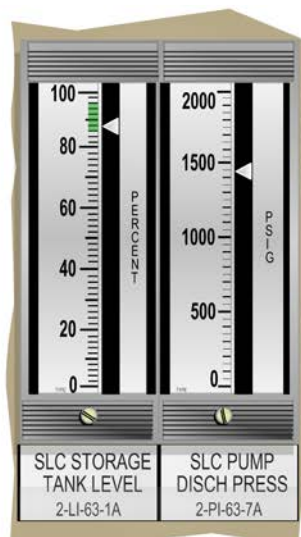
- An ATWS required the execution of 2-EOI Appendix-3A, SLC Injection
- Reactor Pressure is 995 psig

Which **ONE** of the following completes the statements below?

SLC (1) currently injecting to the Reactor.

The analog level and pressure indicators, included here, are located on Panel (2).

- A. (1) is
(2) 2-9-5
- B. (1) is
(2) 2-9-4
- C. (1) is NOT
(2) 2-9-5
- D. (1) is NOT
(2) 2-9-4



ILT 1909 Written Exam

11. A **Unit 1** Operator is walking down Panel 1-9-3 in preparation for shift turnover.
- In accordance with BFN-ODM-4.5, Operator Aids and Operator Information Systems, which **ONE** of the following types of hand switch tags would indicate to the **Unit 1** Operator that Panel 1-9-3 components are aligned to support Shutdown Cooling on **Unit 2**?
- A. Blue Tag
 - B. Green Tag
 - C. Hot Pink Tag
 - D. Orange Tag

ILT 1909 Written Exam

12. Unit 2 has experienced a loss of Drywell Control Air. Which **ONE** of the following completes the statements below in regards to Main Steam Relief Valves?

To assure that the valves can be held open following a failure of the air supply, **(1)** are equipped with accumulators.

In accordance with 2-AOI-32A-1, Loss of Drywell Control Air, accumulators are designed to hold sufficient air to allow a **MINIMUM** of five (5) **(2)**.

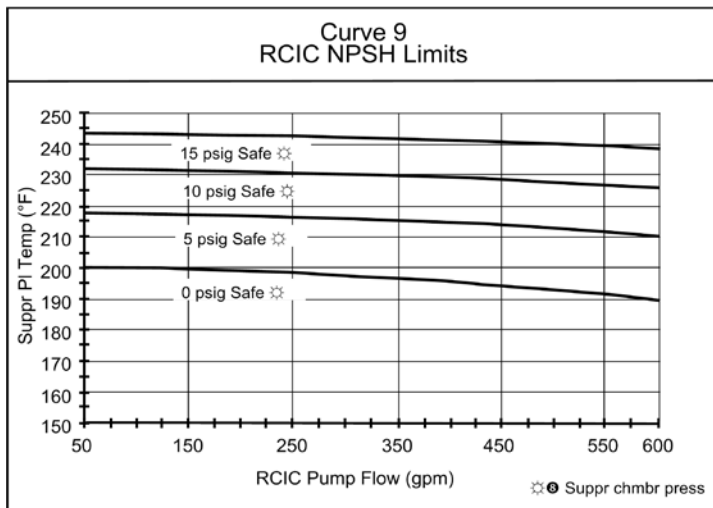
Note: Automatic Depressurization System (ADS)
Main Steam Relief Valve (SRV)

- A. **(1) ONLY** the ADS SRVs
(2) hours of operations
- B. **(1) ONLY** the ADS SRVs
(2) valve operations
- C. **(1) ALL** SRVs
(2) hours of operations
- D. **(1) ALL** SRVs
(2) valve operations

ILT 1909 Written Exam

13. Unit 2 suffered a small break Loss of Coolant Accident (LOCA), with the following conditions:

- Suppression Pool Bulk Temperature is 210°F
- Suppression Chamber Pressure is 5 psig
- RCIC is currently taking suction from the Condensate Storage Tank (CST) at exactly **ONE-HALF** of normal rated flow



Subsequently, SUPPRESSION POOL LEVEL HIGH (2-9-3F, Window 12) alarms.



Which **ONE** of the following completes the statement below in accordance with the EOI-5 Cautions?

Assume **NO** Operator action has been taken.

Operating RCIC under these current conditions, _____.

- A. **NO** equipment damage would be anticipated
- B. equipment damage from cavitation **ONLY** would be anticipated
- C. equipment damage from inadequate lube oil cooling **ONLY** would be anticipated
- D. equipment damage from **BOTH** cavitation and inadequate lube oil cooling would be anticipated

ILT 1909 Written Exam

14. The following conditions exist on Unit 3:

- A Reactor SCRAM occurred and Control Rods failed to insert
- Initial Reactor Power following the SCRAM was 23%
- Initial SLC Storage Tank Level was 87%

Current conditions:

- SLC is injecting into the Reactor and SLC Storage Tank Level is 74%
- Reactor Water Level is (-) 90 inches
- All APRMs are DOWNSCALE
- SRM Period indication is (-) 40 seconds
- IRMs are inserted, indicating on Ranges 4 and 5

Which **ONE** of the following completes the statements below?

At this time, the Reactor **(1)** subcritical.

If, at the current SLC Tank Level, Reactor Water Level is restored to (+) 2 to (+) 51 inches, the Reactor will be **(2)** .

- A. **(1)** is
 (2) critical
- B. **(1)** is
 (2) subcritical
- C. **(1)** is NOT
 (2) critical
- D. **(1)** is NOT
 (2) subcritical

ILT 1909 Written Exam

15. The Shift Manager has directed entering 3-AOI-100-2, Control Room Abandonment, due to heavy smoke in the Unit 3 Main Control Room (MCR).

Which **ONE** of the following completes the statements below in accordance with 3-AOI-100-2, Control Room Abandonment?

The Immediate Actions are taken to SCRAM the Reactor and to place the Unit in the most stable configuration possible to **(1)** .

If the Reactor fails to SCRAM during the performance of Immediate Actions due to an Electrical Anticipated Transient Without SCRAM (ATWS), continue in 3-AOI-100-2 since the **PRIORITY** in the subsequent actions will be to **(2)** .

- A. (1) allow time to prepare for plant cooldown
 (2) vent the overpiston area
- B. (1) allow time to prepare for plant cooldown
 (2) pull RPS Scram Solenoid Fuses
- C. (1) limit the heat load on RBCCW
 (2) vent the overpiston area
- D. (1) limit the heat load on RBCCW
 (2) pull RPS Scram Solenoid Fuses

ILT 1909 Written Exam

16. Unit 2 is operating at 25% RTP with a Reactor Shutdown in progress.

Which **ONE** of the following completes the statements below?

Given that the Main Turbine trips, Extraction Non-Return Valves automatically close in order to prevent Main Turbine **(1)** .

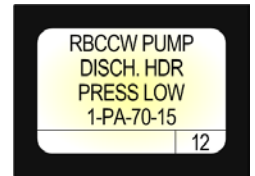
Feedwater Temperature will **(2)** as a result of the Main Turbine trip.

- A. **(1)** overspeed
 (2) lower
- B. **(1)** overspeed
 (2) remain the same
- C. **(1)** overheating
 (2) lower
- D. **(1)** overheating
 (2) remain the same

ILT 1909 Written Exam

17. Unit 1 is operating at 100% RTP, when RBCCW Pump 1A trips, resulting in the following:

- RBCCW PUMP DISCHARGE HEADER PRESSURE LOW, (1-9-4C, Window 12), in alarm



Given the conditions above, which **ONE** of the following system loads is still being cooled by RBCCW?

Note: Reactor Water Cleanup (RWCU)

- A. RWCU Non-Regenerative Heat Exchangers
- B. Reactor Recirculation Pump Motor Coolers
- C. RWCU Pump Seal Water and Bearing Oil Coolers
- D. Reactor Building Equipment Drain Sump Heat Exchanger

ILT 1909 Written Exam

18. Which **ONE** of the following completes the statement below pertaining to High Drywell Pressure Primary Containment Isolation System (PCIS) isolations?

PCIS Group 3, RWCU (Reactor Water Cleanup System) **(1)** isolate
and PCIS Group 8, TIP (Traverse Incore Probe System) **(2)** isolate.

- A. **(1)** will
 (2) will
- B. **(1)** will
 (2) will NOT
- C. **(1)** will NOT
 (2) will
- D. **(1)** will NOT
 (2) will NOT

ILT 1909 Written Exam

19. Unit 1 is operating at 100% Rated Thermal Power (RTP). Upon completion of 1-SR-3.4.2.1, Jet Pump Mismatch And Operability, it was determined that Jet Pump No. 7 is INOPERABLE.

An engineering evaluation has determined that Jet Pump #7 has failed mechanically.

Given the conditions above, which **ONE** of the following correctly describes the reason behind the required Tech Spec action to be in MODE 3 in 12 hours?

- A. Raises the probability of thermal hydraulic instability events at lower Power levels during low flow conditions.
- B. Changes core neutron flux distribution due to the change in Core Flow, making the APRM indications unreliable.
- C. Reduces the capability of re-flooding to two thirds (2/3) Core Height following a Loss of Coolant Accident (LOCA).
- D. Causes the APRM Flow Biased SCRAM and Rod Block setpoints to drift due to the impact of flow changes in the affected loop.

ILT 1909 Written Exam

20. Unit 2 is being shut down for an outage with the following conditions:

- 2-HS-99-5A-S1, REACTOR MODE SWITCH is in SHUTDOWN
- Reactor Vessel Head Closure Bolts are still fully tensioned
- Residual Heat Removal (RHR) Loop I is in Shutdown Cooling

Subsequently, a complete Loss of Shutdown Cooling occurs and results in the following Reactor Coolant Temperature response:

TIME	Reactor Coolant Temperature (°F)
0800	113 °F
0802	116 °F
0804	119 °F

Given the conditions above, which **ONE** of the following completes the statements below?

The current Heatup Rate is **(1)** the limit specified in 2-SR-3.4.9.1(1), Reactor Heatup and Cooldown Rate Monitoring.

Given that all other associated MODE requirements remain unchanged and based upon the constant trend, **(2)** is the **EARLIEST** time that Unit 2 will enter MODE 3 due to the rising Reactor Coolant Temperature.

- A. **(1)** below
 (2) 0858
- B. **(1)** below
 (2) 0906
- C. **(1)** above
 (2) 0858
- D. **(1)** above
 (2) 0906

ILT 1909 Written Exam

21. Unit 2 SCRAMs with the following current conditions:

- Main Turbine Bypass Valves are **NOT** available
- Reactor Pressure is 990 psig and rising
- Reactor Water Level is 30 inches and stable using Reactor Core Isolation Cooling (RCIC)

Which **ONE** of the following completes the statement below in accordance with the EOI Program Manual?

Given the conditions above, the advantage of using High Pressure Coolant Injection (HPCI) in Pressure Control Mode **STRICTLY**, versus the SRVs for Reactor Pressure Control, is

_____.

- A. that HPCI can lower Reactor Pressure **MORE** quickly than a single SRV being opened
- B. the injection of relatively cold water into the Reactor, **IN THIS MODE**, aids in lowering Reactor Pressure
- C. **MORE** than one SRV would be required to be opened to initiate a cooldown thus adding more heat to the Suppression Pool
- D. the Suppression Pool would heat up **LESS**, for an equivalent amount of steam, due to the steam transferring some of its energy into HPCI Turbine work

ILT 1909 Written Exam

22. Unit 1 was operating at 100% RTP when an event occurred resulting in the following conditions:

- Drywell Pressure is 5 psig and rising
- Drywell Temperature is 188 °F and rising
- Suppression Chamber Pressure is 6 psig and rising
- Suppression Chamber Temperature is 216 °F and rising
- SRVs are being cycled for Reactor Pressure Control
- Suppression Pool Water Level is 13 feet and lowering

Which **ONE** of the following completes the statements below?

Given the conditions above, the **(1)** will be uncovered **FIRST**.

 (2) Sprays will be more effective at mitigating the **CURRENT** Primary Containment conditions.

- A. **(1)** HPCI Turbine exhaust
(2) Drywell
- B. **(1)** HPCI Turbine exhaust
(2) Suppression Chamber
- C. **(1)** Downcomer opening
(2) Drywell
- D. **(1)** Downcomer opening
(2) Suppression Chamber

ILT 1909 Written Exam

23. Which **ONE** of the following completes the statement below in accordance with the **BASES** for Technical Specification 3.6.2.2, Suppression Pool Water Level?

The essential accident / transient mitigating feature associated with Suppression Pool Water Level is providing **(1)** .

Additionally, Suppression Pool Water Level below **(2)** **WITH DIFFERENTIAL PRESSURE CONTROL ESTABLISHED** will invalidate the Safety Analysis Initial Conditions.

- A. **(1)** adequate steam quenching
(2) (-) 6.25 inches
- B. **(1)** adequate steam quenching
(2) (-) 7.25 inches
- C. **(1)** an emergency water supply to ECCS
(2) (-) 6.25 inches
- D. **(1)** an emergency water supply to ECCS
(2) (-) 7.25 inches

ILT 1909 Written Exam

24. An ATWS has occurred on Unit 2.

- ATWS actions are in progress
- Reactor Water Level currently indicates (+) 40 inches
- Reactor Power is 46%
- Standby Liquid Control (SLC) is injecting

Given the conditions above, which **ONE** of the following completes the statement below?

2-EOI-1A, ATWS RPV CONTROL, requires Operators to STOP and PREVENT **ALL** injection into the Reactor **EXCEPT** (1) to mitigate the consequences of the failure to SCRAM by (2), which adds negative reactivity.

- A. (1) CRD, and SLC **ONLY**
(2) increasing natural circulation to mix the injected boron
- B. (1) CRD, and SLC **ONLY**
(2) reducing natural circulation resulting in increased void fraction in the core
- C. (1) RCIC, CRD, and SLC **ONLY**
(2) increasing natural circulation to mix the injected boron
- D. (1) RCIC, CRD, and SLC **ONLY**
(2) reducing natural circulation resulting in increased void fraction in the core

ILT 1909 Written Exam

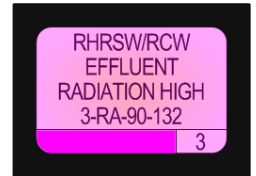
25. Unit 3 is at 100% RTP when the following alarm is received:

- RHRSW/RCW EFFLUENT RADIATION HIGH (3-9-3A, Window 3)

Which **ONE** of the following completes the statement below?

A probable cause for this alarm is _____.

- A. tube leaks in the RBCCW Heat Exchanger
- B. tube leaks in the RHR Pump Seal Heat Exchanger
- C. tripped RHR Service Water (RHRSW) Sample Pump
- D. tube leaks in the Reactor Water Cleanup (RWCU) Heat Exchanger



ILT 1909 Written Exam

26. A fire has occurred in the Unit 3 Reactor Building.

Which **ONE** of the following completes the statement below?

In accordance with the **NOTES and CAUTIONS** of 0-AOI-26-1, Fire Response, the reason Assistant Unit Operators (AUOs) report to their assigned Control Room is to _____.

Note: Self-Contained Breathing Apparatus (SCBA)
Fire Safe Shutdown (FSS)

- A. retrieve necessary SCBA kits
- B. perform FSS Recovery Actions
- C. perform Personnel Accountability
- D. retrieve the Hard Hat head lamps

ILT 1909 Written Exam

27. Unit 3 is operating at 100% RTP when the following conditions occur:

- The Transmission System Operator (TOp) notifies the Shift Manager (SM) that the 500KV System voltage is 508 KV
- GENERATOR LOAD is 1240 MWe
- GENERATOR MVAR is (+) 200 MVAR
- GENERATOR HYDROGEN PRESSURE is 60 psig

Given the conditions above, which **ONE** of the following completes the statements below?

The current System voltage **(1)** within **NORMAL** limits in accordance with 0-AOI-57-1E, Grid Instability.

The generator **(2)** operating within the limitations of the Generator Capability Curve.

[REFERENCE PROVIDED]

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

ILT 1909 Written Exam

28. Which **ONE** of the following completes the statements below?

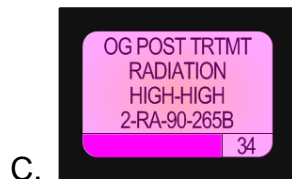
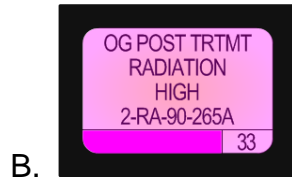
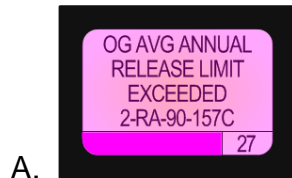
In accordance with EOI-1A, ATWS RPV Control, Reactor Water Level is lowered to (-) 50 inches in order to maintain Reactor Water Level **(1)** the Feedwater Spargers.

In accordance with AOI-100-1, Reactor SCRAM Hard Card during the execution of ATWS actions, when Reactor Water Level reaches (-) 50 inches, the Operator is required to **REPORT** **(2)** to the Unit Supervisor.

- A. **(1)** below
(2) Reactor Water Level **ONLY**
- B. **(1)** below
(2) Reactor Water Level **AND** Reactor Power
- C. **(1)** above
(2) Reactor Water Level **ONLY**
- D. **(1)** above
(2) Reactor Water Level **AND** Reactor Power

ILT 1909 Written Exam

29. In accordance with the Unit 2 Alarm Response Procedures, which **ONE** of the following, when alarming, requires that Operators ensure 2-FCV-66-28, OFFGAS SYSTEM ISOLATION VALVE, is CLOSED?



ILT 1909 Written Exam

30. The following plant conditions exist on Unit 2:

- The Reactor is in MODE 4
- RHR Loop I is in Shutdown Cooling
- RHR Loop II is in Suppression Pool Cooling

During the performance of a Reactor Water Level Surveillance, the Instrument Mechanics (IMs) inadvertently cause a Primary Containment Isolation System (PCIS) Group 2 Isolation.

Which **ONE** of the following completes the statements below?

RHR Loop I **(1)** remain in Shutdown Cooling.

RHR Loop II **(2)** remain in Suppression Pool Cooling.

- A. **(1)** will
 (2) will
- B. **(1)** will
 (2) will NOT
- C. **(1)** will NOT
 (2) will
- D. **(1)** will NOT
 (2) will NOT

ILT 1909 Written Exam

31. Unit 3 has suffered a small break LOCA and HPCI is injecting.

Suppression Pool Water Level rises to (+) 5.3 inches.

Given the conditions above, which **ONE** of the following completes the statement below in accordance with 3-OI-73, High Pressure Coolant Injection System?

The HPCI suction path will **(1)** transfer to the Suppression Pool **AND** the Condensate Storage Tank (CST) suction path will **(2)** after the new suction path is established.

- A. **(1)** automatically
 (2) automatically close
- B. **(1)** automatically
 (2) require manual closure
- C. **(1)** require manual
 (2) automatically close
- D. **(1)** require manual
 (2) require manual closure

ILT 1909 Written Exam

32. Which **ONE** of the following completes the statement below?

 (1) of the **EMERGENCY** Range Level Instrument indication(s) is/are affected by High RWCU Heat Exchanger Room Temperatures.

EMERGENCY Range Level Instruments (2) located on Panel 3-9-5?

[REFERENCE PROVIDED]

- A. (1) One
 (2) are
- B. (1) One
 (2) are **NOT**
- C. (1) None
 (2) are
- D. (1) None
 (2) are **NOT**

33. The following conditions are observed on Unit 1:

1-RM-90-140/142

- Reactor Zone 1-RM-90-142A indicates 65 mR/hr
- Reactor Zone 1-RM-90-142B indicates 67 mR/hr
- Refuel Zone 1-RM-90-140A indicates 75 mR/hr
- Refuel Zone 1-RM-90-140B indicates 78 mR/hr

1-RM-90-141/143

- Reactor Zone 1-RM-90-143A indicates 68 mR/hr
- Reactor Zone 1-RM-90-143B indicates downscale
- Refuel Zone 1-RM-90-141A indicates 70 mR/hr
- Refuel Zone 1-RM-90-141B indicates 69 mR/hr

Which **ONE** of the following identifies the Ventilation System response?

- A. Refuel Zone isolation **ONLY**
- B. Reactor **AND** Refuel Zone isolation
- C. Refuel Zone isolation **AND** CREV auto initiation
- D. Reactor Zone isolation **AND** CREV auto initiation

ILT 1909 Written Exam

34. Which **ONE** of the following completes the statements below?

Entry into EOI-3, Secondary Containment Control, is required when **ANY** Secondary Containment Area Water Level is above **(1)** .

In accordance with EOI-3, **(2)** is required when a Primary System is discharging into Secondary Containment and Secondary Containment Water Level exceeds Max Safe in two or more areas.

- A. **(1)** 2 inches
(2) a normal Reactor Shutdown
- B. **(1)** 2 inches
(2) Emergency Depressurization
- C. **(1)** 66 inches
(2) a normal Reactor Shutdown
- D. **(1)** 66 inches
(2) Emergency Depressurization

ILT 1909 Written Exam

35. Unit 2 was operating at 100% RTP when plant events resulted in the following:

- Reactor Pressure is 405 psig
- Reactor Water Level is (-) 140 inches
- 480V RMOV Board 2D is de-energized
- Assume **NO** Operator actions has been taken

Given the conditions above, which **ONE** of the following completes the statement below?

2-FCV-74-52, RHR SYS I LPCI **OUTBOARD** INJECTION VALVE is **(1)** and
2-FCV-74-53; RHR SYS I LPCI **INBOARD** INJECTION VALVE is **(2)** .

- A. **(1)** CLOSED
 (2) CLOSED
- B. **(1)** CLOSED
 (2) OPEN
- C. **(1)** OPEN
 (2) CLOSED
- D. **(1)** OPEN
 (2) OPEN

ILT 1909 Written Exam

36. Unit 1 is preparing for a Refueling outage with the following conditions:
- RHR SYS I FLOW is 7500 gpm for Shutdown Cooling (SDC)
 - **NO** Recirc Pumps are in service
 - Reactor Coolant Temperature is 175 °F
 - **NO** other testing or evolutions are in progress

Which **ONE** of the following completes the statements below?

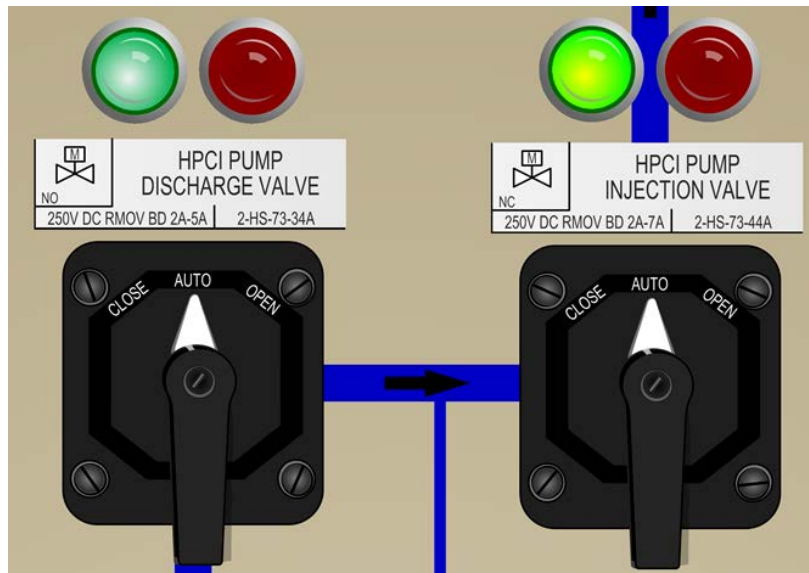
Given the conditions above, in accordance with 1-OI-74, Residual Heat Removal System, Reactor Water Level should be maintained **(1)** .

The purpose of maintaining this SDC Reactor Water Level is to **(2)** .

- A. **(1)** < 70 inches
(2) prevent thermal stratification
- B. **(1)** < 70 inches
(2) prevent jet pump cavitation
- C. **(1)** 70 to 90 inches
(2) prevent thermal stratification
- D. **(1)** 70 to 90 inches
(2) prevent jet pump cavitation

ILT 1909 Written Exam

37. Given that an Operator error has resulted in the Unit 2 HPCI System lineup detailed as indicated **AND** the “VERIFY HPCI is in Standby Readiness” step has been circle/slash as completed, which **ONE** of the following completes the statements below?



If the HPCI System were to be **MANUALLY** started (for Reactor

Pressure Vessel (RPV) injection) with the given lineup using 2-OI-73, HPCI Injection System Lineup Hard Card, HPCI (1) inject to the RPV.

If the HPCI System were to receive an **AUTOMATIC** start signal, HPCI (2) inject to the RPV.

- A. (1) would
(2) would NOT
- B. (1) would
(2) would
- C. (1) would NOT
(2) would NOT
- D. (1) would NOT
(2) would

ILT 1909 Written Exam

38. A LOCA occurred on Unit 3 resulting in the following conditions:

- Reactor Water Level reaches (-) 122 inches and is slowly lowering
- '3B' EDG fails to start

Given the conditions above, which **ONE** of the following completes both statements below?

Core Spray Pump 3A **(1)** .

Core Spray Pump 3D starts in **(2)** .

- A. **(1)** starts automatically
(2) 7 seconds
- B. **(1)** starts automatically
(2) 21 seconds
- C. **(1)** can be manually started **ONLY**
(2) 7 seconds
- D. **(1)** can be manually started **ONLY**
(2) 21 seconds

ILT 1909 Written Exam

39. Which **ONE** of the following completes the statement below?

Unit 1 is at 100% RTP performing 1-SR-3.1.7.2, Continuity Verification of Explosive Charges in the SLC Injection Valves. This surveillance is performed every **(1)** and Squib Valve Continuity Amperage can be observed at **(2)** .

- A. (1) 24 hours
 (2) the back of Panel 1-9-5
- B. (1) 24 hours
 (2) Panel 1-PNLA-925-0057 in the Unit 1 Auxiliary Instrument Room
- C. (1) 31 days
 (2) the back of Panel 1-9-5
- D. (1) 31 days
 (2) Panel 1-PNLA-925-0057 in the Unit 1 Auxiliary Instrument Room

ILT 1909 Written Exam

40. Which **ONE** of the following completes the statement in regards to the SLC System?
During **NORMAL** operation, Sodium Pentaborate is maintained in solution by the use of _____.
- A. mechanical tank agitation **ONLY**
 - B. tank heaters **ONLY**
 - C. piping heat tracing **ONLY**
 - D. mechanical tank agitation **AND** tank heaters

ILT 1909 Written Exam

41. Which **ONE** of the following completes the statement below pertaining to the Unit 2 ADS automatic initiation logic requirements?

The **MINIMUM** required ECCS pump(s) permissive will be met when _____ is/are running.

- A. **ANY** RHR Pump
- B. **ANY** Core Spray Pump
- C. RHR Pumps 2C **AND** 2D
- D. Core Spray Pumps 2C **AND** 2D

ILT 1909 Written Exam

42. **UNIT 2** is conducting a Reactor Startup and is currently in MODE 2.

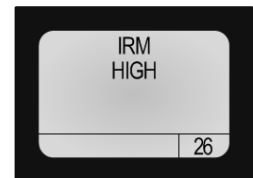
Intermediate Range Monitor (IRM) 'B' is currently on Range 7 and reading as indicated.

Given the conditions above, which **ONE** of the following completes the statements below?

If the Range Switch for IRM 'B' is turned counterclockwise to the 'Range 6' position, the resultant reading on IRM 'B' will be larger by a factor of **(1)** .

As a result of the switch being 'ranged down', IRM HIGH (2-9-5A, Window 26) annunciator **(2)** illuminate.

- A. **(1)** 2.3
(2) will
- B. **(1)** 2.3
(2) will NOT
- C. **(1)** 3.16
(2) will
- D. **(1)** 3.16
(2) will NOT



ILT 1909 Written Exam

43. Unit 2 is operating at 96% RTP and returning Control Rod 34-07 to service in accordance with 2-OI-85, Control Rod Drive System when the following conditions occur:

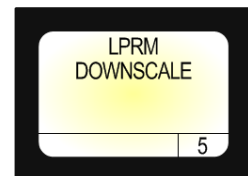
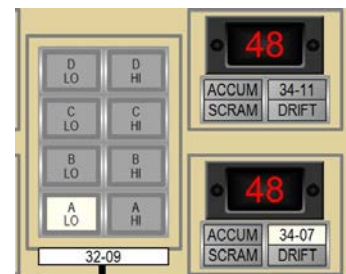
- LPRM 32-09 Detector A indicates 'LO'
- LPRM DOWNSCALE (2-9-5A, Window 5) is in alarm

Which **ONE** of the following completes the statements below?

The above condition is generated from the LPRM reaching (1) .

Relative to Control Rod coupling integrity, if uncoupled, the **FOUR** **ROD** display digital read-out for Control Rod 34-07 would (2) .

- A. (1) 3%
(2) remain illuminated
- B. (1) 3%
(2) extinguish
- C. (1) 5%
(2) remain illuminated
- D. (1) 5%
(2) extinguish



ILT 1909 Written Exam

44. Which **ONE** of the following completes the statement below?

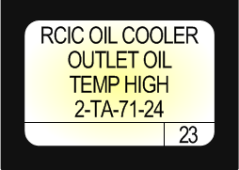
The LPRM design feature that is utilized to offset the effects of detector aging is that the _____.

- A. flux amplifier gain can be adjusted
- B. detector chamber is coated with enriched U-235
- C. detector chamber is filled with high pressure Argon gas
- D. ion chamber high voltage power supply can be lowered

ILT 1909 Written Exam

45. Unit 2 is operating at 100% RTP with the following plant conditions:

- RCIC is running CST to CST for a flow test following repairs
- RCIC OIL COOLER OUTLET OIL TEMPERATURE HIGH (2-9-3C, Window 23) has just alarmed

A rectangular alarm window with a black border and a yellow background. The text inside is black and reads: "RCIC OIL COOLER", "OUTLET OIL", "TEMP HIGH", "2-TA-71-24". In the bottom right corner, there is a small white box containing the number "23".

RCIC OIL COOLER
OUTLET OIL
TEMP HIGH
2-TA-71-24

Given the conditions above, which **ONE** of the following completes the statement below?

If RCIC lube oil cooling is in fact compromised or lost, troubleshooting and response will be conducted using procedures associated with the _____ System.

- A. Raw Cooling Water
- B. Reactor Core Isolation Cooling
- C. Reactor Building Closed Cooling Water
- D. Emergency Equipment Closed Cooling Water

46. **UNIT 2** is conducting a Reactor Startup and is currently in MODE 2. Source Range Monitors (SRMs) are in the depicted configuration.

Given the conditions above, which **ONE** of the following completes the statements below?

(CONSIDER EACH STATEMENT INDEPENDENTLY)

If the **DRIVE IN** Pushbutton is pressed **AND** released after one second, SRMs 'A' and 'B' will travel into the core (1).

If the **DRIVE OUT** Pushbutton is pressed **AND** released after one second, SRMs 'A' and 'B' will travel outwards from the core (2).

(Assume **NO** further operator actions)

- A. (1) until the button is released
(2) until the button is released
- B. (1) until the button is released
(2) until the full-out electrical stop is reached
- C. (1) until the full-in electrical stop is reached
(2) until the button is released
- D. (1) until the full-in electrical stop is reached
(2) until the full-out electrical stop is reached



ILT 1909 Written Exam

47. Unit 2 was operating at 100% RTP when a LOCA occurred resulting in the following conditions:
- Drywell Pressure is 10 psig, rising slowly
 - Reactor Water Level is (-) 180 inches, steady
 - RHR Pumps 2A and 2C started
 - RHR Pumps 2B and 2D failed to start
 - Core Spray Pump 2A and 2B started

Subsequently, Operators noticed ADS initiated, but the Unit Supervisor directed the crew to secure ADS.

Given the conditions above, which **ONE** of the following manual actions would cause the ADS valves to **CLOSE**?

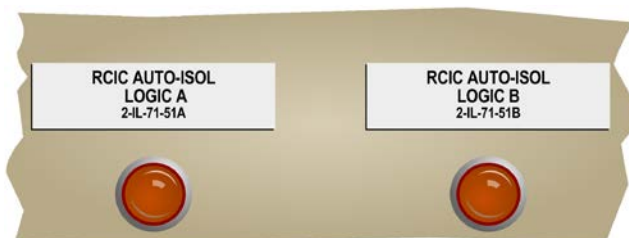
- A. Secure **BOTH** RHR Pumps.
- B. Secure **EITHER** Core Spray Pump.
- C. **RAISE** Reactor Water Level to (-) 162 inches.
- D. Depress **BOTH** 2-XS-1-159 and -161, Timer Reset buttons.

48. Given the following conditions for **UNIT 2**:

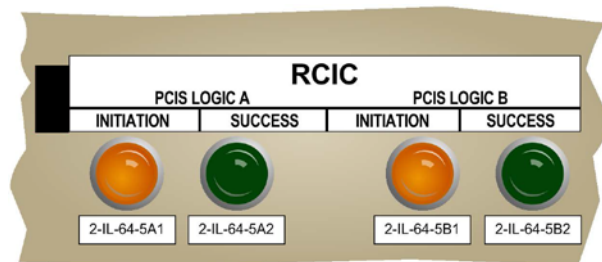
- Accident conditions have resulted in an EOI directed Emergency Depressurization
- Reactor Pressure is currently 59 psig
- **ALL** systems functioned as designed

Which **ONE** of the following completes the statements below?

As a result of the above conditions, the amber RCIC AUTO-**ISOLATION** LOGIC 'A' / 'B' lights on Panel 9-3, are **(1)** .



As a result of the above conditions, the amber RCIC PCIS LOGIC 'A' / 'B' **INITIATION** lights on CISS Panel 9-4, are **(2)** .



- A. (1) lit
 (2) lit
- B. (1) lit
 (2) **NOT** lit
- C. (1) **NOT** lit
 (2) lit
- D. (1) **NOT** lit
 (2) **NOT** lit

ILT 1909 Written Exam

49. Unit 2 is operating at 100% RTP when the following occurs:

- 250V DC RMOV Board **2A** lost power

Subsequently, a LOCA occurred resulting in Reactor Water Level lowering to (-) 51 inches.

Given the conditions above, which **ONE** of the following completes the statements below?

HPCI (1) auto initiate.

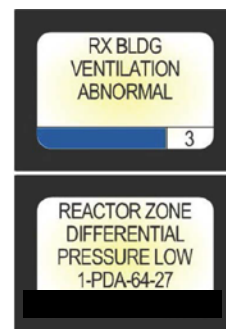
HPCI (2) be manually initiated.

- A. (1) will
(2) can
- B. (1) will
(2) can NOT
- C. (1) will NOT
(2) can
- D. (1) will NOT
(2) can NOT

ILT 1909 Written Exam

50. Unit 1 is operating at 100% RTP when the following conditions occur:

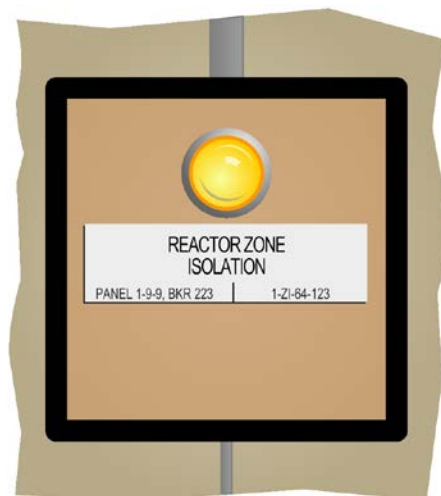
- REACTOR BUILDING VENTILATION ABNORMAL
(1-9-3D, Window 3) alarms
- REACTOR ZONE DIFFERENTIAL PRESSURE LOW
(1-9-3D, Window 32) alarms
- AUO reports REACTOR ZONE DIFFERENTIAL PRESSURE is
(+) .5 inches of water locally
- Panel 1-9-25, amber light illuminates for REACTOR
ZONE ISOLATION
- Assume **NO** Operator action has been taken



Which **ONE** of the following completes the statements below?

Given the conditions above, Standby Gas Treatment (SGT) (1) automatically started.

1-EOI-3, Secondary Containment Control, entry (2) required.



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

ILT 1909 Written Exam

51. Unit 2 was operating at 100% RTP when the following occurs:

- MAIN STEAM RELIEF VALVE OPEN, (2-9-3C, Window 25) alarms
- SRV 1-31 indicates full OPEN on the SRV TAILPIPE FLOW MONITOR
- 2-AOI-1-1, Relief Valve Stuck Open actions are in progress



Given the conditions above, which **ONE** of the following completes the statements below?

The given annunciator is **DIRECTLY** actuated by the tailpipe **(1)** .

In accordance with 2-AOI-1-1, the Operator is allowed to cycle the control switch for SRV 1-31 **(2)** from CLOSE to OPEN to CLOSE positions.

- A. **(1)** acoustic monitor
(2) UP TO three (3) times
- B. **(1)** acoustic monitor
(2) ONLY one (1) time
- C. **(1)** discharge temperature
(2) UP TO three (3) times
- D. **(1)** discharge temperature
(2) ONLY one (1) time

ILT 1909 Written Exam

52. The Unit 1 Unit Preferred Inverter is operating in a normal lineup, when a Loss of Offsite Power occurs **AND** 'A' EDG fails to start.

Which **ONE** of the following completes the statement below?

Given the conditions above, the Unit Preferred Inverter is **CURRENTLY** powered from the _____.

- A. 480V RMOV Board 1A
- B. 250 VDC Battery Board 4
- C. 250 VDC Battery Board 5
- D. Unit Preferred Transformer

ILT 1909 Written Exam

53. Which **ONE** of the following is correct with regards to the **NORMAL** and **ALTERNATE** power supplies to 250VDC RMOV Board 3C?

The **NORMAL** power supply is Battery Board **(1)** and the **ALTERNATE** power supply is Battery Board **(2)** .

- A. **(1)** 3
 (2) 2
- B. **(1)** 3
 (2) 1
- C. **(1)** 2
 (2) 1
- D. **(1)** 2
 (2) 3

ILT 1909 Written Exam

54. All three Units are operating at 100% RTP with all battery chargers in normal operation.

Which **ONE** of the following completes both statements below in accordance with 0-OI-31, Control Bay and Off-Gas Treatment Building Air Conditioning System?

Battery Room ventilation is required to be in operation to prevent (1).

Obtain (2) permission prior to shutting down the Battery Room exhaust fan.

- A. (1) excessive temperatures
(2) Electrical Maintenance
- B. (1) excessive temperatures
(2) Unit Supervisor
- C. (1) the buildup of hydrogen
(2) Electrical Maintenance
- D. (1) the buildup of hydrogen
(2) Unit Supervisor

ILT 1909 Written Exam

55. '3A' EDG has been started for the 3-SR-3.8.1.1(3A), Monthly Operability Test.

Which **ONE** of the following will occur if the '3A' EDG Output Breaker is closed with 3-HS-82-3A/5A, DG MODE SELECTOR SWITCH in the **SINGLE UNIT** position?

- A. The '3A' EDG Output Breaker trips on overspeed.
- B. The '3A' EDG Output Breaker trips on undervoltage.
- C. The 4KV Shutdown Board 3EA Normal Feeder Breaker trips on overload.
- D. The 4KV Shutdown Board 3EA Normal Feeder Breaker trips on reverse power.

ILT 1909 Written Exam

56. Given the following conditions:

- All three Units were operating at 100% RTP
- A Loss of Offsite Power occurred
- An Accident Signal is received on Unit 1

Subsequently,

- One (1) minute later, 'C' EDG trips on overspeed

Which **ONE** of the following completes the statement below?

Given the conditions above, the current status of RHR Pump 1B is (1) and RHR Pump 1C is (2).

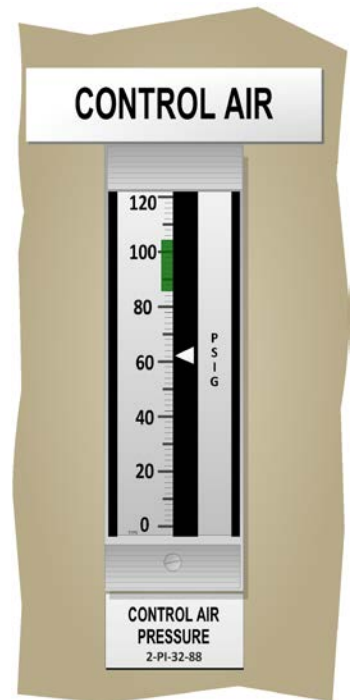
- A. (1) running
(2) running
- B. (1) running
(2) NOT running
- C. (1) NOT running
(2) running
- D. (1) NOT running
(2) NOT running

ILT 1909 Written Exam

57. Unit 2 is operating at 100% RTP when a Control Air leak develops, resulting in the following indication:

Given the indication, which **ONE** of the following identifies the correct plant status in accordance with 0-AOI-32-1, Loss of Control and Service Air Compressors?

- A. 0-FCV-33-1, SERVICE AIR CROSSTIE VALVE, is CLOSED
- B. 2-PCV-032-3901, CONTROL AIR CROSSTIE, is CLOSED
- C. 2-FCV-2-130, CONDENSATE DEMIN BYP VALVE, is OPEN
- D. OUTBOARD MAIN STEAM ISOLATION VALVES are CLOSED



ILT 1909 Written Exam

58. Unit 1 is in MODE 4 with the following plant conditions:

- RHR Pump 1A and RHRSW Pump A2 is aligned for Shutdown Cooling (SDC)
- RHRSW Pump C2 is being utilized for dilution flow at 1500 gpm with RHR Heat Exchanger (HX) 1C
- The Unit 1 Operator observes Panel 1-9-21, 1-TR-74-80, RHR HX A/C COMBINED DISCHARGE Temperature is 142°F and rising

Given the conditions above, which **ONE** of the following completes the statements below?

In accordance with 1-OI-74, Residual Heat Removal System, the Unit Operator is required to (1).

Additionally, do **NOT** exceed the **RATED** RHRSW flow of (2) gpm through RHR HX 1A or 1C.

Note: 1-FCV-23-34, RHR HX 1A RHRSW OUTLET VALVE
1-FCV-23-40, RHR HX 1C RHRSW OUTLET VALVE

- A. (1) throttle open 1-FCV-23-34
(2) 4000
- B. (1) throttle open 1-FCV-23-34
(2) 4500
- C. (1) throttle open 1-FCV-23-40
(2) 4000
- D. (1) throttle open 1-FCV-23-40
(2) 4500

ILT 1909 Written Exam

59. Unit 1 is operating at 100% RTP when Recirc Pump 1A trips. The following conditions exist:
- Crew entered 1-AOI-68-1A, Recirc Pump Trip/Core Flow Decrease OPRMs Operable
 - Core Flow is indicating 53% on the APRMs
 - **NO** Operator actions have been taken

Given the conditions above, which **ONE** of the following identifies the **CURRENT** APRM Flow Biased SCRAM Setpoint in accordance with 1-OI-92B, Average Power Range Monitoring?

- A. 87.38%
- B. 93.38%
- C. 93.65%
- D. 93.98%

ILT 1909 Written Exam

60. Unit 2 is operating at 100% RTP when the following occurs:

- RWCU Conductivity is reading as indicated

Subsequently,

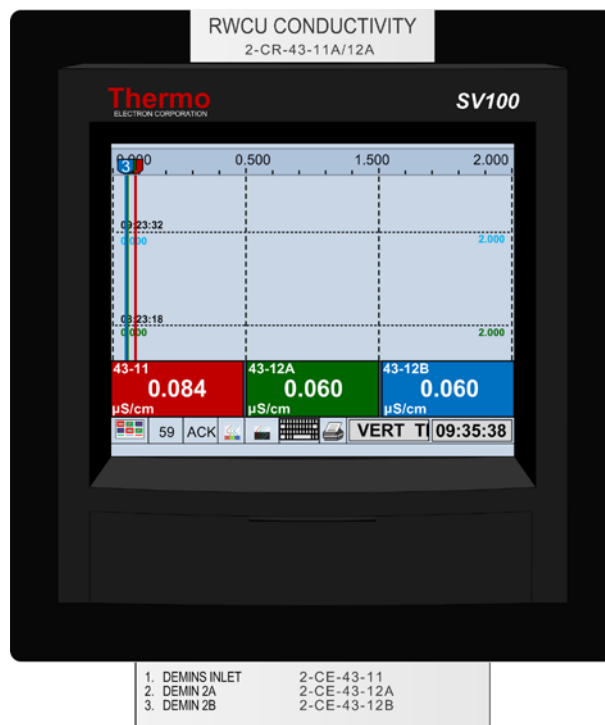
- 480V RMOV BD 2A suddenly loses power

Given the conditions above, which **ONE** of the following completes the statements below?

RWCU (1) isolated.

After the power loss, Chemistry (2) required to be notified.

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



ILT 1909 Written Exam

61. Unit 3 was operating at 100% RTP when the following plant conditions occur:

- Control Rod 30-31 lost its **ONES** digit position indication
- 3-AOI-85-4, Loss of RPIS is entered

Given the conditions above, which **ONE** of the following completes the statements below in accordance with 3-AOI-85-4, Loss of RPIS?

Control Rod 30-31 **(1)** be moved to an Operable Position Indication as a means of position verification.

If it is determined that Operators must SCRAM Control Rod 30-31, this will be conducted from the **(2)** .

- A. (1) can
 (2) Aux Instrument Room
- B. (1) can
 (2) Battery Board Room 3
- C. (1) can NOT
 (2) Aux Instrument Room
- D. (1) can NOT
 (2) Battery Board Room 3

ILT 1909 Written Exam

62. Unit 3 was operating at 100% RTP when an event occurred requiring the insertion of a manual SCRAM, resulting in the following conditions:

- Reactor Power is 3%
- 3-EOI-1A, ATWS RPV Control entered
- Reactor Water Level is (+) 33 inches
- The SRO has directed 3-EOI Appendix-1F, Manual SCRAM

Given the conditions above, which **ONE** of the following completes the statements below?

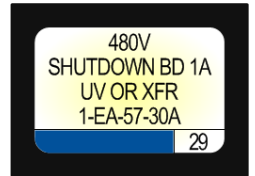
Upon completion of Appendix-1F, the Operator (1) be able to reset the SCRAM. The performance of the outside portions of Appendix-1F requires the use of (2).

- A. (1) will
(2) jumpers
- B. (1) will
(2) keylocks
- C. (1) will NOT
(2) jumpers
- D. (1) will NOT
(2) keylocks

ILT 1909 Written Exam

63. Unit 1 is operating at 100% RTP when the following occurs:

- 480V SHUTDOWN BOARD 1A UNDERVOLTAGE OR TRANSFER (1-9-8B, Window 29) alarms due to a fault



Given the condition above, which **ONE** of the following completes the statement below?

RHR Loop I (1) available for the Suppression Pool Cooling Mode and **AUTOMATIC** board transfer to the alternate power supply (2) occur.

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

ILT 1909 Written Exam

64. Unit 2 was operating at 100% RTP when a SCRAM and a small break LOCA occurred inside Containment resulting in the following conditions:

- Reactor Water Level is currently (+) 25 inches and stable
- Reactor Pressure is 850 psig and lowering
- Drywell Pressure 5 psig and rising
- Suppression Chamber Pressure 4 psig and rising

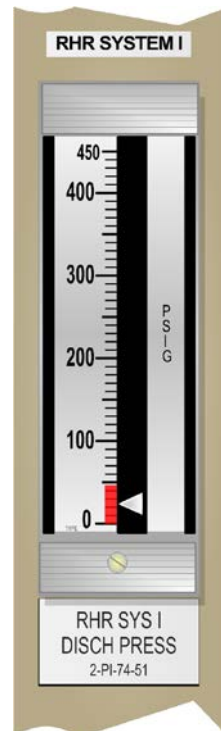
The SRO directs 2-EOI Appendix-17C, RHR System Operation Suppression Chamber Sprays be placed in service. The provided indication is then noted on Panel 2-9-3.

Given the conditions above, which **ONE** of the following completes the statements below?

RHR System piping is **NORMALLY** maintained in a filled condition by the **(1)** .

If Suppression Chamber Sprays are placed in service, the concern is **(2)** .

- A. (1) PSC Head Tank
 (2) water hammer
- B. (1) PSC Head Tank
 (2) cavitation
- C. (1) Condensate Storage and Supply System
 (2) water hammer
- D. (1) Condensate Storage and Supply System
 (2) cavitation



ILT 1909 Written Exam

65. Unit 1 is operating at 24% RTP following a Startup with the following conditions:

- Reactor Feedwater Pump (RFPT) 1A is in service
- 1-LI-3-208D, RX WATER LEVEL NORMAL RANGE, failed **DOWNSCALE**

Subsequently, the Unit Operator observes 1-LI-3-208A, RX WATER LEVEL NORMAL RANGE drifting **DOWNSCALE**.

Given the conditions above, which **ONE** of the following completes the statements below?

If actual Reactor Water Level **RISES** to (+) 55 inches, the Main Turbine **(1)** trip.

In accordance with OPDP-1, Conduct of Operations, a manual Reactor SCRAM **(2)** required.

- A. **(1)** will
(2) is
- B. **(1)** will
(2) is NOT
- C. **(1)** will NOT
(2) is
- D. **(1)** will NOT
(2) is NOT

ILT 1909 Written Exam

66. Which **ONE** of the following completes the statements below?

In accordance with OI-66, Off-Gas System, above **(1)** power operation, the discharge of the Steam Jet Air Ejectors (SJAEs) is required to be routed through the charcoal adsorber.

Excess moisture **(2)** affect the charcoal bed adsorber efficiency for the removal of iodine.

- A. **(1)** 15%
(2) will
- B. **(1)** 15%
(2) will NOT
- C. **(1)** 25%
(2) will
- D. **(1)** 25%
(2) will NOT

ILT 1909 Written Exam

67. Which **ONE** of the following completes the statements below?

Unit 2 Technical Specification 3.4.9, RCS Pressure and Temperature (P/T) Limits,
 (1) applicable **AT ALL TIMES**.

When starting a Reactor Recirculation Pump, the difference between Bottom Head
Temperature and RPV Coolant Temperature must be verified **NO MORE THAN**
 (2) minutes prior to starting each Recirculation Pump.

- A. **(1)** is
 (2) 15
- B. **(1)** is
 (2) 30
- C. **(1)** is NOT
 (2) 15
- D. **(1)** is NOT
 (2) 30

ILT 1909 Written Exam

68. Given the following drawing excerpt of Unit 2 RCIC Initiation Logic, which **ONE** of the following completes the statements below in accordance with 2-45E626-1, Wiring Diagram, RCIC System Schematic Diagram?

The four primary contacts in the Reactor Vessel Low Water Level portion of the circuit are actuated directly by **(1)** System Relays.

The **LAST** RCIC Relay that energizes to cause the RCIC AUTO-INITIATE light, shown here, to illuminate on an initiation signal **(2)** a seal-in relay.



[SEE THE ATTACHED RCIC DRAWING, 2-45E626-1]

- A. **(1)** RHR
(2) is
- B. **(1)** RHR
(2) is NOT
- C. **(1)** RCIC
(2) is
- D. **(1)** RCIC
(2) is NOT

ILT 1909 Written Exam

69. Which **ONE** of the following meets the requirements to be considered an "Infrequently Performed Test or Evolution" (IPTE) per NPG-SPP-10.6, Infrequently Performed Test or Evolution?
- A. 1-SR-3.5.1.7(COMP), HPCI Comprehensive Pump Test
 - B. 2-SR-3.5.1.6(RHR I), Quarterly RHR System Rated Flow Test Loop I
 - C. 0-SR-3.8.1.9(A), Diesel Generator 'A' Emergency Unit 1 Load Acceptance Test
 - D. 0-GOI-300-4, Switchyard Manual, Switching Order to remove the West Point 500KV line

ILT 1909 Written Exam

70. Which **ONE** of the following completes the statement below in accordance with Unit 3 Tech Spec LCO 3.9.6 **RPV WATER LEVEL** for Refueling Operations?

RPV WATER LEVEL shall be _____ above the top of the **RPV FLANGE** during movement of irradiated fuel assemblies in the RPV.

- A. ≥ 21.5 feet
- B. ≥ 22.0 feet
- C. ≥ 23.5 feet
- D. ≥ 25.0 feet

ILT 1909 Written Exam

71. Which **ONE** of the following completes the statement below?

The Area Radiation Monitors (ARMs) are individual detectors that provide indications and alarms in the Main Control Room of **(1)** radiation levels from selected plant locations and the amber 'HIGH' light will **FIRST** illuminate when the MAX **(2)** radiation value has been reached.

- A. **(1)** neutron
(2) SAFE
- B. **(1)** neutron
(2) NORMAL
- C. **(1)** gamma
(2) SAFE
- D. **(1)** gamma
(2) NORMAL

ILT 1909 Written Exam

72. Unit 1 is in a Refueling Outage with the following conditions:

- 1-HS-99-5A-S1, REACTOR MODE SWITCH is in REFUEL
- Fuel movements are in progress

Which **ONE** of the following completes the statements below?

Three direction movements are allowed **ONLY** in the **(1)** .

In the event gas bubbles are visible in the Spent Fuel Pool, the **IMMEDIATE ACTION** in accordance with 1-AOI-79-1, Fuel Damage During Refueling is to **(2)** .

- A. **(1)** Reactor Vessel area
(2) evacuate the Refueling Floor
- B. **(1)** Reactor Vessel area
(2) evaluate Radiation Levels
- C. **(1)** Spent Fuel Pool
(2) evacuate the Refueling Floor
- D. **(1)** Spent Fuel Pool
(2) evaluate Radiation Levels

ILT 1909 Written Exam

73. Unit 2 is operating at 100% RTP with a steam leak in the 2A SJAE room. An Operator has been assigned to investigate. Radiation Protection reports that general area radiation levels are 120 mR/hr.

Given the above, which **ONE** of the following completes the statement below in accordance with NPG-SPP-5.18, Radiation Work Permit (RWP) requirements?

A **(1)** RWP will be used to enter the SJAE room and a documented RWP briefing will be conducted by **(2)** .

- A. **(1)** General
 (2) the Shift Manager
- B. **(1)** General
 (2) Radiation Protection
- C. **(1)** Specific
 (2) the Shift Manager
- D. **(1)** Specific
 (2) Radiation Protection

ILT 1909 Written Exam

74. Unit 1 is operating at 100% RTP.

Which **ONE** of the following completes the statement below?

When assessing the EOI Exclusion Plot Status Boxes on the Safety Parameter Display System (SPDS) while using Integrated Computer System (ICS), **(1)** is expected to be colored RED.

In accordance with 0-OI-48, Integrated Computer System, the SPDS component of ICS **(2)** qualified as independent decision making instrumentation for operating the plant.

Note: Curve 5 – Drywell Spray Initiation Limit

Curve 6 – Pressure Suppression Pressure

- A. **(1)** Curve 5
(2) is
- B. **(1)** Curve 5
(2) is NOT
- C. **(1)** Curve 6
(2) is
- D. **(1)** Curve 6
(2) is NOT

ILT 1909 Written Exam

75. Unit 1 is operating at 100% RTP when an event with the following plant conditions occurs:
- HPCI and RCIC automatically initiate
 - HPCI automatically isolates due to a steam supply line break

Which **ONE** of the following completes the statement below?

To respond to this event, the Unit Supervisor will enter _____.

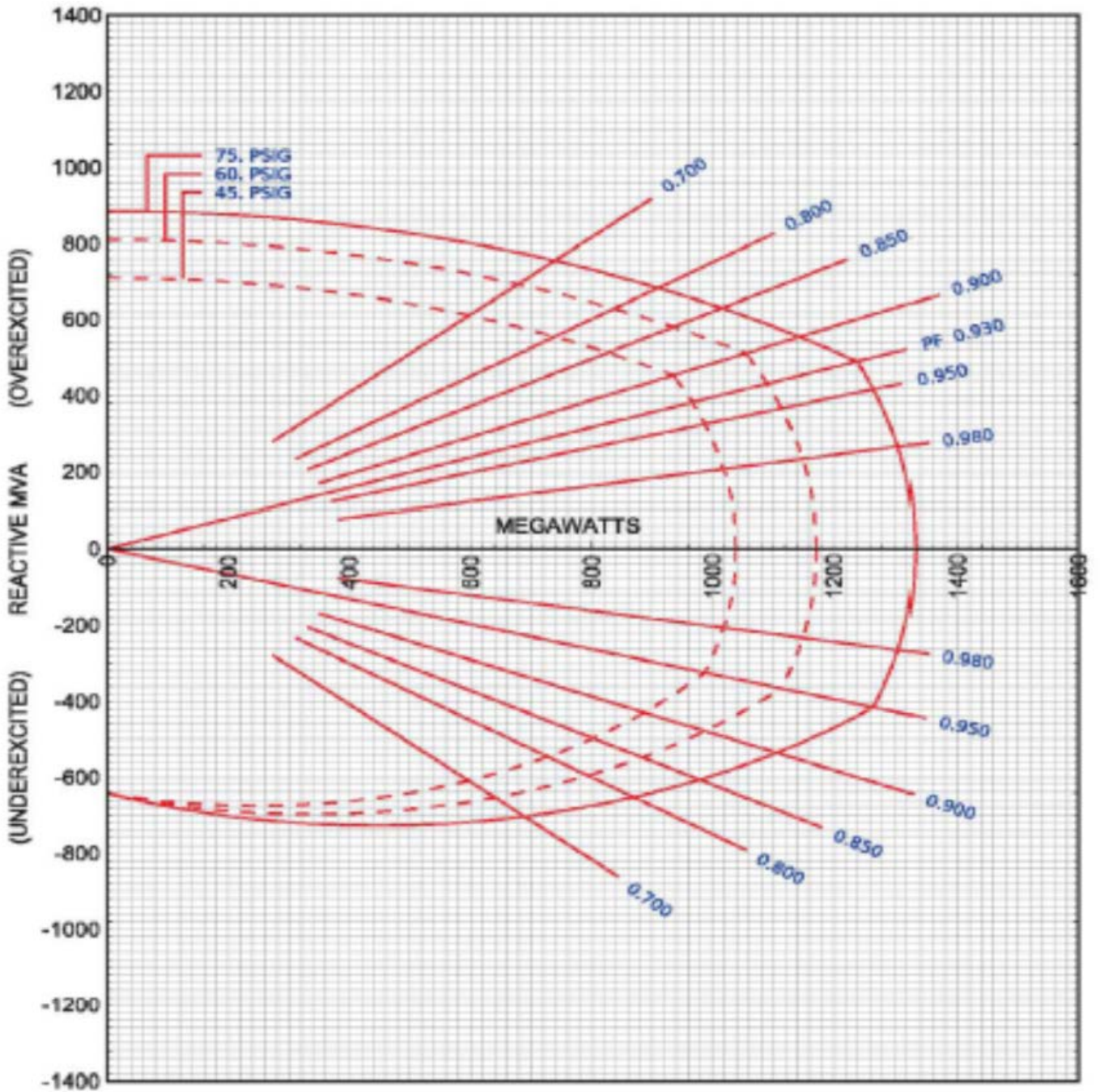
Note: 1-EOI-1, RPV Control

1-EOI-2, Primary Containment Control

1-EOI-3, Secondary Containment Control

- A. 1-EOI-1 **ONLY**
- B. 1-EOI-2 **ONLY**
- C. 1-EOI-2 **AND** 1-EOI-3
- D. 1-EOI-1 **AND** 1-EOI-3

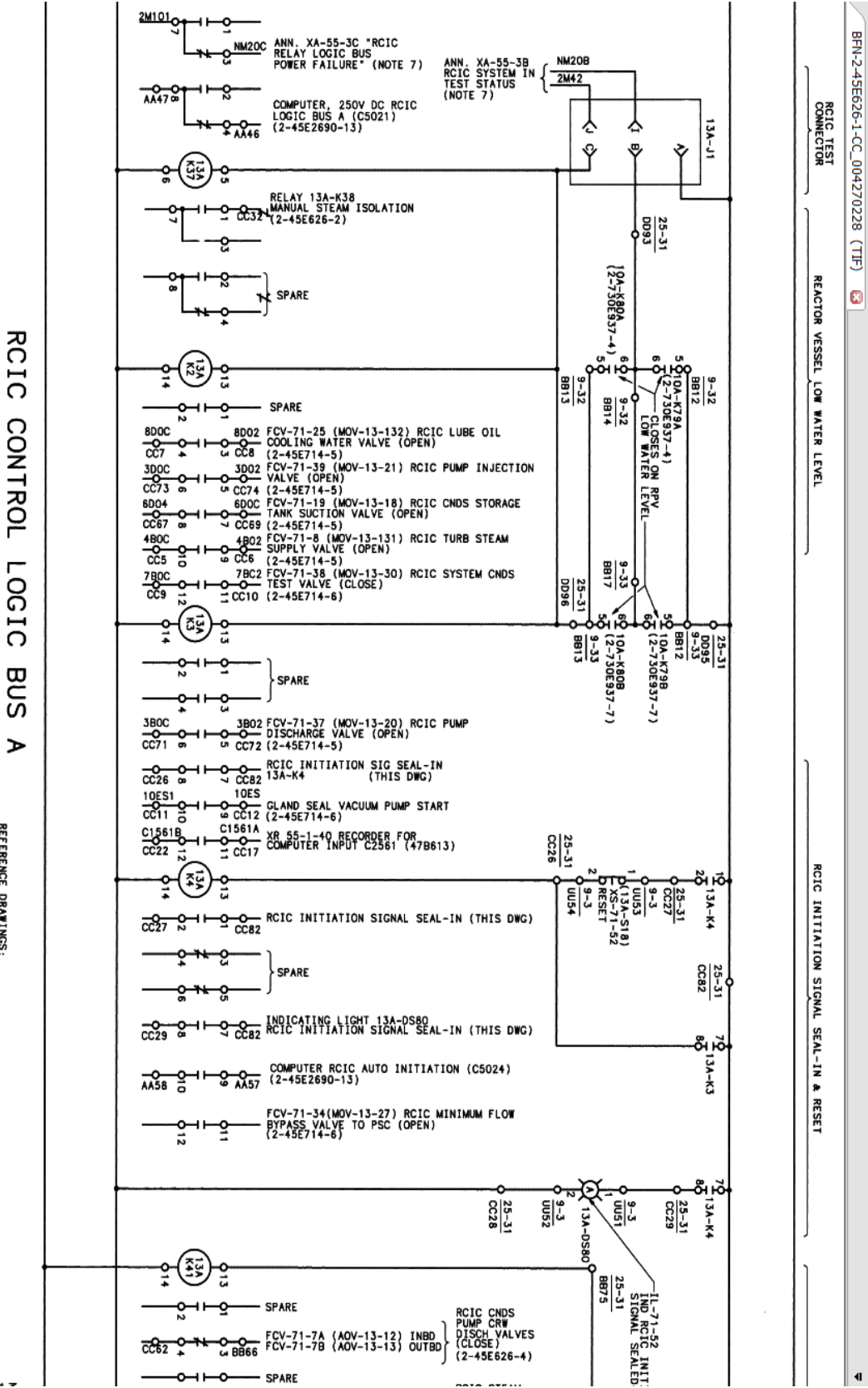
#27 REFERENCE PROVIDED



#32 - REFERENCE PROVIDED

Table 6 Secondary Cntmt Instrument Runs				
INSTRUMENT	SC TEMP ELEMENTS AND LOCATIONS			
	EI 621 (74-95F)	EI 593 (74-95C and D)	EI 565 (69-835A thru D)	RWCU HXRM (69-29F, G, H)
LI-3-58A	°F	°F	N/A	°F
LI-3-58B	°F	°F	N/A	N/A
LI-3-53	°F	°F	N/A	°F
LI-3-60	°F	°F	N/A	N/A
LI-3-206	°F	°F	N/A	°F
LI-3-253	°F	°F	N/A	N/A
LI-3-52	°F	°F	°F	N/A
LI-3-62A	°F	°F	°F	N/A
LI-3-55	°F	°F	N/A	N/A
LI-3-208A, B	°F	°F	N/A	°F
LI-3-208C, D	°F	°F	N/A	N/A

#68 PROVIDED ATTACHED RCIC DRAWING, 2-45E626-1



BRN-2-45E626-1-CC_004270228 (TIF)

RCIC TEST CONNECTION

REACTOR VESSEL LOW WATER LEVEL

RCIC INITIATION SIGNAL SEAL-IN & RESET

KEY

Side 1

READ CAREFULLY!
 NOT OK

- Use black ink only.
- Mark responses darkly and fill completely.
- Erase unwanted marks clearly.

- Do NOT make any stray marks on the page
- No credit will be given for improper marks
- If Side 2 is used, fill in ID on both sides.

DOCKET NUMBER

0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

version: _____

C 1 C 2 C 3 C 4 V

A	A	A	A	A
B	B	B	B	B
C	C	C	C	C
D	D	D	D	D
E	E	E	E	E
F	F	F	F	F
G	G	G	G	G
H	H	H	H	H
I	I	I	I	I
J	J	J	J	J
K	K	K	K	K
L	L	L	L	L
M	M	M	M	M
N	N	N	N	N
O	O	O	O	O
P	P	P	P	P
Q	Q	Q	Q	Q
R	R	R	R	R
S	S	S	S	S
T	T	T	T	T
U	U	U	U	U
V	V	V	V	V
W	W	W	W	W
X	X	X	X	X
Y	Y	Y	Y	Y
Z	Z	Z	Z	Z
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

SECTION 1

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

SECTION 2

1	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
0	0	0	0	0

2	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
0	0	0	0	0

3	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
0	0	0	0	0

4	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
0	0	0	0	0

5	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
0	0	0	0	0

6	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
0	0	0	0	0

7	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
0	0	0	0	0

8	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
0	0	0	0	0

9	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
0	0	0	0	0

10	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
0	0	0	0	0

11	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
0	0	0	0	0

12	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
0	0	0	0	0