NO.: 1 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/11/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295018 2.01 TAXONOMY NO.: 3.3/3.4
LESSON PLANS: 1 LOT0150.6D LOT0460.03
:
CATEGORY: 00 C W
SYSTEMS: DWCW

QUESTION :

Unit 1 plant conditions are as follows:

- Reactor power is 100%
- RPV level is +35"
- Drywell pressure is 0.3 psig

A blown fuse has caused an inadvertent DWCW Inboard valve isolation.

WHICH ONE of the following identifies the "1A" Recirc pump component that has lost cooling water supply?

a. motor oil cooler

b. seal oil cooler

c. motor air cooler

d. seal air cooler

ANSWER : C

DWCW cools motor air coolers only

NO.: 2 REV.: 6 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/27/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295019 3.02 TAXONOMY NO.: 3.4/3.5
LESSON PLANS: 2 LOT0730.04 ON-119
:
CATEGORY: 00 C W
SYSTEMS: PLNT AIR

QUESTION :

Unit 1 conditions are as follows:

- 100% power
- Plant Air systems are in a normal full power line-up
- Both "1A" and "1B" Instrument Air Receiver pressures are 89 psig
- Unit 1 Service Air Receiver pressure is 94 psig
- No Operator action is taken

Later, "1A" and "1B" Insrument Air Receiver pressures indicate 94 psig and 98 psig respectively with both slowly rising

WHICH ONE of the following describes the status of the Plant Air System?

a. Both Instrument Air compressors are running fully loaded

b. Service Air has automatically aligned to supply the "1A" Instrument Air header

c. The Backup Service Air compressor has automatically aligned to supply the "1B" Instrument Air header

d. The "1A" Instrument Air compressor is running fully loaded and the "1B" Instrument Air compressor is running unloaded

ANSWER : A

a. Since pressure dropped to 89 psig, both compressors will be fully loaded. Pressure must be above 106 psig for the "B" compressor to unload and 108 psig for the "A" compressor to unload.

b. Service Air aligns at 70 psig.

c. B/U Compressor is manually aligned.

d. "B" does not unload until pressure is 106 psig or higher.

NO.: 3 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/28/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EA SKA NO.: 295028 1.03 TAXONOMY NO.: 3.9/3.9
LESSON PLANS: 3 LOT0150.04 E10/20
: S13.6.D
CATEGORY: 00 C W
SYSTEMS: DWCW

QUESTION :

Plant conditions are as follows:

- A Loss of Offsite Power has occurred
- All 4KV Safeguard Buses are energized

WHICH ONE of the following identifies the system that can provide cooling water directly to Containment Unit Coolers?

a. Service Water

b. Drywell Chilled Water

c. Emergency Service Water

d. Reactor Enclosure Cooling Water

ANSWER : D

- E10/20, Step 3.45.2 gives direction to use RECW to cool the drywell.
- SW and ESW piping does not connect to the drywell unit coolers.
- DWCW is unavailable since the chilled water pumps have no power.

NO.: 4 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/14/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AA SKA NO.: 600000 1.08 TAXONOMY NO.: 2.6/2.9
LESSON PLANS: LOT0733.02 M-22
:
CATEGORY: 00 C W
SYSTEMS: FP

QUESTION :

WHICH ONE of the following systems would automatically initiate and extinguish a Class "A" fire in the Unit 2 Cable Spread Room?

a. Halon

b. Cardox

c. Protein foam

d. Wet-pipe sprinkler

ANSWER : D

Cardox must be manually initiated
No Halon in Cable spread room

NO.: 5 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/14/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 217000 5.07 TAXONOMY NO.: 3.1/3.1
LESSON PLANS: 5 LOT0380.12A E-1FA
: E-1FC
CATEGORY: 00 C W
SYSTEMS: RCIC

QUESTION :

Plant conditions are as follows:

- Reactor power is 100%
- RCIC is aligned for auto injection

An electrical fault results in the complete loss of DIVISION 3, 125 VDC.

WHICH ONE of the following describes the effect on RCIC operation?

a. Vacuum Breaker isolation valve manual control is lost

b. Manual Steam Supply isolation capability is lost

c. Will not automatically shutdown on RPV Hi level

d. Can not be manually initiated

ANSWER : A

- Manual isol. is DIV 1
- Auto initiation is DIV 1
- High level shutdown is DIV1

NO.: 6 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/27/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 215005 2.04 TAXONOMY NO.: 3.8/3.9
LESSON PLANS: 6 LOT0270.07
:
CATEGORY: 00 C W
SYSTEMS: APRM

QUESTION :

Unit 2 conditions are as follows:

- GP-3, Reactor Shutdown is in progress
- Reactor Mode switch is in "RUN"
- The Main Turbine is tripped
- APRM indications are as follows:

Channel	Reading
2A	12%
2B	11%
2C	16%
2D	13%
2E	12%
2F	14%

The Reactor Mode Switch is moved to the "Startup" position.

WHICH ONE of the following describes the APRM Withdraw Block status and RPS Scram signal response?

	Withdraw Block	RPS scram signal
a.	Yes	Full
b.	Yes	Half
c.	No	Full
d.	No	Half

ANSWER : B

NO.: 7 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/28/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 209001 6.01 TAXONOMY NO.: 3.4/3.4
LESSON PLANS: 7 LOT0350.13 E-16, E-68
:
CATEGORY: 00 C W
SYSTEMS: CS

QUESTION :

Unit 2 plant conditions are as follows:

- RPV level is -140"
- RPV pressure is 600 psig
- D22 Safeguard 4KV bus is de-energized due to a bus lockout
- No operator actions have been taken

RPV pressure drops to 200 psig

WHICH ONE of the following describes the status of the "2B", "2D" Core Spray pumps, and "2B" Loop CS Inboard Injection valve (HV52-2F037)?

	"2B" CS Pump	"2D" CS Pump	HV52-2F037
a.	On	Off	Closed
b.	On	Off	Open
c.	Off	On	Closed
d.	Off	On	Open

ANSWER : C

- 2B Core Spray is powered from D22
- 2D Core Spray pump is powered by D24
- HV52-2F037 is powered from D224-R-C, which is supplied by D22

NO.: 9 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/14/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 239002 K1.06 TAXONOMY NO.: 3.4/3.6
LESSON PLANS: 9 LOT0120.03
:
CATEGORY: 00 C W
SYSTEMS: ADS

QUESTION :

Unit 2 conditions are as follows:

- The MSIVs are closed
- Reactor pressure is 880 psig
- Both Primary Containment Instrument Gas Receivers are depressurized
- No Alternate pneumatic supplies are available

WHICH ONE of the following identifies an SRV available for RPV cooldown and where it can be operated from?

a. "2A" from the MCR

b. "2J" from the MCR

c. "2K" from the Remote Shutdown Panel

d. "2S" from the Remote Shutdown Panel

ANSWER : A

- "2A" has an accumulator due to a recent plant mod 2RO5

- "2J" does not have an accumulator

- "2K" and "2S" can only be operated from MCR or AER

NO.: 9 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/14/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 239002 K1.06 TAXONOMY NO.: 3.4/3.6
LESSON PLANS: 9 LOT0120.03
:
CATEGORY: 00 C W
SYSTEMS: ADS

QUESTION :

Unit 2 conditions are as follows:

- The MSIVs are closed
- Reactor pressure is 880 psig
- Both Primary Containment Instrument Gas headers are depressurized due to a compressor suction line isolation
- No alternate pneumatic supplies are available

WHICH ONE of the following identifies the SRVs available to support a Unit 2 RPV cooldown?

a. MCR ADS SRVs

b. MCR Non-ADS SRVs

c. Remote Shutdown Panel ADS SRVs

d. Remote Shutdown Panel Non-ADS SRVs

ANSWER : A

a. ADS SRVs are provided with backup bottles to operate the SRVs following a loss of PCIG pressure.
b. Non-ADS SRVs are not equipped with backup bottles.
c. C,A,N at RSP are Non-ADS SRVs
d. Only Unit 1 RSP SRVs are provided with accumulators.

NO.: 10 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/14/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 259001 5.03 TAXONOMY NO.: 2.8/2.8
LESSON PLANS: 10 LOT0540.05 S06.5.A
:
CATEGORY: 00 C W
SYSTEMS: FW

QUESTION :

Unit 1 Plant conditions are as follows:

- Feedwater System flushing is in progress
- Reactor Feed Pump Turbine Windmilling protection is active for all RFPTs (Keylock switches in "BYPASS")

"1A" RFPT speed rises to 700 rpm

WHICH ONE of the following describes the response of the Reactor Feedwater System?

a. Only "1A" RFP Suction valve closes

b. Only "1A" RFP Discharge valve closes

c. All RFP Suction valves close

d. All RFP Discharge valves close

ANSWER : A

NO.: 11 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/14/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 400000 4.01 TAXONOMY NO.: 3.1/3.0
LESSON PLANS: 11 LOT0680.7B SIM-M-0012
: M-12
CATEGORY: 00 C W
SYSTEMS: ESW

QUESTION :

ESW is in a normal valve alignment with:

- SPRAY/BYPASS SELECT switches, HSS-12-16A-1(C-1,B,D), in "SPRAY"
- POND/TWR 1(2) SELECT switches, HSS-12-15A-1(C-1,B,D), are normal after "SPRAY POND"
- AUTO VLV LINEUP BYPASS switches, HSS-12-19A(B,C,D), are in "NORM"

D12 Diesel automatically starts

Thirty (30) minutes later, the "B" SPRAY/BYPASS SELECT switch, 3-12-016B, is placed in "BYPASS"

WHICH ONE of the following describes the status of "A" and "B" Loop ESW return flows to the Spray Pond?

	"A" Loop return to Spray Pond	"B" Loop return to Spray Pond
a.	isolated	thru Bypass only
b.	thru Bypass only	isolated
c.	thru Bypass only	thru Bypass only
d.	isolated	isolated

ANSWER : C

NO.: 12 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/14/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 201003 1.02 TAXONOMY NO.: 2.8/2.8
LESSON PLANS: 12 LOT0060.9A
:
CATEGORY: 00 C W
SYSTEMS: CRD

QUESTION :

Unit 1 plant conditions are as follows:

- Reactor power is 100%
- Reactor pressure is 960 psig
- "1A" CRD pump is in service

Control rod 30-31 Scram Inlet (XV-47-1-26) valve inadvertently opens

WHICH ONE of the following states the sources of differential pressure across rod 30-31 and the effect on its scram time?

	High pressure Supply	Low pressure Exhaust	Scram time Effect
a.	RPV pressure	Scram Discharge Volume	faster than normal
b.	Accum. N2 gas	RPV pressure	slower than normal
c.	RPV pressure	Scram Discharge Volume	slower than normal
d.	Accum. N2 gas	RPV pressure	faster than normal

ANSWER : B

- Scram inlet allows N2 pressure under piston working against RPV pressure
- Rod scram is slower than normal due to reduced d/p

NO.: 13 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/27/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 28000 1.05 TAXONOMY NO.: 3.3/3.6
LESSON PLANS: 13 LOT0450.14
:
CATEGORY: 00 C W
SYSTEMS: CEHVAC

QUESTION :

Unit 2 conditions are as follows:

- Reactor power is 100%
- A high radiation condition occurs at the outside air intake to the Control Room Ventillation System

Control Room Ventillation Rad Monitor Channel "A" fails to detect the high rad condition.

WHICH ONE of the following describes "A" CREFAS (Control Room Emergency Fresh Air Supply) Fan response and MCR ventillation?

a. WILL automatically start, MCR supplied with some outside air

b. WILL automatically start, MCR supplied with recirculated air

c. WILL NOT automatically start, MCR supplied with recirculated air

d. WILL NOT automatically start, MCR supplied with some outside air

ANSWER : B

- "C" Channel will start "A" Fan.
- The "A" fan will start and recirculate Control Room air.
- The "A" Channel operates HV-78-020A, Outside Air Supply damper for the "A" Fan.
- Since the "A" Channel failed, the damper will remain closed causing the "A" fan to recirculate Control Room air only.

NO.: 14 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/14/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.2.3 TAXONOMY NO.: 3.1/3.3
LESSON PLANS: 14 LOT1870.01 P&ID M-51
:
CATEGORY: 00 C W
SYSTEMS: RHR

QUESTION :

WHICH ONE of the following identifies the Unit 1 and Unit 2 RHR loops which return directly to the Fuel Pool in Fuel Pool Cooling and Cleanup Assist Mode?

	Unit 1	Unit 2
a.	A	A
b.	A	B
c.	B	A
d.	B	B

ANSWER : C

- P&ID M-51

NO.: 15 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/14/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.3.9 TAXONOMY NO.: 2.5/3.4
LESSON PLANS: 15 LOT0160.5C T-228
:
CATEGORY: 00 C W
SYSTEMS: CAC

QUESTION :

Unit 1 Containment purge is in progress per T-228, Inerting/Purging Primary Containment.

WHICH ONE of the following methods must be manually isolated if the SOUTH STACK HI-HI RADIATION annunciator alarms?

a. Drywell Purge with Air

b. Suppression Pool Purge with Air

c. Drywell Inerting with Nitrogen (Hi Flow Mode)

d. Suppression Pool Inerting with Nitrogen (Low Flow Mode)

ANSWER : D

- Air uses Drywell Purge fans to North Stack
- Hi Flow Nitrogen also uses Purge fans

NO.: 16 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/10/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.4.12 TAXONOMY NO.: 3.4/3.9
LESSON PLANS: 16 LOT1550.3
:
CATEGORY: 00 C W
SYSTEMS: ON

QUESTION :

WHICH ONE of the following procedure types DOES NOT allow operators to "Initiate actions from memory" during emergency operations?

a. Operational Transient

b. General Plant

c. Special Event

d. T-200 Series

ANSWER : D

NO.: 17 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/14/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295015 1.04 TAXONOMY NO.: 3.8/3.8
LESSON PLANS: 17 LOT0300.10 T-101 BASES
:
CATEGORY: 00 C W
SYSTEMS: RPS

QUESTION :

The following events have occurred:

- The Main Turbine is tripped
- Reactor power is 60%

WHICH ONE of the following states a required action and the reason for it?

a. Stablize RPV pressure with HPCI to minimize heat input into the Suppression Pool

b. Reduce RPV pressure with HPCI to minimize operation of Safety Relief Valves

c. Reduce RPV pressure with Turbine Bypass Valves to minimize heat input into the Suppression Pool

d. Stablize RPV pressure with Safety Relief Valves to minimize power fluctuations

ANSWER : D

- Changes in pressure during ATWS conditions result in core power fluctuations due to changes in Core Void Fraction

NO.: 18 REV.: 5 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/14/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295013 1.03 TAXONOMY NO.: 3.0/3.3
LESSON PLANS: 18 LOT1560.05 T-101 BASES
:
CATEGORY: 00 C W
SYSTEMS: TRIP

QUESTION :

Plant conditions are as follows:

- Reactor power is 97%
- A Group 1A isolation signal is received
- RPV pressure is 980 psig and rising slowly
- "H" ADS SRV is closed with its "HAS LIFTED" light lit
- No other ADS SRV "HAS LIFTED" light is lit
- All other SRVs are closed

Given the following:

SRV	Opening sequence number
"K"	1
"M"	2
"H"	3
"E"	4
"S"	5

WHICH ONE of the following identifies a proper ADS SRV manual opening sequence for continued RPV pressure control?

(left to right indicates first SRV opened to last SRV opened)

a. "S", "E", "H", "M"

b. "K", "M", "H", "S"

c. "S", "E", "M", "K"

d. "K", "M", "E", "S"

ANSWER : D

NO.: 19 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/27/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AA SKA NO.: 295009 2.02 TAXONOMY NO.: 3.6/3.7
LESSON PLANS: 19 LOT0550.8A S06.0.E
:
CATEGORY: 00 C W
SYSTEMS: FWLC

QUESTION :

Plant conditions are as follows:

- 92% power
- RPV level is +35"
- "A" Narrow Range level is selected
- Feedwater level control is 3-element
- Master level controller is in AUTO

"D" Steam Flow transmitter equalizing valve is opened

WHICH ONE of the following describes the effects on RPV water level and plant response?

a. Increases and Main Turbine trips

b. Decreases and Reactor scrams

c. Increases and Main Turbine remains on line

d. Decreases and Reactor remains at power

ANSWER : D

RPV level drops to 23" and stablizes as level error equalizes flow error.

NO.: 20 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/15/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AA SKA NO.: 295007 2.01 TAXONOMY NO.: 4.1/4.1
LESSON PLANS: 20
:
CATEGORY: 00 C W
SYSTEMS:

QUESTION :

Unit 1 plant conditions are as follows:

- 100% power
- Reactor pressure is 1038 psig
- Reactor level is +35"

"1C" Inboard MSIV (HV41-1F022C) slowly drifts fully closed resulting in a Reactor high pressure alarm.

WHICH ONE of the following describes the maximum allowed power and the bases for that power level?

	Power Level	Bases
a.	75%	Prevents exceeding MCPR thermal limit
b.	75%	Ensures steam flow in remaining steam lines does not exceed 100%
c.	90%	Prevents exceeding MCPR thermal limit
d.	90%	Ensures steam flow in remaining steam lines does not exceed 100%

ANSWER : B

NO.: 22 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/27/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 223002 4.03 TAXONOMY NO.: 3.7/3.8
LESSON PLANS: 22 LOT0180.2B GP-8
:
CATEGORY: 00 C W
SYSTEMS: CAC

QUESTION :

Unit 2 conditions are as follows:

- Reactor power is 16% and steady
- RPV level was deliberately lowered and stabilized at -56"
- Drywell pressure is 0.3 psig and steady

No NSSSS Group Isolations have occurred

WHICH ONE of the following NSSSS Group Isolations must be manually initiated?

a. Drywell Chilled Water and Recirc Pump Cooling Water Lines

b. Primary Containment Instrument Gas (PCIG) Process Lines

c. Primary Containment Exhaust to REECE

d. Suppression Pool Spray

ANSWER : C

a. -1.29"/1.68#

b. -1.29"/1.68#

d. LOCA signal

NO.: 23 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/11/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 216000 3.01 TAXONOMY NO.: 3.4/3.4
LESSON PLANS: 23 LOT0050.3B M-42
:
CATEGORY: 00 C W
SYSTEMS: RPVINST

QUESTION :

Unit 2 plant conditions are as follows:

- OPCON 4
- RPV level is 78"

WHICH ONE of the following identifies instrument calibration condition and the current indicated level as compared to actual level for the "2A" PAM Wide Range Level Indicator?

	Calibration condition	Indicated level
a.	hot	higher than actual
b.	cold	higher than actual
c.	hot	lower than actual
d.	cold	lower than actual

ANSWER : A

NO.: 24 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/27/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 215004 4.04 TAXONOMY NO.: 2.8/2.9
LESSON PLANS: 24 LOT0240.07 ARC 107,I-4
:
CATEGORY: 00 C W
SYSTEMS: SRM

QUESTION :

Unit 2 plant conditions are as follows

- Startup is in progress
- The Neutron Monitoring Overlap Surveillance Test is complete

SRMs are being retracted with the following conditions:

IRM CHANNEL	IRM RANGE
A	4
B	3
C	2
D	4
E	BYPASSED
F	3
G	5
H	3

While being retracted, the reading from the "2A" SRM drops to 90 cps.

WHICH ONE of the following describes the expected alarm and rod block response?

	SRM RETRACTED WHEN NOT PERMITTED alarm	Rod Block
a.	on	not enforced
b.	off	enforced
c.	on	enforced
d.	off	not enforced

ANSWER : C

- With the SRM below 100 cps, the RETRACT alarm is received and with IRM "C" on range 2, the Rod Block is enforced.

NO.: 25 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/10/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 203000 2.16 TAXONOMY NO.: 4.4/4.5
LESSON PLANS: 25 LOT0370.0
:
CATEGORY: 00 C W
SYSTEMS: RHR

QUESTION :

Plant conditions are as follows:

- RPV level dropped to -30", then recovered +20"
- RPV pressure is 850 psig
- "A" RHR loop "INITIATION" arm and depress pushbutton was used to simulate a LOCA signal per T-225, STARTUP AND SHUTDOWN OF SUPPRESSION POOL AND DRYWELL SPRAY OPERATION
- "A" RHR Loop is Spraying the Drywell

RPV level suddenly drops to -200"

WHICH ONE of the following decribes the response of the "A" RHR loop?

a. Remains in Drywell Spray

b. Re-aligns and injects into RPV

c. "A" RHR pump remains running on minimum flow only

d. "A" RHR pump trips, then restarts in LPCI injection mode

ANSWER : A

Using arm and depress PB gives "A" RHR Loop LOCA signal. When RPV level drops to <-129", it will not respond to the LOCA signal, since that RHR division already has a LOCA signal.

NO.: 27 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/15/00
DIFFICULTY: 3 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 223002 4.06 TAXONOMY NO.: 3.4/3.5
LESSON PLANS: 27 LOT0180.05
:
CATEGORY: 00 C W
SYSTEMS: NSSSS

QUESTION :

Unit 2 plant conditions are as follows:

- A Reactor Startup is in progress
- Reactor power is 16%
- An EHC system failure caused all Turbine Bypass Valves to open
- The MSIVs automatically isolated
- All SCRAM actions are complete
- The pressure Control malfunction was corrected

WHICH ONE of the following describes the sequence of actions required before the MSIVs will re-open from their switches?

a. Perform Isolation Logic reset (Blue/Green)
THEN
Place one MSIV switch in the CLOSE position
THEN
Place it to the OPEN position

b. Place all MSIVs in the CLOSE position
THEN
Perform Isolation Logic reset (Blue/Green)

c. Perform Isolation Logic reset (Blue/Green)
THEN
Place all MSIV switches in the CLOSE position
THEN
Raise Main Steam Line pressure above 756 psig

d. Place all MSIV switches in CLOSE
THEN
Raise Main Steam Line pressure above 756 psig

ANSWER : B

All MSIV switches must be CLOSE to permit reset.

- Pressure above 756 is not required to reset if the Mode Switch is in S/D.

NO.: 29 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/10/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 201002 3.01 TAXONOMY NO.: 3.2/3.1
LESSON PLANS: 29 LOT0080.6
:
CATEGORY: 00 C W
SYSTEMS: RMCS

QUESTION :

Unit 1 plant conditions are as follows:

- Reactor startup is in progress
- Reactor power 12%
- RPV level +35"

Control rod withdraw is in progress

WHICH ONE of the following conditions will result in a rod withdraw block?

a. RBM downscale

b. RPIS "Data Fault" lights

c. "Activities Control Disagree" light illuminates

d. Control rod inserted past its insert limit

ANSWER : C

NO.: 30 REV.: 5 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/27/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 202001 3.07 TAXONOMY NO.: 2.9/2.9
LESSON PLANS: 30 LOT0040.05 OT-112
:
CATEGORY: 00 C W
SYSTEMS: RFC

QUESTION :

Unit 2 plant conditions are as follows:

- 100% power
- Turbine Enclosure HVAC is lost
- A GP-4 shutdown was performed
- "2B" CRD pump is in service

Both Reactor Recirc Pumps are removed from service

WHICH ONE of the following describes how RPV Bottom Head Drain temperature changes over the next two (2) hours and the reason why? (Assume no operator action)

a. Rises due to decreasing flow through the RWCU recirc. pump suction line

b. Drops due to decreasing flow through the RWCU recirc. pump suction line

c. Drops due to decreasing flow through the RWCU bottom head drain line

d. Rises due to decreasing flow through the RWCU bottom head drain line

ANSWER : C

- Plant event
- With no Recirc flow, cooler CRD cooling water will collect at the bottom head area resulting in thermal stratification if flow through bottom head drain is not maintained.

NO.: 31 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/15/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 234000 3.02 TAXONOMY NO.: 3.1/3.7
LESSON PLANS: 31 LOT0760.07 S97.0.M
:
CATEGORY: 00 C W
SYSTEMS: REFUEL

QUESTION :

Unit 1 plant conditions are as follows:

- OPCON 5*
- A fuel bundle is being transferred from the SFP to the Core

WHICH ONE of the following conditions will cause the Refueling Platform to automatically stop before moving over the Core?

a. An SRM fails upscale

b. A Refuel Floor area rad monitor alarm

c. The Reactor Mode switch placed in SHUTDOWN

d. A control rod is selected at the Rod Select Matrix

ANSWER : C

A reverse stop is activated if the bridge is near or over the core with the reactor mode switch not in REFUEL.

NO.: 32 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 271000 2.3.1 TAXONOMY NO.: 2.7/3.2
LESSON PLANS: 32 LOT0510.06 M-69
:
CATEGORY: 00 C W
SYSTEMS: OG

QUESTION :

Plant conditions are as follows:

- 100% power
- 30 scfm Offgas effluent flow
- Offgas dewpoint monitor is reading 40°F

Charcoal Vault refrigeration compressors trip and cannot be restarted.

WHICH ONE of the following describes expected change in the activity of the Offgas effluent and the monitoring location?

	Change in Activity	Monitoring Location
a.	Increase	North Stack
b.	Increase	South Stack
c.	Decrease	North Stack
d.	Decrease	South Stack

ANSWER : A

- Increased Xe and Kr temperatures reduce transit/delay time through Charcoal Adsorber beds

NO.: 33 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/10/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 272000 2.05 TAXONOMY NO.: 2.6/2.9
LESSON PLANS: 33 LOT0720.6B
:
CATEGORY: 00 C W
SYSTEMS: REHVAC

QUESTION :

Plant conditions are as follows:

- Unit 1 & Unit 2 REHVAC systems are in operation
- Unit 1 RF HVAC is in operation
- SGD-206-3 (Refuel Floor) is open
- SGD-506-2 (Unit 2 RE) is closed
- SGD-206-1 (Unit 1 RE) is open
- Zone 1 and 3 HVAC Interlocks are cross-tied

WHICH ONE of the following describes the status of RE and Refuel HVAC systems if power is lost to all Unit 1 RE HVAC Exhaust rad monitors?

	Unit 1 RE	Unit 2 RE	Refuel Floor
a.	Isolates	Remains running	Isolates
b.	Isolates	Isolates	Remains running
c.	Remains running	Remains running	Isolates
d.	Remains running	Isolates	Remains running

ANSWER : A

NO.: 34 REV.: 3 TYPE: MC ENTERED BY: DAM DATE ENTERED: 01/28/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 245000 4.05 TAXONOMY NO.: 2.9/3.0
LESSON PLANS: 34 LOT0560.04
:
CATEGORY: 00 C W
SYSTEMS: MNTURB

QUESTION :

Unit 1 plant conditions are as follows:

- 20% power
- 240 MWe

WHICH ONE of the following conditions will generate a Main Turbine trip signal?

a. Main Turbine Lube Oil Bearing header pressure drops to 15 psig

b. Thrust Bearing Wear Detector senses displacement of 45 mils

c. Main Condenser vacuum drops to 23" Hg vac

d. Main Turbine Control Valve fails closed

ANSWER : B

NO.: 35 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/28/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 233000 4.07 TAXONOMY NO.: 2.7/2.9
LESSON PLANS: 35 LOT0750.06 S51.8.G
: M-51, M-53
CATEGORY: 00 C W
SYSTEMS: FPCCU

QUESTION :

Unit 2 plant conditions are as follows:

- OPCON 5
- Spent Fuel Pool to Reactor Well gates are removed
- All Fuel Pool Cooling and Cleanup pumps are in service
- Natural Circulation has been established

"2B" FPCC pump discharge line ruptures and SFP level begins to drop.

WHICH ONE of the following plant design features will terminate the event?

a. SFP Skimmer Surge Tank overflow weir plate

b. FPCC pump discharge siphon breakers

c. RHR pump discharge siphon breakers

d. FPCC pumps trip

ANSWER : B

- Cavity drops to SST
- SST drops and trips FPCC pumps
- Pump discharge line acts as a siphon
- Siphon breaker stops drain down

NO.: 36 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/04/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 215001 6.04 TAXONOMY NO.: 3.1/3.4
LESSON PLANS: 36 LOT0290.10 GP-8
: S74.0.A
CATEGORY: 00 C W
SYSTEMS: TIP

QUESTION :

Unit 1 plant conditions are as follows:

- Traversing In-Core Probe runs are in progress for OD-1
- "1C" Drive Control Unit is in AUTO mode
- "CORE TOP" white light lit

AC power to NSSSS Group VIII B, TIPS, isolation logic is lost.

WHICH ONE of the following describes "1C" TIP Drive response?

a. Detector remains at present location, ball valve closes

b. Detector remains at present position, shear valve actuates

c. Detector withdraws to Shield, ball valve closes

d. Detector withdraws to Indexer, shear valve actuates

ANSWER : C

- GP-8B NS4 deenergize to operator
- Withdraw to Shield signal generated
- Shear valve is manual only

NO.: 40 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/04/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 295010 2.4.8 TAXONOMY NO.: 3.5/3.8
LESSON PLANS: 40 LOT1540.05 OT-101
:
CATEGORY: 00 C W
SYSTEMS: OT

QUESTION :

Activities performed during the past 12 hours include:

- "A" Recirc pump speed was raised from 80% to 85%
- Instrument Air was aligned to feed Instrument Gas headers
- Drywell cooling was maximized

Given the following:

- Drywell pressure is 0.80 psig and rising slowly
- Containment Leak Detector is unchanged

WHICH ONE of the following actions will stop the Drywell pressure rise?

a. Isolate RWCU

b. Secure and isolate "A" Recirc pump

c. Start an additional Drywell Cooler fan

d. Isolate Instrument Air to Instrument Gas headers

ANSWER : D

A steam leak would make containment leak detector rise, therefore A and B are incorrect. C is incorrect since drywell cooling has already been maximized. D is correct because IA will put air into drywell.

NO.: 41 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/04/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295014 2.11 TAXONOMY NO.: 3.6/3.7
LESSON PLANS: 41 LOT0040.11C S43.0.B
:
CATEGORY: 00 C W
SYSTEMS: RFC

QUESTION :

Unit 2 conditions are as follows:

- 90% power
- Both recirc pumps are at 80% speed
- "2B" M-G fluid drive scoop tube lock is ON

"2B" Condensate pump breaker trips open and reactor power drops to 74%.

WHICH ONE of the following describes the Recirc Pump Speed response to pushing the "High Limit" pushbutton for both recirculation pumps?
(No additional operator actions are performed)

	"2A" Recirc Pump Speed	"2B" Recirc Pump Speed
a.	increase	increase
b.	no change	no change
c.	increase	no change
d.	no change	increase

ANSWER : C

- <80.3% FW Flow High Limit will reset for "2A"
- "2B" lock prevents speed change

NO.: 44 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/10/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EA SKA NO.: 295031 2.04 TAXONOMY NO.: 4.6/4.8
LESSON PLANS: 44 LOT1560.5
:
CATEGORY: 00 C W
SYSTEMS: TRIP

QUESTION :

WHICH ONE of the following describes conditions in which adequate Core cooling is NOT ensured?

a. RPV level -180" and steady, "A" loop Core Spray injecting

b. RPV level -238", ATWS in progress, 5 SRVs open, RPV pressure is 325 psig

c. RPV level -200" and steady, RPV pressure is 200 psig and steady, no injection

d. RPV level unknown, 5 ADS valves open, RPV pressure is 60 psig, Suppression Pool pressure is 23 psig

ANSWER : D

NO.: 45 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/28/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EK SKA NO.: 295037 3.07 TAXONOMY NO.: 4.2/4.3
LESSON PLANS: 45 LOT1561.01
:
CATEGORY: 00 C W
SYSTEMS: CRDH

QUESTION :

Unit 1 conditions are as follows:

- 100% power
- Reactor level drops to -15" before being restored to +17"
- 19 Control Rods fully insert
- All other rods are at varying positions
- All blue "SCRAM" lights are lit on the Full Core display

WHICH ONE of the following procedures must be performed to insert the control rods?

a. T-215, De-energization of scram solenoids

b. T-216, Manual isolation and vent of scram air header

c. T-213, Individual control rod scram/solenoid de-energization

d. T-217, RPS/ARI reset and backup method of draining scram discharge volume

ANSWER : D

- Removing fuses and venting the Scram Air Header are only effective for electrical problems.
- Since all SCRAM Valves are open, the problem must be hydraulic
- Draining the SDV is effective for hydraulic or electrical problems

NO.: 46 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/04/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EK SKA NO.: 295026 3.04 TAXONOMY NO.: 3.7/4.1
LESSON PLANS: 46 LOT1560.05 T-101 BASES
:
CATEGORY: 00 C W
SYSTEMS: TRIP

QUESTION :

Plant conditions are as follows:

- Reactor mode switch is in SHUTDOWN
- Reactor power is 36%
- Main Condenser vacuum is 6.5" Hg vac
- Suppression Pool temperature is 108°F and rising

WHICH ONE of the following actions must be taken to protect Primary Containment?

a. Reduce RPV pressure to less than 225 psig

b. Open all Main Turbine Bypass valves

c. Maintain RPV level above +12.5"

d. Inject Boron into the RPV

ANSWER : D

NO.: 47 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/16/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2950102.1.23 TAXONOMY NO.: 3.9/4.0
LESSON PLANS: 47 LOT0270.9A T-225
: E11-1040-E
CATEGORY: 00 C W
SYSTEMS: RHR

QUESTION :

Unit 1 plant conditions are as follows:

- Drywell pressure is 25 psig
- Drywell temperature is 250°F
- RPV level dropped to -79" and has been recovered to +17"
- RPV pressure is 600 psig and steady
- "1B" Loop of RHR is in Suppression Pool spray

"1A" loop of RHR is placed in Drywell Spray

WHICH ONE of the following identifies the status of the "1A" RHR Loop LOCA signal and the HV51-1F017A, "1A" RHR LPCI Inj PCIV (OUTBOARD), valve "Override" light?

	"1A" RHR Loop LOCA Signal	HV51-1F017A "Override" light
a.	present	energized
b.	not present	de-energized
c.	present	de-energized
d.	not present	energized

ANSWER : C

- "A" Loop LOCA signal must be manually initiated due to no LOCA signal present
- HV51-1F017A is not overridden until opening d/p permissive is met <74 psid

NO.: 48 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/18/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295016 2.01 TAXONOMY NO.: 4.4/4.5
LESSON PLANS: 48 LOT735.3 SE-1
:
CATEGORY: 00 C W
SYSTEMS: RSP

QUESTION :

Unit 1 Plant Conditions are as follows:

- A fire in the Cable Spreading Room has caused MCR evacuation
- All immediate operator actions are complete
- All Remote Shutdown Transfer switches are in "EMERGENCY"

WHICH ONE of the following interlocks are still enabled?

a. RCIC High Level Trip

b. D11, D12, D13 DG Breaker Auto Close

c. ESW Return to Spray Pond on "A" ESW Pump start

d. HV-51-1F016A "A Containment Spray Outboard Isolation Valve"

ANSWER : B

NO.: 50 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/16/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295017 2.12 TAXONOMY NO.: 3.4/3.7
LESSON PLANS: 50 LOT0200.05 M-76
:
CATEGORY: 00 C W
SYSTEMS:

QUESTION :

Unit 1 plant conditions are as follows:

- Entered OPCON 3, twelve (12) minutes ago, due to Drywell pressure increase to 2.5 psig.
- Main Steam Line rad monitors are trending upward.

WHICH ONE of the following identifies the discharge location and the HVAC filter(s) which are limiting Offsite release rate from Unit 1 HPCI vacuum pump?

	Discharge location	HVAC Filter(s)
a.	South Stack	RERS only
b.	South Stack	REECE only
c.	North Stack	REECE and SBGT
d.	North Stack	RERS and SBGT

ANSWER : D

- RE HVAC isolates and HPCI starts on 1.68 psig
- RERS starts, SBGT starts and discharges to North Stack

NO.: 52 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295001 1.01 TAXONOMY NO.: 3.5/3.6
LESSON PLANS: 52 LOT1530.02 S51.8.B
: GP-6.2
CATEGORY: 00 C W
SYSTEMS: GP

QUESTION :

Unit 1 plant conditions are as follows:

- OPCON 4
- RPV level is 85" on Upset Range
- "1B" Loop of Shutdown Cooling (SDC) is in service

RPV level drops to 55"

WHICH ONE of the following describes the impact on plant operation?

a. Insufficient NPSH for RHR pump operation

b. Inadequate margin to SDC isolation setpoint

c. Valid RPV Coolant Temperature is unavailable

d. Natural Circulation is unavailable on a loss of SDC

ANSWER : D

NO.: 53 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/16/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295004 1.05 TAXONOMY NO.: 3.3/3.4
LESSON PLANS: 53 LOT0660.06
:
CATEGORY: 00 C W
SYSTEMS: DC

QUESTION :

Unit 2 plant conditions are as follows:

- DIV 3 Safeguard DC power is lost

WHICH ONE of the following describes the response of DIV 3, 4KV and 480V Safeguard breakers if a protective relay signal is received?

a. Only 4KV breakers will trip

b. Only 480V breakers will trip

c. Both 4KV and 480V breakers will trip

d. Neither 4KV nor 480V breakers will trip

ANSWER : B

- Protective relay devices for 480V breakers are not dependent on DC power.

NO.: 54 REV.: 5 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295012 3.01 TAXONOMY NO.: 3.5/3.6
LESSON PLANS: 54 LOT1540.05
:
CATEGORY: 00 C W
SYSTEMS: OT

QUESTION :

Unit 2 plant conditions are as follows:

- 100% power
- "A" loop of Drywell Chilled Water is in service

D21 4KV bus lockout occurs and Drywell temperature begins rising

WHICH ONE of the following describes the required action to mitigate the conditions above?

a. Start "2B" Drywell Chiller

b. Increase Load setting on "2A" Drywell Chiller

c. Align ESW to "2B" Drywell Chiller

d. Increase Service Water flow to "2A" Drywell Chiller

ANSWER : A

- D21 powers "2A" DW Chiller

NO.: 57 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/28/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AA SKA NO.: 295008 1.05 TAXONOMY NO.: 3.3/3.3
LESSON PLANS: 57 LOT0380.09
:
CATEGORY: 00 C W
SYSTEMS: RCIC

QUESTION :

Unit 2 plant conditions are as follows:

- Reactor scrammed due to Drywell pressure
- RCIC is being operated for level control
- RPV pressure is 450 psig and steady

Condensate injection raises RPV level to 95"

WHICH ONE of the following describes the response of the RCIC System?

a. HV-49-112, Trip Throttle valve closes

b. HV-49-1F045, Steam Supply valve closes

c. HV-49-1F008, Outboard Isol. valve closes

d. HV-49-1F012, Pump Discharge valve closes

ANSWER : B

NO.: 58 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EA SKA NO.: 295034 2.01 TAXONOMY NO.: 3.8/4.2
LESSON PLANS: 58 LOT0200.05
:
CATEGORY: 00 C W
SYSTEMS: REHVAC

QUESTION :

Plant conditions are as follows:

- SGD-206-1 (Unit 1 RE) is open
- SGD-506-2 (Unit 2 RE) is open
- SGD-206-3 (Refuel Floor) is open
- Unit 2 RF Ventilation is in service
- Zones 1 and 3 HVAC Isolation Interlocks are cross-tied

WHICH ONE of the following conditions will cause an isolation of Unit 1 RE HVAC and Unit 1 RF HVAC?

a. Unit 2 Refuel Floor Vent Exh Rad monitors sense 2.2 mr/hr

b. Unit 1 Refuel Floor Vent Exh Rad monitors sense 1.8 mr/hr

c. Unit 1 Reactor Enclosure Vent Exh Rad monitors sense 1.2 mr/hr

d. Unit 2 Reactor Enclosure Vent Exh Rad monitors sense 2.4 mr/hr

ANSWER : A

- >2.0 with zones 1 & 3 tied causes isolation of both RF and Unit 1 RE
- SGD all open

NO.: 59 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/04/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EA SKA NO.: 295032 2.01 TAXONOMY NO.: 3.8/3.8
LESSON PLANS: 59 LOT0180 M-25
:
CATEGORY: 00 C W
SYSTEMS: NS4

QUESTION :

Unit 1 is at 100% power

The following events have occurred:

- DIV 3 STEAM LEAK DET SYS HI TEMP/TROUBLE annunciator alarmed
- DIV 3 Turbine Enclosure - Main Steam Line temperature element, TE25-115C is above trip setpoint reading 175°F and rising

DIVISION 4 Turbine Enclosure - Main Steam Line temperature element, TE25-115D, rises to 190°F?

WHICH ONE of the following identifies MSIV response?

	Inboard MSIVs	Outboard MSIVs
a.	remain open	remain open
b.	close	remain open
c.	remain open	close
d.	close	close

ANSWER : D

- MSIV isolation logic A or C and B or D
- Applies to both inboard and outboard
- Setpoint 165°F (1 of 8)
- Cannot be monitored in Main Control Room

NO.: 61 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 202002 1.07 TAXONOMY NO.: 3.1/3.1
LESSON PLANS: 61 LOT0030.05
:
CATEGORY: 00 C W
SYSTEMS: RFC

QUESTION :

Unit 2 plant conditions are as follows:

- 75% power
- "2A" Recirc pump was manually tripped and its discharge valve closed
- Total Core Flow is 48 Mlb/hr

After five (5) minutes, the "2A" Recirc pump discharge valve is reopened

WHICH ONE of the following describes the change in indicated Total Core Flow and "2B" Recirc Loop Flow when the valve opens?

	Indicated Total Core Flow	"2B' Recirc Loop Flow
a.	Increase	Increase
b.	Decrease	Increase
c.	Increase	Decrease
d.	Decrease	Decrease

ANSWER : B

- B pump trip will result in increased A loop flow due to reduced backpressure
- Open field breaker causes B loop reverse flow to be subtracted from total core flow

NO.: 62 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 218000 3.02 TAXONOMY NO.: 4.5/4.6
LESSON PLANS: 62 LOT0330.03
:
CATEGORY: 00 C W
SYSTEMS: ADS

QUESTION :

Unit 1 plant conditions are as follows:

- A LOCA has occurred
- Automatic ADS blowdown is in progress
- All ECCS pumps auto started
- Reactor pressure is 200 psig and dropping
- Reactor level was recovered to -100"

All RHR pumps are secured

WHICH ONE of the following will stop the ADS blowdown?

a. Stop "1A" and "1C" Core Spray pumps

b. Stop "1C" and "1D" Core Spray pumps

c. Place both AUTO ADS switches in INHIBIT

d. Depress both High Drywell Pressure RESET pushbuttons

ANSWER : B

- A and C or B and D Core Spray pumps are required to be running for the ADS blowdown to continue

NO.: 63 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 212000 1.08 TAXONOMY NO.: 3.4/3.4
LESSON PLANS: 63 LOT0300.07
:
CATEGORY: 00 C W
SYSTEMS: RPS

QUESTION :

Unit 1 conditions are as follows:

- 100% power

The "A1" RPS Manual Pushbutton is armed and depressed for testing

WHICH ONE of the following describes valve response?

a. No valves reposition

b. Half of all ARI Valves open

c. Half of all SCRAM Valves open

d. One (1) SDV Vent and one (1) SDV Drain valve close

ANSWER : A

- Half Scram signal will de-energize various solenoids but no valves will reposition

- ARI Valves, SDV V & D and Scram Valves all require signals from both trip systems

NO.: 64 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 22601 3.01 TAXONOMY NO.: 3.6/3.7
LESSON PLANS: 64 LOT0370.19
:
CATEGORY: 00 C W
SYSTEMS: RHR

QUESTION :

Unit 1 conditions are as follows:

- An ATWS is in progress
- A large steam leak occurs in the Drywell

WHICH ONE of the following will result from a complete loss of Drywell Spray?

a. Excessive Suppression Pool temperatures
AND
Monitored
BUT
Excessive Offsite releases

b. Excessive Suppression Pool pressure
AND
Excessive Drywell Floor differential pressure

c. Excessive Suppression Pool pressure
AND
Monitored
BUT
Excessive Offsite releases

d. Excessive Suppression Pool temperature
AND
Excessive Drywell Floor differential pressure

ANSWER : C

c. Correct, High Containment pressure may require Containment venting causing excessive but monitored releases. Without Drywell Spray, Suppression Chamber pressure will rise requiring a Reactor Blowdown per T-112.

a. As long as Suppression Pool Cooling is available, pool temperature will be controlled.

b. Worst case is a slow condensation of steam in the Drywell due to ambient heat losses and will be within the capacity of the Drywell Vacuum Breakers.

d. Worst case is a slow condensation of steam in the Drywell due to ambient heat losses and will be within the capacity of the Drywell Vacuum Breakers. As long as Suppression Pool cooling is available, pool temperature will be controlled.

NO.: 65 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 261000 3.01 TAXONOMY NO.: 3.3/3.6
LESSON PLANS: 65 LOT0200.11
:
CATEGORY: 00 C W
SYSTEMS: REHVAC

QUESTION :

Plant conditions are as follows:

- A Reactor Enclosure HVAC High Rad isolation occurs
- "A" Standby Gas Treatment System fan is inoperable
- "B" Standby Gas Treatment System fan starts

The "B" Standby Gas Treatment fan bypass damper is stuck shut

WHICH ONE of the following describes expected steady state Reactor Enclosure differential pressure?

a. +0.15 psid

b. +0.25 psid

c. -0.15 psid

d. -0.35 psid

ANSWER : D

- Bypass damper closed prevents regulating RE to design -.25 psid.
- Result is d/p goes more negative than -.25 psid

NO.: 66 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/04/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 241000 4.13 TAXONOMY NO.: 2.9/2.9
LESSON PLANS: 66 LOT0590.2A OT-114 BASES
:
CATEGORY: 00 C W
SYSTEMS: EHCLOGIC

QUESTION :

Unit 2 plant conditions are as follows:

- 100% power
- 1160 MWe
- "2J" SRV inadvertent opening is confirmed

EHC Pressure Set is lowered until Reactor pressure indicates 900 psig at 20C603 panel

WHICH ONE of the following identifies how the Main Turbine Control valves and the Plant will respond?

	Control valve	Plant
a.	opening more	Group IA Isolation
b.	closing more	Group IA Isolation
c.	opening more	Power to Load unbalance runback
d.	closing more	Power to Load unbalance runback

ANSWER : A

- Steam line pressure will drop less than 756 psig causing Group I

NO.: 67 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/17/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 204000 1.11 TAXONOMY NO.: 3.5/3.7
LESSON PLANS: 67 LOT0110.05
:
CATEGORY: 00 C W
SYSTEMS: RWCU

QUESTION :

Unit 2 conditions are as follows:

- All running RWCU Pumps have tripped
- HV-44-2F001, RWCU Inboard Isolation valve is closed
- HV-44-2F004, RWCU Outboard Isolation valve is open

WHICH ONE of the following will cause the conditions above?

a. DIV II RRCS initiation

b. Loss of "2A" RPS UPS power

c. The "2B" Standby Liquid Control pump started

d. RWCU Filter/Demin inlet high temperature trip

ANSWER : B

- A loss of "A" RPS power will close the F001 causing the RWCU Pumps to trip on low flow

NO.: 71 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/04/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.3.10 TAXONOMY NO.: 2.9/3.3
LESSON PLANS: 71 LOT0270.05 HP-316
:
CATEGORY: 00 C W
SYSTEMS: HP

QUESTION :

Unit 2 plant conditions are as follows:

- OPCON 1
- 5% power
- Drywell Power Entry Authorization sheet has been approved by the Plant Manager
- "2A" and "2B" APRMS have their Upscale Setdown Trip setpoint in service

Reactor power unexpectedly increases to 12%

WHICH ONE of the following describes how the Drywell Entry Team will be protected from increased levels of radiation?

a. RPS Trip system will initiate an immediate full scram

b. The Reactor Operator shall immediately place the Reactor Mode Switch in "SHUTDOWN"

c. The Reactor Operator shall direct the Drywell Control Point to survey the work area

d. The Rod Block Monitor will initiate a control rod withdraw block

ANSWER : B

- HP-316, Prerequisite 3.1
- RPS upscale setdown trip setpoint is 15%

NO.: 72 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.4.1 TAXONOMY NO.: 4.3/4.6
LESSON PLANS: 72 LOT1560.02
:
CATEGORY: 00 C W
SYSTEMS: TRIP

QUESTION :

The following sequence of events occurs on Unit 2:

- 10:00 REAC ENCL HVAC PANEL 2AC208 TROUBLE alarms
- 10:05 DIV 1 STEAM LEAK DET SYS HI TEMP/TROUBLE alarms
- 10:25 REAC ENCL ST FLOOD DAMPER PNL 10C234 TROUBLE alarms
- 10:30 MOTOR DRIVEN FIRE PUMP RUNNING alarms
- 10:40 RCIC PUMP ROOM FLOOD alarms

WHICH ONE of the following identifies when Initial and Re-Entry into T-103 is required?

	Initial Entry time	Re-entry Time
a.	10:00	10:05
b.	10:05	10:30
c.	10:00	10:25
d.	10:05	10:40

ANSWER : D

NO.: 74 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/04/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295023 1.03 TAXONOMY NO.: 3.7/4.0
LESSON PLANS: 74 LOT1550.01 ON-120 BASES
:
CATEGORY: 00 C W
SYSTEMS: ON

QUESTION :

Unit 1 conditions are as follows:

- OPCON 5*
- Core shuffle to final configuration is in progress per core component transfer authorization sheet (CCTAS)

The following SRM countrate trends are observed between CCTAS steps #265 and #266:

Time	"1A"	"1B"	"1C"	"1D"
+1 min	70	42	20	55
+2 mins	120	100	45	120
+3 mins	162	102	102	165
+4 mins	200	103	160	175

WHICH ONE of the following SRMs are indicating an inadvertent criticality?

a. "1A"

b. "1B"

c. "1C"

d. "1D"

ANSWER : C

a. One doubling

b. One doubling

c. Correct, 2 doublings, increasing level

d. One doubling

NO.: 75 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 295025 2.03 TAXONOMY NO.: 4.0/4.3
LESSON PLANS: 75 LOT0315.04
:
CATEGORY: 00 C W
SYSTEMS: RRCS

QUESTION :

Unit 1 conditions are as follows:

- 100% power

The following transient occurs:

- Four (4) SRVs open automatically on high Reactor pressure
- Six (6) Control Rods fail to insert

WHICH ONE of the following describes plant response?

	RFP Runback To Minimum	ARI Initiates	SLC Injects	RRPs Trip
a.	No	Yes	No	Yes
b.	No	No	Yes	Yes
c.	Yes	Yes	No	No
d.	Yes	Yes	Yes	Yes

ANSWER : A

- Reactor pressure >1149 psig will initiate RRCS and initiate ARI, Runback RFPs and Trip the RRPs. SLC is initiated only if power is >4% and with all but 6 rods in, power will be <4%.

  RFPs are runback after a 25 second time delay

  ARI is initiated with no time delay

  RRPs trip with no time delay

NO.: 76 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/17/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EA SKA NO.: 295030 1.05 TAXONOMY NO.: 3.5/3.5
LESSON PLANS: 76 LOT1560.05 T-102
:
CATEGORY: 00 C W
SYSTEMS: TRIP

QUESTION :

Primary Containment Control, T-102 directs the following:

- HPCI is secured if Suppression Pool level cannot be maintained above 18 feet

- RCIC is secured if Suppression Pool level cannot be maintained above 13.5 feet

WHICH ONE of the following explains why HPCI is secured at a higher level than RCIC?

a. HPCI requires a larger volume of water to condense its exhaust steam

b. HPCI exhaust sparger is located at a higher level in the Suppression Pool

c. HPCI exhaust is capable of pressurizing the Primary Containment in excess of Containment design pressure

d. The HPCI High Exhaust Pressure Turbine Trip is set lower than the RCIC High Exhaust Pressure Turbine Trip

ANSWER : C

c. Correct, HPCI trips on high exhaust pressure at 150 psig which exceeds the design pressure of Primary Containment.

a. True, but this is not the reason for securing HPCI at 18 feet.

b. The HPCI and RCIC spargers are positioned at the same level.

d. Backwards, HPCI trip is higher than the RCIC trip.

NO.: 77 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EK SKA NO.: 500000 3.03 TAXONOMY NO.: 3.0/3.5
LESSON PLANS: 77 LOT0160.08 S58.1.B
:
CATEGORY: 00 C W
SYSTEMS: CAC

QUESTION :

WHICH ONE of the following describes Containment Hydrogen Recombiner operation?

a. Removes H2 and O2 gas from the Suppression Pool and returns water vapor to the Drywell

b. Removes H2 and O2 gas from the Drywell and returns water vapor to the Suppression Pool

c. Removes H2 and O2 gas from the Suppression Pool and returns water vapor to the Reactor Enclosure Equipment sump

d. Removes H2 and O2 gas from the Drywell and returns water vapor to the Reactor Enclosure Equipment sump

ANSWER : B

NO.: 78 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 295002 2.120 TAXONOMY NO.: 4.3/4.2
LESSON PLANS: 78 LOT1540.05 OT-116, BASES
: ON-103
CATEGORY: 00 C W
SYSTEMS: OT

QUESTION :

Unit 2 is at 100% power.

The following are observed on Unit 2:

- Sudden rise in Offgas System temperatures
- Sudden drop in Offgas System hydrogen concentration
- The in-service 1st stage Steam Jet Air Ejector (SJAE) air suction valves are closed

WHICH ONE of the following actions is required to prevent an automatic Main Turbine trip?

a. Start the Mechnical Vacuum pump

b. Open the alternate SJAE Train 1st stage air suction valves

c. Reduce reactor power per Reactor Maneuvering Shutdown

d. Increase the in-service 2nd stage SJAE steam supply to 200 psig

ANSWER : C

a. Prohibited per OT-116

b. ON-103, maximize dilution (steam) flow with 2nd stage only

d. ON-103, maintain idle SJAE steam less than supply to 185 psig to prvent lifting steam relief

NO.: 79 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AA SKA NO.: 295020 1.01 TAXONOMY NO.: 3.5/3.6
LESSON PLANS: 79 LOT0180.05
:
CATEGORY: 00 C W
SYSTEMS: NSSSS

QUESTION :

Unit 1 conditions are as follows:

- 100% power
- An inadvertent 1.68 psig isolation signal is received

The isolation signals are bypassed and flowpaths restored for:

* PCIG
* Reactor Enclosure Cooling Water
* Drywell Chilled Water
* H_2/O_2 Analyzers

WHICH ONE of the following systems will automatically re-isolate if RPV water level subsequently drops to -149"?

a. Reactor Enclosure Cooling Water

b. Drywell Chilled Water

c. H_2/O_2 Analyzers

d. PCIG

ANSWER : C

- These valves are air operated.
- A LOCA signal will temporarily de-energize the bypass logic causing the Analyzer valves to go closed.

NO.: 80 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EK SKA NO.: 295029 3.02 TAXONOMY NO.: 3.6/4.0
LESSON PLANS: 80 LOT1560.06
:
CATEGORY: 00 C W
SYSTEMS: TRIP

QUESTION :

Unit 2 plant conditions are as follows:

- Offsite power is lost
- Suppression Pool level is 24.3 feet

WHICH ONE of the following flowpaths can be used to lower Suppression Pool level?

a. "2A" RHR to Radwaste

b. "2B" RHR to Radwaste

c. RWCU to the Unit 2 CST

d. Suppression Pool Cleanup to Unit 2 CST

ANSWER : A

RHR to Radwaste and Suppression Pool clean up are choices available per T-102. A RHR system only communicates with Radwaste. Suppression Pool clean up flow path is not available due to loss of offsite power.

NO.: 81 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 206000 3.02 TAXONOMY NO.: 3.8/3.8
LESSON PLANS: 81 LOT0340.07
:
CATEGORY: 00 C W
SYSTEMS: HPCI

QUESTION :

Unit 2 conditions are as follows:

- A Group IA isolation occurred at 100% power
- HPCI is being operated for Reactor pressure control
- RCIC is being operated for Reactor level control

WHICH ONE of the following will disable HPCI pressure control mode?

a. Loss of DIV 4 DC

b. A valid DIV 2 LOCA signal

c. D22 4Kv Bus lockout

d. PCIG isolation

ANSWER : B

NO.: 82 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 201006 1.02 TAXONOMY NO.: 3.4/3.5
LESSON PLANS: 82 LOT0095.3D
:
CATEGORY: 00 C W
SYSTEMS: RWM

QUESTION :

Unit 2 plant conditions are as follows:

- OPCON 2
- All APRM downscales are present
- Control Rod 34-35 is at its withdraw limit of 12

A continuous withdraw signal is applied to control rod 34-35

WHICH ONE of the following describes the Rod Worth Minimizer response?

a. Withdraw motion is prevented

b. Rod motion will stop at position 16

c. An insert block will only be applied after position 48 is reached

d. A withdraw block will only be applied after position 00 is reached

ANSWER : A

- RWM enforces pre-blocking

NO.: 83 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 215003 4.07 TAXONOMY NO.: 3.6/3.6
LESSON PLANS: 83 LOT0250.09
:
CATEGORY: 00 C W
SYSTEMS: IRM

QUESTION :

Unit 2 plant cinditions are as follows:

- Reactor Startup is in progress
- All IRMs indicating 40/125ths on Range 2
- The "2A" IRM Drive is selected

WHICH ONE of the following describes the automatic response if the "2A" IRM is withdrawn?

a. Rod Block generated when withdrawal begins

b. INOP scram signal generated when withdrawal begins

c. Detector motion stops when indication lowers to 5/125ths of scale

d. Rod Block generated only when its indication lowers to 5/125ths of scale

ANSWER : A

- With the Reactor Mode Switch in Startup, a Rod Withdrawal Block is generated anytime an IRM is not fully inserted.

Detector position is not an input to the IRM Scram circuit.

An IRM UPSCAL/INOPERATIVE alarm will be generated as soon as the detector leaves the full in position.

A Rod Withdrawal Block is generated anytime an IRM is not fully inserted and the Reactor Mode Switch is not in RUN.

NO.: 84 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.1.7 TAXONOMY NO.: 3.7/4.4
LESSON PLANS: 84 LOT1691.05 T-111
:
CATEGORY: 00 C W
SYSTEMS: TA

QUESTION :

Unit 1 plant conditions are as follows:

- 33 % power
- Stator Current is 11,000 Amps

Main Generator Bushing cooling flow drops to 70 gpm

WHICH ONE of the following describes plant response?

a. EHC Load Set runback

b. Immediate Main Turbine trip

c. Immediate "1A" Recirc pump trip

d. Sequential trip of both Recirc pumps

ANSWER : A

- Less than 44% Total Feed flow, Load set runs back to less than 7,469 Amps in 3.5 minutes.

NO.: 88 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AA SKA NO.: 295005 2.03 TAXONOMY NO.: 3.1/3.1
LESSON PLANS: 88 LOT0580.08
:
CATEGORY: 00 C W
SYSTEMS: EHCHYD

QUESTION :

Unit 1 conditions are as follows:

- 20% power
- Main Turbine roll to rated speed is in progress

Main Turbine speed reaches 1940 rpm

WHICH ONE of the following describes the status of the Main Turbine valves?

	TSVs	TCVs	ISVs	IVs
a.	Closed	Closed	Closed	Closed
b.	Open	Closed	Open	Closed
c.	Open	Closed	Open	Throttled
d.	Open	Throttled	Open	Open

ANSWER : B

- TCVs and IVs close due to response of the Speed Control Unit of EDC Logic from 100-107% rated speed.

NO.: 89 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/11/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 211000 2.1.1 TAXONOMY NO.: 3.7/3.8
LESSON PLANS: 89 LOT0310.10
:
CATEGORY: 00 C W
SYSTEMS: SLC

QUESTION :

Unit 2 conditions are as follows:

- An ATWS is in progress
- RPV pressure is 1050 psig
- SLC Tank level is 3800 gallons

All Standby Liquid Control pumps are manually started, with the following indications:

	"2A" pump	"2B" pump	"2C" pump
Squib valve fired:	NO	YES	YES
Discharge Pressure:	1100 psig	1000 psig	1200 psig

WHICH ONE of the following identifies which pump(s) is/are injecting Boron into the RPV?

a. "2B" only

b. "2C" only

c. "2A" and "2C" only

d. "2A", "2B" and "2C"

ANSWER : B

NO.: 93 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.1.10 TAXONOMY NO.: 2.7/3.9
LESSON PLANS: 93 LOT1800.04 TECH SPECS
:
CATEGORY: 00 C W
SYSTEMS: TS

QUESTION :

With Unit 2 operating at 100%, a review of Core Thermal Limits reveals the following conditions:

LIMIT	BUNDLE # 1	2	3	4
MAPRAT	0.992	0.997	0.996	0.998
MFLCPR	0.997	1.002	1.001	1.003
MFLPD	0.893	0.909	0.902	0.912

WHICH ONE of the following describes Core status?

a. The Core is not protected from Transition Boiling

b. Critical Heat Flux has been exceeded in bundles 2, 3 and 4

c. The 1% Plastic Strain Limit has been exceeded for bundles 2, 3, and 4

d. The Core is not protected from exceeding 2200°F if a Large Break LOCA occurs

ANSWER : A

With MFLCPR >1.0, the margin to the MCPR Safety Limit is reduced such that MCPR could be reduced below 1.0 during an accident or transient.

NO.: 94 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 201001 2.09 TAXONOMY NO.: 3.2/3.1
LESSON PLANS: 94 LOT0070.10
:
CATEGORY: 00 C W
SYSTEMS: CRDH

QUESTION :

Unit 2 plant conditions are as follows:

- 100% power
- Scram Air header pressure is 68 psig AND lowering slowly

No operator action is taken

WHICH ONE of the following describes the response of the Control Rod Drive Hydraulic (CRDH) System components?

	Control Rods	CRD Flow Control Valve
a.	Remain as is	Fails full open
b.	Drift in	Fails full open
c.	Remain as is	Fails closed
d.	Drift in	Fails closed

ANSWER : D
-SCRAM Valves fail open and FCVs fail closed.

NO.: 95 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 259002 1.04 TAXONOMY NO.: 3.5/3.6
LESSON PLANS: 95 LOT0550.07
:
CATEGORY: 00 C W
SYSTEMS: FWC

QUESTION :

Plant conditions are as follows:

- 100% power
- RPV level is 35"
- Feedwater system is in Automatic, 3-element control

"C" Feed Flow Detector fails downscale

WHICH ONE of the following describes Feedwater System response and final steady state RPV level?

a. "C" Reactor Feed Pump will lock-up, higher than 35"

b. "C" Reactor Feed Pump will speed up, lower than 35"

c. All Reactor Feed Pumps will speed up, higher than 35"

d. All Reactor Feed Pumps will speed up, lower than 35"

ANSWER : C

- FWC will sense a reduction in total feed flow. The flow error will increase causing the speed of all three pumps to increase.
- RFP Flow does not input to the Control Signal Failure circuit.

QUESTIONS for LOT NRC 2000

NO.: 96 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 262001 4.06 TAXONOMY NO.: 3.6/3.9
LESSON PLANS: 96 LOT0660.04
:
CATEGORY: 00 C W
SYSTEMS: 4KV

QUESTION :

Unit 1 conditions are as follows:

- 100% power
- 101-D11 breaker is closed and "Red flagged"
- 201-D11 breaker is open and "Green flagged"

101-D11 breaker trips

WHICH ONE of the following describes 4KV system status one (1) minute later?

	D11 Diesel Generator	Diesel Output breaker
a.	Running	Closed
b.	Running	Open
c.	Not running	Closed
d.	Not running	Open

ANSWER : B

- The 201-D11 breaker will close
- D11 will start but output breaker will remain open

NO.: 97 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 264000 1.01 TAXONOMY NO.: 3.8/4.1
LESSON PLANS: 97 LOT0670.05
:
CATEGORY: 00 C W
SYSTEMS: EDG

QUESTION :

The D14 Emergency Diesel Generator (EDG) is synchronized to the 201 Bus

RPV level drops to -135" and recovers to +20"

WHICH ONE of the following conditions will cause D14 EDG to trip?

a. Generator Differential Overcurrent

b. Low Jacket Water pressure

c. Low Lube Oil pressure

d. Low ESW flow

SWER : A

- Generator Differential will always trip the DG

NO.: 98 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/18/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 295003 2.4.3 TAXONOMY NO.: 3.5/3.8
LESSON PLANS: 98 LOT0050.10 E-1
:
CATEGORY: 00 C W
SYSTEMS: VI

QUESTION :

Unit 2 is operating at 100% power when a Station Blackout occurs

WHICH ONE of the following RPV level instruments is available?

a. LR-42-2R615, Fuel Zone Recorder

b. XR-42-2R623B, "B" Wide Range Recorder

c. LI-42-2R606C, "C" Narrow Range Indicator

d. LI-42-2R605, Shutdown Range Indicator

ANSWER : C

NO.: 99 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AA SKA NO.: 295006 1.06 TAXONOMY NO.: 3.5/3.6
LESSON PLANS: 99 LOT0070.06
:
CATEGORY: 00 C W
SYSTEMS: CRDH

QUESTION :

WHICH ONE of the following describes the status of the Control Rod Drive Hydraulic System nine (9) seconds after a Reactor Scram?

	Total System Flow	Flow Control Valve Position
a.	High	Open
b.	High	Closed
c.	Low	Open
d.	Low	Closed

ANSWER : B

2 RO only

NO.: 8 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/14/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.1.32 TAXONOMY NO.: 3.4
LESSON PLANS: 8R LOT0340.09 S55.1.D
: T-101 BASES
CATEGORY: 00 RO W
SYSTEMS: HPCI

QUESTION :

Unit 1 conditions are as follows:

- HPCI is operating in Pressure Control Mode (CST to CST)

WHICH ONE of the following conditions will result if HPCI turbine speed is maintained at 2000 rpm for a prolonged period of time?

a. Vacuum pump cavitation

b. Steam exhaust valve chatter

c. CST suction line water hammer

d. Booster pump bearing overheating

ANSWER : B

- S55.1.D Procedure precaution
- T-101 Bases, RC/L-4

NO.: 21 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/15/00
DIFFICULTY: 3 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EK SKA NO.: 295025 1.03 TAXONOMY NO.: 3.6/3.8
LESSON PLANS: 21R LOT0120.09 STEAM TABLES
: MOLLIER DIAGRAM
CATEGORY: 00 RO W
SYSTEMS: ADS

QUESTION :

Unit 2 conditions are as follows:

- An ATWS is in progress
- Reactor power is 27%
- The Main Turbine is tripped

Reactor pressure slowly rises to the setpoint of the lowest set Safety Relief Valve (SRV) causing one SRV to leak

WHICH ONE of the following represents the SRV Tailpipe temperature for the leaking SRV?

a. 212°F

b. 285°F

c. 305°F

d. 566°F

ANSWER : B

REQUIRES CANDIDATES HAVE STEAM TABLES AVALIABLE

a. Tsat for atmospheric pressure

b. Correct. Constant enthalpy from 1170 psig to atmospheric pressure

c. Temp for 900 psia initial pressure

d. Tsat for 1170 psig

NO.: 26 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/15/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.2.27 TAXONOMY NO.: 2.6
LESSON PLANS: 26R LOT1530.03 TS DEF.
: GP-6.1
CATEGORY: 00 RO W
SYSTEMS: GP

QUESTION :

Unit 2 plant conditions are as follows:

- Day 19 of a scheduled 29 day refueling outage
- Core Shuffle and Verification are complete
- Vessel Reassembly is in progress

WHICH ONE of the following activities requires direct supervision by a Senior Licensed Operator - Limited to Fuel Handling?

a. Control rod stroke timing in OPCON 4

b. Control rod stroke timing in OPCON 5

c. Source Range Monitor withdraw in OPCON 4

d. Source Range Monitor withdraw in OPCON 5

ANSWER : B

Tech Spec definition of core alteration

NO.: 28 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/15/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.4.11 TAXONOMY NO.: 3.4
LESSON PLANS: 28R LOT1550.01 ON-117
:
CATEGORY: 00 RO W
SYSTEMS: ON

QUESTION :

The following Unit 1 MCR annunciators alarm:

- 1A/1B RECIRC PUMP MOTOR HI TEMP
- 1A INST AIR COMPRESSOR AFTERCOOLER HI TEMP

WHICH ONE of the following procedures must be entered?

a. ON-113, Loss of RECW

b. ON-115, Loss of Control Enclosure Cooling

c. ON-117, Loss of TECW

d. ON-119, Loss of Instrument Air

ANSWER : C

NO.: 37 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/10/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 214000 5.01 TAXONOMY NO.: 2.7
LESSON PLANS: 37R LOT0080.4B
:
CATEGORY: 00 RO W
SYSTEMS: RPIS

QUESTION :

Plant conditions are as follows:

- Reactor startup is in progress
- Control Rod 30-31 is selected and being withdrawn from position 08 to position 12

The following indications are observed:

- Control rod 30-31 position indicates "XX" on the 4-rod display
- Control rod 30-31 position indicates "**" on PMS
- RPIS status light "DATA FAULT" is lit on 10C603 panel

W[illegible]CH ONE of the following describes the status of rod 30-31?

a. Scrammed

b. Uncoupled

c. At position 09

d. At a failed reed switch

ANSWER : D

NOTE: This question was taken directly from facility bank. Previously used on the 1997 Initial License Exam as common question # 58. The only change was format in nature.

NO.: 58 REV.: 6 TYPE: MC ENTERED BY: RTR DATE ENTERED: 01/07
DIFFICULTY: 0 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 214000 TAXONOMY NO.: 3.1/3.3
LESSON PLANS: 58 LOT0060.7
:
CATEGORY: 97 W
SYSTEMS: CRDM

QUESTION :

Control rod 30-31 is being inserted from position 12 to position 08.

The RO notes that during rod motion the following occur:

- Control Rod 30-31 position indicates "XX" on the 4-Rod display
- Control Rod 30-31 position indicates "**" on PMS
- RPIS Status DATA FAULT light on 10C603 is lit

WHICH ONE of the following describes the status of rod 30-31?

a. scrammed

b. uncoupled

c. stuck at position 09

d. reed switch has failed

ANSWER : D

NO.: 38 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/02/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 239001 1.11 TAXONOMY NO.: 2.5
LESSON PLANS: 38R LOT0530.04 M-02
: M-04
CATEGORY: 00 RO W
SYSTEMS: EXSTM

QUESTION :

Unit 1 plant conditions are as follows:

- 100% power
- The "6A" Feedwater Heater level controller fails causing the Shell Side Drain valve to close

WHICH ONE of the following describes plant response if "6A" Feedwater Heater Shell Side Dump valve fails to open?

a. "5A" Feedwater Heater Bleeder Trip valve closes

b. "6A" Feedwater Heater Bleeder Trip valve closes

c. "5A" Feedwater Heater Extraction Steam Supply valve closes

d. "6A" Feedwater Heater Extraction Steam Supply valve closes

ANSWER : D

NO.: 39 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/16/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 263000 6.01 TAXONOMY NO.: 3.2
LESSON PLANS: 39R LOT0690.8 E-33
:
CATEGORY: 00 RO W
SYSTEMS: DC

QUESTION :

An electrical fault has caused a loss of AC power to DIV I Battery Charger (1BCA2).

WHICH ONE of the following describes the effect on the DIV I, 125 VDC loads?

a. All are lost immediately

b. Some are lost immediately

c. Some are lost when the battery is fully discharged

d. All are lost when the battery is fully discharged

ANSWER : C

NO.: 42 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/16/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295022 2.07 TAXONOMY NO.: 3.4
LESSON PLANS: 42R LOT1550.3 ON-107
:
CATEGORY: 00 RO W
SYSTEMS: ON

QUESTION :

Unit 1 plant conditions are as follows:

- 100% power
- RPV pressure is 980 psig
- "1A" CRD pump is blocked for maintenance

An electrical fault causes "1B" CRD pump to trip.

WHICH ONE of the following describes when a reactor scram is required if RPV pressure drops to 890 psig?

a. Immediately

b. After twenty (20) minutes

c. One HCU accumulator becomes inoperable

d. Two HCU accumulators become inoperable

ANSWER : D

- 2 accumulators inop with less than 900 psig

NO.: 43 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/04/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295021 2.03 TAXONOMY NO.: 3.6
LESSON PLANS: 43R LOT0180.02 ON-121
: GP-8
CATEGORY: 00 RO W
SYSTEMS: RHR

QUESTION :

Unit 2 plant conditions are as follows:

- OPCON 4
- "2B" Loop of RHR is in shutdown cooling

Reactor level drops to -25"

WHICH ONE of the following describes the final position of the RHR valves below?

	HV51-2F006B (Suction B)	HV51-2F008 (Outboard)	HV51-2F015B (Outboard)
a.	Open	Closed	Closed
b.	Closed	Closed	Closed
c.	Open	Open	Open
d.	Closed	Open	Open

ANSWER : A

NO.: 49 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/28/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 211000 2.02 TAXONOMY NO.: 3.1/3.2
LESSON PLANS: 49R LOT0310.03
:
CATEGORY: 00 RO W
SYSTEMS: SLC

QUESTION :

Unit 2 plant conditions are as follows:

- 100% power
- D23 Safeguard Bus lockout occurs
- RPV level drops to -48"
- Automatic and manual actuation of RPS and RRCS fail

All MCR Standby Liquid Control (SLC) pump switches are placed in RUN

WHICH ONE of the following describes the SLC System response?

a. All pumps start, all Squib valves fire

b. Only "2B" and "2C" pumps start, all Squib valves fire

c. All pumps start, only "2A" and "2B" Squib valves fire

d. Only "2A" and "2B" pumps start, only the "2A" and "2B" Squib valves fire

ANSWER : D

- D23 provides power to the "2C" Pump via D234-R-C and to the "2C" Squib Valve via 20Y103.

- The "C" Pump and Squib Valve have no power.

NO.: 51 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/10/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 217000 2.03 TAXONOMY NO.: 2.7
LESSON PLANS: 51R LOT0380.12A
:
CATEGORY: 00 RO W
SYSTEMS: RCIC

QUESTION :

An electrical fault has caused a loss of DIV 3, 125 VDC power

WHICH ONE of the following identifies how the RCIC flow controller can be operated from the RSP?

a. Auto only

b. Manual only

c. Auto and Manual

d. No control available

ANSWER : C

NO.: 55 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 01/28/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 215005 3.08 TAXONOMY NO.: 3.7/3.6
LESSON PLANS: 55R LOT0270.05
:
CATEGORY: 00 RO W
SYSTEMS: APRM

QUESTION :

Unit 2 conditions are as follows:

- 90% power
- The "2B" Recirc Flow Unit is bypassed

A leak on the sensing line to the "2C" Recirc Flow Unit causes its output to indicate low

WHICH ONE of the following choices describes plant response?

a. The "2A" RBM generates a Rod Withdrawal Block

b. The "2B" RBM generates a Rod Withdrawal Block

c. The "2A" APRM generates a Rod Withdrawal Block and Half SCRAM

d. The "2B" APRM generates a Rod Withdrawal Block and Half SCRAM

ANSWER : C

c. Correct. The flow input failing low will lower the flow referenced trip setpoints causing Rod Blocks and SCRAM signals to be generated by the "A", "C", and "E" APRMs.

a,b The RBM no longer uses flow referenced trip setpoints.

d. The "B" APRM receives input from the "B" and "D" Flow Units.

NO.: 56 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/02/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.1.2 TAXONOMY NO.: 3.0
LESSON PLANS: 56R OM-L-3.3
:
CATEGORY: 00 RO W
SYSTEMS: OM

QUESTION :

WHICH ONE of the following describes a Unit Reactor Operator routine responsibility?

a. Operate Water Diversion facilities

b. Provide short term relief for the RO

c. Issue clearances to clearance holders

d. Monitor plant parameters to ensure compliance with Tech Specs

ANSWER : D

NO.: 60 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.2.12 TAXONOMY NO.: 3.0/N/A
LESSON PLANS: 60R LOT1574.26
:
CATEGORY: 00 RO W
SYSTEMS: OM

QUESTION :

WHICH ONE of the following must be recorded on the RO's "Test in Progress" Status Sheets (ST/RT Log)?

a. STs performed by an Equipment Operator

b. STs which make plant equipment inoperable

c. RTs that do not initiate Control Room alarms

d. RTs that do not affect equipment controlled from the MCR

ANSWER : B

, c, and d are specifically listed in OM-C-10.4 as not required to be logged on Status Sheets. STs which INOP equipment should be logged.

NO.: 68 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.4.2 TAXONOMY NO.: 3.9
LESSON PLANS: 68R LOT1560.02 T-100
: T-103
CATEGORY: 00 RO W
SYSTEMS: TRIP

QUESTION :

Unit 1 conditions are as follows:

- 7% power
- Reactor Mode switch is in "Startup"

The following events occur:

- A steam leak develops on #3 Combined Intermediate Valve
- The Reactor is manually scrammed
- Main Steam Lines "A", "C" and "D" are manually isolated
- Main Steam Line "B" fails to isolate
- RPV level dropped to +20" and was restored to +35"

WHICH ONE of the following TRIP procedures must be entered?

a. T-100 and T-103

b. T-101 and T-103

c. T-101 only

d. T-100 only

ANSWER : D

- Entry conditions only exist for T-100

NO.: 69 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/04/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 219000 3.01 TAXONOMY NO.: 3.3
LESSON PLANS: 69R LOT0370.9C S51.8.A
: M-51
CATEGORY: 00 RO W
SYSTEMS: RHR

QUESTION :

Unit 2 conditions are as follows:

- 50% power
- "2B" RHR Loop is in Suppression Pool Cooling at 8300 gpm

A LOCA drops RPV pressure to 420 psig and raises Drywell pressure to 3.5 psig

WHICH ONE of the following describes "2B" RHR loop conditions?

a. Pump running out

b. Injecting to the RPV

c. Draining to Suppression Pool

d. Suppression Pool cooling secured

ANSWER : D

- HV51-1F024B, Full Flow Test Return closes on LOCA signal
- HV51-1F017B, LPCI Injection Valve will not open until <74 psid

NO.: 70 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 290001 6.01 TAXONOMY NO.: 3.5/3.6
LESSON PLANS: 70R LOT0200.09
:
CATEGORY: 00 RO W
SYSTEMS: REHVAC

QUESTION :

Unit 2 conditions are as follows:

- 100% power
- Both running Reactor Enclosure (RE) Exhaust fans are tripped

The Standby RE Exhaust Fan fails to start

WHICH ONE of the following describes RE and Standby Gas Treatment fan status thirty (30) minutes later with no operator action?

	RE Supply Fans	Standby Gas Treatment Fans
a.	Tripped	Running
b.	Running	Off
c.	Tripped	Off
d.	Running	Running

ANSWER : C

- SGTS Fans auto start on Zone dp less than -0.1" after a 50 minute time delay. Supply Fans trip if less than two (2) Exhaust fans are running.

QUESTIONS for LOT NRC 2000

NO.: 73 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 300000 5.01 TAXONOMY NO.: 2.5
LESSON PLANS: 73R LOT0730.10
:
CATEGORY: 00 RO W
SYSTEMS: AIR

QUESTION :

Unit 2 plant conditions are as follows:

- RPV level is -145"

No SE-10, LOCA actions are performed

WHICH ONE of the following identifies the plant air compressors capable of starting automatically?

a. Backup Service Air only

b. Unit 2 Service Air only

c. Unit 2 Service Air and Backup Service Air only

d. Unit 2 Service Air, Backup Service Air and Unit 2 Instrument Air

ANSWER : C

NO.: 85 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 256000 4.11 TAXONOMY NO.: 2.9
LESSON PLANS: 85R LOT0520.04
:
CATEGORY: 00 RO W
SYSTEMS: COND

QUESTION :

Unit 1 conditions are as follows:

- 100% power

The Offgas Guard Bed becomes completely blocked due to water intrusion

WHICH ONE of the following describes how Steam Jet Air Ejector valves respond if no operator action is taken?

a. First stage Steam Supply valves will auto close

b. First stage Air Suction valves will auto close

c. Second stage Steam Supply valve will auto close

d. Second stage Air Suction valve will auto close

ANSWER : B

- reduce gas flow through the system.
  A low flow condition will isolate the SJAE first stage air valves.

NO.: 86 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/17/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 262002 2.02 TAXONOMY NO.: 2.5
LESSON PLANS: 86R LOT0300.02
:
CATEGORY: 00 RO W
SYSTEMS: RPS

QUESTION :

The "1A" RPS & UPS STATIC INVERTER TROUBLE alarm is received due to an output overvoltage condition

WHICH ONE of the following describes plant response?

a. An RPS full Scram signal is generated

b. "1A" RPS & UPS Static Inverter DC Input breaker trips

c. "1A" RPS & UPS Static Switch swaps to its Alternate AC supply

d. "1A" RPS & UPS Static Switch swaps to its Alternate DC supply

ANSWER : C

NO.: 87 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 212000 2.21 TAXONOMY NO.: 3.6/3.9
LESSON PLANS: 87R LOT1540.02
:
CATEGORY: 00 RO W
SYSTEMS: OT

QUESTION :

Unit 2 is operating at 100% power

The SCRAM DISCHARGE VOLUME HI LEVEL TRIP annunciator alarms

The System Manager reports:

"All SDV level indicators are reading 70% which is equal to 30 gallons".

WHICH ONE of the following describes required action?

a. Manually scram the Reactor

b. Perform GP-4, Rapid Plant Shutdown

c. Perform alternate draining of SDVs

d. Perform GP-3, Normal Plant Shutdown

ANSWER : A

NO.: 90 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/10/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EK SKA NO.: 295035 TAXONOMY NO.: 3.01
LESSON PLANS: 90R LOT0200.11
:
CATEGORY: 00 RO W
SYSTEMS: SECNMT

QUESTION :

Unit 1 conditions are as follows:

- 100% power

A complete rupture of the HPCI steam supply line occurs in the Safeguard Valve Room (309) and cannot be isolated

WHICH ONE of the following describes Secondary Containment response?

a. Blowout Panels will open resulting in a monitored and uncontrolled release path

b. Blowout Panels will open resulting in an unmonitored and uncontrolled release path

c. Steam Flooding Dampers will close resulting in an unmonitored and controlled release path

d. Steam Flooding Dampers will close resulting in a monitored and controlled release path

ANSWER : B

- flow from blowout panels is not monitored for radioactivity and no means of stopping or controlling the flow is available

NO.: 91 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 205000 4.02 TAXONOMY NO.: 3.6
LESSON PLANS: 91R LOT
:
CATEGORY: 00 RO W
SYSTEMS: RHR

QUESTION :

Unit 1 conditions are as follows:

- Plant cooldown is in progress
- "1B" RHR Pump is operating in Shutdown Cooling Mode

Drywell Pressure rises to 2.3 psig

WHICH ONE of the following describes "1B" RHR pump response?

a. Trips with no suction path aligned

b. Continues to run in Shutdown Cooling Mode

c. Trips and suction path re-aligns to Suppression Pool

d. Continues to run and suction path re-aligns to Suppression Pool

ANSWER : A
- The "B" RHR Pump will trip on a loss of suction path. The 1F008 and 1F009 valves will close on a LOCA Signal.

NO.: 92 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 264000 4.02 TAXONOMY NO.: 3.4
LESSON PLANS: 92R LOT0660.04
:
CATEGORY: 00 RO W
SYSTEMS: 4KV

QUESTION :

Unit 1 conditions are as follows:

- The D11 Diesel Generator is being synchronized to its 4KV Bus
- The D11 Synchroscope is rotating slow in the FAST direction
- INCOMING Voltage is higher than RUNNING Voltage

WHICH ONE of the following describes the relationship between INCOMING and RUNNING sources?

	D11 DG	D11 Bus
a.	4080 Volts @ 60 Hz	4050 Volts @ 59.5 Hz
b.	4050 Volts @ 60 Hz	4080 Volts @ 59.5 Hz
c.	4050 Volts @ 59.5 Hz	4080 Volts @ 60.0 Hz
d.	4080 Volts @ 59.5 Hz	4050 Volts @ 60.0 Hz

ANSWER : A

- Incoming is D11 Diesel Generator
- Running is D11 Bus
- Synchroscope in FAST direction means Incoming Frequency is higher than Running Frequency

NO.: 100 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/10/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 259001 6.09 TAXONOMY NO.: 2.8
LESSON PLANS: 100R LOT0540.05
:
CATEGORY: 00 RO W
SYSTEMS: FW

QUESTION :

Unit 1 conditions are as follows:

- 100% power

The following events occur on "1B" Reactor Feed pump (RFP):

- Bearing oil pressure drops to 5 psig
- Oil supply header pressure is 210 psig and steady

WHICH ONE of the following describes plant response?

a. Recirc pumps runback to 28%

b. "1B" Reactor Feed pump trips

c. "1B" Standby RFP Lube Oil pump starts

d. "1B" Emergency RFP Lube Oil pump starts

ANSWER : B

Bearing oil pressure <7 psig will cause a RFP trip.

SRO only

NO.: 101 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/11/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: A SKA NO.: 212000 2.02 TAXONOMY NO.: 2.9
LESSON PLANS: 8S LOT0300.11A E-32
:
CATEGORY: 00 SRO W
SYSTEMS: RPS

QUESTION :

Unit 1 is in OPCON 5

"1A" RPS Electric Power Monitoring Channel Calibration results are as follows:

Overvoltage relay trip setpoint	129 VAC
Underfrequency relay trip setpoint	56 Hz
Undervoltage relay trip setpoint	107 VAC

WHICH ONE of the following describes required actions?

a. Immediately bypass and remove the "1A" RPS/UPS static inverter from service

b. Immediately transfer the "1A" RPS/UPS inverter static switch to its alternate supply

c. Restore "1A" RPS/UPS Power Monitor to operable within 72 hours or remove "1A" RPS/UPS static inverter from service

d. Restore "1A" RPS/UPS Power Monitor to operable within 24 hours or remove "1A" RPS/UPS static inverter from service

ANSWER : C

- TS 3.8.4.3

NO.: 102 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AA SKA NO.: 295006 2.06 TAXONOMY NO.: /3.8
LESSON PLANS: 21S LOT0300.04
:
CATEGORY: 00 SRO W
SYSTEMS: RPS

QUESTION :

The following sequence of events occur from 100% power:

HR:MIN:SEC

08:30:00 "A" Condensate Pump trips
08:45:00 "B" INBOARD MSIV fails closed
08:50:00 Main Generator Lockout
09:00:00 Drywell pressure reaches 1.68 psig

WHICH ONE of the following RPS scram signals was generated FIRST?

a. Low RPV level

b. High RPV pressure

c. High Drywell pressure

d. Turbine Control Valve fast closure

ANSWER : D

NO.: 103 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/18/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 223002 6.04 TAXONOMY NO.: /3.5
LESSON PLANS: 26S LOT0160.10 LOT0160.1
: TS 3.3.7.5
CATEGORY: 00 SRO W
SYSTEMS: CAC

QUESTION :

Unit 1 conditions are as follows:

- 100% power

An instrument failure results in isolation of 10S205, H_2O_2 analyzer

WHICH ONE of the following describes the maximum time allowed to restore the analyzer to service before a plant shutdown is required?

a. 30 days

b. 7 days

c. 48 hours

d. 24 hours

ANSWER : B

NO.: 104 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 223002 6.04 TAXONOMY NO.: 3.5
LESSON PLANS: 28S LOT0180.10C T.S. 3.3.2
: TABLE 3.3.2-1
CATEGORY: 00 SRO W
SYSTEMS: NS4

QUESTION :

Unit 1 plant conditions are as follows:

- OPCON 3
- RPV pressure is 30 psig
- "1B" loop of Shutdown Cooling is in service

RPV pressure transmitter output PT42-1N078C (NSSSS Group IIA, RHR Cut-In Permissive) fails downscale.

WHICH ONE of the following actions is required?

a. Place "C" channel isolation logic in the tripped condition within twelve (12) hours

b. Restore "C" channel isolation logic to operable with six (6) hours

c. Close HV51-1F015B, RHR Shutdown Cooling Return Outboard within one (1) hour

d. Verify an alternate method of decay heat removal is available within one (1) hour

ANSWER : B

Requires page one of T.S. Tables 3.3.2-1 and 4.3.2.1-1, pages 3/4 3-11, 3/4 3-27

NO.: 105 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/10/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.1.11 TAXONOMY NO.: /3.8
LESSON PLANS: 37S LOT1800.05
:
CATEGORY: 00 SRO W
SYSTEMS: TS

QUESTION :

Unit 1 conditions are as follows:

- 100% power
- Ten (10) days ago, a sample of both Control Room Emergency Fresh Air Supply (CREFAS) charcoal adsorbers carbon was removed and sent for laboratory analysis

The results of the analysis indicates Methyl Iodide penetration is 1.23% in both charcoal adsorbers

WHICH ONE of the following actions is required?

a. Initiate and maintain operation of one CREFAS subsystem in the Radiation Mode of operation

b. Replace the charcoal within 7 days
OR be in Hot Shutdown within the next 12 hours
AND Cold Shutdown within the following 24 hours

c. Within one (1) hour, initiate a shutdown and be in STARTUP within 6 hours, HOT SHUTDOWN within the following 6 hours
AND COLD SHUTDOWN within the subsequent 24 hours

d. Re-perform the sample within 24 hours
OR be in STARTUP within 6 hours, HOT SHUTDOWN within the following 6 hours
AND COLD SHUTDOWN within the subsequent 24 hours

ANSWER : C

Methyl Iodide Penetration >1.0% is in excess of the Surveillance Requirement and the CREFAS filters are inoperable. Since the action requirements of 3.7.2 only address the inoperability of one subsystem, 3.0.3 applies

NO.: 106 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/02/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.2.19 TAXONOMY NO.: 3.1
LESSON PLANS: 38S AG-CG-43,EXH 1 TS 3.5.1
: TS 4.5.1
CATEGORY: 00 SRO W
SYSTEMS: A

QUESTION :

*** REFER TO ATTACHMENT #1 TO ANSWER THE FOLLOWING QUESTION ***

Unit 2 plant conditions are as follows:

- OPCON 1
- "2A" Core Spray Loop was declared inoperable 5 days ago
- All other ECCS are operable

WHICH ONE of the following describes the minimum guideline for scheduling the online repair work to restore "2A" Core Spray Loop to operable status?

a. 8 hours per day until complete

b. 16 hours per day until complete

c. 24 hours per day until complete

d. Complete within the next scheduled Work Week

ANSWER : C

- T/S Action 7 days to operable
  w/in 72 hours must work 24/day
- Must provide AG-CG-43, Exhibit 1

ATTACHMENT 1

Q#38

EXHIBIT 1

GUIDELINES FOR SCHEDULING ONLINE WORK

Note: These recommendations are intended to be used as guidance for planning and scheduling system outage windows which could impact either plant capability or incurred risk. Deviations from these recommendations can be made pending a review of the specific circumstances of the maintenance activity (i.e., job complexity, available resources, etc.). These guidelines apply for both emergent and scheduled activities.

1. **SYSTEMS TO BE WORKED 24 HOURS PER DAY TO AN OPERABLE STATUS**

   a. All TSA/LCO's with a remaining duration of 72 HOURS or less

   b. The following PSA risk significant systems should be worked 24 hours per day.

      - Start-up Power Sources - when less than 2 available
      - RHR Heat Exchanger inoperable
      - RCIC (Reactor Core Isolation Cooling)
      - HPCI (High Pressure Coolant Injection)
      - ESW Loop (entire loop unavailable)
      - Diesel Generators and associated support systems

   c. The following systems which may affect plant reliability should be worked 24 hours per day.

      - Reactor Protection System (Half Scram)
      - Standby Gas Treatment System
      - RWCU system activities which require all pumps or both Demins out of service (plant chemistry impact)
      - PCIS System (Half Isolation)

   d. Conditions causing a loss of generating capacity (eg., Circ Pump, Condensate Pump, Feedwater Train)

   e. Systems which cause entry into a Chemistry Action Level 2 per the applicable chemistry procedure

2. **SYSTEMS TO BE WORKED AT LEAST 2 SHIFTS PER DAY (16 hours) TO AN OPERABLE STATUS**

Note: A 7 day TSA/LCO should be worked 24 hours per day once the point is reached where there is less than 72 hours remaining on the action.

Q#38

a. All 7 DAY TSA/LCO's

b. The following PSA Risk Significant systems:

- RHR LPCI Loop (LGS only)

c. The following systems which may affect plant reliability should be worked 2 shifts per day:

- Drywell chillers - due to chiller reliability and the transient associated with the loss of the operating train.
- MCR chillers - due to chiller reliability and the transient associated with the loss of the operating train.
- RECW and TECW trains (LGS) / RBCCW and TBCCW (PB) - (due to transient associated with loss of the operating train)
- EHC Train (plant reliability)
- CRD (plant reliability)
- Service Water Train (plant reliability)
- RWCU activities which remove one Demineralizer from service (plant chemistry impact)
- Systems which enter into Chemistry Action Level 1

3. **SYSTEMS TO BE RESTORED WITHIN THE SCHEDULED WORK WEEK**

Note: The following systems should be worked expeditiously to minimize system or train unavailability.

All 30 Day and 45 Day LCO/TSA's
Instrument Air/Service Air Train
Rx Protection System
DC Divisional Power and Battery Chargers
Stator Coolant Train
CAC
Standby Liquid Control Train (LGS only)
Toxic Gas Analyzer (LGS only)
Chlorine Detection (LGS only)
Spray Pond HVAC Train (LGS only)

NO.: 107 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.4.44 TAXONOMY NO.: /4.0
LESSON PLANS: 39S LEPP ERP-200-1
:
CATEGORY: 00 SRO W
SYSTEMS: ERP

QUESTION :

A General Emergency is declared as the initial classification following a plant transient

WHICH ONE of the following describes the requirements associated with issuing a Protective Action Recommendation (PAR)?

a. Emergency Director (ED) informs the State Police

b. Emergency Response Manager (ERM) informs the NRC

c. Emergency Director (ED) informs the State and Counties

d. Emergency Response Manager (ERM) informs Local Authorities

ANSWER : C

NOTE: This question was taken directly from the facility exam bank. The question was previously used on the 1997 Initial License Exam as question # 98s. Minor changes to each distractor.

NO.: 123 REV.: 3 TYPE: MC ENTERED BY: DCW DATE ENTERED: 12/0
DIFFICULTY: 0 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.4.44 TAXONOMY NO.: 4.0
LESSON PLANS: 98S LEPP ERP-200-1
:
CATEGORY: 97 T
SYSTEMS: ERP

QUESTION :

A General Emergency is declared as the initial event following a plant transient.

WHICH ONE of the following statements describes Protective Action Recommendations (PAR)?

a. Emergency Director furnishes information to NRC

b. Emergency Response Manager furnishes information to NRC

c. Emergency Director furnishes information to the State and Counties

d. Emergency Response Manager furnishes information to the State and Counties

ANSWER : C

NO.: 109 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/20/00
DIFFICULTY: 3 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295009 2.01 TAXONOMY NO.: 4.0
LESSON PLANS: 43S LOT0050.04 T-291
:
CATEGORY: 00 SRO W
SYSTEMS: VI

QUESTION :

Given the following:

Instrument	Maximum Run Temperature (MRT)	Minimum Indicated Level (MIL)
Fuel Zone, LI42-1R610	127°F	-303"

WHICH ONE of the following sets of conditions will make LI42-1R610 indication NOT usable?

	Instrument Area Temperature	Indicated Level
a.	112°F	-320"
b.	130°F	-310"
c.	112°F	-290"
d.	130°F	-300"

ANSWER : B

>MRT AND <MIL: NOT useable

<MRT OR >MIL: Useable

NO.: 110 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/20/00
DIFFICULTY: 3 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EA SKA NO.: 295024 1.11 TAXONOMY NO.: 4.2
LESSON PLANS: 49S LOT1560.06 T-102
:
CATEGORY: 00 SRO W
SYSTEMS: TRIP

QUESTION :

*** REFER TO ATTACHMENT #2 TO ANSWER THE FOLLOWING QUESTION ***

Plant conditions are as follows:

- Drywell pressure is 54 psig
- Suppression Pool pressure is 68 psig
- Drywell temperature is 360°F

WHICH ONE of the following describes the ability to spray the Drywell?

a. Is not permitted

b. Is permitted using RHR only

c. Is permitted using RHRSW or Fire Water only

d. Is permitted using RHR, RHRSW, or Fire Water

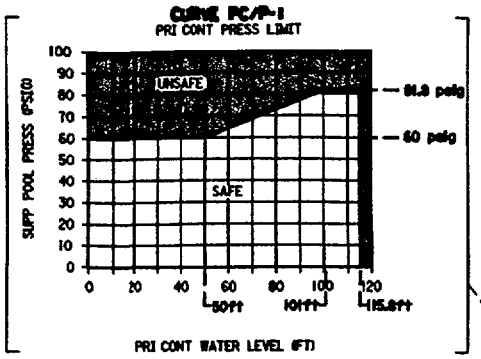
ANSWER : A

Drywell spray is not permitted with Suppression Pool level >38.7 feet.

Attachment 2 should include T-102 steps PC/P-4, Table PC/P-1, Curve PC/P-1, Step PC/P-9, and Curve PC/P-2

ATTACHMENT 2

Q#49



CONTAINMENT LEVEL IN FEET

	_____	PSIG SUPP POOL PRESS ON PR57-*01 (BLUE PEN)
MINUS (-)	_____	PSIG PRI CONT PRESS ON PR57-*01 (RED PEN)
EQUALS (=)	_____	Δ PSIG
TIMES (X)	2.3	FT/PSIG
EQUALS (=)	_____	FT
PLUS (+)	26.8	FT
EQUALS (=)	_____	FT CONTAINMENT LEVEL

TABLE PC/P-1

SUPP POOL/DW SPRAY SUCT SOURCE

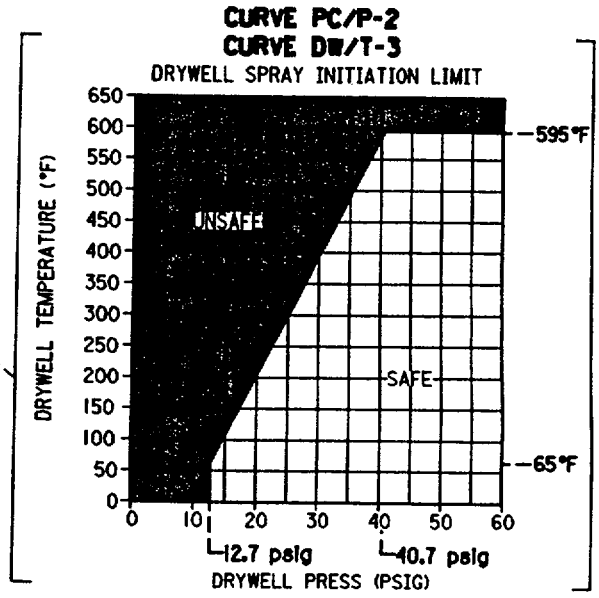
CONDITION	SUCTION SOURCE
On safe side of Curve PC/P-1	• Internal (Supp Pool) preffered • External (RHRSW OR Fire Water)
On unsafe side of Curve PC/P-1	Internal (Supp Pool) ONLY

Determine Supp Pool/DW spray suct source per Table PC/P-1

└ PC/P-4

IF on safe side of Curve PC/P-2
AND
Supp Pool level is below 38.7 ft,
THEN spray DW per T-225
UNLESS required for core cooling

└ PC/P-9



NO.: 111 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/11/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EK SKA NO.: 295038 1.02 TAXONOMY NO.: /4.4
LESSON PLANS: 51S LOT1560.06
:
CATEGORY: 00 SRO W
SYSTEMS: TRIP

QUESTION :

*** REFER TO ATTACHMENT #3 TO ANSWER THE FOLLOWING ***

Unit 2 conditions are as follows:

- A plant shutdown is in progress due to high coolant activity
- North Stack Rad Monitor indicates 10 times the Hi-Hi alarm setpoint value for 75 minutes
- Calculated Offsite dose rates are 0.4 mRem/hr TPARD based on a 60 minute average

WHICH ONE of the following identifies the minimum ERP Classification and the requirement to enter T-104?

	ERP Classification	T-104 entry required
a.	Unusual Event	Yes
b.	Unusual Event	No
c.	Alert	Yes
d.	Alert	No

ANSWER : B

- T-104 entered above Alert

Requires ERP-101 pg 15 & 16, RAD RELEASE provided as attachment

ATTACHMENT 3
Q#51
5.0 Radioactivity Release

5.1 Effluent Release and Dose

CLASSIFICATION	EMERGENCY ACTION LEVEL
UNUSUAL EVENT	**IC** Any Unplanned Release of Gaseous or Liquid Radioactivity to the Environment that Exceeds Two Times the Radiological Technical Specifications for 60 Minutes or Longer **5.1.1.a** Applicable Opcons: ALL A valid reading on one or more of the following radiation monitors that exceeds **TWO TIMES** the HiHi alarm setpoint value for ***> 60 minutes:*** North Stack, South Stack, Radwaste Discharge, Service Water, RHRSW **AND** Calculated maximum offsite dose rate using computer dose model exceeds ***0.114 mRem/hr TPARD OR 0.342 mRem/hr child thyroid CDE*** based on a 60 minute average Note: If the required dose projections cannot be completed within the 60 minute period, then the declaration must be made based on the valid sustained monitor reading. **5.1.1.b** Applicable Opcons: ALL Confirmed sample analyses for gaseous or liquid releases indicates concentrations or release rates exceeding **TWO TIMES** Tech Specs (ODCM 3.2.2 and 3.2.3) for ***> 60 minutes***
ALERT	**IC** Any Unplanned Release of Gaseous or Liquid Radioactivity to the Environment that Exceeds 200 Times Radiological Technical Specifications for 15 Minutes or Longer **5.1.2.a** Applicable Opcons: ALL A valid reading on one or more of the following radiation monitors that exceeds **TWO HUNDRED TIMES** the HiHi alarm setpoint value for ***> 15 minutes:*** North Stack, South Stack, Radwaste Discharge, Service Water, RHRSW **AND** Calculated maximum offsite dose rate exceeds **11.4 mRem/hr TPARD OR 34.2 mRem/hr child thyroid CDE** based on a 15 minute average Note: If the required dose projections cannot be completed within the 15 minute period, then the declaration must be made based on the valid sustained monitor reading. **5.1.2.b** Applicable Opcons: ALL Confirmed sample analyses for gaseous or liquid releases indicates concentrations or release rates exceeding **TWO HUNDRED TIMES** Tech Specs (ODCM 3.2.2 and 3.2.3) for ***> 15 minutes***

ATTACHMENT 3
Q#51

SITE AREA EMERGENCY	IC Boundary Dose Resulting from an Actual or Imminent Release of Gaseous Radioactivity Exceeds 100 mR Whole Body or 500 mR Child Thyroid for the Actual or Projected Duration of the Release **5.1.3** Applicable Opcons: ALL A valid reading on one or more of the following radiation monitors that exceeds or is expected to exceed the value shown for ***> 15 minutes*** AND Dose Projections are not available: North Stack 4.16E+6 µCi/second South Stack 2.25E-3 µCi/cc Note: If the required dose projections cannot be completed within the 15 minute period, then the declaration must be made based on the valid sustained monitor reading. OR Projected offsite dose using computer dose model exceeds ***100 mRem TPARD*** OR ***500 mRem*** **child thyroid CDE** OR Analysis of Field Survey results indicate site boundary whole body dose rate exceeds ***100 mRem/hr*** expected to continue for more than one hour, OR Analysis of Field Survey results indicate child thyroid dose commitment of ***500 mRem*** for one hour of inhalation
GENERAL EMERGENCY	IC Boundary Dose Resulting from an Actual or Imminent Release of Gaseous Radioactivity that Exceeds 1000 mR Whole Body or 5000 mR Child Thyroid for the Actual or Projected Duration of the Release Using Actual Meteorology **5.1.4** Applicable Opcons: ALL A valid reading on one or more of the following radiation monitors that exceeds or is expected to exceed the value shown for ***> 15 minutes*** AND Dose Projections are not available: North Stack 4.16E+7 µCi/second South Stack 2.25E-2 µCi/cc Note: If the required dose projections cannot be completed within the 15 minute period, then the declaration must be made based on the valid sustained monitor reading. OR Projected offsite dose using computer dose model exceeds ***1000 mRem TPARD*** OR ***5000 mRem*** **child thyroid CDE** OR Analysis of Field Survey results indicate site boundary whole body dose rate exceeds ***1000 mRem/hr*** expected to continue for more than one hour, OR Analysis of Field Survey results indicate child thyroid dose commitment of ***5000 mRem*** for one hour of inhalation ***PAR*** Evacuate 2 mile radius, evacuate affected sector(s) and 2 adjacent sectors for 2-5 miles.

NOTE: CDE = Committed Dose Equivalent, TPARD = Total Protective Action Recommendation Dose

NO.: 112 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AK SKA NO.: 295022 2.03 TAXONOMY NO.: /3.4
LESSON PLANS: 55S LOT1550.02 ON-107 BASES
:
CATEGORY: 00 SRO W
SYSTEMS: ON

QUESTION :

Plant conditions are as follows:

- A reactor startup is in progress
- RPV pressure is 850 psig
- Both CRD pumps are tripped
- Three (3) withdrawn control rods have local accumulator pressure at 940 psig

WHICH ONE of the following describes required action?

a. Restart one CRD pump within 20 minutes

b. Be in at least HOT SHUTDOWN within twelve (12) hours

c. Place the Reactor Mode Switch in the SHUTDOWN position

d. Insert the inoperable control rods and disarm the associated control valves

ANSWER : C
- Tech Spec 3.1.3.5 Action a.2.a2.

NO.: 113 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/11/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 295021 2.1.2 TAXONOMY NO.: /4.0
LESSON PLANS: 56S LOT0370.24
:
CATEGORY: 00 SRO W
SYSTEMS: TS

QUESTION :

Unit 1 conditions are as follows:

- A plant cooldown is in progress
- Reactor Coolant Temperature is 240°F
- "1B" Reactor Recirc Pump is running
- The "1A" RHR Pump is operating in the Shutdown Cooling Mode

At 1300, "1A" RHR pump trips

WHICH ONE of the following describes the required action?

a. No action is required until 1500 provided "1B" Loop of Shutdown Cooling remains operable

b. Verify the availability of an alternate method of decay heat removal by 1400 today

c. Immediately place the demonstrated alternate method of decay heat removal in service

d. No action is required until 2100 provided "1B" Loop of Shutdown Cooling remains operable

ANSWER : B

- T.S. 3.4.9.1 Action "a"

NO.: 114 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/11/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EK SKA NO.: 295035 1.01 TAXONOMY NO.: 4.2
LESSON PLANS: 60S LOT1800.05
:
CATEGORY: 00 SRO W
SYSTEMS: TS

QUESTION :

Unit 1 conditions are as follows:

- 100% power
- RE HVAC Differential Pressure is 0.18" H2O vacuum
- Wind speed is 2 mph from the NW

The following events occur:

- "A" Standby Gas Treatment (SBGT) Fan AND Filter are placed in service
- RE dp stablizes at 0.19" H2O vacuum
- "B" SBGT Fan AND Filter are started AND the "A" SBGT Fan AND Filter are secured
- RE dp stablizes at 0.25" H2O vacuum
- SBGT flow is 9200 scfm

WHICH ONE of the following actions is required?

a. Be in at least STARTUP within the next 6 hours

b. Be in at least HOT SHUTDOWN within the next 12 hours

c. Restore "A" SBGT to operable status within the next 12 hours

d. Restore RE Secondary Contaninment Integrity within 4 hours or be in HOT SHUTDOWN within the next 12 hours

ANSWER : D
TS 3.6.5.1.1 - restore Secondary Containment Integrity or shutdown

NO.: 115 REV.: 5 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: K SKA NO.: 230000 6.08 TAXONOMY NO.: /3.1
LESSON PLANS: 68S LOT0370.07
:
CATEGORY: 00 SRO W
SYSTEMS: RHR

QUESTION :

Unit 1 is at 100% power

The following events occur:

- Excess Flow Check valve, XV-42-1F045B closes causing a Div 2 LOCA signal
- The "1B" RHR pump is manually secured

WHICH ONE of the following describes status of "1B" RHR modes?

	Pool Spray	LPCI
a.	Available	Operable
b.	Available	NOT Operable
c.	Unavailable	Operable
d.	Unavailable	NOT Operable

ANSWER : B
LPCI requires automatic action which will not occur with the XV failure

NO.: 116 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/20/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.1.33 TAXONOMY NO.: 4.0
LESSON PLANS: 69S LOT1800.05 TS 3.6.2.1
:
CATEGORY: 00 SRO W
SYSTEMS: TS

QUESTION :

Plant conditions are as follows:

- OPCON 1
- HPCI Pump Valve and Flow Test is in progress
- Suppression Pool (SP) level is 23.2 feet
- Suppression Pool Temperature is 97°F
- One Loop of Suppression Pool Cooling is in service

WHICH ONE of the following actions is required?

a. Enter T-102 and restore SP temperature below 95°F within 24 hrs

b. Lower SP temperature below 95°F within 24 hours

c. Secure HPCI testing

d. Enter T-102 only

ANSWER : D

NO.: 117 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/20/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.3.1 TAXONOMY NO.: 3.0
LESSON PLANS: 70S LOT1800.05 T.S. 3.11.2.6
:
CATEGORY: 00 SRO W
SYSTEMS: TS

QUESTION :

Plant conditions are as follows:

- The last isotopic sample analysis from the Recombiner Aftercondenser Discharge was performed on 3/1/00 at 0800

The following are observed on 3/31/00 at the indicted time:

	0700	0800
- Main Condenser Offgas Pretreatment Rad Monitor indications	150 mCi/sec	300 mCi/sec
- Condenser In-Leakage	35 scfm	35 scfm
- Reactor Power	95%	95%

WHICH ONE of the following is the latest time the next isotopic analysis of a representative sample of gases taken at the Recombiner Aftercondenser Discharge must be performed?

a. 1200 3/31/00

b. 2000 3/31/00

c. 0800 4/1/00

d. 0200 4/9/00

ANSWER : A

NO.: 118 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/20/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.4.47 TAXONOMY NO.: 3.7
LESSON PLANS: 73S LOT0130.06
:
CATEGORY: 00 SRO W
SYSTEMS: PC

QUESTION :

Given the following plant conditions:

Time	Drywell Pressure	Suppression Pool Pressure
0800	25 psig	20 psig
0815	30 psig	25 psig
0830	32 psig	29 psig
0845	35 psig	33 psig
0900	39 psig	38 psig

WHICH ONE of the following conditions will result in the above Containment pressure trend?

a. Suppression Pool water level is lowering

b. An SRV tailpipe vacuum relief has failed

c. Suppression Pool to Drywell vacuum breakers are failed closed

d. Relocation of the Drywell nitrogen to Suppression Pool airspace

ANSWER : A

NO.: 119 REV.: 3 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/10/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.2.25 TAXONOMY NO.: /3.7
LESSON PLANS: 85S LOT1800.05
:
CATEGORY: 00 SRO W
SYSTEMS: TS

QUESTION :

Unit 1 conditions are as follows:

- Refueling outage with Fuel Shuffle in progress

Cavity level drops to 21 feet above the vessel flange

WHICH ONE of the following describes the minimum RHR Shutdown Cooling requirements and bases?

a. Two (2) RHR Shutdown Cooling Subsystems must be operable
Ensures adequate scrubbing of Iodine activity released from fuel

b. Two (2) RHR Shutdown Cooling Subsystems must be operable
Ensures adequate heat removal from the Core should a single failure occur

c. One (1) RHR Shutdown Cooling Subsystem must be operable
Provides adequate circulation to prevent thermal stratification

d. One (1) RHR Shutdown Cooling Subsystem or Alternate Method of heat removal must be operable
Ensures adequate heat removal AND coolant circulation

ANSWER : B

- T.S. 3.9.11.2, with level <22' above the flange, two loops must be operable

NO.: 120 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/11/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.4.16 TAXONOMY NO.: /4.0
LESSON PLANS: 86S LOT1560.06
:
CATEGORY: 00 SRO W
SYSTEMS: TRIP

QUESTION :

Unit 2 conditions are as follows:

- 100% power
- A Large Break LOCA occurs
- RPV level is -305"
- Multiple equipment failures have degraded plant status

Entry into the SAMP Procedures is required

WHICH ONE of the following describes TRIP and SAMP procedure use?

a. Exit the TRIP Procedures
then
Enter the SAMP Procedures

b. Exit the TRIP Procedures
then
Enter the SAMP Procedures until RPV injection is established
then
Re-enter the TRIP Procedures AND exit the SAMP Procedures

c. Enter AND execute the SAMP Procedures concurrently with the TRIP Procedures

d. Exit the TRIP Procedures
then
Enter the SAMP Procedures until RPV injection is established
then
Re-enter the TRIP Procedures AND execute concurrently with the SAMP Procedures

ANSWER : A

- Conditions require entry into the SAMPs, the TRIPs are exited and return is not permitted

NO.: 121 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/09/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EK SKA NO.: 295030 1.03 TAXONOMY NO.: /4.1
LESSON PLANS: 87S LOT1560.06 T-102
:
CATEGORY: 00 SRO W
SYSTEMS: TRIP

QUESTION :

*** REFER TO ATTACHMENT #4 TO ANSWER THE FOLLOWING ***

Unit 2 conditions are as follows:

- Reactor Pressure is 800 psig
- Suppression Pool temperature is 190°F and rising slowly
- Suppression Pool level is 22 feet and lowering slowly

WHICH ONE of the following describes the required action?

a. Perform a Reactor Blowdown per T-112

b. Rapidly depressurize the Reactor with the Bypass Valves

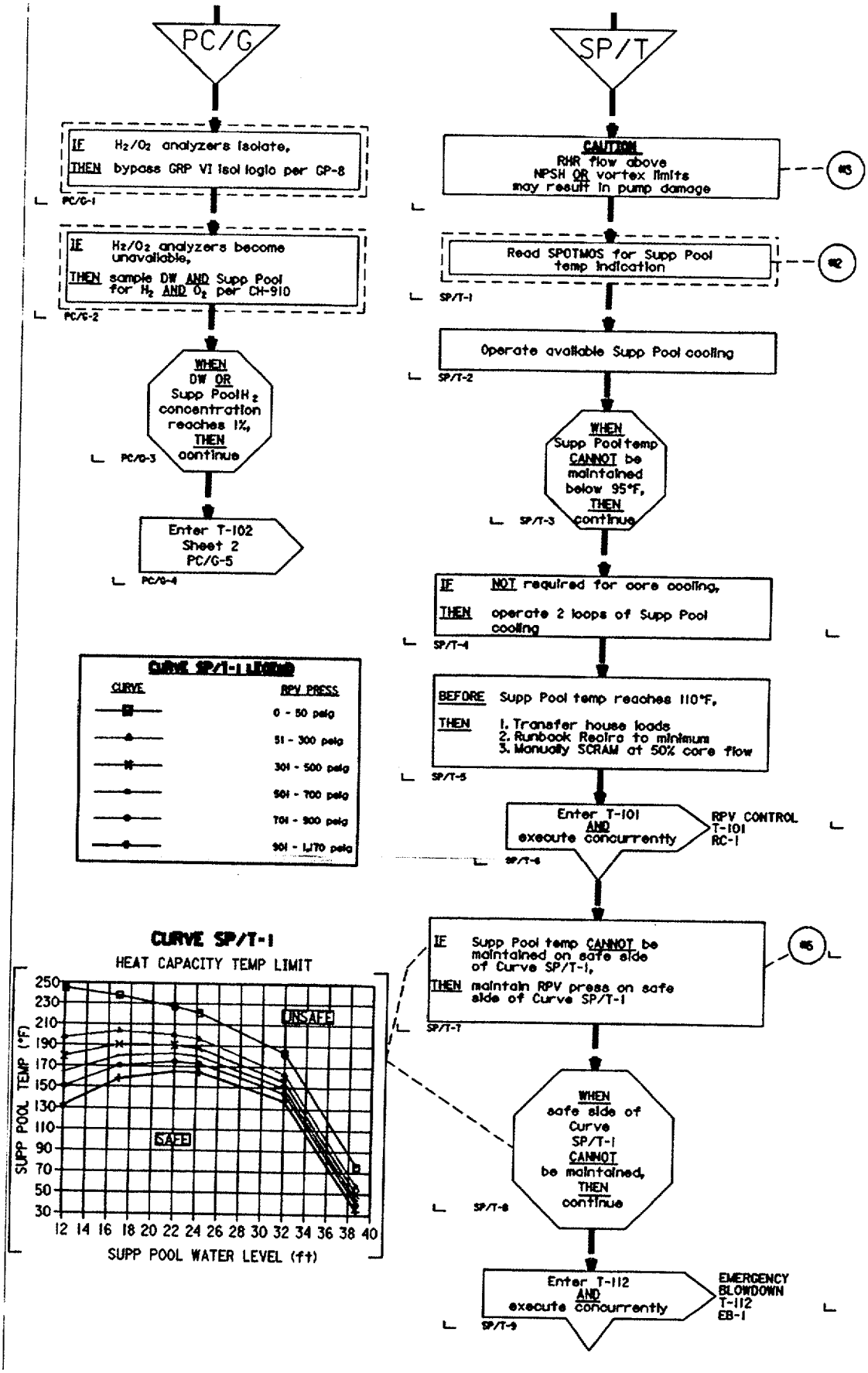
c. Depressurize the Reactor to maintain on the safe side of Curve SP/T-1, Heat Capacity Temperature Limit regardless of cooldown rate

d. Depressurize the Reactor to maintain on the safe side of Curve SP/T-1, Heat Capacity Temperature Limit without exceeding cooldown rate limits

ANSWER : A

- ATTACHMENT #4 MUST be in Color, PC/G and SP/T legs of T-102 required

ATTACHMENT 4
Q#87



NO.: 122 REV.: 1 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/20/00
DIFFICULTY: 1 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: AA SKA NO.: 295016 2.02 TAXONOMY NO.: 4.3
LESSON PLANS: 90S LOT 1563.02
:
CATEGORY: 00 SRO W
SYSTEMS: RSP

QUESTION :

The Main Control Room must be abandoned due to a fire in the Cable Spreading Room

WHICH ONE of the following immediate actions are required prior to leaving the Main Control Room?

a. Manually Start HPCI

b. Transfer House Loads

c. Close Main Steam Isolation Valves

d. Trip both Reactor Recirculation Pumps

ANSWER : C

- SE-1 immediate operator actions

NO.: 123 REV.: 4 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/11/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.1.9 TAXONOMY NO.: /4.0
LESSON PLANS: 91S LOT1574.01
:
CATEGORY: 00 SRO W
SYSTEMS: OM

QUESTION :

Plant conditions are as follows:

- The Control Room Supervisor (CRS) has delegated completion of GP-3, "Normal Plant Shutdown" for Unit 1 to an Outage Supervisor
- During the Unit 1 shutdown, a problem requires entry into T-103, SECONDARY CONTAINMENT CONTROL
- Unit 2 is operating at 100% power

WHICH ONE of the following describes the responsibility for command and control authority on Units 1 and 2?

	Unit 1	Unit 2
a.	Outage Supervisor	CRS
b.	Shift Manager	CRS
c.	Outage Supervisor	Shift Manager
d.	CRS	Shift Manager

ANSWER : A

NO.: 124 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/07/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: G SKA NO.: 2.2.20 TAXONOMY NO.: /3.3
LESSON PLANS: 92S LOT1570.06
:
CATEGORY: 00 SRO W
SYSTEMS: A

QUESTION :

WHICH ONE of the following situations is controlled with a Troubleshooting, Rework & Testing (TRT) Form?

a. Mod Acceptance Testing the "B" RWCU Pump following installation of a new design pump seals

b. Manually throttling RHRSW flow through the RHR Heat Exchangers for baseline flow determinations

c. Station Work Order requiring removal of a fuel injector from the D11 DG for use on the D13 DG

d. D14 LOCA/LOOP Plant Evolution/Special Test (PEST)

ANSWER : B

- AG-CG-41

NO.: 125 REV.: 2 TYPE: MC ENTERED BY: LOT DATE ENTERED: 02/11/00
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: EA SKA NO.: 295037 1.10 TAXONOMY NO.: /3.9
LESSON PLANS: 100S LOT1561.04
:
CATEGORY: 00 SRO W
SYSTEMS: T200

QUESTION :

Unit 2 conditions are as follows:

- An ATWS is in progress
- Standby Liquid Control Pumps failed to start manually or automatically
- Alternate Rod Insertion depressurized the Scram Air Header
- Reactor power is 48%

WHICH ONE of the following TRIP procedures are required?

a. T-212, BYPASSING SQUIB VALVES FOR SLC INJECTION

b. T-240, MAXIMIZING CRD FLOW FLOW AFTER SHUTDOWN DURING EMERGENCY CONDITIONS

c. T-213, INDIVIDUAL CONTROL ROD SCRAM/SOLENOID DE-ENERGIZATION

d. T-209, INJECTION FROM THE STANDBY LIQUID CONTOL STORAGE TANK WITH THE RCIC SYSTEM

ANSWER : D

- T-209 injects boron with RCIC
- T-212 will not work if SLC pumps are not available