McGuire Nuclear Station

MNS ILT 18-1 RO NRC Examination

Question: 1
(1 point)

Given the following on Unit 2:

- The unit is at 100% RTP
- Pressurizer Pressure Channel 1 fails low

Based on the conditions above, the Reactor Protection System (RPS) setpoint for Channel 1 of ___(1)___ will ___(2)___.

Which ONE (1) of the following completes the statements above?

LEGEND:

- OPΔT - OVERPOWER ΔT
- OTΔT - OVERTEMPERATURE ΔT

A. 1. OPΔT
   2. decrease

B. 1. OPΔT
   2. increase

C. 1. OTΔT
   2. decrease

D. 1. OTΔT
   2. increase

Question: 2
(1 point)

Which ONE (1) of the following indicates the power supplies to the D/G Sequencers?

A. EVDA ; EVDB

B. EVDB ; EVDC

C. EVDC ; EVDD

D. EVDA ; EVDD

Question: 3
(1 point)

Given the following on Unit 2:

- A SBLOCA has occurred
- Containment pressure peaked at 1.3 PSIG and now is 0.9 PSIG and stable

Which ONE (1) of the following describes the operation of the Containment Cooling system fans based on these conditions?

COMPONENT LEGEND:

PTBF - PIPE TUNNEL BOOSTER FAN
VL AHU - LOWER CONTAINMENT VENTILATION AIR HANDLING UNIT

A. VL AHUs start and run in LOW speed; PTBFs start and run in LOW speed.

B. VL AHUs start and run in LOW speed; PTBFs are shunt tripped OFF.

C. VL AHUs start and run in HIGH speed; PTBFs start and run in LOW speed.

D. VL AHUs start and run in HIGH speed; PTBFs are shunt tripped OFF.

Question: 4
(1 point)

Given the following on Unit 1:

- Unit is at 100% RTP
- The Control Room has received annunciator alarm 1AD-9 / E6 (FLOOR COOLING GLYCOL LO TEMP)
- Five Glycol Chillers and Two Floor Cooling Pumps are in service
- An AO has been dispatched per the annunciator response procedure
- Floor Cooling Glycol Temperature is 6°F
- Ice bed temperature is 7°F

Based on the conditions above,

1) the required IMMEDIATE action in accordance with the annunciator response for Floor Cooling Glycol temperature, is to stop one _____.

2) increased floor slab buckling _____ the primary concern.

Which ONE (1) of the following completes the statements above?

A. 1. Floor Cooling pump
   2. is

B. 1. Floor Cooling pump
   2. is NOT

C. 1. Glycol Chiller
   2. is

D. 1. Glycol Chiller
   2. is NOT

Question: 5
(1 point)

Given the following on Unit 2:

- A Large Break LOCA has occurred
- One train of NS has been aligned for recirc per ES-1.3 (TRANSFER TO COLD LEG RECIRC)

As Containment pressure decreases, the NS Pump will automatically secure at a MAXIMUM Containment pressure of ___(1)___ psig.

Following this NS Pump shutdown, if Containment pressure increases above the auto-secure setpoint, the NS Pump discharge valves ___(2)___ automatically OPEN.

Which ONE (1) of the following completes the statements above?

A. 1. 0.35
   2. will

B. 1. 0.35
   2. will NOT

C. 1. 0.8
   2. will

D. 1. 0.8
   2. will NOT

Question: 6
(1 point)

Given the following on Unit 1:

- Unit is in Mode 3
- A plant cooldown and depressurization is in progress
- NC System pressure is 1900 PSIG
- All S/G pressures are 1050 PSIG
- Low Pressure SI and Low Pressure Steamline Isolation have been blocked

Based on the conditions above,

1) a Main Steam Isolation signal _____ be generated if ANY 1 S/G's pressure drops to 850 PSIG in 2 seconds.

2) if a Main Steam Isolation occurs, the SM PORVs, _____ receive a close signal.

Which ONE (1) of the following completes the statements above?

A. 1. will NOT
   2. will

B. 1. will NOT
   2. will NOT

C. 1. will
   2. will NOT

D. 1. will
   2. will

Question: 7
(1 point)

Given the following Unit 1 timeline:

- **0800**
  - Unit is in Mode 3
  - The crew is performing a unit heatup and pressurization
  - CA Auto-Start is DEFEATED
  - NC pressure is 1900 PSIG
  - 1A Main Feed pump is running, 1B Main Feed pump is tripped

- **0810**
  - NC pressure is 1980 PSIG

Consider each statement below separately

At time **0800**, a Blackout ___(1)___ initiate an auto-start signal of the MD CA pumps.

At time **0810**, a trip of 1A Main Feedwater pump ___(2)___ initiate an auto-start signal of the MD CA pumps.

Which ONE (1) of the following completes the statements above?

A. 1. will
   2. will NOT

B. 1. will
   2. will

C. 1. will NOT
   2. will NOT

D. 1. will NOT
   2. will

Question: 8
(1 point)

Given the following on Unit 2:

- A small break LOCA has occurred
- Safety Injection has been initiated

Subsequently,

- Prior to re-setting SI, A Blackout occurs on Bus 2ETA due to failure of the Normal Incoming breaker

Which ONE (1) of the following indicates the CA system alignment **one minute** after the Blackout signal? (ASSUME NO OPERATOR ACTIONS)

A. S/Gs 2A and 2B are NOT being fed.

B. S/Gs 2A and 2B are being fed by the 2A MD CA pump ONLY.

C. S/Gs 2A and 2B are being fed by the U2 TD CA pump ONLY.

D. S/Gs 2A and 2B are being fed by the 2A MD CA Pump and the U2 TD CA pump.

Question: 9
(1 point)

Given the following on Unit 2:

- Unit 2 is at 100% RTP
- 2A D/G has been started per PT/2/A/4350/002 A (DIESEL GENERATOR 2A OPERABILITY TEST)
- 2A D/G has been running idle for 45 minutes

Based on the conditions above, the 2A D/G should be loaded to a MINIMUM of 3000 kW AND run for one hour to ensure ___(1)___.

The 2A D/G load limit for **continuous operation** is ___(2)___ kW.

Which ONE (1) of the following completes the statements above?

A. 1. burnout of excess fuel in cylinders
   2. 4000

B. 1. injector tips are clean
   2. 4000

C. 1. burnout of excess fuel in cylinders
   2. 4400

D. 1. injector tips are clean
   2. 4400

Question: 10
(1 point)

Given the following on Unit 1:

- A zone fault has resulted in a 6900V auto fast transfer
- The zone fault has been cleared
- Auxiliary busses 1ATA and 1ATB are synchronized

The auto fast transfer to the alternate source was a ___(1)___ bus transfer.

When voltage is restored to the incoming side of the normal feeder breaker, in accordance with OP/1/A/6350/005 (AC ELECTRICAL OPERATON OTHER THAN NORMAL LINEUP) a(an) ___(2)___.

Which ONE (1) of the following completes the statements above?

A. 1. hot
   2. automatic slow transfer will occur

B. 1. hot
   2. manual hot bus transfer must be performed

C. 1. dead
   2. automatic slow transfer will occur

D. 1. dead
   2. manual hot bus transfer must be performed

Question: 11
(1 point)

Given the following on Unit 1:

- Annunciator 1AD-11/A-8 (D/G A 125 VDC DC CNTRL PWR TRBL) is in alarm
- AO reports the 125 VDC D/G Control Power breaker for 1A D/G has tripped and will NOT reset

Based on the conditions above,

1) the voltage regulator field flashing _____ have power available.

2) if a diesel start signal is generated, the 1A D/G _____ automatically start.

Which ONE (1) of the following completes the statements above?

A. 1. will NOT
   2. will

B. 1. will
   2. will

C. 1. will NOT
   2. will NOT

D. 1. will
   2. will NOT

Question: 12
(1 point)

Given the following on Unit 1:

- Unit 1 is at 50% RTP
- The following timeline occurs for 1C NCP:

Time	1401	1403
#1 Seal Outlet Temperature	226°F	236°F

In accordance with AP-08 (MALFUNCTION OF NC PUMP),

1) the EARLIEST time 1C NCP exceeds operating limits is _____.

2) after the reactor is tripped, 1C NC pump must be secured _____.

Which ONE (1) of the following completes the statements above?

A. 1. 1401
   2. immediately

B. 1. 1403
   2. immediately

C. 1. 1401
   2. when reactor power is <5%

D. 1. 1403
   2. when reactor power is <5%

Question: 13
(1 point)

Given the following on Unit 1:

- Unit is at 30% RTP, holding for chemistry
- The 1A NC pump trips

Based on the conditions above, indicated Loop "A" Tavg will **stabilize** at a ___(1)___ value than prior to the 1A NC pump trip.

The reason that indicated Loop "A" Tavg changes ___(2)___ due to reverse flow in Loop 1A.

Which ONE (1) of the following completes the statements above?

A. 1. higher
   2. is

B. 1. lower
   2. is

C. 1. higher
   2. is NOT

D. 1. lower
   2. is NOT

Question: 14
(1 point)

Regarding the operation of 1NV-137A (NC FILTERS OUTLET 3-WAY CNTRL),

1) as VCT level rises, 1NV-137A will modulate OPEN from _____ VCT level.

2) the modulating signal for 1NV-137A is provided by Selected VCT Level _____.

Which ONE (1) of the following completes the statements above?

A. 1. 54% to 66%
   2. One

B. 1. 54% to 66%
   2. Two

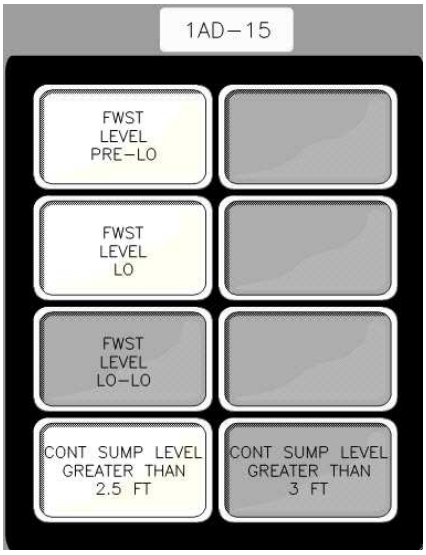
C. 1. 66% to 96%
   2. One

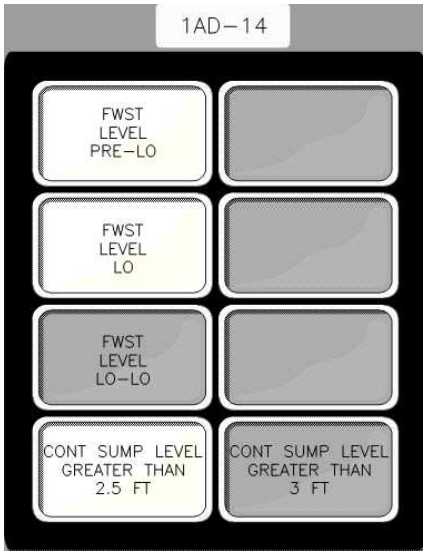
D. 1. 66% to 96%
   2. Two

Question: 15
(1 point)

Given the following on Unit 1:

- A Large-Break LOCA has occurred





Based on the conditions above, the requirements for aligning ND to Cold Leg Recirc in accordance with ES-1.3 (TRANSFER TO COLD LEG RECIRC) ___(1)___ met.

If conditions require aligning the NC system for Hot Leg Recirc, ND can be aligned to inject to ___(2)___.

Which ONE (1) of the following completes the statements above?

A. 1. are
   2. all 4 Hot Legs

B. 1. are NOT
   2. all 4 Hot Legs

C. 1. are
   2. B and C NC Hot Legs ONLY

D. 1. are NOT
   2. B and C NC Hot Legs ONLY

Question: 16
(1 point)

Given the following on Unit 1:

- Unit is in MODE 5
- NC System temperature is 145°F and stable
- ND Train 1A is aligned for decay heat removal

Subsequently,

- NC System pressure begins to rise

PZR PORVs will lift when NC system pressures rises to a MINIMUM of ___(1)___ (±2) PSIG, and this is to prevent ___(2)___.

Which ONE of the following completes the statement above?

A. 1. 380
   2. over-pressurization of the ND system piping

B. 1. 380
   2. brittle fracture of the reactor vessel

C. 1. 325
   2. over-pressurization of the ND system piping

D. 1. 325
   2. brittle fracture of the reactor vessel

Question: 17
(1 point)

Given the following on Unit 1:

- A LOCA has occurred inside Containment
- Containment pressure is 2.1 PSIG and rising slowly

Based on the conditions above,

1) A Containment Ventilation Isolation signal _____ been generated.

2) cooling water (RV) _____ being supplied to the Containment ventilation units.

Which ONE (1) of the following completes the statements above?

A. 1. has
   2. is

B. 1. has
   2. is NOT

C. 1. has NOT
   2. is

D. 1. has NOT
   2. is NOT

Question: 18
(1 point)

Given the following on Unit 2:

- A reactor trip has occurred
- The crew has implemented E-0 (REACTOR TRIP OR SAFETY INJECTION)
- Containment pressure is 0.1 PSIG and stable

Subsequently,

- ONE (1) PZR PORV fails partially open
- PRT pressure rises to approximately 85 PSIG, and then suddenly drops and stabilizes at 2 PSIG

Based on the conditions above,

1) the PRT rupture discs operated _____.

2) as Containment pressure rises, the LCO for Tech Spec 3.6.4 (CONTAINMENT PRESSURE) will be exceeded when Containment pressure exceeds a MINIMUM of _____ PSIG.

Which ONE (1) of the following completes the statements above?

A. 1. as designed
   2. 0.3

B. 1. as designed
   2. 0.5

C. 1. earlier than designed
   2. 0.3

D. 1. earlier than designed
   2. 0.5

Question: 19
(1 point)

Given the following initial conditions:

- 1A1 & 1A2 KC Pumps are in service
- 2B1 & 2B2 KC Pumps are in service

Subsequently:

- 1ETA has experienced a Blackout

  1) As a result of the 1ETA Blackout signal, 2A1 & 2A2 KC pumps _____ auto-start.

  2) If a Safety Injection actuation occurs following the Blackout, the KC pumps running prior to the Safety injection will _____.

Which ONE (1) of the following completes the statements above?

A. 1. will
   2. remain running

B. 1. will
   2. be load-shed and then be restarted by the SI sequencer

C. 1. will NOT
   2. remain running

D. 1. will NOT
   2. be load-shed and then be restarted by the SI sequencer

Question: 20
(1 point)

Given the following on Unit 1:

- Unit is at 75% RTP
- 1D NCP Thermal Barrier KC Outlet Flow is in alarm on the OAC

When KC Thermal Barrier Outlet flow exceeds a MINIMUM of ___(1)___ gpm, 1KC-413B (1D NCP THERM BAR OTLT) will automatically CLOSE.

With 1KC-413B CLOSED, 1D NCP operational limits ___(2)___ be exceeded.

Which ONE (1) of the following completes the statements above?

A. 1. 60
   2. will

B. 1. 60
   2. will NOT

C. 1. 75
   2. will

D. 1. 75
   2. will NOT

Question: 21
(1 point)

Given the following on Unit 1:

- Unit is at 80% RTP
- Pzr Pressure Master Controller is in AUTO
- Pzr Pressure Master has an error signal of +17 PSIG
- 1NC-27 (PZR SPRAY CONTROL) RED and GREEN position indicator lights are BOTH LIT on the PZR and PRT DCS graphic

The position of 1NC-27 ___(1)___ expected for the conditions above.

1NC-27 ___(2)___ be positioned manually using Ovation Soft Controls.

Which ONE (1) of the following completes the statements above?

A. 1. is
   2. can

B. 1. is
   2. can NOT

C. 1. is NOT
   2. can

D. 1. is NOT
   2. can NOT

Question: 22
(1 point)

Given the Unit 2 timeline:

- 0800
  - Reactor power is stable at 50% RTP
  - PR Channel N-42 fails LOW

- 0810
  - All required Tech Spec actions for PR Channel N-42 have been completed

Consider each statement below separately

A loss of 2EKVC at 0801 ___(1)___ generate a Reactor trip signal.

A loss of 2EKVC at 0811 ___(2)___ generate a Reactor trip signal.

Which ONE (1) of the following completes the statements above?

A. 1. will
   2. will

B. 1. will
   2. will NOT

C. 1. will NOT
   2. will

D. 1. will NOT
   2. will NOT

Question: 23
(1 point)

Given the following on Unit 1:

- Auxiliary Operators are performing PT/1/A/4350/002 A (D/G 1A OPERABLITY TEST), Enclosure 13.1 (1A D/G SLOW START)

In accordance with PT/1/A/4350/002 A, Enclosure 13.1:

- The 1A D/G MODE SELECT switch has been placed in LOCAL
- The Woodward Governor LOAD LIMIT control knob has been rotated to the **SLOW START** position

Based on the conditions above,

1) declaring the 1A D/G INOPERABLE _____ required.

2) if a Blackout occurs on 1ETA, the 1A D/G _____ automatically start.

Which ONE (1) of the following completes the statements above?

A. 1. is
   2. will

B. 1. is
   2. will NOT

C. 1. is NOT
   2. will

D. 1. is NOT
   2. will NOT

Question: 24
(1 point)

Which ONE (1) of the following will cause a Standby Diesel Generator (DG) trip?

A. Turbocharger Overspeed during a Manual Start

B. Low KD Surge Tank Level during a Manual Start

C. Low Crankcase Vacuum during an Automatic Start

D. High Lube Oil Temperature during an Automatic Start

Question: 25
(1 point)

Given the following initial conditions on Unit 1:

- Unit is at 100% RTP
- A leak on the RC piping in the turbine building basement has occurred
- All TB Sump pumps are in "Manual" and "ON", maintaining sump level stable

Subsequently:

- A detector failure occurs due to a failed power supply on 1EMF-31 (TURBINE BUILDING SUMP MONITOR)

Based on the conditions above,

1) a _____ signal will be generated on 1EMF-31 .

2) depressing the "Clear" button on 1EMF-31 (ONLY) _____ allow restart of the TB Sump pumps.

Which ONE (1) of the following completes the statements above?

A. 1. Trip 1 ONLY
   2. will

B. 1. Trip 1 ONLY
   2. will NOT

C. 1. Trip 1 AND Trip 2
   2. will

D. 1. Trip 1 AND Trip 2
   2. will NOT

Question: 26
(1 point)

Given the following initial conditions:

- 1A RN Pump is in service
- 2A RN Pump is in service
- A and B train RN is aligned to the Low Level Intake (LLI)

Subsequently:

- A blackout of 1ETB occurs

Following the 1ETB blackout (assuming no operator action):

2A RN suction is aligned to the ___(1)___ .

2B RN suction is aligned to the ___(2)___ .

Which ONE (1) of the following completes the statements above?

A. 1. SNSWP
   2. SNSWP

B. 1. LLI
   2. LLI

C. 1. LLI
   2. SNSWP

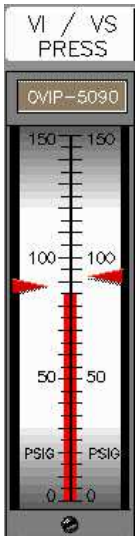
D. 1. SNWP
   2. LLI

Question: 27
(1 point)

Given the following plant conditions:

- Both units are operating at 100% RTP
- An instrument air system leak develops in the Unit 1 Turbine Building
- The Diesel VI Compressors (G & H) "AUTO/OFF-RESET" selector switches are in "AUTO"

The following indications are observed in the Control Room:



Based on the indications above,

1) the Diesel VI Compressors (G & H) ___(1)___ received a start signal.
2) VI-1812 (VI Air Dryer Bypass Filter Isol) is ___(2)___.

Which ONE (1) of the following completes the statements above?

A. 1. have
   2. CLOSED

B. 1. have NOT
   2. CLOSED

C. 1. have
   2. OPEN

D. 1. have NOT
   2. OPEN

Question: 28
(1 point)

Regarding Containment isolation signals,

1) the S/G CF Containment Isolation valves (CF-35, 30, 28, & 26) will close if Containment pressure increases to a MINIMUM of _____ PSIG.

2) a Containment Phase A isolation will occur if NC system pressure decreases to less than a MAXIMUM of _____ PSIG.

Which ONE (1) of the following completes the statements above?

A. 1. 3.0
   2. 1845

B. 1. 3.0
   2. 1945

C. 1. 1.0
   2. 1845

D. 1. 1.0
   2. 1945

Question: 29
(1 point)

Unit 2 is performing a MOL plant startup with the following conditions:

- Reactor Power is at 55% and stable
- A S/G Safety valve fails open

Assuming no action by the crew, which ONE (1) of the following describes the initial effect of the valve failure?

	Pressurizer Level	**Reactor Power**
A.	Increase	Decrease
B.	Increase	Increase
C.	Decrease	Increase
D.	Decrease	Decrease

Question: 30
(1 point)

Given the following initial conditions on Unit 1:

- Unit is at 100% RTP
- Control Bank "D" rods are reading 222 steps on DRPI
- Axial Flux Difference (AFD) on all four NI channels is -3%

Subsequently,

- Control Bank "D" rod M-6 indicates 192 steps on DRPI
- Annunciator 1AD-2 D/10 (RPI URGENT FAILURE) alarms

To determine that rod M-6 is actually misaligned, the operator would see AFD in the quadrant with rod M-6 become ___(1)___ negative.

In accordance with the Annunciator Response for 1AD-2 D/10, a rod with greater than ___(2)___ steps deviation within a bank is a probable cause for this alarm.

Which ONE (1) of the following completes the statements above?

A. 1. less
   2. 12

B. 1. less
   2. 24

C. 1. more
   2. 12

D. 1. more
   2. 24

Question: 31
(1 point)

Given the following on Unit 1:

- Unit is at 100% RTP
- I&E reports that ONLY three (3) Core Exit Thermocouples (CETs) total are OPERABLE in Quadrant 2

Based on the conditions above, the CET OPERABILITY requirements of Tech Spec 3.3.3 (PAM INSTRUMENTATION), ___(1)___ met.

There are a total of ___(2)___ thermocouples used exclusively by the Core Exit Thermocouple Monitor (CETM).

Which ONE (1) of the following completes the statements above?

REFERENCE PROVIDED

A. 1. are NOT
   2. 40

B. 1. are NOT
   2. 65

C. 1. are
   2. 40

D. 1. are
   2. 65

Question: 32
(1 point)

Given the following on Unit 1:

- The Unit is in Mode 6.
- While responding to a series of alarms associated with the NIs, the Balance of Plant operator notices that the Instrument Power and Control Power lights on SR N32 drawers are DARK.

Based on the conditions above, _____ has tripped.

Which ONE (1) of the following completes the statement above?

A. inverter 1EVIB

B. the feeder breaker for panelboard 1EKVA

C. inverter 1EVID

D. the feeder breaker for panelboard 1EKVC

Question: 33
(1 point)

Given the following on Unit 1:

- Unit has just entered Mode 5 in preparation for a refueling outage
- A lower containment entry is planned for the next shift
- The CRS directs the RO to purge containment in preparation for initial containment entry
- Currently the VP system is secured with all fans off and purge and exhaust valves closed

Based on the conditions above, the NORMAL-REFUEL SELECTOR switch will be placed in the ___(1)___ position AND the ratio of supply air will be ___(2)___ (Upper/Lower Containment).

Which ONE (1) of the following completes the statement above?

A. 1. "NORM"
   2. 4/1

B. 1. "NORM"
   2. 2/1

C. 1. "REFUEL"
   2. 4/1

D. 1. "REFUEL"
   2. 2/1

Question: 34
(1 point)

Given the following on Unit 2:

- The core has been off-loaded to the Spent Fuel Pool
- 2A KF Pump is running
- 2B KF Pump is off

Subsequently,

- A Loss of Off-Site Power occurs
- 2A and 2B D/Gs start and load
- 30 minutes after the power loss, Spent Fuel Pool Hi Temperature OAC alarm is received

Based on the conditions above, 2B KF pump ___(1)___ be manually started without resetting the D/G sequencer.

In accordance with OP/2/A/6200/005 (SPENT FUEL COOLING SYSTEM), KF pump flow shall be less than a MAXIMUM of ___(2)___ GPM.

Which ONE (1) of the following completes the statements above?

A. 1. can
   2. 2900

B. 1. can NOT
   2. 2900

C. 1. can
   2. 2600

D. 1. can NOT
   2. 2600

Question: 35
(1 point)

Given the following:

- Unit 1 Fuel Handling is in progress
- During Fuel Assembly removal, the hoist is stopped mid travel due to overload cutoff limit

1) during fuel movement the refueling crane load cell sensed a MINIMUM of _____ pounds.

2) based on the above conditions, bridge and trolley motion _____ possible.

Which ONE (1) of the following completes the statements above?

A. 1. 2900
   2. is

B. 1. 1000
   2. is

C. 1. 2900
   2. is NOT

D. 1. 1000
   2. is NOT

Question: 36
(1 point)

Given the following on Unit 2:

- Unit is at 8% RTP
- A Loss of off-site power occurs
- AP-09 (NATURAL CIRCULATION) has been implemented

Based on the conditions above, main feedwater ___(1)___ be used to feed all S/Gs.

In accordance with AP-09, if all S/G NR levels are less than 11%, TOTAL feed flow greater than a MINIMUM of ___(2)___ gpm must be maintained.

Which ONE (1) of the following completes the statement above?

A. 1. can
   2. 450

B. 1. can
   2. 700

C. 1. can NOT
   2. 450

D. 1. can NOT
   2. 700

Question: 37
(1 point)

Given the following on Unit 1:

- Annunciator 1RAD2 C/2 (1EMF 44 CONT VENT DRN TANK HI RAD) is in Trip 2 alarm

Based on the conditions above (and assuming no operator actions have occurred):

1WM-46 (0EMF-49 OUTLET ISOL) ___(1)___ receive an auto CLOSE signal.

1RAD2 F/2 (1EMF 44 LOSS OF CONT VENT DRN TANK SAMPLE FLOW) ___(2)___ in alarm.

Which ONE (1) of the following completes the statements above?

A. 1. will
   2. is NOT

B. 1. will
   2. is

C. 1. will NOT
   2. is NOT

D. 1. will NOT
   2. is

Question: 38
(1 point)

Given the following:

- A Loss of Instrument Air has occurred
- VI pressure is 80 PSIG and slowly decreasing
- VS Compressor is "OFF" in accordance with OP/0/A/6450/013

Based on the conditions above, and per AP/1/A/5500/022 (LOSS OF VI), Operators ___(1)___ required to be dispatched to ensure 1VI-820 (VI SUPPLY TO VS CONTROL) is CLOSED.

The VS air compressor ___(2)___ automatically start to maintain VS header pressure.

Which ONE (1) of the following completes the statements above?

A. 1. are
   2. will

B. 1. are
   2. will NOT

C. 1. are NOT
   2. will

D. 1. are NOT
   2. will NOT

Question: 39
(1 point)

Given the following Unit 2 initial conditions:

- The Unit is at 7% RTP
- A plant startup in progress

Subsequently:

- An electrical transient occurs on the 6.9KV busses resulting in the following conditions:

	Electrical Bus			
Parameter	2TA	2TB	2TC	2TD
Frequency (Hz)	55	60	55	60
Voltage (Volts AC)	6800	6900	6800	6900

Based on the conditions above (and assuming no operator action):

_____(1)_____ NC Pumps have tripped.

The reactor _____(2)_____ automatically trip.

Which ONE of the following completes the statements above?

A. 1. two
   2. will

B. 1. two
   2. will NOT

C. 1. four
   2. will

D. 1. four
   2. will NOT

Question: 40
(1 point)

Given the following conditions:

- Unit 1 is at 100% RTP
- 1NC-32B (PZR PORV) fails open

Subsequently:

- Manual Reactor trip and Safety Injection have been initiated
- PZR Pressure is 1000 psig decreasing
- Subcooling indicates (-) 5 degrees F
- Containment Pressure indicates 2.2 psig
- S/G levels indicate 17%
- 1A & 1B CA pumps did not start

In accordance with E-0 (REACTOR TRIP OR SAFETY INJECTION) Foldout page criteria:

Unit 1 NCPs will be tripped _____ .

Which ONE (1) of the following completes the statement above?

A. in order to minimize NCP heat input into NC system

B. in order to minimize mass loss from the NC system

C. because KC cooling is not available for the NCP motor bearings

D. because NCP seal differential pressure requirements cannot be maintained

---

Question: 41
(1 point)

Given the following on Unit 2:

- A Small Break LOCA has occurred
- The crew has implemented ES-1.2 (POST LOCA COOLDOWN AND DEPRESSURIZATION)
- At time 1400, the crew initiates a cooldown to cold shutdown in accordance with Step 10 of ES-1.2
- The following parameters are observed at the start of the cooldown:
  - NC Pressure 1600 PSIG and slowly lowering
  - Tcolds 500°F and stable
  - S/G Pressures 665 PSIG and stable
  - Main Condenser Vacuum 15 Hg and stable

Beginning at time 1400, if the crew establishes and maintains the MAXIMUM cooldown rate allowed by ES-1.2, at time 1500 the crew should expect INDICATED S/G pressures to be approximately ___(1)___ PSIG.

This cooldown ___(2)___ be performed using Steam Dumps.

Which ONE (1) of the following completes the statement above?

REFERENCE PROVIDED

A. 1. 232
   2. will NOT

B. 1. 232
   2. will

C. 1. 408
   2. will NOT

D. 1. 408
   2. will

Question: 42
(1 point)

Given the following conditions:

- Unit 1 has experienced a Large Break LOCA

In accordance with E-1 (LOSS OF REACTOR OR SECONDARY COOLANT):

Transition to ES-1.4 (HOT LEG RECIRCULATION) should be made ___(1)___ hours after the event initiation

If 1B NI pump ONLY is aligned for Hot Leg Recirculation, adequate recirculation flow ___(2)___ exist.

Which ONE (1) of the following completes the statement above?

A. 1. 6
   2. does

B. 1. 6
   2. does NOT

C. 1. 4
   2. does

D. 1. 4
   2. does NOT

Question: 43
(1 point)

Given the following on Unit 2:

- Unit is at 98% RTP
- A 50% load rejection has occurred
- Pressurizer level is greater than setpoint
- 2NV-238 (CHARGING LINE FLOW CONTROL) is in AUTOMATIC and CLOSING (ASSUME NO OPERATOR ACTION)

Based on the conditions above, NC pump seal injection flow will be ___(1)___.

If a valid Annunciator 2AD-7 / J1 (NC PUMP SEAL INJ LO FLOW) alarm is received, the BOP must throttle 2NV-241 (SEAL INJECTION FLOW CONTROL) in the ___(2)___ direction to clear the alarm.

Which ONE (1) of the following completes the statements above?

A. 1. decreasing
   2. OPEN

B. 1. decreasing
   2. CLOSED

C. 1. increasing
   2. OPEN

D. 1. increasing
   2. CLOSED

Question: 44
(1 point)

Given the following on Unit 2:

- The unit is in MODE 5 and drained to Mid-loop
- ND Train 2A is in service
- ND system flow rate is 3300 GPM
- NC System level is (+)8 inches
- ND Low Discharge Pressure is in alarm on the OAC
- The crew has entered AP-19 (LOSS OF ND OR ND SYSTEM LEAKAGE)

In accordance with AP-19,

1) the crew will be required to _____ to mitigate this event.

2) the first MAJOR action category is to _____.

Which ONE (1) of the following completes the statements above?

A. 1. stop 2A ND pump
   2. protect the ND pumps

B. 1. reduce ND flow to ≤ 3000 GPM
   2. protect the ND pumps

C. 1. stop 2A ND pump
   2. check if adequate heat sink is available

D. 1. reduce ND flow to ≤ 3000 GPM
   2. check if adequate heat sink is available

Question: 45
(1 point)

Given the following on Unit 1:

- The unit is in MODE 4 on ND cooling (Both Trains)
- 1A Train KC is aligned to supply A ND HX, Reactor and Aux Bldg Non-Essential Headers
- 1B Train KC is aligned to supply the B ND HX Header
- Both A Train and both B Train KC pumps are in operation

Subsequently,

- The 1B2 KC pump trips and is tagged for equipment protection
- KC flow to the 1B ND HX flow indicates 2500 gpm

Based on the conditions above and in accordance with OP/1/A/6400/005 (COMPONENTCOOLING WATER SYSTEM) limits and precautions,

1) The MINIMUM KC flow requirement for 1B ND HX _____ met.

2) KC flow through the 1B ND Heat Exchanger shall be throttled to less than a MAXIMUM of _____ GPM.

Which ONE (1) of the following completes the statements above?

A. 1. is
   2. 6000

B. 1. is NOT
   2. 6000

C. 1. is
   2. 4000

D. 1. is NOT
   2. 4000

Question: 46
(1 point)

Given the following on Unit 2:

- A load increase is in progress
- The Pressurizer Pressure Master Controller **OUTPUT** fails LOW
- All Pressurizer Pressure control components are in AUTO
- NC system pressure is currently 2310 PSIG and rising slowly
- NO operator actions have been taken

Based on the conditions above,

1) PZR Surge Line Temperature is _____ .

2) 2NC-34A (PZR PORV) _____ open as pressure increases above setpoint.

Which ONE (1) of the following completes the statements above?

A. 1. increasing
   2. will

B. 1. increasing
   2. will NOT

C. 1. decreasing
   2. will

D. 1. decreasing
   2. will NOT

Question: 47
(1 point)

Given the following on Unit 1:

- Power stable at 100% RTP with surveillance testing in progress
- Reactor Trip Breaker "A" (RTA) and Bypass Breaker "B" (BYB) are racked-in and closed

Subsequently,

- Both Main Feed pumps trip
- All efforts to trip the reactor from the control room were unsuccessful
- The crew has implemented EP/1/A/5000/FR-S.1 (Response to Nuclear Power Generation/ATWS)
- U2 BOP was unsuccessful at tripping U1 Reactor locally

Based on the conditions above, Reactor Trip Breaker "A" (RTA) undervoltage coil ___(1)___ operate as designed.

In accordance with FR-S.1, Step 8 RNO, if the AO is successful in opening all Reactor Trip and Bypass breakers, then per FR-S.1, it ___(2)___ required to open the MG set breakers locally.

Which ONE (1) of the following completes the statements above?

A. 1. did
   2. is

B. 1. did NOT
   2. is

C. 1. did
   2. is NOT

D. 1. did NOT
   2. is NOT

Question: 48
(1 point)

Given the following on Unit 1:

- A SGTR has occurred on the 1A SG
- E-3 (S/G TUBE RUPTURE) has been implemented
- Initial NC System cooldown has commenced

The P-12 (LO-LO Tavg) status light on 1SI-18 will illuminate when NC system temperature reaches a MAXIMUM value of ___(1)___ degrees.

After cooldown has re-commenced, a maximum cooldown rate will be achieved when the open status lights for steam dump valves ___(2)___ are lit.

Which ONE (1) of the following completes the statements above?

A. 1. 551
   2. 6, 9, and 15

B. 1. 553
   2. 6, 9, and 15

C. 1. 551
   2. 3, 12, and 21

D. 1. 553
   2. 3, 12, and 21

Question: 49
(1 point)

Given the following on Unit 1:

- Unit is at 100% RTP
- 1B S/G pressure is lowering

Based on the conditions above, a Main Steam Isolation (MSI) will occur if 1B S/G pressure decreases to less than a MAXIMUM of ___(1)___ PSIG.

If the cause of the S/G pressure decrease is due to the 1B SM PORV being stuck full OPEN, total steam flow will increase by ___(2)___.

Which ONE (1) of the following completes the statements above?

A. 1. 875
   2. 2.5%

B. 1. 875
   2. 5.5%

C. 1. 775
   2. 2.5%

D. 1. 775
   2. 5.5%

Question: 50
(1 point)

Given the following on Unit 1:

- A unit shutdown is in progress
- 0200 both Main Feedwater pumps trip

Subsequently, the following conditions are observed:

	TIME		
CONDITION	**0200**	**0205**	**0215**
NCS Press (PSIG)	1965	1960	1991
NR SG A (%)	19	18	19
NR SG B (%)	20	18	16
NR SG C (%)	20	19	16
NR SG D (%)	18	16	19

Based on the conditions above,

1) the EARLIEST time that the MD CA pumps will be running is _____.

2) the EARLIEST time that the TD CA pump will be running is _____.

Which ONE (1) of the following completes the statements above?

A. 1. 0205
   2. 0205

B. 1. 0200
   2. 0205

C. 1. 0205
   2. 0215

D. 1. 0200
   2. 0215

Question: 51
(1 point)

Given the following initial conditions on Unit 1:

- The 1B D/G is running paralleled to 1ETB for testing

Subsequently,

- A lightning strike results in a Loss of Offsite Power (LOOP) AND an 86N Lockout on 1ETB

Based on the conditions above, the 1B D/G breaker ___(1)___ trip.

When the condition causing the 86N Lockout has been corrected, to reset the 86 Lockout an operator will ___(2)___.

Which ONE (1) of the following completes the statements above?

A. 1. will NOT
   2. rotate the relay handle in the clockwise direction and verify the orange target disappears

B. 1. will NOT
   2. push upward on the mechanical plunger until the orange target disappears

C. 1. will
   2. rotate the relay handle in the clockwise direction and verify the orange target disappears

D. 1. will
   2. push upward on the mechanical plunger until the orange target disappears

---

Question: 52
(1 point)

Given the following initial conditions on Unit 1:

- A Loss of Offsite Power has occurred
- The crew is verifying natural circulation flow per EP/1A/5000/ G-1 (Generic Enclosures) Enclosure 33 (NATURAL CIRCULATION PARAMETERS)

Based on conditions above:

NC System **subcooling** = 0 °F ___(1)___ support or indicate natural circulation flow.

NC System **hot leg temperature** at saturation temperature for S/G pressure ___(2)___ support or indicate natural circulation.

Which ONE (1) of the following completes the statements above?

A. 1. does
   2. does

B. 1. does
   2. does NOT

C. 1. does NOT
   2. does

D. 1. does NOT
   2. does NOT

Question: 53
(1 point)

Given the following on Unit 1:

- A loss of 1EVID Static Inverter has occurred
- The crew has implemented AP-15 (LOSS OF VITAL OR AUX CONTROL POWER)

Based on the conditions above and in accordance with AP-15,

1) the Safety Injection Train B "RESET" light _____ be lit.

2) Bus 1EKVD _____ auto-transfer to its alternate power source.

Which ONE (1) of the following completes the statements above?

A. 1. will NOT
   2. will

B. 1. will NOT
   2. will NOT

C. 1. will
   2. will

D. 1. will
   2. will NOT

Question: 54
(1 point)

Given the following on Unit 1:

- NC temperature is 310°F
- NC pressure is 322 PSIG
- LTOP has been placed in service

Subsequently,

- VI header pressure drops to 20 PSIG
- NC pressure rises to 400 PSIG

Based on the conditions above,

1) nitrogen backup to the Pzr PORVs _____ aligned.

2) with nitrogen aligned, Pzr PORV 1NC-36B _____ be OPEN.

Which ONE (1) of the following completes the statement above?

A. 1. is
   2. will

B. 1. is
   2. will NOT

C. 1. is NOT
   2. will

D. 1. is NOT
   2. will NOT

Question: 55
(1 point)

Given the following on Unit 1:

- A Loss of Offsite Power has occurred
- Emergency D/G's have started and loaded their respective busses
- As a result of the transient, an Inter System LOCA into the ND system occurs
- The crew implements ECA-1.2 (LOCA OUTSIDE CONTAINMENT)

Based on the conditions above, and in accordance with ECA-1.2, the crew will be directed to perform an NC system cooldown by dumping steam ___(1)___ at ___(2)___.

Which ONE (1) of the following completes the statement above?

A. 1. to the condenser
   2. a rate not to exceed 100°F in an hour

B. 1. to the condenser
   2. maximum rate

C. 1. using the SM PORVs
   2. a rate not to exceed 100°F in an hour

D. 1. using the SM PORVs
   2. maximum rate

Question: 56
(1 point)

Given the following on Unit 1:

- A Safety Injection has occurred
- Containment pressure peaked at 2.7 PSIG and is now slowly lowering
- The crew has implemented EP/1/A/5000/FR-H.1 (RESPONSE TO LOSS OF SECONDARY HEAT SINK)

In accordance with FR-H.1,

1) the source of feedwater which is prioritized for restoration is _____.

2) the crew is required to establish feed and bleed when W/R level in at least 3 S/Gs is less than a MAXIMUM level of _____.

Which ONE (1) of the following completes the statements above?

A. 1. Auxiliary Feedwater (CA)
   2. 24%

B. 1. Auxiliary Feedwater (CA)
   2. 36%

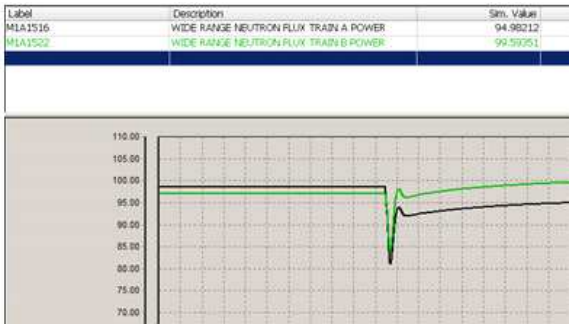
C. 1. Main Feedwater (CF)
   2. 24%

D. 1. Main Feedwater (CF)
   2. 36%

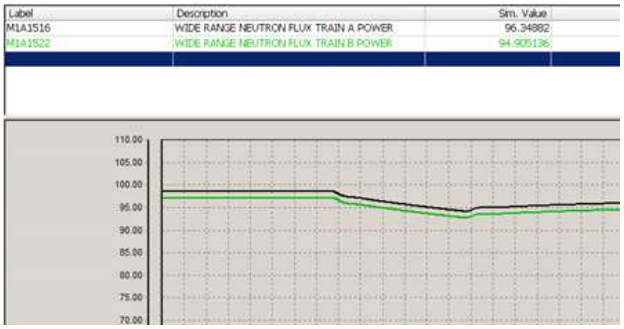
Question: 57
(1 point)

Given the following WR NIS Power trends:

TREND A



TREND B



Based on the trends above, ___(1)___ indicates that a dropped rod has occurred.

For a dropped rod, the **background color** on the CRT for the affected rod group on the Digital Rod Position Indication (DRPI) system will be ___(2)___.

Which ONE (1) of the following completes the statements above?

A. 1. Trend A
   2. orange

B. 1. Trend A
   2. black

C. 1. Trend B
   2. orange

D. 1. Trend B
   2. black

Question: 58
(1 point)

Given the following on Unit 2:

- Unit is at 45% RTP
- Control Bank D, Rod D-4 is 15 steps below the rest of the bank
- AP-14 (ROD CONTROL MALFUNCTION) has been implemented
- The crew is performing the steps of AP-14, Enclosure 1 (RESPONSE TO DROPPED OR MISALIGNED ROD) to realign Rod D-4

In accordance with AP-14,

1) the crew will OPEN the Control Bank "D" lift coil disconnect switch(es) for _____.

2) the Rod Bank selector switch will be placed in _____ to perform rod realignment.

A. 1. the misaligned rod ONLY
   2. Manual

B. 1. the misaligned rod ONLY
   2. CB D position

C. 1. all but the misaligned rod
   2. Manual

D. 1. all but the misaligned rod
   2. CB D position

Question: 59
(1 point)

Given the following on Unit 1:

- The crew has implemented EP/1/A/5000/FR-S.1 (RESPONSE TO NUCLEAR POWER GENERATION / ATWS)
- 1NV-265B (U1 NV PUMP BORIC ACID SUP ISOL) is OPEN
- Both Boric Acid transfer pump switches are in "ON"
- 1NV-244A & 1NV-245B (CHRG HDR CONT ISOLs) are OPEN
- Pressurizer pressure is 2310 PSIG
- Charging flow is 60 GPM
- Emergency boration flow is 32 GPM

Based on the conditions above, and in accordance with FR-S.1,

1) NC System depressurization _____ required.

2) the crew _____ required to align NV pump suction to the FWST.

Which ONE (1) of the following completes the statements above?

A. 1. is NOT
   2. is NOT

B. 1. is NOT
   2. is

C. 1. is
   2. is NOT

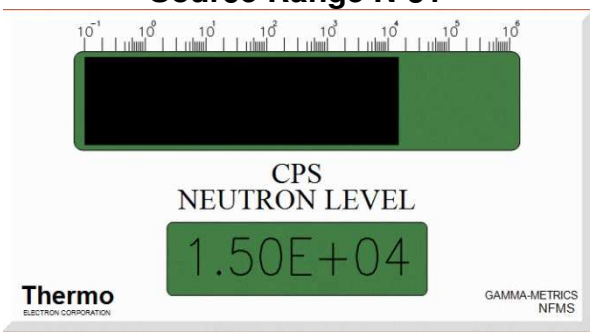
D. 1. is
   2. is

Question: 60
(1 point)

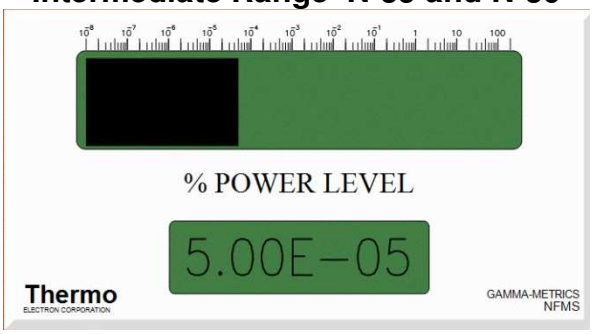
Given the following on Unit 1:

- The crew is performing a reactor start-up in accordance with OP/1/A/6100/003 (CONTROLLING PROCEDURE FOR UNIT OPERATION)
- Source Range N-32 has failed LOW
- Other NI indications are as follows:

Source Range N-31



Intermediate Range N-35 and N-36



Based on the indications above, and in accordance with OP/1/A/6100/003, the required overlap between the IR channels and SR N-31 ___(1)___ met.

While removing SR N-32 from service, AP-16 (MALFUNCTION OF NUCLEAR INSTRUMENTATION) Case 1(SOURCE RANGE MALFUNCTION) will direct the crew to ___(2)___.

Which ONE (1) of the following completes the statements above?

A. 1. is
   2. place the N-32 LEVEL TRIP switch to BYPASS

B. 1. is
   2. block N-32 in SSPS

C. 1. is NOT
   2. place the N-32 LEVEL TRIP switch to BYPASS

D. 1. is NOT
   2. block N-32 in SSPS

Question: 61
(1 point)

Given the following on Unit 2:

- A reactor start-up is being performed per OP/2/A/6100/003 (CONTROLLING PROCEDURE FOR UNIT OPERATION)
- Reactor power is $7X10^{-6}$ % (IR)

Subsequently,

- IR detector N36 fails low

Based on the conditions above, reactor start-up to the POAH ___(1)___ continue.

At the current power level, source range instrumentation ___(2)___ required to be OPERABLE.

Which ONE (1) of the following completes the statements above?

A. 1. can
   2. is

B. 1. can NOT
   2. is

C. 1. can
   2. is NOT

D. 1. can NOT
   2. is NOT

Question: 62
(1 point)

Given the following on Unit 1:

- A SGTL has occurred in the 1A S/G
- The crew has implemented AP-10 (NC SYSTEM LEAKAGE WITHIN THE CAPACITY OF BOTH NV PUMPS) Case 1 (S/G TUBE LEAKAGE)
- Unit is at 35% RTP and lowering

1EMF-71 (S/G A LEAKAGE) determines SG tube leak rate by monitoring ____(1)____ activity in the Main Steam lines.

Based on the conditions above, 1EMF-71 ____(2)____ be used at this time to determine the SG tube leak rate.

Which ONE (1) of the following completes the statements above?

A. 1. gross
   2. will

B. 1. gross
   2. will NOT

C. 1. N-16
   2. will

D. 1. N-16
   2. will NOT

Question: 63
(1 point)

Given the following on Unit 1:

- A LOCA has occurred
- The VE system is in operation
- HVAC Annunciator OAD-12, F/3 (1A VE FILTER FIRE) is received
- Filter temperature is 350°F and rising

Based on the conditions above,

1) 1A VE Fan _____ tripped.

2) an operator will be dispatched to _____.

Which ONE (1) of the following completes the statements above?

A. 1. has NOT
   2. manually OPEN the Mulsifyre RF isolation valve

B. 1. has NOT
   2. verify automatic actuation of the Mulsifyre RF deluge system

C. 1. has
   2. manually OPEN the Mulsifyre RF isolation valve

D. 1. has
   2. verify automatic actuation of the Mulsifyre RF deluge system

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Question: 64
(1 point)

In accordance with ES-0.3 (NATURAL CIRCULATION COOLDOWN WITH STEAM VOID IN VESSEL),

1) when it is desired to restart an NCP, preference is to start the _____ NCP FIRST.

2) when establishing required Pzr level for cooldown and depressurization, charging flow must be maintained less than a MAXIMUM of _____ GPM.

Which ONE (1) of the following completes the statements above?

A. 1. A
   2. 144

B. 1. A
   2. 200

C. 1. B
   2. 144

D. 1. B
   2. 200

Question: 65
(1 point)

Given the following on Unit 1:

- Unit is in Mode 3
- 1B S/G pressure is 1235 PSIG
- 1B S/G NR level is 95%
- 1A, 1C and 1D S/G pressures are all 850 PSIG and 50% NR level
- All feedwater isolation status lights are DARK
- The crew has implemented FR-H.2 (RESPONSE TO S/G OVERPRESSURE)

Based on the conditions above, and in accordance with FR-H.2,

1) Manual isolation of feedwater to the 1B S/G _____ required.

2) Dumping steam from the 1B S/G _____ required.

Which ONE (1) of the following completes the statements above?

A. is
is

B. is
is NOT

C. is NOT
is

D. is NOT
is NOT

Question: 66
(1 point)

In accordance with AD-OP-ALL-1000 (CONDUCT OF OPERATIONS),

1) a reactor operator is required to perform an end to end control panel walk-down _____.

2) control panel walk-downs _____ required to be documented in the Narrative Log.

Which ONE (1) of the following completes the statements above?

A. 1. once per shift at mid shift
   2. are

B. 1. once per shift at mid shift
   2. are NOT

C. 1. every two hours
   2. are

D. 1. every two hours
   2. are NOT

Question: 67
(1 point)

Given the following on Unit 2:

- Unit is in Mode 6
- Core off-load is in progress
- 2EMF-42 (FUEL BLDG VENT HI RAD) Trip 2 is in alarm
- 2EMF-4 (SPENT FUEL BLDG REFUEL BRDG) Trip 2 is in alarm

In accordance with the annunciator response procedure for 2EMF-42 HI RAD,

1) the control room operators will ensure the _____.

2) evacuation of the Fuel Building _____ required.

Which ONE (1) of the following completes the statements above?

A. 1. VF Exhaust Bypass Damper is CLOSED
   2. is

B. 1. VF Exhaust Bypass Damper is CLOSED
   2. is NOT

C. 1. VF Supply and Exhaust fans have tripped
   2. is

D. 1. VF Supply and Exhaust fans have tripped
   2. is NOT

Question: 68
(1 point)

Given the following on Unit 1:

- NC system temperature is 85°F
- All Reactor Head closure bolts are fully tensioned

In accordance with Technical Specification Definitions, which ONE (1) of the following describes the current plant MODE and the Reactivity Condition requirements which apply?

A. MODE 5, K_{eff} must be less than 0.99

B. MODE 5, K_{eff} must be less than 0.95

C. MODE 6, K_{eff} must be less than 0.99

D. MODE 6, K_{eff} must be less than 0.95

Question: 69
(1 point)

Based on drawing MCFD-2580-01.00 (FLOW DIAGRAM OF STEAM GENERATOR BLOWDOWN RECYCLE SYSTEM),

1) the **NORMAL** vent path for the Steam Generator Blowdown Blowoff Tank is to _____.

2) the grid location for the Steam Generator Blowdown **Flow Control** valve for 2D Steam Generator is _____.

Which ONE (1) of the following completes the statements above?

REFERENCE PROVIDED

A. 1. "D" Heater Extraction
   2. F-10

B. 1. "D" Heater Extraction
   2. I-9

C. 1. the Condenser
   2. F-10

D. 1. the Condenser
   2. I-9

Question: 70
(1 point)

In accordance with AD-HU-ALL-004 (PROCEDURE AND WORK INSTRUCTION USE AND ADHERENCE),

1) if it is determined that an in progress PT can NOT be performed as written due to an obvious typographical error, the CRS _____ allowed to authorize a Pen and Ink change to the PT.

2) the type of procedure being performed (PT) _____ require a Procedure Revision Request be submitted as soon as time permits.

Which ONE (1) of the following completes the statements above?

A. 1. is
   2. does

B. 1. is
   2. does NOT

C. 1. is NOT
   2. does

D. 1. is NOT
   2. does NOT

Question: 71
(1 point)

Regarding the use of Electronic Dosimeters (ED):

- If a DOSE alarm setpoint is exceeded, the alarm will __(1)__.
- If a DOSE RATE alarm setpoint is exceeded, the alarm will __(2)__.

Which ONE (1) of the following completes the statements above?

A. 1. clear after pressing and holding the Dose/Dose Rate toggle button on the ED for 10 seconds
   2. clear when the dose rate drops below the alarm setpoint

B. 1. clear after pressing and holding the Dose/Dose Rate toggle button on the ED for 10 seconds
   2. not clear until the ED is reset

C. 1. not clear until the ED is reset
   2. clear when the dose rate drops below the alarm setpoint

D. 1. not clear until the ED is reset
   2. not clear until the ED is reset

Question: 72
(1 point)

Given the following on Unit 2:

- The Unit has experienced several fuel pin failures
- You have been directed to tag out the 2A NI pump
- The 2A NI pump room general area is 300 mREM/hr
- To reach the 2A NI pump room you must transit through a 3 REM/hr high radiation area for 2 minutes and return via the same route
- Your current accumulated annual dose is 950 mREM
- In accordance with your RWP, you must not exceed your ALERT exposure limit

The MAXIMUM allowable stay-time in the 2A NI pump room for hanging the tagout is _____ minutes.

Which ONE (1) of the following completes the statement above?

A. 90

B. 110

C. 130

D. 150

Question: 73
(1 point)

Given the following on Unit 1:

- Valid reactor trip annunciator is lit
- Intermediate Range Startup Rate is positive
- Power Ranges indicate 6%
- All 6900v busses are deenergized
- 1ETA is deenergized
- 1B D/G is OFF
- Safety Injection status light is lit
- All S/G levels are 10% and lowering
- #1 CAPT has tripped due to mechanical overspeed

Which ONE (1) of the following indicates the procedure that will have the HIGHEST priority for the conditions above?

A. ECA-0.0 (LOSS OF ALL AC POWER)

B. E-0 (REACTOR TRIP OR SAFETY INJECTION)

C. FR-H.1 (RESPONSE TO LOSS OF SECONDARY HEAT SINK)

D. FR-S.1 (RESPONSE TO NUCLEAR POWER GENERATION/ATWS)

Question: 74
(1 point)

Given the following steps from E-0:

- 16.b RNO b1. Ensure ND pump mini-flow valve on running ND pump(s) OPEN:
- 19. Check NC temperatures:
  - If any NC pump on, Then check NC T-Avg STABLE OR TRENDING TO 557°F

Ensure in step 16.b (RNO) ___(1)___ include taking action to close the valves locally.

When evaluating step 19, if all NC T-Avgs are going down slowly due to auxiliary feedwater flow, NC T-Avg ___(2)___ be considered STABLE.

In accordance with OMP 4-3 (USE OF EMERGENCY AND ABNORMAL PROCEDURES AND FLEX SUPPORT GUIDELINES), which ONE of the following completes the statements above?

A. 1. does
   2. can

B. 1. does
   2. can NOT

C. 1. does NOT
   2. can

D. 1. does NOT
   2. can NOT

Question: 75
(1 point)

In accordance with AP-47 (SECURITY EVENTS),

1) a confirmed unexploded bomb on site _____ one of the events for which AP-47 provides operator actions.

2) AP-47 _____ designated as proprietary information.

Which ONE (1) of the following completes the statements above?

A. 1. is NOT
   2. is NOT

B. 1. is NOT
   2. is

C. 1. is
   2. is NOT

D. 1. is
   2. is

Examination KEY for: MNS ILT 18-1 RO NRC Examination

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

Examination KEY for: MNS ILT 18-1 RO NRC Examination

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

Examination KEY for: MNS ILT 18-1 RO NRC Examination

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

Reference List for: MNS ILT 18-1 RO NRC Examination

MCFD-2580-01.00, Steam Generator Blowdown Recycle System

Steam Tables

Tech Spec 3.3.3 (PAM Intrumentation)