U.S. Nuclear Regulatory Commission Site-Specific RO Written Examination

Site-Specific RO Written Examination			
Applicant	Information		
Name:			
Date:	Facility/Unit: Turkey Point Units 3 & 4		
Region: II	Reactor Type: W		
Start Time:	Finish Time:		
Use the answer sheets provided to document your answers. Staple this cover sheet on top of the answer sheets. To pass the examination, you must achieve a final grade of at least 80.00 percent. Examination papers will be collected 6 hours after the examination begins.			
Applicant Certification All work done on this examination is my own. I have neither given nor received aid. Applicant's Signature			
Results			
Examination Value	Points		
Applicant's Score Points			
Applicant's Grade Percent			

Turkey Point Initial Licensed Examination

List of references to be provided candidates during examination:

Reactor Operator:

1. None

WYS O

ATTACHMENT TO L-2010-275

Turkey Point Questions 1-75 RO Questions 76-100 SRO only

Examination Answer Key November 10, 2010

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

Question 1

- Unit 4 has experienced a reactor trip and safety injection.
- Off-site power has been lost.
- The crew has determined that the safety injection was due to Pressurizer PORV PORV-4-455C leaking by.
- When the RO attempted to close Block Valve MOV-4-536, the red and green valve position lights extinguished.
- RCS pressure is 1100 psig and lowering.
- The SNPO reports the breaker for MOV-4-536 is NOT mechanically tripped and the thermal overload is tripped.

Which ONE of the following identifies the minimum actions required for the SNPO to restore Control Room indication for MOV-4-536 and the effect on Pressurizer level if MOV-4-536 cannot be closed?

- A. Depress the thermal overload pushbutton and cycle the breaker OFF then ON
 The Pressurizer will fill
- B. Depress the thermal overload pushbutton and cycle the breaker OFF then ON
 The Pressurizer will empty
- C. Only depress the thermal overload pushbutton The Pressurizer will fill
- D. Only depress the thermal overload pushbutton The Pressurizer will empty

Question 2

D.

is NOT required

• Both units are at 100% power. • An ECO will be hung to isolate CCW to the 3A HHSI Pump. Which ONE of the following completes the following statements? Unit 4 _____ (1) ___ to apply the action statement for Technical Specification 3.5.2, ECCS Subsystems - Tavg Greater than or Equal to 350°F. A LOCA on **Unit 3** would have adequate ECCS flow for ____(2)__. (1) (2) Α. is required all size breaks is required В. only breaks less than 4 inches C. is NOT required all size breaks

only breaks less than 4 inches

Question 3

- Unit 4 is at 100% power.
- There are no available Charging Pumps.
- The crew has isolated letdown.
- Total RCP seal return is 9 gpm.

In accordance with 4-OSP-041.1, Reactor Coolant System Leak Rate Calculation, which ONE of the following identifies how long it will take the Pressurizer level to decrease by 1%?

- A. 1.5 to 2 minutes
- B. 4.5 to 5 minutes
- C. 9.5 to 10 minutes
- D. 11 to 11.5 minutes

Question 4

Initial conditions:

- Unit 4 is in Mode 4.
- The RCS is water solid.
- RCS pressure is 350 psig.
- RHR is in service.
- Overpressure Mitigation System (OMS) primary and backup status lights are "ON."

Subsequently:

- A momentary pressure excursion to 600 psig causes the following annunciators to actuate:
 - > A 3/2, OMS HI PRESS ALERT
 - ➤ A 3/3, OMS CONTROL ACTIVATED
- After 10 seconds RCS pressure returns to its previous value.

In accordance with 4-ONOP-050, Loss of RHR, which ONE of the following identifies the required operator action?

NOTE: MOV-4-750 and 751 are Normal RHR Suction from Loop Valves.

- A. Depress the Interrupt Pushbuttons for MOV-4-750 and MOV-4-751 before the valves reach their full close position.
- B. Depress the Interrupt Pushbuttons for MOV-4-750 and MOV-4-751 immediately after the valves have both fully closed.
- C. Stop all running charging pumps.
- D. Reduce charging pump speed.

Question 5

Operators are responding to a LOCA on Unit 3.

- Containment pressure peaked at 26 psig.
- The Pressurizer level is off-scale low.
- No Charging Pumps are running.
- The crew is re-establishing charging flow.
- Seal Water Return temperatures are 245°F.

Which ONE of the following describes the status of CCW to the RCP thermal barriers and why the local seal injection valves are closed before starting the Charging Pump in accordance with BD-ONOP-041.1, Reactor Coolant Pump Off-Normal Basis Document?

CCW flow to the RCP thermal barriers has...

- A. been lost.Cold seal injection flow will cause RCP seal damage.
- B. been lost.
 Maximum charging flow to the RCS loops via the normal charging path is required.
- C. NOT been interrupted.
 Maximum charging flow to the RCS loops via the normal charging path is required.
- D. NOT been interrupted.Cold seal injection flow will cause RCP seal damage.

Question 6

- Unit 3 is at 100% power.
- PT-3-444, Pressurizer Pressure Control Channel, fails to 1500 psig.

Which ONE of the following completes both of the following statements after the channel failure?

The control signal (% controller	output)	indication	on Pr	essurizei	r Pres	sure
Controller PC-3-444J will be	(1)	Pressu	ırizer p	oressure	will in	crease
until <u>(2)</u> .						

	(1)	(2)
A.	0%	the reactor trips
B.	0%	a PORV opens
C.	100%	the reactor trips
D.	100%	a PORV opens

Question 7

Initial conditions:

- Unit 3 is at 100% power.
- The crew has completed all required actions in 3-ONOP-059.8, Power Range Nuclear Instrument Malfunction, in response to failed Power Range Nuclear Instrument N-41.
- N-41 is still out of service.

Subsequently:

- Unit 3 experiences a loss of 120V Instrument Bus 3P07.
- The red and green reactor trip breaker lights are extinguished on the RCO Console and on VPB.

Which ONE of the following explains these breaker light indications and the status of the reactor trip breakers?

- A. 120V Instrument Bus 3P07 provides power to the reactor trip breaker light indications. The reactor trip breakers are open.
- B. 120V Instrument Bus 3P07 provides power to the reactor trip breaker light indications; however, the reactor trip breakers failed to open (remain closed).
- C. Two power range channels tripped and the reactor trip breakers are open.
- D. Two power range channels tripped; however the reactor trip breakers failed to open (remain closed).

Question 8

- The crew is performing 4-ONOP-071.2, Steam Generator Tube Leakage.
- The crew reduced power to less than 5% and has just tripped the reactor.

In accordance with 4-ONOP-071.2, which ONE of the following identifies a subsequent plant condition that requires the crew to manually initiate safety injection?

- A. Pressurizer level steady at 14% with charging at maximum and letdown automatically isolated
- B. Pressurizer level at 19% and decreasing with charging at maximum and letdown isolated
- C. With makeup in automatic, Charging Pump suction swaps to the RWST due to low level in the VCT
- D. STA performs 4-OSP-041.1, RCS Leak Rate Calculation, and reports a RCS leak rate of 150 gpm

Question 9

Initial conditions:

- Unit 4 is at 100% power.
- The B AFW Pump is out of service.

Subsequently, Unit 4 experiences a loss of Main Feedwater.

Which ONE of the following identifies:

- 1) the AFW Pumps auto start signal and
- 2) in accordance with 4-EOP-ES-0.1, Reactor Trip Response, how the AFW Pumps are required to be operated to ensure over-heating does not occur?
- A. 2/3 narrow range levels less than 10% on any one Steam Generator An AFW Pump is required to be shutdown within one hour of the initial start signal
- B. 2/3 narrow range levels less than 10% on at least two Steam
 Generators
 An AFW Pump is required to be shutdown within one hour of the initial start signal
- C. 2/3 narrow range levels less than 10% on any one Steam Generator An AFW Pump is required to be shutdown within one hour of operating at less than 60 gpm
- D. 2/3 narrow range levels less than 10% on at least two Steam
 Generators
 An AFW Pump is required to be shutdown within one hour of operating at less than 60 gpm

Question 10

Which ONE of the following completes the following statement in accordance with BD-EOP-ECA-0.0, Loss of All AC Power Basis Document?

The 3A, 4A, and Spare Batteries design basis is to supply their shutdown loads for a minimum of ___(1)___, provided the non-essential DC loads are de-energized no later than __(2)_ after a loss of all AC power event.

	(1)	(2)
A.	1 hour	15 minutes
В.	1 hour	30 minutes
C.	2 hours	30 minutes
D.	2 hours	60 minutes

Question 11

- PTN has experienced a loss of the switchyard.
- All EDGs are supplying their respective 4kV busses.

Which ONE of the following completes both statements for these conditions?

There will be ___(1)_ Control Room Air Handlers running.

The Control Room Air Handler Compressor/Fan indications are available ____(2)___.

	(1)	(2)
A.	1	at Control Room Rack 4QR81 & 4QR82 AND at the air handler
B.	1	only at the air handler
C.	. 3	at Control Room Rack 4QR81 & 4QR82 AND at the air handler
D.	3	only at the air handler

Question 12

- Unit 3 is at 50% power.
- Multiple annunciators simultaneously alarm.
- The bottom two rows of bistable lights on VPB go out.

Which ONE of the following 120V Vital Instrument Panels has been lost?

- A. 3P06
- B. 3P07
- C. 3P08
- D. 3P09

Question 13

Initial conditions:

- Unit 3 is in Mode 3.
- Vital 480V MCC 3B is out of service.

Subsequently:

- Vital DC Bus 3D23 loses power due to a fault on the bus.
- The crew is restoring power to DC Bus 3D23 in accordance with 3-ONOP-003.5, Loss of DC Bus 3D23 and 3D23A (3B).
- The fault has been isolated.

Which ONE of the following identifies the battery charger that is still available and the required methodology for re-energizing Vital DC Bus 3D23 in accordance with 3-ONOP-003.5?

- A. 3B1; the ONOP requires energizing the bus by FIRST closing the battery output breaker and THEN aligning the charger
- B. 3B1; the ONOP requires energizing the bus by FIRST aligning the charger THEN closing the battery output breaker
- C. 3B2; the ONOP requires energizing the bus by FIRST closing the battery output breaker and THEN aligning the charger
- D. 3B2; the ONOP requires energizing the bus by FIRST aligning the charger THEN closing the battery output breaker

Question 14

- Unit 4 VARs are 225 MVARs in the lead with 20 MVAR oscillations.
- Megawatts are stable at 750 MWe.
- Annunciator E 8/2, GEN FIELD FORCING/ VOLT REG LIMITING, is in alarm.
- At the Exciter Switchgear, the MINIMUM EXCITATION module #5 light is on

In accordance with 4-ONOP-090, Abnormal Generator MW/MVAR Oscillation, which ONE of the following is the required action?

- A. Place the AC Voltage Regulator to lower
- B. Place the DC Voltage Regulator to lower
- C. Place the AC Voltage Regulator to raise
- D. Place the DC Voltage Regulator to raise

Question 15

D.

- 3-EOP-ECA-1.2, LOCA Outside Containment, has been entered.
- The crew closed MOV-3-744A & B, RHR Discharge to Cold Leg Isolation Valves.
- The leak is between the 3B RHR Heat Exchanger and 3-HCV-758, RHR HX Outlet Flow Control Valve.

Which ONE of the following completes the following statement?

	•				
In accordance with 3-EOP-ECA-1.2, isolation of the LOCA outside containment can be verified based on(1)					
	Local operator actions(2)for Alternate RHR to be available for plant cooldown.				
	(1)	(2)			
A.	increasing RCS pressure	are required			
B.	increasing RCS pressure	are NOT required			
C.	decreasing Auxiliary Building radiation	are required			

decreasing Auxiliary Building radiation are NOT required

Question 16

Unit 3 has experienced a safety injection.

Which ONE of the following reflects the order of the steps listed in 3-EOP-FR-H.1 for systems / components that the crew must attempt to use to reestablish flow to the Steam Generators?

- A. 1) Main Feedwater, 2) Standby Feedwater, 3) Condensate
- B. 1) Main Feedwater, 2) Condensate, 3) Standby Feedwater
- C. 1) Standby Feedwater, 2) Main Feedwater, 3) Condensate
- D. 1) Standby Feedwater, 2) Condensate, 3) Main Feedwater

Question 17

The crew is performing 4-EOP-ECA-1.1, Loss of Emergency Coolant Recirculation.

Which ONE of the following states:

- 1) the Makeup System primary water and boric acid flow rates that are in accordance with 4-EOP-ECA-1.1 and
- 2) in accordance with BD-EOP-ECA-1.1 (basis for ECA-1.1) the reason for those flowrates?
- A. 1) 40 gpm primary water and 60 gpm boric acid
 - 2) Maximum blended flow that can be maintained through the blender.
- B. 1) 40 gpm primary water and 60 gpm boric acid
 - 2) Provides a blend of about 2000 ppm
- C. 1) 60 gpm primary water and 40 gpm boric acid
 - 2) Maximum blended flow that can be maintained through the blender.
- D. 1) 60 gpm primary water and 40 gpm boric acid
 - 2) Provides a blend of about 2000 ppm

Question 18

- The crew is performing 4-EOP-ECA-2.1, Uncontrolled Depressurization of All Steam Generators.
- The crew has NOT been able to close the MSIVs.
- All Steam Generator pressures are 50 psig.

Which ONE of the following identifies (1) the required BOP actions to control Steam Generator levels in accordance with 4-EOP-ECA-2.1 and (2) the reason for those actions in accordance with Basis Document BD-EOP-ECA-2.1?

The BOP is required to...

- A. establish an alternate feedwater supply equal to 25 gpm per S/G then isolate AFW.

 to keep the S/G tubes wet
- B. establish an alternate feedwater supply equal to 25 gpm per S/G then isolate AFW.to prevent entry into 4-EOP-FR-H.1, Loss of Secondary Heat Sink
- C. continue to use AFW feedwater flow equal to 25 gpm per S/G. to keep the S/G tubes wet
- D. continue to use AFW feedwater flow equal to 25 gpm per S/G. to prevent entry into 4-EOP-FR-H.1, Loss of Secondary Heat Sink

Question 19

- Unit 4 Bank D rods were at 150 steps.
- The rods are in automatic.
- Bank D rods are experiencing a continuous rod withdrawal.

Which	ONE of the following completes the following statements?
The R	CO console NARPI indication will change(1)
	ordance with 4-ONOP-028, Reactor Control System Malfunction, the ed operator action is to(2)
Α.	after each step place the Rod Motion Control Selector switch to MAN
B.	after each step trip the reactor and enter 4-EOP-E-0, Reactor Trip or Safety Injection
C.	every time the rods move 2.5 steps place the Rod Motion Control Selector switch to MAN
D.	every time the rods move 2.5 steps trip the reactor and enter 4-EOP-E-0, Reactor Trip or Safety Injection

Question 20

C.

D.

Power Cabinet

Power Cabinet

- Unit 3 is retrieving a dropped rod in accordance with 3-ONOP-028.3 Attachment 1, Dropped RCC, Dropped Rod Recovery.
- The dropped rod is in Bank D Group 2.
- Alarm B 9/4, ROD CONTROL URGENT FAILURE, alarms during the retrieval.

Which	ONE of the followin	g completes the following statement?
Alarm	B 9/4 is due to a	(1) alarm on Bank D (2).
	(1)	(2)
A.	Logic Cabinet	Group 1
B.	Logic Cabinet	Group 2

Group 1

Group 2

Question 21

- An ATWS has occurred on Unit 4.
- The crew has entered 4-EOP-FR-S.1, Response to Nuclear Power Generation/ATWS.
- The crew is establishing emergency boration.
- The 4A and 4B Boric Acid Transfer Pumps tripped and cannot be started.

Which ONE of the following identifies the next required action to commence emergency boration in accordance with 4-EOP-FR-S.1?

- A. Open MOV-4-350, Emergency Borate Valve
- B. Close LCV-4-115C, VCT Outlet Isolation Valve, and locally open the breaker
- C. Start an additional Charging Pump
- D. Locally open 4-356, Manual Emergency Boration Valve

Question 22

- Unit 4 is at 100% power.
- Vacuum is 26" Hg.
- The BOP rapidly reduced load and annunciator C 8/3, STEAM DUMP ARMED/ACTUATED, actuated.

Which ONE of the following predicts if annunciators C 8/3, and E 6/3, CONDENSER LO VACUUM TRIP, will be in alarm with condenser vacuum at 24" Hg?

	<u>C 8/3</u>	<u>E 6/3</u>
Α.	Actuated	Actuated
В.	Actuated	NOT Actuated
C.	NOT Actuated	Actuated
D.	NOT Actuated	NOT Actuated

Question 23

The Unit 3 RO is preparing to commence a release of Gas Decay Tank A in accordance with 0-NOP-061.14A, Waste Gas Disposal System Controlled Release of Gas Decay Tank A.

In accordance with 0-NOP-061.14A which ONE of the following identifies:

- 1) how the RO is required to adjust the R-14, Plant Vent Gaseous Effluent Monitor, HIGH ALARM thumbwheel and
- 2) when the release is required to be terminated?

Adjust the thumbwheel to match the...

- A. "Maximum Expected Monitor Reading" listed on the Gas Decay Tank Release Permit.
 Terminate the release if at any time during the release the Auxiliary Building Fan configuration changes.
- B. "Maximum Expected Monitor Reading" listed on the Gas Decay Tank
 Release Permit.
 Terminate the release if the outside wind direction changes.
- C. "R-14 setpoint" specified on the Gas Decay Tank Release Permit. Terminate the release if at any time during the release the Auxiliary Building Fan configuration changes.
- D. "R-14 setpoint" specified on the Gas Decay Tank Release Permit. Terminate the release if the outside wind direction changes.

Question 24

The following plant conditions exist when the crew enters 3-EOP-ES-0.0, Rediagnosis.

- RCS Pressure is 100 psig and slowly lowering.
- Pressurizer Level is off-scale low.
- All SG Pressures are 500 psig and slowly lowering.
- All the MSIVs are closed.
- RCS Subcooling is 0°F.
- S/G A, B, C narrow range levels are 12%, 10%, 5% and slowly rising.
- AFW flow to the A, B, C S/Gs is 150, 130, 120 gpm and stable.
- Containment Pressure is 22 psig and slowly lowering.
- Containment Temperature is 200°F and lowering.
- Containment Sump level is increasing.

In accordance with 3-EOP-ES-0.0, which of the following states the procedure the crew is required to transition to?

- A. E-1, Loss of Reactor or Secondary Coolant
- B. E-2, Faulted Steam Generator Isolation
- C. ECA-2.1, Uncontrolled Depressurization of All Steam Generators
- D. E-3, Steam Generator Tube Rupture

Question 25

- The crew is performing 4-EOP-ES-0.4, Natural Circulation Cooldown With Steam Void In Vessel (Without RVLMS).
- The crew is performing Step 5 "Try To Start One RCP."

In accordance with 4-EOP-ES-0.4, which ONE of the following identifies the Pressurizer level and the basis for the required level in accordance with BD-EOP-ES-0.4, Basis Document?

- A. Between 20 and 25% to prevent the Pressurizer going solid
- B. Between 20 and 25% to maintain Pressurizer level on scale when the reactor upper head void collapses
- C. Less than 68% to prevent the Pressurizer going solid
- D. Greater than 68% to maintain Pressurizer level on scale when the reactor upper head void collapses

Question 26

Which ONE of the following identifies the minimum Containment Recirculation Sump level that requires the crew to enter 3-EOP-FR-Z.2, Response to Containment Flooding, and "who" the crew is required to provide sump level and activity level values to?

- A. 428 inches; Technical Support Center
- B. 428 inches; Nuclear Chemistry
- C. 447 inches; Technical Support Center
- D. 447 inches; Nuclear Chemistry

Question 27

- An event has occurred in the plant that has resulted in a radioactive release in the containment.
- A Site Area Emergency has been declared.

Which ONE of the following actions is directed by 3-EOP-FR-Z.3, Response to High Containment Radiation Level?

- A. Lineup the Post Accident Containment Ventilation System as directed by the Technical Support Center.
- B. Perform Post Accident Containment Ventilation Alternate Air Pressurization using 3-OP-094, Containment Post Accident Monitoring Systems.
- C. Verify Containment and Control Room Ventilation Isolation and verify at least two Emergency Containment Filter Fans running.
- D. Reduce containment activity levels with dilution flow using the Containment Purge System.

Question 28

- Unit 3 is at 8% power.
- Breaker 3AA05, 3A 4kV Bus Feed from Unit 3 Startup Transformer, trips open.

Which ONE of the following identifies how many RCPs will lose 4 kV power and whether the reactor will automatically trip?

- A. Only one RCP: the reactor will automatically trip
- B. Only one RCP; the reactor will NOT automatically trip
- C. Two RCPs; the reactor will automatically trip
- D. Two RCPs; the reactor will NOT automatically trip

Question 29

- Unit 3 is at 100% power.
- The 45 gpm letdown orifice is in service.
- Blended makeup flow is set for 60 gpm.

With no operator action, which ONE of the following failures will result in the Pressurizer heaters de-energizing? and remaining de-energized?

- A. LT-3-115, VCT Level Transmitter, fails high
- B. LT-3-112, VCT Level Transmitter, fails high
- C. Instrument Air is lost to CV-3-204, Letdown from Regen Heat Exchanger Isolation
- D. Instrument Air is lost to HCV-3-121, Charging Flow to Regen Heat Exchanger

Question 30

- Unit 3 has experienced a LOCA.
- Containment temperature is 200°F.
- RHR flow is 0 gpm.

In accordance with 3-EOP-E-1, Loss of Reactor or Secondary Coolant, which ONE of the following completes the following statements?

The maximum RCS pressure that the RHR Pumps are allowed to be left operating is (1).

If RCS pressure is above this pressure, the maximum time the RHR Pumps are allowed to run is _____(2)___.

	(1)	(2)
A.	250 psig	44 minutes
В.	250 psig	60 minutes
C.	650 psig	44 minutes
D.	650 psig	60 minutes

Question 31

Initial conditions:

- Unit 4 is performing a core reload.
- The 4A RHR Pump is out of service.
- The 4B RHR Pump has been running continuously for the past 24 hours.
- RHR flow is 3500 gpm.

Subsequently:

- The RHR flow is interfering with the fuel assembly insertion.
- The Manipulator Crane Operator has requested that the 4B RHR Pump be stopped or RHR flow be reduced to less than 1000 gpm.

Which ONE of the following identifies the allowances and / or restrictions for RHR flow during the core reload, in accordance with Technical Specification 3.9.8, Residual Heat Removal and Coolant Circulation?

The 4B RHR Pump is ...

- A. allowed to be stopped, but only for up to one hour provided core outlet temperature is maintained 10°F below saturation.
- B. allowed to be stopped, but only for up to one hour provided no operations are permitted that can cause a reduction in RCS boron concentration.
- C. NOT allowed to be stopped; however, the flow may be reduced to less than 1000 gpm provided RCS temperature is maintained less than 140°F.
- D. NOT allowed to be stopped and flow is NOT allowed to be reduced while the core reload is in progress.

Question 32

- Unit 3 has experienced a large break LOCA.
- The 3A RHR Pump breaker tripped when it was sequenced on and cannot be closed.
- The crew is establishing cold leg recirculation in accordance with 3-EOP-ES-1.3, Transfer to Cold Leg Recirculation.
- When the crew attempted to open the RHR Suction To Containment Recirc Sump Valves, the following occurred:
 - ➤ MOV-3-860A and MOV-3-860B did NOT open.
 - ➤ MOV-3-861A and MOV-3-861B opened.

Given the current alignment, which ONE of the following identifies the minimum required action(s), if any, to establish a suction flowpath to the 3B RHR Pump?

- A. A flowpath already exists to the suction of the 3B RHR Pump. No further action is required to establish the flowpath.
- B. Opening both MOV-3-860A **AND** MOV-3-860B is required to establish a flowpath to the 3B RHR Pump.
- C. Opening MOV-3-860A **OR** MOV-860B is required to establish a flowpath to the 3B RHR Pump.
- D. ONLY opening MOV-3-860B will establish a flowpath to the 3B RHR Pump. Opening MOV-3-860A will NOT establish a flowpath to the 3B RHR Pump.

Question 33

Initial conditions:

- Unit 3 is at 100% power.
- Operators are raising Pressurizer Relief Tank (PRT) level in accordance with the appropriate plant procedure.

Subsequently, annunciator A 7/1, PRT HI/LO LEVEL, HI PRESS/TEMP actuates.

Which ONE of the following predicts the position of CV-3-519A, Primary Water Containment Isolation Valve, and CV-3-519B, PRT Primary Water Makeup Valve, after the annunciator alarmed?

	<u>CV-3-519A</u>	<u>CV-3-519B</u>
A.	SHUT	OPEN
B.	SHUT	SHUT
C.	OPEN	SHUT
D.	OPEN	OPEN

Question 34

- The crew is preparing to place RHR in service in accordance with 4-OP-050, Residual Heat Removal System.
- All RCS temperatures are 360°F.
- The 4A ICW/CCW Heat Exchanger is out of service.
- Both RHR Heat Exchangers will be valved in.

Which ONE of the following completes both statements in accordance with 4-OP-050, and Technical Specification 3.7.2, Component Cooling Water System?

The crew is required to place ____ CCW Pumps(s) to PULL-TO-LOCK position.

Entry to an action statement for Technical Specification 3.7.2 _____ required for this mode.

- A. one; is
- B. one; is NOT
- C. two; is
- D. two; is NOT

Question 35

- Unit 3 is at 100% power.
- Alarm H 8/6, CCW HEAD TANK HI/LO LEVEL, has actuated.
- Head Tank level is 10% and decreasing slowly.
- The RO momentarily places the MOV-3-832, Primary Water Makeup to CCW Surge Tank, control switch to the OPEN position and obtains dual indication.
- The CCW Head Tank level is still decreasing slowly.

In accordance with the alarm response procedure for alarm H 8/6, which ONE of the following actions is required?

- A. Split CCW headers
- B. Start a second Primary Water Pump
- C. Trip the reactor and stop all RCPs
- D. Hold the handswitch for MOV-3-832 OPEN longer

Question 36

D.

- Unit 3 is at 100% power.A Pressurizer PORV is leaking by.

400°F can NOT be used

•	PRT pressure	e is 2 psig.
Wł	nich ONE of the	e following completes the following statements?
Th	e PORV tailpip	e temperature on VPA will indicate approximately(1)
		action, PORV tailpipe temperature indication(2) to PORV is leaking by.
A.	220°F	can be used
В.	400°F	can be used
C.	220°F	can NOT be used

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Which ONE of the following completes the following statements?

In accordance with 0-ADM-536, Technical Specification Bases Control Program for the Reactor Trip System Instrumentation Setpoints, the __(1) trip provides protection to prevent DNB.

The	trip setpoint	is reduced if
	_(1)	(2)
Α.	ΟΡΔΤ	Pressurizer pressure decreases
B.	ΟΡΔΤ	Tavg rate of change increases
C.	ΤΔΤΟ	Pressurizer pressure decreases
D.	ΤΔΤΟ	Tavg rate of change increases

Question 38

Initial conditions on Unit 4:

- The crew is cooling down in accordance with 4-GOP-305, Hot Standby to Cold Shutdown.
- The MSIVs are closed.
- RCS pressure is 1900 psig.
- Tcolds are 520°F.
- All operator actions to continue the cooldown have been completed.

Subsequently:

- The 4C S/G steamline breaks outside containment.
- 4C S/G pressure decreases to 0 psig.

Which ONE of the following predicts the status of annunciators C 8/6 and C 9/3 for these plant conditions?

NOTE:

C 8/6 is SG C STEAM LINE HI Δ P SI C 9/3 is MAIN STEAMLINE HI Δ P

- A. C 8/6 and C 9/3 will both be in alarm.
- B. Both C 8/6 and C 9/3 will NOT be in alarm.
- C. C 8/6 will be in alarm. C 9/3 will NOT be in alarm.
- D. C 8/6 will NOT be in alarm. C 9/3 will be in alarm.

Question 39

- Unit 4 is at 50% power.
- PT-4-455, Pressurizer Pressure Protection Pressure Transmitter, has failed high.
- The appropriate actions have been taken in accordance with 4-ONOP-049.1, Deviation or Failure of Safety Related or Reactor Protection Channels.

Subsequently, PT-4-456, Pressurizer Pressure Protection Pressure Transmitter, fails low.

Which ONE of the following describes how the plant will respond and the reason for that response?

An automatic Safety Injection will...

- A. occur because 2 of 3 bistables are below the setpoint of 1730 psig.
- B. occur because 2 of 3 bistables are below the setpoint of 1835 psig.
- C. NOT occur because it requires 2 of 3 bistables below setpoint of 1730 psig.
- D. NOT occur because it requires 2 of 3 bistables below setpoint of 1835 psig.

Question 40

- Unit 3 has experienced LOOP.
- The 3A and 3B 4kV Busses sole power supplies are the 3A and 3B EDGs, respectively.
- The crew has transitioned to 3-EOP-ES-0.1, Reactor Trip Response.

Which ONE of the following identifies whether or not the Normal Containment Coolers (NCCs) and CRDM Cooling Fans can be restarted?

	NCCs	CRDM Fans
A.	Can be re-started	Can be re-started
B.	Can be re-started	Can NOT be re-started
C.	Can NOT be re-started	Can be re-started
D.	Can NOT be re-started	Can NOT be re-started

Question 41

Which ONE of the following identifies the 3A S/G Blowdown Valve(s) that will automatically close on a Containment Phase A isolation signal?

Note:

CV-3-6275A is 3A S/G Blowdown Isolation Valve MOV-3-1427 is 3A S/G Blowdown Sample Valve FCV-3-6278A is 3A S/G Blowdown Flow Control Valve

- A. Only CV-3-6275A
- B. Only CV-3-6275A and MOV-3-1427
- C. Only CV-3-6275A and FCV-3-6278A
- D. CV-3-6275A, MOV-3-1427, and FCV-3-6278A

Question 42

Initial conditions:

- Unit 4 is at 100% power.
- The 4C LC is de-energized.

Subsequently:

- Unit 4 experienced a LOCA.
- The 4B Sequencer failed to operate.
- Containment pressure exceeded the Spray actuation setpoint.

Which ONE of the following states how the Containment Spray Pump Discharge Valves, MOV-4-880A and B, will respond?

	MOV-4-880A	MOV-4-880B
A.	Remain closed	Remain closed
B.	Remain closed	Automatically open
C.	Automatically open	Remain closed
D.	Automatically open	Automatically open

Question 43

- Unit 4 is at 100% power.
- The 4A S/G Steam Dump to Atmosphere valve pressure transmitter, PT-4-1606, slowly fails high.

Which ONE of the following:

- 1) describes the maximum power the reactor will reach and
- 2) in accordance with 0-ADM-200, Conduct of Operations, the correct operator response?

Between...

- A. 1) 102 and 104%
 - 2) Insert control rods
- B. 1) 102 and 104%
 - 2) Lower turbine load
- C. 1) 106 and 108 %
 - 2) Insert control rods
- D. 1) 106 and 108 %
 - 2) Lower turbine load

Question 44

Initial conditions:

- Unit 4 has been at 30% power for the past hour.
- The 4A SGFP breaker was racked out on a clearance.

Subsequently:

- The 4B SGFP shaft seized.
- All Steam Generator narrow range levels initially dropped off scale low.
- All Steam Generator narrow range levels are at 40-45%.

Which ONE of the following identifies actions the BOP will be required to take to clear the AFW auto start signals?

	Reset AMSAC	Take the 4B SGFP control switch to OFF
A.	Required	Required
B.	Required	NOT Required
C.	NOT Required	NOT Required
D.	NOT Required	Required

Question 45

- Unit 4 is at 100% power.
- Instrument Bus 4P09 loses power.

In accordance with 4-ONOP-003.9 Loss of 120V Vital Instrument Panel 4P09, which ONE of the following describes the Steam Generator level controls, if any, that will remain in automatic and the correct operator response?

- A. 4A and 4C S/Gs will remain in automatic.
 Control 4B S/G level using changes in Blowdown flow.
- B. 4A and 4C S/Gs will remain in automatic.Control 4B S/G level using its controller in manual.
- C. No S/G level control will remain in automatic. Control all S/G levels using changes in Blowdown flow.
- D. No S/G level control will remain in automatic. Control all S/G levels using their controllers in manual.

Question 46

- Unit 3 is at 100% power.
- Unit 4 is at 3% power.

Which ONE of the following completes the following statements?

In accordance with Tech Spec 3.7.1.3, Condensate Storage Tank, the minimum required CST volume is _____(1)___.

If AFW actuates on Unit 4, with no operator action, the AFW Pumps will take suction from _____(2)___.

	(1)	(2)
A.	210,000 gallons	Unit 4 CST only
В.	210,000 gallons	Units 3 and 4 CSTs
C.	420,000 gallons	Unit 4 CST only
D.	420,000 gallons	Units 3 and 4 CSTs

Question 47

- Unit 3 has experienced a LOOP.
- The 3A EDG locked out.

Which ONE of the following predicts the availability of the Unit 3 QSPDS Channel A if the 3A 120 Volt Vital Instrument Bus was initially powered by:

- 1) the Constant Voltage Transformer (CVT) or
- 2) the A Spare Inverter?

Consider each of the above cases separately.

	Initially from theCVT	Initially from the A Spare Inverter
A.	Available	Available
В.	Available	NOT Available
C.	NOT Available	Available
D.	NOT Available	NOT Available

Question 48

Which ONE of the following describes the effect of placing the yellow NORMAL/ISOLATE switch to ISOLATE on the 3B HHSI Pump breaker cubicle?

- A. Enables the control switch on the 3B HHSI Pump's cubicle door
- B. Substitutes backup fuses into the 3B HHSI Pump trip and close circuits
- C. Disables the local push-button start for the 3B HHSI Pump
- D. Disables the 3B HHSI Pump breaker trip signal from bus stripping

Ques	ition 49	
Whic	h ONE of the following com	pletes the following statements?
		ecification 3.8.1, A.C. Sources, the el oil in the Unit 4A EDG Fuel Oil Day Tank is
		Document – Emergency Power System, this to operate for(2)
	(1)	(2)
A.	230 gallons	between one and two hours
B.	650 gallons	between one and two hours
C.	2000 gallons	approximately one day
D.	4000 gallons	approximately one day

Question 50

The ANPO reports A and B Air Receivers for the 4A EDG are at 155 psig and the associated Air Compressor will not load.

In accordance with 4-ARP-097.DG, Diesel Generator Panel Annunciator Response, which ONE of the following identifies if the 4A EDG is OPERABLE and the required response to the above event?

A.	OPERABLE	start the 4A EDG Diesel Air Compressor
B.	NOT OPERABLE	start the 4A EDG Diesel Air Compressor
C.	OPERABLE	Cross-tie with the 4B EDG starting air
D.	NOT OPERABLE	Cross-tie with the 4B EDG starting air

Question 51

- Unit 3 is at 100% power.
- PRMS-3-20, Reactor Coolant Letdown Monitor, is increasing.
- Chemistry gives the following report:
 - Dose equivalent iodine has not changed.
 - > RCS gross activity has increased.

Which ONE of the following identifies the type of detector utilized by PRMS-3-20 and the operational implication of these sample results?

- A. Scintillation; sample results indicate a crud burst has occurred.
- B. Geiger Mueller; sample results indicate a crud burst has occurred.
- C. Scintillation; sample results indicate a fuel cladding leak has occurred.
- D. Geiger Mueller; sample results indicate a fuel cladding leak has occurred.

Quest	ion 52	
	ONE of the follow and ICW Systems	ving describes the effect of a large break LOCA on the ?
Flow t	hrough the CCW	(1) header significantly rises.
The IC	CW flow through th	ne ICW/CCW Heat Exchanger <u>(2)</u> .
	(1)	(2)
A.	А	increases
B.	A	remains the same
C.	В	increases
ח	R	remains the same

Question 53

Initial conditions:

- Unit 4 is at 100% power.
- The 4A CCW Pump breaker is racked out for maintenance.
- The 4B and 4C CCW Pumps are aligned to independent power supplies.

Subsequently, Unit 4 experiences a Loss of Off-Site Power.

Which ONE of the following predicts the final status of the 4C CCW Pump?

- A. Aligned to the 4A 4kV Bus and running
- B. Aligned to the 4A 4Kv Bus and NOT running
- C. Aligned to the 4B 4kV Bus and running
- D. Aligned to the 4B 4Kv Bus and NOT running

Question 54

- The Instrument Air Compressor control switches are in a normal alignment with 3CM in lead.
- Unit 3 air receiver air pressure has been cycling between 100 psig and 105 psig for the last two hours.
- The pressure at the air filters is the same as at the air receiver.

vinion ONE of the following completes the following statement?
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			G	
		mpressor(1) EMP / LO PRESS _	is cycling on load. (2)	Alarm I 6/1, INST
	(1)	(2)		
A.	3CD	is in alarm		
B.	3CD	is NOT in alarm	•	
C.	4CM	is in alarm		
D.	4CM	is NOT in alarm		

Question 55

- Unit 3 is in Mode 1.
- Containment average temperature is 118°F.
- Containment pressure is negative 0.8 psig.

Whic	Which ONE of the following completes the following statement?		
	cordance with Technical Specification nal Pressure, Containment pressure is		
	cordance with Technical Specification emperature, the operator is(2)	3.6.1.5, Containment Systems –	
	(1)	(2)	
A.	required to be increased	required to track hours	
B.	within limits at the present value	required to track hours	
C.	required to be increased	NOT required to track hours	
D.	within limits at the present value	NOT required to track hours	

Question 56

Initial conditions:

- Unit 3 is at 100% power
- The crew is taking Unit 3 off-line in accordance with 3-ONOP-100, Fast Load Reduction.

Immediately after starting the downpower, alarm B 9/4, ROD CONTROL URGENT FAILURE, actuated.

In accordance with 3-ONOP-100, which ONE of the following describes the effect of annunciator B 9/4 on rod motion and how ΔI will respond during the downpower?

- A. Rod motion is inhibited
 ΔI will trend in the negative direction during the downpower.
- B. Rod motion is inhibited
 ΔI will trend in the positive direction during the downpower.
- C. Rod motion is NOT inhibited
 ΔI will trend in the negative direction during the downpower.
- D. Rod motion is NOT inhibited ΔI will trend in the positive direction during the downpower.

Ques	tion 57		
Which ONE of the following completes both statements?			
The PAHMS (AE-3-6307A and AE-3-6307B) are required to be placed in service within following a valid SI signal, in accordance with 3-EOP-E-0 Attachment 3, Reactor Trip or Safety Injection, Prompt Actions Verification.			
Alarm I 6/5, PAHMS TROUBLE, alarm setpoint is hydrogen in Containment.			
A.	30 minutes; 2%		
B.	30 minutes; 4%		
C.	60 minutes; 2%		
D.	60 minutes; 4%		

Question 58

- Unit 3 is at 100% power.
- No maintenance is being performed on the Spent Fuel Pit.
- The level in the Spent Fuel Pit is one inch below the alarm setpoint for H 1/1, SFP LO LEVEL

Which ONE of the following identifies the <u>setpoint</u> for alarm H 1/1 and whether an action for Technical Specification 3.9.11, Water Level – Storage Pool, is required to be entered?

A.	56' 10"	Tech Spec 3.9.11 action is required to be entered
B.	56' 10"	Tech Spec 3.9.11 action is NOT required to be entered
C.	57' 2"	Tech Spec 3.9.11 action is required to be entered
D.	57' 2"	Tech Spec 3.9:11 action is NOT required to be entered

Question 59

- Unit 3 is at 100% power.
- PT-3-447, First Stage Pressure, has failed low.

Which ONE of the following completes the following statements?

The Steam Dumps to Condenser are ___(1)___.

In accordance with Technical Specification 3.3.1 Reactor Trip Instrumentation, verify AT POWER TRIPS BLOCKED white light on VPA is _____ (2) ___ within one hour.

____(1)____(2)___

- A. Armed NOT lit
- B. Armed lit
- C. NOT Armed NOT lit
- D. NOT Armed lit

Ques	tion 60
Unit 3	s is at 15% NI power.
Which	ONE of the following completes the following statements?
Two t	urbine auto stop oil pressures less than 45 psig will cause a turbine trip _(1)
The re	eason for this/these trip(s) is to(2)
A.	(1) only(2) protect the turbine
B.	(1) and a subsequent reactor trip(2) anticipate a potential loss of heat sink
C.	(1) only(2) prevent excessive cooldown of the RCS
D.	(1) and a subsequent reactor trip(2) prevent excessive cooldown of the RCS

Question 61

Initial conditions:

- Unit 3 is at 60% power.
- Both Steam Generator Feed Pumps are running.
- The 3B Condensate Pump is out of service with its breaker racked out.

Subsequently, the 3C Condensate Pump breaker trips open.

Which ONE of the following predicts the earliest time that a Steam Generator Feedpump will automatically trip and the required procedure?

Five seconds after...

- A. the 3C Condensate Pump breaker trips 3-ONOP-089, Turbine Runback
- B. the 3C Condensate Pump breaker trips 3-ONOP-100, Fast Load Reduction
- C. Feedpump suction pressure drops to 200 psig 3-ONOP-089, Turbine Runback
- D. Feedpump suction pressure drops to 200 psig 3-ONOP-100, Fast Load Reduction

Question 62

- A liquid release and a gaseous release are in progress.
- The power supply breaker to PRMS Rack 3QR66 tripped open.
- The breaker has been re-closed to re-energize the rack.
- No other operator actions have been taken.

Which ONE of the following describes how RCV-014 and RCV-018 will respond if the RO resets the Hi alarm on the respective PRMS drawers?

NOTE:

RCV-014 is Gaseous Release Header Isolation Valve RCV-018 is Liquid Release Header Isolation Valve

	RCV-014	RCV-018
Α.	Automatically re-open	Automatically re-open
B.	Remain closed	Remain closed
C.	Automatically re-open	Remain closed
D.	Remain closed	Automatically re-open

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Which ONE of the following completes the following statements in accordance with 4-EOP-E-0, Reactor Trip or Safety Injection, foldout page?

The minimum CHRRMS value at which adverse values are required to be used is _____(1)___.

Adverse values are no longer required to be used when it has been determined that the integrated dose has not exceeded (2).

	(1)	(2)
A.	1.3 X 10 ⁴ R/Hr	10 ⁶ Rads
B.	1.3 X 10⁴ R/Hr	1.3 X 10 ⁵ Rads
C.	1.3 X 10 ⁵ R/Hr	10 ⁶ Rads
D.	1.3 X 10 ⁵ R/Hr	1.3 X 10 ⁵ Rads

Question 64

- Units 3 and 4 are at 100% power.
- The crews are performing 0-ONOP-013, Loss of Instrument Air.
- No Instrument Air compressor can be started.
- The Turbine Operator (TO) has been directed to open the 4 inch Service Air Supply to Unit 3 / Unit 4 Tie Valve, 40-2059.
- The TO reports that 40-2059 cannot be opened.

In accordance with 0-ONOP-013, which ONE of the following describes the first required action?

Direct the TO ...

- A. to start a temporary diesel air compressor and open Supply Valve, 3-40-857.
- B. to open the Service Air Supply Valve from Units 1 and 2, IAS-051.
- C. to open the Instrument Air Supply Valve from Units 1 and 2, 40-358.
- D. to open the 2 inch Service Air Supply to Unit 3/Unit 4 Tie Valve, 40-215.

Question 65

Which ONE of the following states the <u>order</u> of the sources of pressurization to the Fire Protection System as demand increases from normal operations to full load?

- A. Service Water System, Jockey Fire Pump, Electric Fire Pump
- B. Electric Fire Pump, Diesel Fire Pump, Service Water System
- C. Electric Fire Pump, Jockey Fire Pump, Diesel Fire Pump
- D. Service Water System, Electric Fire Pump, Diesel Fire Pump

Question 66

In accordance with NAP-402, Conduct of Operations, which ONE of the following identifies:

- 1) an example of an activity the RO "at the controls" is allowed to perform and
- 2) whether a person in a licensed supervisory position, such as the Unit Supervisor (US) assigned to command and control responsibilities, is allowed to assume the operator "at the controls" position if it becomes necessary for the operator "at the controls" to perform other duties?
- A. 1) answering phone calls / radio transmissions
 - 2) Is allowed
- B. 1) reviewing clearances
 - 2) Is allowed
- C. 1) answering phone calls / radio transmissions
 - 2) Is NOT allowed
- D. 1) reviewing clearances
 - 2) Is NOT allowed

Question 67

- The Operations Department Logbook Program is out of service and the Reactor Operator (RO) is making entries in the hard bound logbook.
- Unit 3 entered Mode 1 at 10:35.
- The log entry for entering Mode 1 was NOT made.
- Other log entries were made after 10:35.
- It is now 11:15

In accordance with 0-ADM-204, Operations Narrative Logbooks, which ONE of the following is the proper log entry for this situation?

- A. 10:35 Entered Mode 1 Late Entry at 11:15
- B. 11:15 at 10:35 Entered Mode 1 Late Entry
- C. 10:35 Late Entry at 11:15; Entered Mode 1
- D. 11:15 Late Entry; at 10:35 Entered Mode 1

Question 68

Which ONE of the following activities is numerically listed FIRST in 3-GOP-305, Hot Standby to Cold Shutdown?

- A. Place OMS in service
- B. Collapse the Pressurizer bubble
- C. Secure the last Reactor Coolant Pump
- D. Place the Residual Heat Removal System in service

Question 69

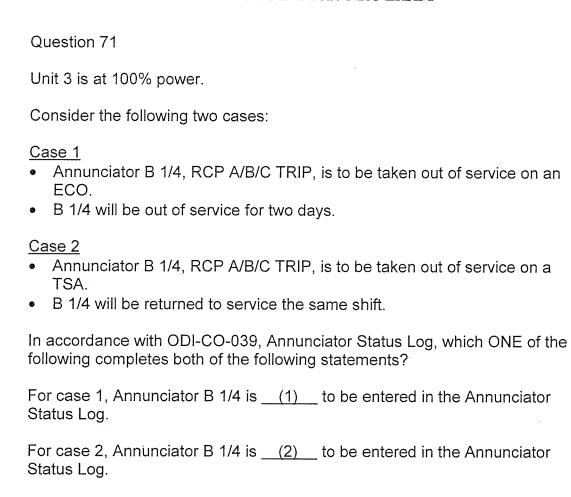
Which ONE of the following describes a difference between Unit 3 and Unit 4 EDGs?

- A. Unit 3 EDGs have additional trips during a NORMAL START that the Unit 4 EDGs do NOT have.
- B. Unit 3 EDGs have additional trips during an EMERGENCY START that the Unit 4 EDGs do NOT have.
- C. Unit 4 EDGs have additional trips during a NORMAL START that the Unit 3 EDGs do NOT have.
- D. Unit 4 EDGs have additional trips during an EMERGENCY START that the Unit 3 EDGs do NOT have.

Question 70

In accordance with 0-ADM-209, Equipment Tagging and Labeling, which ONE of the following identifies the meaning of a purple colored bar at a value on a meter?

- A. Alarm setpoint
- B. Tech Spec limit
- C. Unit trip
- D. Equipment limit



(2)

required

required

NOT required

NOT required

<u>(1)</u>

required

required

NOT required

NOT required

Α.

B.

C.

D.

Question 72

- A Turkey Point employee is performing work in the Pipe and Valve Room.
- The dose rate is 210 mRem/hour.
- The employee's exposure to date for the year is 280 mRem.
- The employee has an NRC Form 4, Cumulative Occupational Exposure History, on file.

In accordance with 0-ADM-600, Radiation Protection Manual, what is the maximum time the employee can stay in this area without requiring a dose extension?

- A. 48 minutes
- B. 205 minutes
- C. 634 minutes
- D. 1348 minutes

Question 73

- Two letdown orifices are in service on Unit 3.
- The Unit 3 Charging Pump Room has been surveyed and posted by RP and the general area is 110 mrem/hr.
- The SNPO is performing his/her rounds and is signed onto RWP-001, Operations Department Routine Activities, and all required shiftly briefs have been completed.

Which ONE of the following identifies:

- 1) if this RWP allows the SNPO to enter the Charging Pump Room without HP coverage and
- 2) the minimum dosimetry required for the SNPO to enter the Charging Pump Room?

A.	is allowed	Personal Alarm Module (PAM) OR Telemetric Dosimeter
В.	is allowed	Personal Alarm Module (PAM) AND Telemetric Dosimeter
C.	is NOT allowed	Personal Alarm Module (PAM) OR Telemetric Dosimeter
D.	is NOT allowed	Personal Alarm Module (PAM) AND Telemetric Dosimeter

Question 74

- Unit 4 is at 80% power.
- 4A1 Intake Well has a 1.6 foot water fall that is slowly increasing.
- 4A2 Intake Well has a 2.1 foot water fall that is slowly increasing.
- 4B1 Intake Well has a 2.6 foot water fall that is slowly increasing.
- 4B2 Intake Well has a 3.1 foot water fall that is slowly increasing.

Which ONE of the following identifies the minimum required operator action in accordance with 4-ONOP-011, Screen Wash System / Intake Malfunction?

- A. A reactor trip is required first, then the 4B1 and 4B2 Circulating Water Pumps are required to be tripped.
- B. A reactor trip is required, but the 4B1 and 4B2 Circulating Water Pumps are required to be tripped before the reactor trip.
- C. A reactor trip is NOT required; immediately trip 4B2 Circulating Water Pumps then enter 4-ONOP-100, Fast Load Reduction. Tripping 4B1 Circulating Water Pump is NOT required at this time.
- D. A reactor trip is NOT required; first enter 4-ONOP-100, Fast Load Reduction, and reduce power to less than 60%. Then trip 4B1 and 4B2 Circulating Water Pumps.

Question 75

Which ONE of the following identifies an EOP procedure transition that requires a "crew briefing" in accordance with 0-ADM-211, Emergency and Off-Normal operating Procedure Usage?

- A. 3-EOP-E-1, Response to Loss of Reactor or Secondary Coolant
- B. 3-EOP-FR-S.1, Response to Nuclear Power Generation/ATWS
- C. 3-EOP-E-3, Steam Generator Tube Rupture
- D. 3-EOP-ECA-0.0, Loss of All AC Power