ILT-17 NRC Written Exam CNS SRO NRC Examination

Question:

(1 point)

Given the following Unit 1 conditions:

- The Unit entered EP/1/A/5000/ECA-1.1, (Loss of Emergency Coolant Recirculation) following a LOCA outside containment
- Safety Injection Termination criteria is NOT met
 - The crew has been directed to determine minimum SI flow per Enclosure 4 (Minimum S/I Flowrate Versus Time After Trip)

Current conditions:

1

- Unit 1 Reactor was tripped 60 minutes ago
- NCS pressure is 1000 psig.
- 1B NI pump is running with flow indicated at 380 gpm
- 1A NV pump is running with flow indicated at 400 gpm

The MINIMUM S/I Flowrate required to remove current reactor decay heat is _____(1)____.

The _____(2)_____ pump is required to be secured.

Which ONE of the following completes the statements above?

REFERENCE PROVIDED

- A. 1. 340 gpm
 - 2. 1A NV
- B. 1. 360 gpm 2. 1A NV
- C. 1. 340 gpm 2. 1B NI
- D. 1. 360 gpm
 - 2. 1B NI

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question:

(1 point)

Given the following Unit 1 initial conditions:

• The Unit is at 100% RTP

2

- A Pressurizer Safety Valve begins leaking by its seat
- AP/1/A/5500/010 (Reactor Coolant Leak) Case II (NC System Leak) is entered
- 1NV-294 (NV Pmps A&B Disch Flow Ctrl) is throttled to the full open position, to establish 150 gpm charging line flow

Subsequently:

- Pressurizer Level is at 53% and decreasing at a rate of 0.3%/minute
- Letdown flow is 75 gpm and stable
- Pressurizer Pressure is 2215 psig and decreasing slowly

Per AP/10, the crew will NEXT adjust 1NV-849 (Letdn Flow Var Orif Ctrl) to establish a MAXIMUM of ______ Letdown Flow.

(2) will be energized due to the current Pressurizer Pressure.

Which ONE of the following completes the statements above?

- A. 1. 0 gpm
 - 2. "C" Pressurizer heaters ONLY
- B. 1. 45 gpm
 - 2. "C" Pressurizer heaters ONLY
- C. 1. 0 gpm
 - 2. ALL Pressurizer heaters

D. 1. 45 gpm

2. ALL Pressurizer heaters

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question:

(1 point)

Given the following Unit 1 timeline:

1015

• Unit at 100% RTP

3

• A Small Break LOCA occurs

1045

- The crew is in EP/1/A/5000/ES-1.2 (Post LOCA Cooldown and Depressurization)
- The CRS is reading the step to initiate NC System cooldown to Cold Shutdown
- Current NC System T-Colds are at 480 °F and decreasing slowly

Per ES-1.2, if the OATC maintains the MAXIMUM required cooldown rate, at 1145 S/G Pressures will be ______.

- A. 710 psig
- B. 434 psig
- C. 330 psig
- D. 181 psig

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question:

(1 point)

Given the following Unit 1 conditions:

- A Large Break LOCA occurred 30 minutes ago from 100% RTP
- NC System Tcolds are 249°F and decreasing slowly

Based on these conditions:

4

EP/1/A/5000/FR-P.1 (Response to Imminent Pressurized Thermal Shock) entry conditions _____(1)____ met.

OMP 1-7 (Emergency/Abnormal Procedure Implementation Guidelines) MINIMUM monitoring requirements states that CSF Status Trees shall be monitored _____(2)_____.

Which ONE of the following completes the statements above?

REFERENCE PROVIDED

- A. 1. are
 - 2. continuously
- B. 1. are2. every 10 to 15 minutes
- C. 1. are NOT
 - 2. continuously
- D. 1. are NOT
 - 2. every 10 to 15 minutes

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question:

5

(1 point)

Given the following Unit 2 conditions:

- The Unit is at 100% RTP
- The BOP observes that vibration readings on the 2C NCP are increasing as follows:

Time	<u>2100</u>	<u>2105</u>	<u>2110</u>	<u>2115</u>	
Shaft Vibration (mils)	5	15	19	22	
Frame Vibration (mils)	2	4	6	8	

Per 2AD-6 B/5 (NCP HI-HI VIBRATION), which ONE of the following indicates the EARLIEST time that the 2C NCP must be secured?

- A. 2100
- B. 2105
- C. 2110
- D. 2115

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question:

(1 point)

Given the following Unit 1 initial conditions:

• The Unit is at 100% RTP

6

 The crew has entered AP/1/A/5500/012 (Loss of Charging or Letdown), Case I (Loss of Charging) following a trip of 1A NV Pump

Subsequently:

- The crew is in the process of re-establishing charging
 - o 1B NV Pump has been started
 - 1NV-294 (NV Pmps A&B Disch Flow Ctrl) has been throttled to proper flow

In accordance with AP/12, the BOP will next throttle 1NV-309 (Seal Water Injection Flow) in the _____(1)____ direction to establish a MINIMUM of _____(2)____ "Total Seal Water Flow".

- A. 1. OPEN
 - 2. 32 gpm
- B. 1. CLOSED2. 32 gpm
- C. 1. OPEN
 - 2. 40 gpm
- D. 1. CLOSED
 - 2. 40 gpm

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question:

7

(1 point)

Given the following Unit 2 initial conditions:

- The Unit is in MODE 5 and drained to Mid Loop
- ND Train 2A is in service
- ND system flow rate is 3200 gpm
- NC system level is 6.5% and stable

Subsequently:

- 2A ND pump amps and discharge pressure begin to oscillate
- The crew has entered AP/2/A/5500/019 (Loss of Residual Heat Removal System), Case IV (Loss of ND in Mid Loop or S/G Manway Removed)

Per AP/19 Case IV, the BOP will FIRST ______ to mitigate this issue.

- A. secure 2A ND pump
- B. reduce ND flow to less than a MAXIMUM of 2000 gpm
- C. reduce ND flow to less than a MAXIMUM of 1500 gpm
- D. reduce ND flow to less than a MAXIMUM of 1000 gpm

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question:

(1 point)

Given the following Unit 1 timeline:

8

1000

- The Unit is at 100% RTP
- 1A2 KC Pump is in service
- 1A KC flow is 5000 gpm and stable

1005

• 1KC-9 (1A2 KC Pump Disch) is inadvertently closed

1007

- 1KC-9 is reopened
- No additional KC pumps have been started

Following closure of 1KC-9, 1KC-C37A (Train A Miniflow Isol) opened as flow decreased to a MINIMUM value of _____(1)_____.

Assuming no operator action, once 1KC-9 is reopened 1AD-9 F/5 "KC Train A Single Pump Runout" _____(2)_____ alarm.

- A. 1. 1100 gpm
 - 2. will
- B. 1. 3150 gpm
 - 2. will
- C. 1. 1100 gpm 2. will NOT
- D. 1. 3150 gpm
 - 2. will NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question:

(1 point)

Given the following Unit 1 initial conditions:

• The Unit was at **72% RTP** and increasing following a refueling outage

Subsequently:

9

- The main turbine has tripped due to a low condenser vacuum
- DRPI indicates Control Bank "D" at 178 steps and inserting

One of the required Immediate Action Steps is to _____(1)____.

Following completion of this step, control rod speed will indicate _____(2)____.

- A. 1. Insert Control Rods in MANUAL
 - 2. 48 steps per minute
- B. 1. Insert Control Rods in MANUAL2. 72 steps per minute
- C. 1. Verify Control Rods IN "AUTO" AND STEPPING2. IN 48 steps per minute
- D. 1. Verify Control Rods IN "AUTO" AND STEPPING2. IN 72 steps per minute

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 10

(1 point)

Given the following Unit 2 conditions:

- The Unit is at 45% RTP
- The crew has entered AP/2/A/5500/028 (Secondary Steam Leak)



A steam leak at location A, will cause Main Turbine Megawatts to _____(1)_____.

In order to isolate the leak, AP/28 will direct the crew to _____(2)____.

- A. 1. increase
 - 2. trip the Main Turbine
- B. 1. increase
 - 2. trip the Reactor and close MSIVs
- C. 1. decrease 2. trip the Main Turbine
- D. 1. decrease2. trip the Reactor and close MSIVs

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 11

(1 point)

Given the following Unit 1 initial conditions:

- A feedwater line break on the 1A S/G inside containment and a total loss of feedwater occurred
- EP/1/A/5000/FR-H.1 (Response to Loss of Secondary Heat Sink) was entered and bleed and feed of the NC system was initiated
- All CA Flow Control Valves have been closed

Subsequently:

- The Turbine Driven CA pump is returned to service and a source of feedwater is available
- CETs are stable
- All S/G WR levels are indicating 8%

In accordance with FR-H.1, Enclosure 6 (S/G CA Flow Restoration), CA flow is required to be restored to (1).

This limit _____(2)____ based on minimizing thermal stress to S/G components.

- A. 1. ALL intact S/Gs at a rate not to exceed 100 gpm per S/G2. is
- B. 1. only ONE intact S/G at a rate not to exceed 100 gpm2. is
- C. 1. ALL intact S/Gs at a rate not to exceed 100 gpm per S/G2. is NOT
- D. 1. only ONE intact S/G at a rate not to exceed 100 gpm2. is NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 12

(1 point)

Given the following Unit 2 timeline:

1000

- A Loss of All Offsite Power has occurred
- Both Unit 2 D/Gs started and loaded their associated bus

1005

- While monitoring D/G operating parameters, the Unit 2 BOP notes that D/G 2B "VOLTS" indicates 3925 V

1007

• Voltage is adjusted to within the normal operating range by operation of the "D/G 2B Volt Adjust" controls on 2MC-11

As a result of the 2B D/G voltage adjustment at 1007:

2B D/G "AMPS" _____(1)_____.

2B D/G "P/F" ____(2)____.

Which ONE of the following completes the statements above?

- A. 1. decreased
 - 2. remained the same
- B. 1. decreased
 - 2. became more lagging
- C. 1. increased
 - 2. remained the same

D. 1. increased

2. became more lagging

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 13

(1 point)

Given the following initial conditions:

- 1B RN Pump in service
- 1B1 KC Pump in service
- 2A1 KC Pump in service

Subsequently:

- Both units enter AP/0/A/5500/030 (Plant Flooding), Enclosure 8 (Flooding From RN) following discovery of a large RN leak on the 1A Essential Header
- Per AP/30 guidance, the crew has isolated the 1A RN Essential Header (ONLY)

Based on current conditions:

Cooling water supply _____(1) ____ available to the 1A KD Heat Exchanger.

Mini-Flow protection _____(2)____ available for the 1B RN Pump.

- 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-17 NRC Written Exam CNS SRO NRC Examination

Question: 14

(1 point)

Given the following Unit 1 initial conditions:

• A Loss of Instrument Air occurred while at 100% RTP

Subsequently:

- The reactor has been manually tripped due to low VI pressure
- The crew has transitioned to EP/1/A/5000/ES-0.1 (Reactor Trip Response)
- The OATC has been given S/G level guidance

In accordance with the design of the CA system, the OATC will maintain control of CA flow for a MINIMUM of ______ from the Control Room.

The purpose for this design feature is to protect from ____(2)____ with a Loss of VI.

- A. 1. 30 minutes
 - 2. S/G overfill during a S/G Tube Rupture
- B. 1. 30 minutes2. runout of the CA pumps during a Main Feedwater Line Rupture
- C. 1. 60 minutes
 - 2. S/G overfill during a S/G Tube Rupture
- D. 1. 60 minutes
 - 2. runout of the CA pumps during a Main Feedwater Line Rupture

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 15

(1 point)

Given the following conditions:

- AP/1/A/5500/037 (Generator Voltage and Electric Grid Disturbances), Case I (Abnormal Generator or Grid Voltage) has been entered following a Grid Disturbance
- The TCC has reported that "Real Time Contingency Analysis" (RTCA) indicates CNS switchyard voltage would NOT be adequate if the unit should trip
- SPOC is making preparation for installation of Jumpers per AM/1/A/5100/008 (4KV Essential Power System Degraded Voltage Logic)

Unit 1 ECCS is currently _____(1)____.

Once jumpers are installed, LOCA sequencer actuation will cause a Blackout _____(2)_____.

Which ONE of the following completes the statements above?

- A. 1. operable
 - 2. immediately
- B. 1. operable
 - 2. after 5 seconds

C. 1. inoperable

- 2. immediately
- D. 1. inoperable
 - 2 after 5 seconds

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 16

(1 point)

In accordance with EP/1/A/5000/ECA-1.2 (LOCA Outside Containment):

The crew will <u>FIRST</u> attempt to isolate the leak by isolating the ______ system from the NC system.

The parameter used to verify the leak is isolated is (2).

- A. 1. ND
 - 2. PZR level
- B. 1. NI
 - 2. PZR Level
- C. 1. ND
 - 2. NC pressure
- D. 1. NI
 - 2 NC pressure

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 17 (1 point)

EP/1/A/5000/FR-H.1 (Loss of Secondary Heat Sink) step 9 states "Stop all NC pumps".

Prior to stopping the NC pumps in this step, Steam Dumps are ensured to be in ____(1)____ mode.

The primary reason for stopping the NC pumps in this step is to _____(2)____.

- A. 1. T-AVG
 - 2. extend the time to align a feed source prior to meeting Bleed and Feed criteria
- B. 1. T-AVG2. preserve the NC pumps for long term core cooling once a heat sink is restored
- C. 1. PRESS
 - 2. extend the time to align a feed source prior to meeting Bleed and Feed criteria
- D. 1. PRESS
 - 2. preserve the NC pumps for long term core cooling once a heat sink is restored

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 18

(1 point)

From the given "List of Reasons", which ONE of the following includes ALL correct reasons for performing a cooldown/depressurization in accordance with EP/1/A/5000/ECA-1.1, (Loss of Emergency Coolant Recirculation)?

List of Reasons

- 1. To inject Cold Leg Accumulators
- 2. Minimize reactor coolant break flow
- 3. To establish conditions for ND system operation
- 4. Minimize NC dilution potential in case of a subsequent tube rupture
- A. 1, 2, and 3
- B. 2, 3, and 4
- C. 1, 3, and 4
- D. 1, 2, and 4

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 19

(1 point)

Given the following Unit 1 conditions:

- The refueling crew is lowering an irradiated fuel assembly next to a new fuel assembly in the core
- The assembly inadvertently drops completely into the core
- 1RAD-3 D/2 (1EMF-17 REACTOR BLDG REFUEL BRIDGE) alarms
- No other annunciators have been received
- The crew has entered AP/1/A/5500/025 (Damaged Spent Fuel)

As a result of this event:

The Containment Evacuation Alarm _____(1)____ automatically initiate.

AP/25 _____(2) _____ direct VP to be manually secured.

- A. 1. will
 - 2. does
- B. 1. will
 - 2. does NOT
- C. 1. will NOT 2. does
- D. 1. will NOT
 - 2. does NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 20

(1 point)

Given the following Unit 2 conditions:

- AP/2/A/5500/010 (Reactor Coolant Leak), Case I (S/G Tube Leak) has been entered due to indications of a 2B S/G tube leak.
- Current conditions are as follows:
 - o Pressurizer level has been stabilized
 - Letdown flow is 75 GPM
 - Charging flow is 150 GPM

Based on the above conditions, the estimated leak rate is _____(1)____ GPM.

If leak rate increases, a S/G Tube Rupture will be indicated by the inability to maintain Pressurizer level above a MINIMUM of (2).

A.	1. 2.	63 2%
B.	1. 2.	63 4%
C.	1. 2.	75 2%
D.	1. 2.	75 4%

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 21

(1 point)

Given the following Unit 2 conditions:

- A leak has developed in the Spent Fuel Pool area
- Water leaking from an overhead pipe is collecting on the floor
- RP reports that the water is a Beta dose concern

The primary biological concern for this spill is dose to _____(1)____.

The normal occupational dose limit for this body location is _____(2)____ per year.

- A. 1. skin
 - 2. 15 rem
- B. 1. skin
 - 2. 50 rem
- C. 1. internal organs
 - 2. 15 rem
- D. 1. internal organs 2. 50 rem

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 22

(1 point)

Which ONE of the following statements represents a loss of Containment Integrity?

- A. Both lower personnel airlock doors closed with all seals deflated
- B. Annulus doors blocked open for maintenance work
- C. Submarine hatch is found open
- D. Engineering discovery of major divider barrier seal degradation

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 23

(1 point)

In accordance with the following step of EP/1/A/5000/ES-0.0 (Rediagnosis):

2. Verify entry conditions:

A previous Safety Injection signal actuation _____(1)____ required to proceed in ES-0.0.

Completion of EP/1/A/5000/E-0 (Reactor Trip or Safety Injection) _____(2)____ required to proceed in ES-0.0.

- 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-17 NRC Written Exam CNS SRO NRC Examination

Question: 24

(1 point)

Given the following Unit 1 conditions:

- A Small-Break LOCA has occurred
- EP/1/A/5000/ES-1.2 (Post LOCA Cooldown and Depressurization) has been implemented
- Containment pressure is 2.8 PSIG and STABLE
- 1AD-9, C/8 "FWST Pre-Lo Level" is illuminated
- 1AD-20, B2 "Cont Sump Level >2.5 ft" is DARK
- 1AD-21, B2 "Cont Sump Level >2.5 ft" is DARK

In accordance with the requirements of ES-1.2, Enclosure 1 (Foldout Page), the BOP _____(1)____ secure Unit 1 ND Pumps because _____(2)____.

- A. 1. will
 - 2. ND Heat Exchanger cooling is NOT aligned
- B. 1. will
 - 2. 1AD-20, B/2 and 1AD-21, B/2 are NOT LIT
- C. 1. will NOT
 - 2. 1AD-9, D/8 "FWST 2/4 Lo Level" is NOT LIT
- D. 1. will NOT
 - 2. EP/1/A/5000/ES-1.3 (Transfer to Cold Leg Recirculation) entry requirements are met

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 25

(1 point)

Given the following Unit 2 conditions:

• The crew has reached the following step in EP/2/A/5000/FR-C.2 (Response to Degraded Core Cooling):

18. Isolate CLAs as follows

In accordance with FR-C.2, closing Cold Leg Accumulator Discharge valves will require a MINIMUM of _____(1)____ NC $T_{hot(s)} < 370$ degrees F and _____(2)____ require AO support for local power alignment.

- A. 1. one
 - 2. will
- B. 1. one 2. will NOT
- C. 1. two
 - 2. will
- D. 1. two
 - 2. will NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 26

(1 point)

Given the following Unit 1 conditions:

- The Reactor tripped following an inadvertent Main Steam Isolation
- The crew has entered EP/1/A/5000/FR-H.2 (Response to Steam Generator Overpressure) immediately following the transition from EP/1/A/5000/E-0 (Reactor Trip or Safety Injection)
- The OATC has been directed to <u>manually</u> operate 1SV-19 (S/G 1A PORV) in order to decrease 1A S/G pressure

In order to operate 1SV-19, in MANUAL, the Main Steam Isolation signal _____(1)____ required to be RESET.

Once 1SV-19 is opened, 1A S/G NR Level indication will initially change due to _____(2)_____.

- A. 1. is
 - 2. SHRINK
- B. 1. is
 - 2. SWELL
- C. 1. is NOT
 - 2. SHRINK
- D. 1. is NOT
 - 2. SWELL

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 27

(1 point)

Given the following Unit 1 conditions:

- The CRS has elected to enter EP/1/A/5000/FR-Z.3 (Response to High Containment Radiation) following an event causing a Containment Radiation level of 37 R/hr
- Containment Sump level instruments indicate bottom of scale

In accordance with FR-Z.3, the BOP ____(1) ____ start the Containment Auxiliary Charcoal Filters (CACFU).

If required for inventory control, _____(2)____ letdown must be placed in service.

- A. 1. will
 - 2. excess
- B. 1. will
 - 2. normal
- C. 1. will NOT 2. excess
- D. 1. will NOT
 - 2. normal

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 28

(1 point)

Given the following Unit 1 conditions:

- The Unit is at 100% RTP
- Total charging flow is currently 90 gpm
- 1NV-294 (NV Pmps A&B Disch Flow Ctrl) is in MANUAL
- 1NV-309 (Seal Water Injection Flow) is in AUTO

Assuming stable plant conditions, as 1NV-294 is throttled OPEN, 1NV-309 will throttle in the _____(1)____ direction.

In order to restore automatic control of the Pressurizer Level Control system _____(2)_____ must be placed in AUTO.

- A. 1. OPEN
 - 2. 1NV-294 ONLY
- B. 1. CLOSED
 - 2. 1NV-294 ONLY
- C. 1. OPEN
 - 2. 1NV-294 AND PZR Level Master
- D. 1. CLOSED
 - 2. 1NV-294 AND PZR Level Master

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 29

(1 point)

The 1A Boric Acid Transfer Pump receives power from ______.

- A. 1MXW
- B. SMXG
- C. 1EMXA
- D. 1EMXG

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 30

(1 point)

Given the following Unit 1 initial conditions:

- The Unit is in MODE 5
- NC temperature is 112°F
- LTOP is in service
- 1B NV pump is running
- 1A NV pump is tagged out for maintenance
- Both NI pumps are tagged out

Subsequently:

• 1A NV pump breaker is racked in following maintenance

Entry into the Action statement of Technical Specification 3.4.12 (LTOP SYSTEM) ____(1)____ required at this time.

ND Suction Relief Valves will open if NC Pressure exceeds the MINIMUM listed value of _____(2)_____.

- A. 1. is
 - 2. 400 psig
- B. 1. is 2. 450 psig
- C. 1. is NOT
 - 2. 400 psig
- D. 1. is NOT 2. 450 psig

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 31

(1 point)

Given the following Unit 1 initial conditions:

- The Unit is at 100% RTP
- 1B NV Pump is running
- 1A NV Pump is OFF

Subsequently:

- KC cooling flow to the Unit 1 NV pumps is lost
- The crew enters AP/1/A/5500/021 (Loss of Component Cooling), and has dispatched an operator to align backup cooling to an NV Pump
- The crew is performing Enclosure 5 (Maximize NV Pump Run Time)

NV Pump alternate cooling water will be supplied by the _____(1)_____ system.

While	the alternate	cooling	alignment is	being performed	, the	operating	pump	will
be	(2)							

- A. 1. YD
 - 2. secured immediately
- B. 1. YD
 - 2. operated for a maximum of 10 minutes
- C. 1. YM
 - 2. secured immediately
- D. 1. YM
 - 2. operated for a maximum of 10 minutes

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 32

(1 point)

Given the following Unit 1 conditions:

• ND is aligned in RHR mode

A failure of ______ will cause a PRT pressure increase.

If the input continues, PRT pressure will increase until rupture disc actuation at a MINIMUM value of ______(2)_____.

- A. 1. 1ND-31 (1A ND Train Cold Leg Inj Return Safety Relief)2. 50 psig
- B. 1. 1ND-31 (1A ND Train Cold Leg Inj Return Safety Relief)2. 100 psig
- C. 1. 1ND-3 (1A ND Pump Suction From NC Loop B Header Relief)2. 50 psig
- D. 1. 1ND-3 (1A ND Pump Suction From NC Loop B Header Relief)2. 100 psig

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 33

(1 point)

Given the following Unit 1 conditions:

- The Unit is cooling down in Mode 4
- 1A1 and 1A2 KC Pumps are in service
- 1A ND is being aligned for RHR
- 1AD-9 F/7 "KC Train A Two Pump Runout" has alarmed

Aligning cooling water flow to 1A ND Heat Exchanger increased KC system flow by a MINIMUM of (1).

The setpoint for 1AD-9 F/7 is _____(2)____.

- A. 1. 5,000 gpm
 - 2. 10,800 gpm
- B. 1. 5,000 gpm
 - 2. 11,400 gpm
- C. 1. 5,600 gpm
 - 2. 10,800 gpm
- D. 1. 5,600 gpm
 - 2. 11,400 gpm

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 34

(1 point)

Given the following Unit 1 conditions:

- The Unit is at 100% RTP
- 1NC-36B (PZR PORV) failed to the intermediate position
- Attempts to manually close 1NC-36B (PZR PORV) were unsuccessful
- The BOP closed 1NC-35B (PZR PORV Isol)
- NC Pressure is currently 2150 psig and increasing slowly

Current PZR Pressure Error (psi) indicates a _____(1)____ value.

In accordance with TS 3.4.11 (Pressurizer Power Operated Relief Valves), 1NC-35B _____(2) _____ required to be de-energized.

- A. 1. positive
 - 2. is
- B. 1. negative 2. is
- C. 1. positive
 - 2. is NOT
- D. 1. negative
 - 2. is NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 35

(1 point)

Given the following Unit 1 initial conditions:

- The Unit was at 100% power
- 1NC-35B (PZR PORV Isol) is in the "CLOSE" position due to a leak from 1NC-36B (PZR PORV)

Subsequently:

- A pressure transient resulted in an NC system pressure increase
- 1NC-34A (PZR PORV) opened but did not re-close
- NC pressure is 2200 psig and decreasing
- The BOP places the 1NC-33A (PZR PORV Isol) control switch to "CLOSE"

1NC-33A is currently _____(1)____.

(2) provides a BLOCK signal to 1NC-34A on decreasing pressure.

Which ONE of the following completes the statements above?

A. 1. OPEN

- 2. Selected Pressurizer Pressure 1 (SPP-1)
- B. 1. OPEN2. Selected Pressurizer Pressure 2 (SPP-2)
- C. 1. CLOSED2. Selected Pressurizer Pressure 1 (SPP-1)
- D. 1. CLOSED
 - 2. Selected Pressurizer Pressure 2 (SPP-2)

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 36

(1 point)

Given the following Unit 2 initial conditions:

- The Unit is at 45% RTP for 2A CFPT repairs
- Control Rod select switch is in "AUTO"

Subsequently:

• Power Range Channel N-41 Control Power fuse has blown

Following this failure:

control rods _____(1) ____ be inserting in automatic.

manual control rod withdrawal _____(2)____ blocked.

- 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-17 NRC Written Exam CNS SRO NRC Examination

Question: 37

(1 point)

Given the following Unit 2 conditions:

• The Unit is at 3% RTP following a refueling outage

Per Technical Specifications, which ONE of the following reactor trips is required to be operable to provide protection against DNB from the current power level to 100% RTP?

- A. OTDT
- B. OPDT
- C. Low NC loop flow
- D. Pressurizer low pressure

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 38

(1 point)

Given the following Unit 1 initial conditions:

- A Reactor Coolant System leak has developed inside Containment
- The CRS has provided direction to the OATC for manually tripping the Reactor and the BOP for initiating Safety Injection

Subsequently:

- Attempts to trip the Reactor have failed
- Containment pressure is 0.55 psig and increasing slowly
- PZR Pressure is 1950 psig and decreasing slowly

Given the above conditions, EP/1/A/5000/F-0 (Critical Safety Function Status Trees) _____(1)____ required to be implemented.

The BOP _____(2) _____ initiate Safety Injection at this time.

- 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-17 NRC Written Exam CNS SRO NRC Examination

Question: 39

(1 point)

Given the following Unit 2 conditions:

• Containment Pressure Channel III has failed high

Following this malfunction, a High Containment Pressure Safety Injection signal will be generated if a MINIMUM of _____(1)____ of the remaining channels exceed the setpoint of _____(2)____.

- A. 1. one
 - 2. 1.2 psig
- B. 1. one
 - 2. 3.0 psig
- C. 1. two
 - 2. 1.2 psig
- D. 1. two
 - 2. 3.0 psig

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 40

(1 point)

Concerning the Containment Chilled Water System (YV):

Chilled water cooling _____(1)____ supplied to the Containment Pipe Tunnel Booster Fans.

YV cooling water supply to NC Pump Motor Air Cooler will isolate upon a _____(2)_____ signal.

- A. 1. is
 - 2. Phase A
- B. 1. is
 - 2. Phase B
- C. 1. is NOT
 - 2. Phase A
- D. 1. is NOT
 - 2. Phase B

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 41

(1 point)

Given the following Unit 1 conditions:

• 1AD-13, D/8 "GLYCOL EXPANSION TNK LO-LO LVL" has alarmed

1NF-228A (Glycol Sup Cont Isol Otsd) ____(1) ____ closed.

The Glycol Expansion Tank Lo-Lo Level Interlock bypass switch is located on the ____(2)_____.

- A. 1. is
 - 2. main control board
- B. 1. is2. local NF control panel
- C. 1. is NOT 2. main control board
- D. 1. is NOT
 - 2. local NF control panel

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 42

(1 point)

Given the following Unit 1 conditions:

- The Unit is at 10% RTP
- 1AD-13 A/7 "ICE COND LOWER INLET DOORS OPEN" alarm is lit
- The lower inlet door position display panel indicates that a door is open
- The door is confirmed to be cracked opened. The door will not move further open and cannot be closed
- No other alarms related to the ice condenser, NF system or AHUs are lit

The Action Statement of Tech Spec 3.6.12 (Ice Bed) _____(1) ____ required to be entered.

The Action Statement of Tech Spec 3.6.13 (Ice Condenser Doors) _____(2)_____ required to be entered.

- 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-17 NRC Written Exam CNS SRO NRC Examination

Question: 43

(1 point)

Concerning operation of the Containment Spray System (NS):

Aligning suction from the _____(1)____ with a specific _____(2)____ limits postaccident lodine concentration and minimizes stress corrosion.

- A. 1. FWST
 - 2. pH
- B. 1. FWST
 - 2. boron concentration
- C. 1. containment sump
 - 2. pH
- D. 1. containment sump
 - 2. boron concentration

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 44

(1 point)

Given the following Unit 1 conditions:

- The Unit is at 35% RTP
- The crew has entered AP/1/A/5500/010 (Reactor Coolant Leak) due to a 1C S/G Tube leak

1EMF-73 (S/G C Leakage) _____(1)____ provide accurate indication of S/G tube leakage at the current power level.

If the leak size increases, EP/1/A/5000/E-3 (Steam Generator Tube Rupture) will FIRST direct closure of _____(2)____.

- A. 1. will
 - 2. 1C MSIV
- B. 1. will
 - 2. All MSIVs
- C. 1. will NOT 2. 1C MSIV
- D. 1. will NOT
 - 2. All MSIVs

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 45

(1 point)

Given the following Unit 1 initial conditions:

- The Unit is at 25% RTP following a refueling outage.
- AP/1/A/5500/028 (Secondary Steam Leak) has been entered following a discovery of a leak on the Unit 1 Main Turbine Crossover line

Subsequently:

- The Unit 1 Main Turbine is tripped to isolate the leak
- Reactor power is currently 11%

modulating

At this time, _____(1)_____steam dumps are operating to control NC temperature at _____(2)_____degrees F.

- A. 1. ONLY condenser 2. 557
- B. 1. ONLY condenser
 - 2. 560
- C. 1. condenser AND atmospheric 2. 557
- D. 1. condenser AND atmospheric
 - 2. 560

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 46

(1 point)

Given the following Unit 1 initial conditions:

- EP/1/A/5000/E-0 (Reactor Trip or Safety Injection) was entered following a Small Break LOCA
- Both trains of Safety Injection automatically actuated
- 1B Reactor Trip Breaker (RTB) failed to open from the Control Room
- All CA pumps failed to start

Subsequently:

• The crew has entered EP/1/A/5000/FR-H.1 (Response to Loss of Secondary Heat Sink) and is attempting to align feed flow from 1A CFPT

In order to reset 1B ECCS, 1B RTB _____(1) ____ required to be locally opened.

1A CFPT will be reset _____(2)_____.

- A. 1. is
 - 2. locally
- B. 1. is NOT
 - 2. locally
- C. 1. is 2. at 1MC-10
- D. 1. is NOT
 - 2. at 1MC-10

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 47

(1 point)

Given the following Unit 1 conditions:

- EP/1/A/5000/FR-H.1 (Response to Loss of Secondary Heat Sink) has been implemented
- Following Bleed and Feed initiation, CA flow has been restored from CAPT #1
- Containment pressure peaked at 3.2 psig and is now 2.1 psig

In accordance with FR-H.1, which ONE of the following indicates the <u>MINIMUM</u> heat sink requirements that must be met to allow termination of NC system bleed and feed?

- A. NR level in at least <u>ONE</u> S/G > 11%
- B. NR level in at least <u>ONE</u> S/G > 29%
- C. WR level in at least <u>ONE S/G > 24%</u>
- D. WR level in at least <u>ONE</u>S/G > 36%

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 48

(1 point)

Given the following conditions:

Unit 1 and Unit 2 are at 100% RTP when the following switchyard PCBs open:

- PCB 17
- PCB 18

(1) will experience a Turbine Runback due to loss of the associated offsite power.

- A. 1. Unit 1
 - 2. "A" train
- B. 1. Unit 1
 - 2. "B" train
- C. 1. Unit 2 2. "A" train
- D. 1. Unit 2 2. "B" train

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 49

(1 point)



Which ONE of the following describes which of the DC breakers (labeled 1, 2, 3, 4 in the drawing above) that will cause an alarm to be received in the Control Room when the breakers <u>OPEN</u>?

- A. Any one of the four breakers
- B. Breakers 1 and 3 ONLY
- C. Breakers 2 and 3 ONLY
- D. Breakers 2 and 4 ONLY

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 50

(1 point)

Given the following Unit 2 conditions:

- 2ETB has experienced a Blackout while at 100% RTP
- No operator action has been taken

Which ONE of the following lists parameters which will cause a trip of the 2B D/G if a setpoint is exceeded?

- A. Engine Speed Jacket Water Temperature
- B. Engine Speed Lube Oil Pressure
- C. Lube Oil Temperature Jacket Water Temperature
- D. Lube Oil Temperature Lube Oil Pressure

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 51

(1 point)

Given the following Unit 2 conditions:

- The Unit is in Mode 5 with Reactor Coolant System vented
- 2EMF-39 has been declared Non-Functional
- 2EMF-36 is in service

In accordance with SLC 16.11-7 (Radioactive Gaseous Effluent Monitoring Instrumentation):

An in-progress Containment Purge (VP) release _____(1)____ continue.

A new Containment Purge (VP) release _____(2) ____ be initiated.

- A. 1. may
 - 2. may
- B. 1. may NOT 2. may
- C. 1. may
 - 2. may NOT
- D. 1. may NOT
 - 2. may NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 52

(1 point)

Given the following conditions:

- Unit 1 and 2 are at 100% RTP
- "A" and "B" RL pumps are in service
- "C" RL pump is tagged out while the pump is being rebuilt
- RL Pressure Controller malfunctions and causes all turnaround valves to fail full open

As a result of this failure, RL flow to the _____(1)____ will _____(2)____.

- A. 1. KR heat exchangers
 - 2. increase
- B. 1. KR heat exchangers
 - 2. decrease
- C. 1. IPB air coolers
 - 2. increase
- D. 1. IPB air coolers
 - 2. decrease

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 53

(1 point)

The power supply for Instrument Air (VI) Compressor E is _____.

- A. 1SLXC
- B. 2SLXC
- C. 1LXI
- D. 2LXH

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 54

(1 point)

Given the following Unit 2 initial conditions:

• The Unit is in Mode 4

In accordance with Tech Spec 3.6.4 (Containment Pressure), the MINIMUM Containment air pressure is _____(1)____.

In accordance with Tech Spec 3.6.5 (Containment Air Temperature), the MINIMUM Lower Containment air temperature is _____(2)____.

- A. 1. 0.1 psig 2. 60° F
- B. 1. 0.1 psig 2. 100°F
- C. 1. 0.3 psig 2. 60° F
- D. 1. 0.3 psig 2. 100° F

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 55

(1 point)

Given the following Unit 1 conditions:

- A rapid downpower is in progress due to a secondary steam leak inside Containment
- 1A, 1B, and 1D Lower Containment Vent Units (LCVU) are in operation
- Current Unit 1 Containment pressure is 0.58 psig and increasing slowly

Assuming no operator action,

1RN-473 (LCVU A Full Flow Valve) _____(1) ____ currently open.

1A LCVU _____(2) _____ operating in "Hi Speed".

- 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-17 NRC Written Exam CNS SRO NRC Examination

Question: 56

(1 point)

Given the following Unit 1 initial conditions:

- A unit shutdown to Mode 5 is in progress for a refueling outage
- Containment Purge (VP) system startup is in progress

Subsequently:

- The crew enters AP/1/A/5500/019 (Loss of Residual Heat Removal System) following indications of a NC system leak inside Containment
- 1EMF-39 (Containment Gas Hi Rad) has exceeded Trip 2 actuation
- Containment pressure is 0.28 psig and increasing slowly

Based on current conditions:

The VP system _____(1)____ isolated.

Phase "A" containment isolation _____(2) ____ occurred.

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

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 57

(1 point)

Given the following Unit 1 conditions:

- The Unit is at 100% RTP
- Control Banks A, B, & C are 228 steps withdrawn
- Control Bank D is 215 steps withdrawn
- 1AD-2 E/10 "RPI Non-Urgent Failure" is illuminated
- DRPI displays "Data A Failure"

Subsequently:

- The OATC performs the following evolution in accordance with PT/1/A/4600/001 (RCCA Movement Test)
 - Withdraws Control Bank "B" to 238 steps as indicated by the applicable step demand counter
 - $\circ~$ Inserts Control Bank "B" to 228 steps as indicated by the applicable step demand counter

Following completion of this step (and plant stabilization):

DRPI will indicate within _____(1)____ of actual control rod position. DRPI accuracy is ______(1)_____.

NC system temperature will be _____(2)____ (as compared to temperature prior to testing).

- A. 1. -10/+4 steps 2. lower
- B. 1. -10/+4 steps
 - 2. the same
- C. 1. +10/-4 steps
 - 2. lower
- D. 1. +10/-4 steps
 - 2. the same

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 58

(1 point)

Given the following Unit 1 initial conditions:

- PZR Pressure Channel 1 has failed HIGH
- A Unit plant transient results in a cooldown of the NC system causing the PZR Backup Heaters to energize and "C" Heaters to be full ON

Subsequently:

- No Tech Spec actions have been taken related to PZR Pressure Channel 1
- Unit 1 PZR Pressure Channel 3 fails LOW
- Annunciator 1AD-2, F/9 "DCS ALTERNATE ACTION" alarms

Following this event:

The "C" Heaters _____(1)____ remain full ON.

The PZR Backup Heaters _____(2)____ remain energized.

- 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-17 NRC Written Exam CNS SRO NRC Examination

Question: 59

(1 point)

Which ONE of the following is the power supply for the 1A VE Fan?

Α.	1MXK
B.	1MXJ
C.	1EMXB
D.	1EMXI

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 60

(1 point)

Given the following Unit 1 initial conditions:

- 1A1 KC Pump is in service
- 1A KF Pump is in service

Subsequently:

• 1KC-50A (Aux Bldg Non-Ess Hdr Isol) has spuriously closed

1KC-149 (KF Hx 1A Cool Wtr Otlt) _____(1)____ AUTOMATICALLY reposition in order to maintain Spent Fuel Pool temperature.

If 1AD-13, E/1 "SPENT FUEL POOL TEMP HI" alarms, entry into the actions of SLC 16.7-9 (Standby Shutdown System) _____(2)____ be required.

- 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-17 NRC Written Exam CNS SRO NRC Examination

Question: 61

(1 point)

Which ONE of the following describes the effect of 1EMF-15, Spent Fuel Building Refueling Bridge Monitor losing power?

- A. The Auxiliary Hoist cannot be raised
- B. New fuel elevator cannot be operated in the UP direction
- C. SFP Ventilation System automatically swaps to filter mode
- D. Fuel movement in the Spent Fuel Pool must be stopped immediately

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 62

(1 point)

Given the following Unit 1 conditions:

- The Unit is at 100% RTP
- A DCS failure has caused the 1A S/G CF Main Feed Reg Valve to transfer to MANUAL and begin opening
- The crew enters AP/1/A/5500/006 (Loss of S/G Feedwater), Case III (CF Control Not in Auto) to address the failure

If 1A S/G level control is not established, AP/06 will direct the crew to trip the reactor prior to reaching the S/G Hi-Hi Level setpoint of (1).

AP/06 ____(2) ____ direct the crew to place 1A S/G CF Feed Reg Bypass Valve in Manual.

- A. 1. 77%
 - 2. will
- B. 1. 77% 2. will NOT
- C. 1. 83% 2. will
- D. 1. 83%
 - 2. will NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 63

(1 point)

Given the following conditions:

- A release has been initiated from "C" Waste Gas Decay Tank
- A calculation error resulted in improper determination of EMF setpoints for the release
 - The release has been secured following EMF Trip 2 actuation of the Unit Vent Gas Monitor

Following this event (assuming no operation action):

ABUXF-1A (1A Auxiliary Building Ventilation Unfiltered Exhaust Fan) _____(1)_____ be in operation.

ABUXF-2A (2A Auxiliary Building Ventilation Unfiltered Exhaust Fan) (2) be in operation.

- A. 1. will
 - 2. will
- B. 1. will NOT
 - 2. will
- C. 1. will
 - 2. will NOT
- D. 1. will NOT
 - 2. will NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 64

(1 point)

Given the following conditions:

- 1AD-8 A/7 (VI Lo Press) is received
- 0VIP5260 (VI Pressure) indicates 74 psig and slowly decreasing

Which ONE of the following describes the position of VI system valves (and correct setpoint) in response to the lowering VI header pressure?

- A. VS-78 (VS Supply to VI) opens at 80 psig
- B. VI-500 (VI Supply to VS) closes at 76 psig
- C. VS-78 (VS Supply to VI) opens at 76 psig
- D. VI-500 (VI Supply to VS) closes at 78 psig

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 65

(1 point)

Given the following Unit 2 conditions:

• 2ETA has experienced a blackout

Following sequencer loading, the _____(1)____ Main Fire Pump will be operating.

The "Main Fire Pumps Running" annunciator will alarm on annunciator panel _____(2)____.

- A. 1. "A"
 - 2. 1AD-13
- B. 1. "A" 2. 2AD-13
- C. 1. "C" 2. 1AD-13
- D. 1. "C" 2. 2AD-13

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 66

(1 point)

Which ONE of the following describes an appropriate example of information to be communicated to the shifts by use of an <u>OPS Guide</u>, in accordance with the requirements of SOMP 01-13 (Operations Work List, Routine Task List, and OPS Guides)?

- A. Notification that engineering has determined a Tech Spec inoperability may exist under certain conditions due to new analyzed failure scenarios
- B. SM direction to verify 1A D/G Lube Oil Temp two times per shift due to an annunciator failure
- C. Temporary procedure instructions for a system which is currently being modified, while a procedure change is being completed
- D. Direction, from the unit lead, concerning work (or evolutions) that need(s) to be completed on a particular shift

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 67

(1 point)

Given the following Unit 1 initial conditions:

- IAE is scheduled to perform a calibration of 1A S/G NR Level Channel I
- A Pre-Job Brief has been completed with all affected Control Room personnel and IAE technicians
- The OATC has received a "Tear Sheet" and reviewed Annunciator Response Procedures for expected alarms

Subsequently:

- IAE has begun the calibration procedure
- An annunciator listed on the provided Tear Sheet alarms for the FIRST time

In accordance with AD-OP-ALL-1000 (Conduct of Operations):

The OATC _____(1)____ required to communicate receipt of this alarm to the CRS.

Receipt of this alarm _____(2)____ required to be documented in the Narrative Log.

Which ONE of the following completes the statements above?

- 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-17 NRC Written Exam CNS SRO NRC Examination

Question: 68

(1 point)

Upon a Loss of All AC Power, a subgroup of bank _____(1)____ Pressurizer Heaters can be powered from the SSF D/G.

When controlled from the SSF, this subgroup of heaters _____(2)____ automatically de-energize if Pressurizer level decreases below the low level setpoint.

- A. 1. D 2. will
- B. 1. B
 - 2. will
- C. 1. D
 - 2. will NOT
- D. 1. B
 - 2. will NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 69

(1 point)

Given the following Unit 1 conditions:

• The unit is at 100% RTP

In accordance with Tech Spec 2.1.1 (Reactor Core SLs), Departure from Nucleate Boiling Ratio (DNBR) shall be maintained greater than or equal to _____(1)____. If this Safety Limit is exceeded, DNBR must be restored within limits in a MAXIMUM of _____(2)____.

- A. 1. 1.14
 - 2. 1 hour
- B. 1. 1.14 2. 5 minutes
- C. 1. 1.3
 - 2. 1 hour
- D. 1. 1.3
 - 2. 5 minutes

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 70

(1 point)

Given the following Unit 1 timeline:

1000

 The Unit has experienced a runback, from 100% power, following a trip of 1A CFPT

1003

- Main Turbine target load has been reached
- 1AD-2 A/9 (Control Rod Bank Lo Limit) illuminates

1005

- 1AD-2 B/9 (Control Rod Bank Lo-Lo Limit) illuminates
- Steam Dumps have closed
- Temperature Error meter indicates (+) 1.8° F

Entry into the Action Statement of Tech Spec 3.1.6 (Control Bank Insertion Limits) is FIRST required at _____(1)_____.

Per the conditions provided at **1005**, OMP 1-7 ____(2) ____ state that control rods should be placed in MANUAL.

- A. 1. 1003
 - 2. does
- B. 1. 1003 2 does NOT
 - 2. does NO
- C. 1. 1005 2. does
- D. 1. 1005
 - 2. does NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 71

(1 point)

Consider the following Unit 1 conditions:

- EMF-50 (WG Disch Monitor Waste Gas) Trip 2 actuated
- EMF-31 (Turbine Building Sump) Trip 2 actuated

Consider Each Statement Separately

Re-initiation of the Waste Gas release at least once WITHOUT resampling _____(1)_____ allowed.

Re-initiation of the Turbine Building Sump release at least once WITHOUT sampling _____(2)_____ allowed.

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

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 72 (1 point)

An Operator needs to access an area with a general area radiation dose rate of 1100 mREM/hr to hang a clearance tag

In accordance with PD-RP-ALL-0001 (Radiation Worker Responsibilities):

the correct radiation posting for this area is a _____(1)____.

continuous RP coverage _____(2) ____ be required.

- A. 1. High Radiation Area
 - 2. will
- B. 1. High Radiation Area2. will NOT
- C. 1. Locked High Radiation Area 2. will
- D. 1. Locked High Radiation Area 2. will NOT
ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 73

(1 point)

Given the following Unit 1 initial conditions:

- Unit is at 100% RTP
- A Steam Line Rupture occurs inside containment
- The CRS direct a Unit 1 reactor trip and S/I based on increasing containment pressure

Subsequently:

- A Main Steam Isolation occurs
- All MSIVs are closed
- 1A S/G is depressurized
- 1A S/G N/R level is off-scale low
- All other S/G N/R levels are 30% and increasing
- EP/1/A/5000/E-0 (Reactor Trip or Safety Injection) is entered

Which ONE of the following describes the FIRST time that the OATC is authorized to throttle CA flow to the 1A S/G to minimize NC system cooldown?

- A. When any S/G reaches the normal level setpoint
- B. When E-0 Enclosure 1 (Foldout Page) is given to the OATC
- C. When direction is provided by E-0 Enclosure 4 (NC Temperature Control)
- D. When direction is provided by EP/1/A/5000/E-2 (Faulted Steam Generator Isolation)

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 74

(1 point)

Given the following Unit 2 conditions:

- An automatic Safety Injection has occurred following a LOCA
- The crew has entered EP/2/A/5000/E-0 (Reactor Trip or Safety Injection)
- While performing a board walkdown, the BOP notes the following equipment did not position/actuate as required
 - 2NV-252A (NV Pumps Suct from FWST) failed to OPEN
 - o 2B NI Pump failed to start

Approval and guidance from the CRS _____(1) ____ required to open 2NV-252A.

Approval and guidance from the CRS _____(2)____ required to reset the 2B D/G sequencer and start 2B NI Pump.

- 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-17 NRC Written Exam CNS SRO NRC Examination

Question: 75

(1 point)

Given the following Unit 1 conditions:

- The Unit is in Mode 6. The following indications are noted:
 - 1AD-10 C/1 "ND & NS Rooms Sump Level Emerg Hi" LIT
 - 1AD-10 C/2 "ND & NS Rooms Sump Level Hi-Hi" LIT
 - NC System WR level indication decreasing
 - \circ EMF-41 (Aux Bldg Ventilation) reading 5 x 10⁵ cpm

Based on listed symptoms, _____(1)____ contains the proper guidance for mitigation of this event.

Based on current EMF-41 indication (ONLY), Site Assembly initiation _____(2)_____ required.

- A. 1. AP/1/A/5500/027 (Shutdown LOCA) 2. is
- B. 1. AP/1/A/5500/027 (Shutdown LOCA)2. is NOT
- C. 1. AP/1/A/5500/019 (Loss of Residual Heat Removal System)2. is
- D. 1. AP/1/A/5500/019 (Loss of Residual Heat Removal System)2. is NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 76

(1 point)

Given the following initial conditions on Unit 1:

• A Reactor Trip and Safety Injection has occurred due to a Small Break LOCA

Subsequently:

- The crew has transitioned to EP/1/A/5000/ES-1.1 (Safety Injection Termination)
- The CRS has reached step 10 of ES-1.1 "Determine if NI pumps should be stopped"
- NC pressure and PZR level begin to decrease

Per ES-1.1:

To stabilize Pressurizer level, the crew will increase charging line flow to less than a MAXIMUM of $_____(1)____$.

The CRS will direct transition to _____(2)____.

Which ONE of the following completes the statements above?

- A. 1. 120 gpm
 - 2. EP/1/A/5000/E-1 (Loss of Reactor or Secondary Coolant)
- B. 1. 180 gpm
 - 2. EP/1/A/5000/E-1 (Loss of Reactor or Secondary Coolant)
- C. 1. 120 gpm
 - 2. EP/1/A/5000/ES-1.2 (Post LOCA Cooldown and Depressurization)

D. 1. 180 gpm

2. EP/1/A/5000/ES-1.2 (Post LOCA Cooldown and Depressurization)

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 77

(1 point)

Given the following Unit 1 initial conditions:

- The Unit is at 100% RTP
- The crew entered AP/1/A/5500/010 (Reactor Coolant Leak), Case II (NC System Leak) due to an NC leak inside containment

15 minutes later:

- Letdown has been isolated
- Charging flow is stable at 110 gpm
- PZR level is 55% and stable
- 1AD-7 I/1 "VCT Lo Lvl" annunciator is lit
- An Automatic VCT makeup is in progress
- Containment pressure is 0.4 psig and slowly increasing

In accordance with AP/10 guidance, the CRS _____(1) ____ direct a reactor trip.

In accordance with EAL Wall Chart specific criteria (i.e. not EC Judgment), the SM will determine that an EAL threshold _____(2)____ been exceeded.

Which ONE of the following completes the statements above? (Assume the leak size has remained constant since the initial conditions)

REFERENCE PROVIDED

- A. 1. will 2. has
 - 2. 1143
- B. 1. will2. has NOT
- C. 1. will NOT 2. has
- D. 1. will NOT
 - 2. has NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 78

(1 point)

Given the following Unit 1 conditions:

- The Unit is at 100% RTP
- Annunciator 1AD-2 F/9 (DCS Alternate Action) is received
- The OATC determines Selected PZR Pressure-2 (SPP-2) is in Alternate Action

In accordance with Tech Spec 3.4.11 (Pressurizer PORVs) and the associated Basis,

1NC-32B (PZR PORV) _____(1) ____ operable.

PZR PORV operability is required to mitigate the effects of a _____(2) _____.

- A. 1. is
 - 2. Locked NCP Rotor
- B. 1. is
 - 2. Steam Generator Tube Rupture
- C. 1. is NOT 2. Locked NCP Rotor
- D. 1. is NOT
 - 2. Steam Generator Tube Rupture

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 79

(1 point)

Given the following Unit 1 initial conditions:

- The Unit is at 100% RTP
- Containment Pressure Channel 1 failed High
- Pressurizer Pressure Channel 1 failed High
- All required Tech Spec actions have been completed

Subsequently:

• A loss of 1ERPB occurs

1FO-1, D/5 "Hi Cont Press S/I Rx Trip" ____(1) be lit.

If the Unit 1 Reactor does NOT trip, an ATWS _____(2) ____ in progress.

- 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-17 NRC Written Exam CNS SRO NRC Examination

Question: 80

(1 point)

Given the following conditions:

• AP/0/A/5500/020 (Loss of Nuclear Service Water), Case I (Loss of RN Train) has been entered due to a leak in the 2B RN Essential Header

AP/20 will direct closure of RN Supply crossover isolation valves if operating RN pump discharge flow exceeds a MINIMUM value of _____(1)____.

Once the 2B RN Essential Header is isolated, the **<u>RN system</u>** (2) have sufficient flow to support post LOCA loads on one unit and shutdown and cooldown on the other unit.

- A. 1. 19,000 gpm
 - 2. does
- B. 1. 19,000 gpm 2. does NOT
 - 21 00001101
- C. 1. 23,000 gpm 2. does
- D. 1. 23,000 gpm
 - 2. does NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 81

(1 point)

Given the following Unit 2 conditions:

- Safety Injection termination is in progress per EP/2/A/5000/ECA-2.1 (Uncontrolled Depressurization Of All Steam Generators)
- OATC reports that 2B S/G MSIV has closed and that 2B S/G pressure is increasing

Based on the conditions above, which ONE of the following indicates the response directed by the CRS?

Procedure Legend:

EP/2/A/5000/E-2 (Faulted S/G Isolation) EP/2/A/5000/ES-1.1 (SI Termination)

- A. Immediately transition to E-2 to verify that 2B S/G is intact
- B. Immediately transition to step 10 of ES-1.1 to complete Safety Injection termination
- C. Complete Safety Injection termination per ECA-2.1 and then transition to E-2
- D. Complete Safety Injection termination and initiate a cooldown to cold shutdown per ECA-2.1

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 82

(1 point)

Given the following Unit 1 conditions:

- A Unit startup in progress
- All Power Range Instruments indicate 6%
- Intermediate Range Detector N35 fails low
- The CRS enters AP/1/A/5500/016 (Malfunction of Nuclear Instrumentation System)

In accordance with <u>Tech Spec 3.3.1</u> (Reactor Trip System (RTS) Instrumentation), the power increase _____(1)____ continue.

Loss of N35 Control Power _____(2) result in a Reactor trip.

- A. 1. may
 - 2. will
- B. 1. may 2. will NOT
- C. 1. may NOT
 - 2. will
- D. 1. may NOT
 - 2. will NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 83

(1 point)

Given the following Unit 2 conditions:

• A spurious Safety Injection has occurred due to an instrument malfunction

The CRS will direct SI termination sequence per _____(1)____.

SI Termination must be completed within a MAXIMUM of _____(2)_____.

- A. 1. EP/2/A/5000/E-0 (Reactor Trip or Safety Injection)
 - 2. 15 minutes
- B. 1. EP/2/A/5000/E-0 (Reactor Trip or Safety Injection)2. 50 minutes
- C. 1. EP/2/A/5000/ES-1.1 (Safety Injection Termination)2. 15 minutes
- D. 1. EP/2/A/5000/ES-1.1 (Safety Injection Termination)2. 50 minutes

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 84

(1 point)

Given the following Unit 2 conditions:

- The crew has entered EP/2/A/5000/ECA-3.2 (SGTR With Loss of Reactor Coolant Saturated Recovery Desired)
- All NCPs are secured
- Subcooling indicates (-) 8 °F
- Core Exit Thermocouples indicate 670 °F
- RVLIS lower range level is 48%

Based on listed conditions,

EP/2/A/5000/FR-C.3 (Response to Saturated Core Cooling) entry conditions _____(1)_____ met.

Increasing Safety Injection flow _____(2)____ desired.

- A. 1. are 2. is
- B. 1. are 2. is NOT
- C. 1. are NOT 2. is
- D. 1. are NOT 2. is NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 85

(1 point)

Given the following Unit 1 initial conditions:

• A LOCA occurred

Current conditions:

- Containment pressure is 2.5 PSIG
- ECCS suctions have been swapped to the Cold Leg Recirculation alignment
- FWST level is 4% and slowly decreasing
- NC pressure is 2 PSIG and stable
- CETs are 600 °F and slowly increasing
- Reactor Vessel Lower Range level is 49% and slowly decreasing
- Containment Sump level is 16.1 feet and increasing

Based on the current conditions, which ONE of the following states the required procedure transition <u>AND</u> the reason for implementation of this procedure?

- A. Implement FR-C.2 (Response to Degraded Core Cooling). The level of water in the core region has been reduced such that a challenge exists to core cooling.
- B. Implement FR-C.2 (Response to Degraded Core Cooling). Core exit temperatures and NC pump status indicate that a challenge exists to core cooling.
- C. Implement FR-Z.2 (Response to Containment Flooding). Containment sump levels are higher than expected, indicating a potential for a ruptured RN or KC pipe inside containment.
- D. Implement FR-Z.2 (Response to Containment Flooding). Containment sump levels are higher than expected, indicating a potential secondary line (feedwater or main steam) break inside containment along with the input from the NC system and the FWST.

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 86

(1 point)

Given the following conditions on Unit 1:

- The Unit is stable at 100% RTP
- Operators are performing PT/1/A/4150/001 A (NC Pump Seal Injection Flow Verification)
- 1NV-294 is fully open
- Seal Injection flow is 42 gpm and stable

Based on the conditions above, the Action Statement of Tech Spec 3.5.5 (Seal Injection Flow) _____(1)____ required to be entered.

In accordance with the Bases of Tech Spec 3.5.5, the Seal Injection Flow Limit _____(2)____ based on the safety analysis assumptions for minimum ECCS Injection flow.

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

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 87

(1 point)

Given the following Unit 2 conditions:

- The Unit is at 100% RTP
- A loss of 2ERPD has occurred
- The crew has entered AP/2/A/5500/029 (Loss of Vital or Aux Control Power)
- NO Tech Spec actions have been addressed

The current Containment Pressure channel logic for the remaining Containment Pressure channels which will cause a **Phase B** actuation is _____(1)____.

In accordance with Tech Spec 3.3.2 (ESFAS Instrumentation) LCO Actions, when the failed channel is removed from service, I&E will place the Containment Pressure **Hi-Hi** Bistable in _____(2)____.

- A. 1. 2/3
 - 2. Trip
- B. 1. 2/3
 - 2. Bypass
- C. 1. 1/3 2. Trip
- D. 1. 1/3
 - 2. Bypass

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 88

(1 point)

Given the following Unit 1 conditions:

- The Unit was manually tripped from 100% RTP following a loss of both Main Feedwater Pumps
- An Auxiliary Operator has reported a rupture of the <u>Main Feed Common</u> <u>Discharge Header</u>
- All CA Pumps failed to automatically start and cannot be manually started
- The crew has implemented EP/1/A/5000/FR-H.1 (Response to Loss of Secondary Heat Sink)
- S/G WR level is 40% in all S/Gs and decreasing

Consider Each Statement Separately

In accordance with FR-H.1:

The CRS _____(1) ____ perform the steps to initiate Bleed and Feed at this time.

If required, Bleed and Feed must be initiated within a MAXIMUM of _____(2)_____ after reaching initiation criteria.

- A. 1. will
 - 2. 4 minutes
- B. 1. will
 - 2. 8 minutes
- C. 1. will NOT 2. 4 minutes
- D. 1. will NOT
 - 2. 8 minutes

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 89

(1 point)

Given the following Unit 1 conditions:

- The Unit is at 12% power and preparing to roll the main turbine
- An OAC alarm associated with 1CA-37 (CA Pmp #1 Disch to S/G 1D Check) has been received
- The CRS has directed completion of OP/1/A/6250/002 (Auxiliary Feedwater System), Enclosure 4.11 (Cool Down of Turbine Driven CA Pump Piping)
- As required by this enclosure, the BOP must position the following controller to 0%:
 - 1CA-36 (CA Pump #1 Flow to S/G 1D)

In accordance with OP/1/A/6250/002, Enclosure 4.11:

the purpose of this enclosure is to prevent void formation _____(1)____ of the CA Pump discharge check valve.

prior to repositioning 1CA-36 controller, the CRS _____(2)____ required to declare CAPT #1 inoperable.

- A. 1. upstream
 - 2. is
- B. 1. upstream
 - 2. is NOT
- C. 1. downstream 2. is
- D. 1. downstream
 - 2. is NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 90

(1 point)

Following an earthquake impacting Catawba Nuclear Station, plant conditions are as follows:

- Unit 1 Conditions:
 - Safety Injection has been initiated following a NC System leak
 - The crew is performing EP/1/A/5000/E-0 (Reactor Trip or Safety Injection)
- Unit 2 Conditions:
 - Unit 2 remains at power
 - 2ETB has experienced a blackout with failure of 2B D/G to start
 - o 2A1 and 2A2 KC Pumps have been secured due to piping rupture
 - The crew is performing AP/2/A/5500/021 (Loss of Component Cooling)
 - o 2A NV Pump remains in service
 - VCT level is 20% and decreasing slowly

In accordance with AP/21:

The Unit 2 CRS _____(1)____ direct performance of AP/21, Enclosure 2 (Alternate Cooling to NV Pump 2A).

The Unit 2 CRS _____(2)____ direct performance of AP/21, Enclosure 6 (Rx Trip Sequence).

- 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-17 NRC Written Exam CNS SRO NRC Examination

Question: 91

(1 point)

Given the following Unit 1 conditions:

- The crew is performing steps in EP/1/A/5000/E-1 (Loss of Reactor or Secondary Coolant) following LOCA
- Containment Pressure is 2.2 psig
- Containment Sump Level is 10.6 ft
- Containment Radiation is 28 R/Hr
- Containment Hydrogen Concentration is 6.8%

Per the Containment CSF status tree, MINIMUM requirements for entry into EP/1/A/5000/FR-Z.4 (Response to High Containment Hydrogen Concentration) _____(1)_____ met.

Based on above listed conditions, the crew _____(2)____ energize Hydrogen Ignitors.

- A. 1. are
 - 2. will
- B. 1. are 2. will NOT
- C. 1. are NOT 2. will
- D. 1. are NOT
 - 2. will NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 92

(1 point)

Given the following Unit 1 conditions:

• Condenser Hotwell temperature is increasing following a malfunction of the Condenser Air Ejectors

Assuming this trend continues, the CRS will declare the CA system inoperable, per TS 3.7.5 (Auxiliary Feedwater System), when Hotwell temperature reaches a MINIMUM value of (1).

Once TS 3.7.5 actions are entered, the CRS _____(2)____ apply the Required Actions of LCO 3.0.3.

- A. 1. 134 degrees F
 - 2. will
- B. 1. 134 degrees F 2. will NOT
- C. 1. 136 degrees F 2. will
- D. 1. 136 degrees F 2. will NOT

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 93

(1 point)

Given the following Unit 1 conditions:

- The Unit is at 100% RTP
- Channel 4 PZR Pressure has failed low
- All required Tech Spec actions have been completed

Subsequently:

• 1B NC Loop T_{cold} detector fails low

Channel 2 OT_{delta}T setpoint will _____(1)____.

Assuming no other actions are taken, the latest time that Unit 1 will be required to reach Mode 3 is in _____(2)____.

- A. 1. decrease
 - 2. 7 hours
- B. 1. decrease
 - 2. 78 hours
- C. 1. increase 2. 7 hours
- D. 1. increase
 - 2. 78 hours

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 94

(1 point)

Given the following Unit 1 initial conditions:

- The Unit experienced a complete loss of the switchyard
- The crew was performing steps in EP/1/A/5000/ES-0.2, (Natural Circulation Cooldown)
- Station management recommended a rapid cooldown due to secondary inventory concerns
- The crew transitioned to EP/1/A/5000/ES-0.3, (Natural Circulation Cooldown) with Steam Void in the Vessel

Subsequently:

- Pressurizer level is 92% and increasing
- Reactor vessel Upper Range (UR) level is 70% and decreasing
- The STA notes a YELLOW path on NC INVENTORY and confers with the SM regarding whether to transition to EP/1/A/5000/FR-I.3, (Response to Voids in Reactor Vessel)

In order to control void growth, the CRS will direct the BOP to _____(1)____ per the direction provided in _____(2)____.

- A. 1. open reactor vessel head vents 2. FB-L3
- B. 1. open reactor vessel head vents2. ES-0.3
- C. 1. energize pressurizer heaters 2. FR-I.3
- D. 1. energize pressurizer heaters2. ES-0.3

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 95

(1 point)

Given the following Unit 1 conditions:

- The Unit is in Mode 6
- 1AD-4 B/1 "S/G A LEVEL DEVIATION" will not illuminate. IAE has Blocked the inputs for outage related activities
- 1AD-9 B/7 "FWST EMERG LO TEMP" will not illuminate. IAE has disconnected the associated transmitter in order to temporarily change the alarm setpoint for an upcoming test

In accordance with OMP 2-31 (TMs Affecting Control Room Annunciators):

Attachment 8.1 will be used to track the inoperability of _____(1)____.

Attachment 8.1 will be filed in the _____(2)____.

- A. 1. 1AD-9 B/7
 - 2. Ops Shift Routine Logbook
- B. 1. 1AD-4 B/12. Ops Shift Routine Logbook
- C. 1. 1AD-9 B/72. Shift Work Manager Logbook
- D. 1. 1AD-4 B/12. Shift Work Manager Logbook

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 96

(1 point)

Which ONE of the following changes requires a 10CFR50.59 screen?

- A. A change to the Site Physical Security Plan that reduces the shift staffing requirements for security guards.
- B. A system modification that adds a backup Nitrogen accumulator to an air operated containment isolation valve.
- C. A revision to the Site Emergency Plan that changes the designated assembly areas for accountability.
- D. A change to the Nuclear Quality Assurance Plan.

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 97

(1 point)

In accordance with SLC 16.11-19 (Gas Storage Tanks):

Waste Gas Decay Tanks (WGDT) are monitored to ensure radioactivity is limited to a MAXIMUM of ______.

This limit is based on exposure received by a _____(2)____ during an accidental release.

- A. 1. 97,000 Curies
 - 2. member of the public
- B. 1. 97,000 Curies 2. plant worker
- C. 1. 10 Curies 2. member of the public
- D. 1. 10 Curies
 - 2. plant worker

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 98

(1 point)

Given the following conditions:

- An Auxiliary Building waste monitor tank liquid waste release (LWR) package has been delivered to the Control Room
- All RN Pumps are ON
- 1AD-12 B/1 RN Pump Intake Pit A Lo Level is LIT
- 1AD-12 E/2 RN Pit-A Swap to SNSWP is LIT
- A and B RL pumps are on and RL flow is greater than required for WL release
- EMF-57 (Monitor Tank Building Liquid Discharge Monitor) is NOT Functional
- EMF-49 (Liquid Waste Discharge Lo Range) is Functional

The CRS _____(1) ____ approve this release because _____(2) ____.

- A. 1. will NOT
 - 2. EMF-57 is NOT Functional
- B. 1. will NOT
 - 2. RN is aligned to the SNSWP
- C. 1. will
 - 2. RL flow is greater than required for WL release ONLY
- D. 1. will
 - 2. EMF-49 is Functional AND RL flow is greater than required for WL release

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 99

(1 point)

Given the following conditions:

• A fire event has occurred inside the Protected Area

In accordance with RP/0/B/5000/029 (Fire Brigade Response), the "Fire Emergency Report" is completed by the _____(1)_____.

If required, _____(2)_____ will direct a partial transfer to the SSF.

- A. 1. Shift Manager2. AP/0/A/5500/045 (Plant Fire)
- B. 1. Shift Manager2. RP/0/B/5000/029 (Fire Brigade Response)
- C. 1. Fire Brigade Leader 2. AP/0/A/5500/045 (Plant Fire)
- D. 1. Fire Brigade Leader2. RP/0/B/5000/029 (Fire Brigade Response)

ILT-17 NRC Written Exam CNS SRO NRC Examination

Question: 100

(1 point)

Given the following conditions on Unit 1:

- A Loss of Offsite Power occurs following a LOCA
- No ECCS injection flow is available
- EP/1/A/5000/FR-C.1 (Inadequate Core Cooling) has been entered from EP/1/A/5000/E-0 (Reactor Trip or Safety Injection)
- All S/G N/R levels are < 0% with no feed flow available
- "A" train NC vent path aligned by opening 1NC-250A (Rx Head Vent Block) and 1NC-251B (Rx Head Vent)
- Core Exit Thermocouple temperatures are 1205 °F and INCREASING

Based on current conditions, the CRS will ______ to further mitigate this event.

- A. Enter EP/1/A/5000/E-1 (Loss of Reactor or Secondary Coolant)
- B. Enter EG/1/A/CSAM/SACRG1 (Severe Accident Control Room Guideline Initial Response)
- C. Enter EP/1/A/5000/FR-H.1 (Loss of Secondary Heat Sink)
- D. Remain in FR-C.1 until Core Exit Thermocouples indicate < 1200 °F

Question Number	Answer	
1	В	
2	В	
3	D	
4	А	
5	С	
6	В	
7	D	
8	В	
9	А	
10	В	
11	В	
12	А	
13	A	
14	С	
15	С	
16	С	
17	С	
18	A	
19	A	
20	В	
21	В	
22	A	
23	А	
24	В	
25	С	

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Page 1 of 4

Question Number	Answer	
26	D	
27	А	
28	С	
29	С	
30	D	
31	В	
32	D	
33	А	
34	В	
35	В	
36	С	
37	А	
38	В	
39	А	
40	D	
41	В	
42	С	
43	С	
44	С	
45	В	
46	С	
47	В	
48	А	
49	D	
50	В	

Printed 7/11/2017 7:55:13 AM

Question Number	Answer	
51	С	
52	В	
53	С	
54	А	
55	В	
56	В	
57	А	
58	В	
59	D	
60	С	
61	В	
62	С	
63	В	
64	С	
65	С	
66	A	
67	В	
68	С	
69	A	
70	С	
71	С	
72	С	
73	В	
74	C	
75	D	

Printed 7/11/2017 7:55:13 AM

Question Number	Answer	
76	D	
77	А	
78	В	
79	PC	
80	С	
81	С	
82	А	
83	А	
84	А	
85	С	
86	А	
87	В	
88	С	
89	А	
90	С	
91	В	
92	D	
93	С	
94	D	
95	А	
96	В	
97	А	
98	В	
99	С	
100	В	

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Provided Reference: Emergency Classification Tables

LOSS OF EMERGENCY COOLANT RECIRCULATION

Enclosure 4 - Page 1 of 1 Minimum S/I Flowrate Versus Time After Trip



