Final Submittal

MCGUIRE FEB 2005 EXAM
50-369 & 370/2005-301

FEBRUARY 7 - 15, 2005
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1. Reactor Operator Written Examination

Bank Question: 1090 **Answer: B**

1 Pt. Given the following conditions on Unit 1:

- A reactor shutdown is in progress
- Procedure in effect is OP/1/A/6100/003; Enclosure 4.2, Power Decrease
- Intermediate Range N-35 reads 1x10 -9 amps
- Intermediate Range N-36 reads 4x10 -11 amps
- Source Range Block light is Lit

The RO depresses Train A and Train B Source Range reset pushbuttons, which results in a Source Range High Flux reactor trip on both source Range channels.

Which one of the following describes the reason for the reactor trip?

A. The reactor trip was valid. N-35 was under compensated.

B. The reactor trip was valid. N-36 was over compensated.

C. A reactor trip should NOT have occurred. N-35 was under compensated.

D. The reactor trip should NOT have occurred. Both Source Range instruments should have been below the SR reactor trip setpoint for *both* the given IR readings.

Distracter Analysis:. Intermediate Range Channel N-36 is over compentsated in the event. As a result when the Source Ranges were "unblocked" you now have 2 channels of Source range instrumentation reading greater than 10+5 cps. The Source Ranges instruments being above 10-5 cps when they are unblocked triggers the reactor trip.

A. **Incorrect**:
Plausible: If the student does not understand the effects of compensation on the Intermediate Range.

B. **Correct Answer**

C. **Incorrect**:
Plausible: If the student does not understand the effects of compensation and the relationship to P-6.

D. **Incorrect**
Plausible: If the student does not understand the relationship between the Intermediate Range and Source Range instruments.

LEVEL: RO & SRO

KA: 000007 EA1.05 4.0/4.1

SOURCE: Bank Braidwood NRC Exam 2002

LEVEL OF KNOWLEDGE: Analysis

AUTHOR:

LESSON: OP-MC-IC-ENB

OBJECTIVES: OP-MC-IC-ENB 6 and 11

REFERENCES: OP-MC-IC-ENB pages 23, 51 and 75

Bank Question: 1091 **Answer: D**

1 Pt. Unit 1 is at 100% RTP in when the following indications are observed:

- Charging flow is increasing slowly
- Pressurizer pressure is decreasing rapidly (~100 psig/min)
- Pressurizer level instruments are approximately stable
- NC T-ave is stable

Which one of the following developing events is consistent with the above indications?

A. A Steam Generator PORV fails OPEN

B. NC Cold Leg leak

C. Reactor Vessel Head Vent leak

D. PZR Safety Valve Leak

Distracter Analysis:. All four accidents would cause pressure to decrease. The steam leak and the NC System leakage would only cause pressure to decrease if Pzr level decreased. The head vent leak would still be a liquid leak vs a steam leak, similar to a cold leg leak.. Only the Safety Valve leak would be a high energy/ low mass event.

A. Incorrect:
Plausible:

B. Incorrect:
Plausible:

C. Incorrect
Plausible

D. Correct

LEVEL: RO & SRO

KA: 000008 AA2.22 (3.4/3.6)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Analysis

AUTHOR: CWS

LESSON: OP-MC-AP-10

OBJECTIVES: OP-MC-AP-10, obj 1

REFERENCES: AP/1(2)/A/5500/10 Background Document pg 37 & 38

Bank Question: 1092 **Answer: B**

1 Pt. Given the following conditions on Unit 1:

- '1A' NV pump is tagged for repair

Subsequently:

- A small break LOCA occurred in containment
- SI has actuated on both trains
- 'B' NV pump tripped on overcurrent
- Containment Pressure is 3.5#

Which one of the following describes the plant response due to the above events?

A. Cooling would be supplied to the reactor coolant pump lower bearings and seals.

B. Cooling would be lost to the reactor coolant pump lower bearings and seals.

C. Cooling would be lost to JUST the reactor coolant pump lower bearings but NOT the seals.

D. Cooling would be lost to JUST the reactor coolant pump seals but NOT the reactor coolant pump lower bearings.

Distracter Analysis:. On small break LOCAs we are not directed by procedure to monitor RCP lower bearing temperatures.

A. **Incorrect**:
Plausible: Student might think thermal barriers will still be cooled by KC with containment pressure above 3 psig.

B. **Correct**:

C. **Incorrect**:
Plausible: If the student thinks the lower bearings are cooled by KC.

D. **Incorrect**
Plausible: If the student does not realize seal injection has been lost.

LEVEL: RO & SRO

KA: 000009 EK3.14 (3.1/3.2)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehensive

AUTHOR: CWS

LESSON: OP-MC PS NCP

OBJECTIVES: OP-MC-PS-NCP- Obj. 4

REFERENCES: OP-MC-PS- NCP page 23
OP-MC-PSS-KC page 19

Bank Question: 1093 **Answer: C**

1 Pt. For Modes 1-3, ECCS Safety Analysis has a required position for 1ND-30A (Train A ND to Hot Leg Isolation) and 1ND-15B (Train B ND to Hot Leg Isolation).

Which one of the following is the required position (for both valves) and the basis for this required position?

A. **Closed**
Required for train separation.

B. **Closed**
Required for single failure criteria. If one ND Pump inoperable, the other ND Pump must inject into two intact cold legs to meet required flow.

C. **Open**
Required for single failure criteria. If one ND Pump is inoperable, the other ND Pump must be capable of injecting into all 4 cold legs.

D. **Open**
Required for single failure criteria. If one ND Pump is inoperable, the other ND Pump must be capable of injecting into all 4 hot legs.

Distracter Analysis The normal correct alignment for ESFAS is to have train separation. For large break LOCA analysis, to meet design flow during single failure and a cold leg break, 1 ND pump has to be aligned to the remaining 3 intact loops to meet this flow.

A. **Incorrect:**
Plausible
B. **Incorrect:**
Plausible:
C. **Correct:**
D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: 000011 EK2.02 2.6*/2.7*

SOURCE: New

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-PS-ND

OBJECTIVES: OP-MC-PS-ND Obj. 9

REFERENCES: OP-MC-PS-ND pages 27, 39, 55, and 61.

Bank Question: 1094 **Answer: D**

1 Pt. Given the following conditions on Unit 1:

- Mode 3 with Shutdown Banks A and B withdrawn
- 1RN-252 (RB Non Ess. Sup. Cont. Outside Isol.) fails closed
- All reactor coolant pumps (RCP) were secured in response to the failure of 1RN-252

Which one of the following are the required **immediate** Technical Specification actions as a result of stopping all Reactor Coolant Pumps?

A. **Manually insert Shutdown Banks A and B**
Stop any dilution
Initiate action to restore one Reactor Coolant loop

B. **Ensure Pressurizer water level is < 90%**
Ensure steam generator water/NC $\Delta T \leq$ 50 degrees
De-energize all CRDMs

C. **Ensure Pressurizer water level is < 92%**
Stop any dilution
Ensure steam generator water/NC $\Delta T \leq$ 50 degrees

D. **De-energize all CRDMs**
Stop any dilution
Initiate action to restore one Reactor Coolant loop

Distracter Analysis:. These are the immediate actions per Tech Specs for no loops in operation during Mode 3.

A. **Incorrect**: All CRDMs must be de-energized, not just inserted.
Plausible: Manually inserting rods will result in all rods inserted,

B. **Incorrect**:
Plausible: Pressurizer water level would be a concern when all RCPs have been lost, but only prior to starting the first reactor coolant pump in Mode 3.

C. **Incorrect**:
Plausible: 2/3 of the three parameters are not a concern

D. **Correct**

LEVEL: RO & SRO

KA: 000015 G2.1.12 (2.9/4.0)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-PS-NCP

OBJECTIVES: OP-MC-PS-NCP- Obj. 16

REFERENCES: OP-MC-PS- NCP page 51
Tech Spec 3.4.5

Bank Question: 1095 **Answer: A**

1 Pt. Given the following conditions on Unit 1:

- A KC leak on Auxiliary building non essential header has occurred
- AP/1A/5500/021, Loss of KC or KC System Leakage has been implemented
- The Auxiliary Building non essential header must remain isolated
- "VCT HI TEMP" alarm has been received
- AP/1/A/550/021; Enclosure 6, VCT High Temperature Actions have been implemented per the foldout page

A strategy of Enclosure 6 is to start the PD pump and secure the NV pump(s).

Which one of the following describes the basis for the Enclosure 6 strategy?

A. The PD pump does not recirculate to the VCT. Therefore it would not add additional heat to the VCT.

B. To prevent NV pump damage. The NV pump oil coolers are cooled by KC auxiliary building non essential header.

C. Lower charging flow can be maintained with the PD pump minimizing seal return flow to the VCT.

D. The PD pump requires less NPSH than the NV pumps and can operate at higher temperatures.

Distracter Analysis:

A. Correct:

B. Incorrect:
Plausible: Student may think that NC pump is cooled by KC on the non essential header. NV pumps are actually cooled by RN on the essential headers.

C. Incorrect:
Plausible: The NV pump flow can be maintained lower than PD pump flow.

D. Incorrect
Plausible: This is not the reason for swapping to the PD pump.

LEVEL: RO & SRO

KA: 000026 G2.4.11 (3.4/3.6)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehensive

AUTHOR: CWS

LESSON: OP-MC-AP-21

OBJECTIVES: OP-MC-AP-21- Objs. 2 & 3

REFERENCES: AP/1/A/5500/021 Loss of KC or KC System Leakage
Enclosure 6
AP-21 Loss of KC Background Document pages 4 and 5

Bank Question: 1096 **Answer: B**

1 Pt. Unit 1 was at 100% RTP when the following events occur:

- A S/G PORV fails open
- Pressurizer level initially decreases 7%
- The S/G PORV is isolated and T-ave is restored to program
- Pressurizer level is restored to program

Which one of the following would be the **immediate** effect of the above transient on "inherent pressurizer pressure control?"

A. Degraded; because the integral function of the master controller will be controlling at a lower than desired PZR pressure.

B. Degraded; because it will take some time for PZR Htrs to restore saturated conditions in the PZR water space.

C. Not affected; because a return to saturated conditions occurs as soon as PZR level is restored to normal.

D. Not affected; because the integral function would be cancelled when pressurizer pressure is returned to normal.

Distracter Analysis:.

A. **Incorrect**: The integral function of the controller will be trying to control at a higher than desired pressure.
Plausible:
B. **Correct**:
C. **Incorrect**: Saturated conditions will take some time to recover due to an insurge into the Pzr.
Plausible:
D. **Incorrect** Integral function will take some time to be cancelled.
Plausible:

LEVEL: RO and SRO

KA: 000027AK3.04 (2.8/3.3)

SOURCE: New

LEVEL OF KNOWLEDGE: Analysis

AUTHOR: CWS

LESSON: OP-MC-AP-10

OBJECTIVES: OP-MC-AP-10 obj.2

REFERENCES: OP-MC-AP-10 pg. 31
AP-10 pg. 30

Bank Question: 1097 **Answer: A**

1 Pt. In accordance with EP/1/A/5000/FR-S-1, Response to Nuclear Power Generator/ATWS, which one of the following operator actions and results describes the response to an ATWS? (Assume all other safety systems function as designed.)

A. Trip the turbine to increase reactor coolant system temperature to add negative reactivity.

B. Trip the turbine to send an alternative signal to trip the reactor.

C. Manually Safety Inject to send an alternative signal to trip the reactor.

D. Manually Safety Inject to immediately borate to add negative reactivity.

Distracter Analysis:.

A. **Correct**:
B. **Incorrect**:
Plausible: If the student thinks that cooling down will add negative reactivity rather than positive.
C. **Incorrect**:
Plausible: Manual actuations are sometimes used as alternate signals for protection functions. Incorrect because a SI feedwater isolations is not desired.
D. **Incorrect**
Plausible: Manual SI can immediately add boron, but SI not desired due to giving a feedwater isolation.

LEVEL: RO & SRO

KA: 000029 EK1.05 (2.8/3.2)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Knowledge

AUTHOR: CWS

LESSON: OP-MC-EP-FRS

OBJECTIVES: OP-MC-EP-FRS Obj. 4

REFERENCES: OP-MC-EP-FRS pages 25, and 29
EP/1A/5000/FR-S.1 page 2

Bank Question: 1098 **Answer: D**

1 Pt. Given the following conditions on Unit 1:

- Steam Generator "1A" tube rupture
- Crew has entered EP/1/A/5000/E-3, Steam Generator Tube Rupture
- "1A" MSIV fails to close
- Crew is now ready to initiate a NC system cooldown

In accordance with E-3, which one of the following describes the operator actions to accomplish the cooldown?

A. Use the steam pressure controller to initiate a cooldown while maintaining NC T-Colds less than 100 °F/hour.

B. Use the steam pressure controller to obtain a maximum cooldown rate while attempting to avoid a Main Steam Isolation.

C. Use intact S/G(s) SM PORV controllers to initiate a cooldown while maintaining NC T-Colds less than 100 °F/hour.

D. Use intact S/G(s) SM PORV controllers to obtain a maximum cooldown rate while attempting to avoid a Main Steam isolation.

Distracter Analysis:. The cooldown must be accomplished via intact S/Gs that are isolated from the ruptured S/G. For steam generator tube rupture scenarios, the strategy is to cooldown at maximum rate instead of the usual 100 degree/hour limit.

A. **Incorrect**:
Plausible: If the student fails to realize the effect of 1A MSIV to close and as a result invokes the alternative strategy of closing intact MSIV's using intact PORVs to cooldown.

B. **Incorrect**:
Plausible: If the student fails to realize the effect of 1A MSIV to close and as a result invokes the alternative strategy of closing intact MSIV's using intact PORVs to cooldown

C. **Incorrect**:
Plausible: This is the cooldown rate limit used for most EP/AP cooldowns. It is the Tech Spec limit.

D. **Correct**

LEVEL: RO and SRO

KA: 000038 EA1.35 (3.5/3.6)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehensive

AUTHOR: CWS

LESSON: OP-MC-EP-E3

OBJECTIVES: OP-MC-EP-E3 Obj. 4

REFERENCES: OP-MC-EP-E3 page 67
EP/E-3 pages 6, 7. 14, and 17

Bank Question: 1099 **Answer: C**

1 Pt. Given the following conditions on Unit 1:

- Reactor trip, Safety Injection, and Main Steam Isolation have occurred
- Reactor Coolant System pressure is 1820 psig and decreasing
- Reactor Coolant System temperature is 525 degrees and decreasing
- Containment humidity: increasing
- Secondary radiation: normal
- Containment Pressure is 2.1 psig and increasing
- Containment radiation: normal

Which one of the following events is consistent with the above conditions?

A. A small break LOCA.

B. A large break LOCA.

C. A faulted steam generator.

D. A steam generator tube rupture.

Distracter Analysis:. Of the four events listed that can result in a Safety Injection the indications of a high energy break in containment with normal radiation is indicative of a faulted S/G.

A. **Incorrect**:
Plausible:
B. **Incorrect**:
Plausible:
C. **Correct**:
D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: 000040 K2.02 (2.6*/2.6)

SOURCE: BANK Cook 1 NRC Exam 2001

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-EP-E0

OBJECTIVES: OP-MC-EP-E0 Obj. 6

REFERENCES: OP-MC-EP-E0 pages 45 and 47
EP/E0 pages 16 and 17

Bank Question: 1100 ***Answer: A***

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1 Pt. During a loss of Main Feedwater which one of the following are the reasons for throttling Auxiliary Feedwater?

A. **Stop the excessive cooldown**
Prevent overfill of S/Gs

B. **Stop the excessive cooldown**
Conserve CA storage tank inventory

C. **Prevent overfill of S/Gs**
Conserve CA storage tank inventory

D. **Prevent overfill of S/Gs**
Prevent CA pump runout

Distracter Analysis:. All four of the above could be potential reasons for throttling system flow. CA storage tank inventory will be maintained via procedure guidance. CA pump stops on discharge control valves.

A. **Correct:**
B. **Incorrect:**
Plausible:
C. **Incorrect:**
Plausible:
D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: 000054 AK3.03 (3.8/4.1)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-EP-E0

OBJECTIVES: OP-MC-EP-E0 Obj. 6

REFERENCES: OP-MC-EP-E0 pages 59 and 75
EP-E0 pages 26 and 34

Bank Question: 1101 **Answer: D**

1 Pt. Given the following conditions:

- McGuire has experienced a station blackout
- Prior to the station blackout both Units were at 100% power with normal electrical alignments
- The '2A' Emergency Diesel Generator fails to start
- The '2B' Emergency Diesel Generator trips on low lube oil pressure
- All other systems on both units responded as required

Which one of the following describes the vital DC batteries that should be monitored for decaying voltage and what action would be required to protect DC loads?

A. EVCA and EVCB battery, open the battery breaker at 110 volts.

B. EVCA and EVCB battery, open the battery breaker at 105 volts.

C. EVCC and EVCD battery, open the battery breaker at 110 volts.

D. EVCC and EVCD battery, open the battery breaker at 105 volts.

Distracter Analysis: The normal electrical alignment for vital DC chargers is: 1A D/G for EVCA, 2A for EVCC, 1B for EVCB and 2B for EVCD. The battery breaker is opened at 105 volts because the DC compoents begin to fail at less than 105 volts and the battery could be damaged. Auxiliary control power battery breakers are opened at a higher voltage because their loads are not as important for operations.

A. **Incorrect**:
Plausible:

B. **Incorrect**:
Plausible:

C. **Incorrect**:
Plausible:

D. **Correct**

LEVEL: RO & SRO

KA: 000055 EA1.05 (3.3/3.6)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: Loss of Vital or Aux Control Power (AP-15) Background Document
OP-MC-EL-EPL

OBJECTIVES: OP-MC-EL-EPL Obj. 20
OP-MC-AP-15 Obj. 2

REFERENCES: OP-MC-EL-EPL pages 51 and 75
AP/15 page 55
AP/15 Background Document pages 4 and 46

Bank Question: 1102 **Answer: A**

1 Pt. Given the following conditions on Unit 1:

- The 125VDC/120VAC Auxiliary Control Power System is in normal alignment
- Incoming breaker to DCA trips open

Which one of the following describes the effect on KXA and how can the operator verify the auto/manual actions have occurred?

A. KXA auto swaps to its alternate AC source.
NC pump vibration monitors "in service"

B. KXA auto swaps to its alternate AC source
Indicating light (control power) to 0RN-10AC (Train 1B & 2B LLI Supply) is "lit"

C. KXA must be manually swapped to its alternate AC source.
NC pump vibration monitors "in service"

D. KXA must be manually swapped to its alternate AC source.
Indicating light (control power) to 0RN-10AC (Train 1B & 2B LLI Supply) is "lit"

Distracter Analysis:. McGuire consistently uses load lists to verify power sources energized

A. **Correct**:
B. **Incorrect**: Wrong load from KXA.
Plausible:
C. **Incorrect**: KXA will auto swap.
Plausible: If student confuses the Aux. Control Power system with the Vital I&C system.
D. **Incorrect** KXA will auto swap
Plausible: If student confuses the Aux. Control Power system with the Vital I&C system.

LEVEL: RO & SRO

KA: 000058 AA2.01 (3.7/4.1)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-EL-EPK

OBJECTIVES: OP-MC-EL-EPK obj. 5 and 6

REFERENCES: OP-MC-EL-EPK pg. 17 and 19.

Bank Question: 1103 **Answer: B**

1 Pt. During a loss of Instrument Air, which one of the following conditions would **immediately** require tripping the reactor in accordance with AP/1/A/5500/22, Loss of VI?

A. **1RN-252B (RB Non Ess Supp Cont Outside Isol) fails closed and reactor coolant pump stator temperatures are 301 degrees and going up.**

B. **FRV controllers indicate 100% demand and S/G levels are going down.**

C. **Reactor coolant system temperature less than 557 degrees and going down.**

D. **Pressurizer level going up in an uncontrolled manner.**

Distracter Analysis:. The only situation that requires immediately tripping the reactor is S/G levels going down. In time the NC pumps would have to be tripped but not at this time.

A. **Incorrect:**
Plausible:
B. **Correct:**
C. **Incorrect:**
Plausible:
D. **Incorrect**
Plausible:

LEVEL: RO and SRO

KA: 000065 EA2.06 (3.6*/4.2)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehensive

AUTHOR: CWS

LESSON: OP-MC-AP-22

OBJECTIVES: OP-MC-AP-22 Obj. 3

REFERENCES: AP-22 Background Document pages 13-18
AP-22 pages 8-10

Bank Question: 1104 **Answer: B**

1 Pt. Given the following conditions on Unit 1:

- Unit 1 initially at 100% normal power
- A Safety Injection has occurred due to a LOCA outside containment
- LOCA Outside containment was on the '1A' train of ND
- Leak has been isolated and '1A' ND train secured

Which one of the following describes the heat removal mechanism that is utilized to stabilize the plant **immediately** after the leak is isolated using the emergency procedures?

A. NC feed and bleed

B. Steam Generators

C. '1B' ND in RHR mode

D. '1B' ND in CLR mode

Distracter Analysis: Once the LOCA has been isolated the concern now is terminated SI. The strategy used in the emergency procedures is to use steam generators.

A. **Incorrect**: would initiate a feed and bleed for this scenario
Plausible: if the LOCA could not be isolated then core cooling is via feed and bleed

B. **Correct**:

C. **Incorrect**: would ND because and temperature will remain to high for place ND in service
Plausible:

D. **Incorrect**: no water in sump to go to CLR
Plausible:

LEVEL: RO & SRO

KA: W/E04 EK2.2 (3.5/3.9)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON:

OBJECTIVES:

REFERENCES: EP/ES-1.1 page 14

Bank Question: 1105 **Answer: C**

1 Pt.

Unit 1 has experienced a feedwater line break inside containment and a total loss of feedwater at 2:00 AM. FR-H.1, Response to Loss of Secondary Heat Sink has been entered and feed and bleed of the NC system was initiated at 2:30 AM. Shortly after opening the PORVs, the 1B CA pump is returned to service and a source of feedwater is available. The operators are directed to restore steam generator level for a heat sink per FR-H.1.

Given the following conditions at 2:45 AM:

Indication	A Loop	B Loop	C Loop	D Loop
S/G WR level (%)	19	9	16	11

- Containment pressure = 3.5 psig
- Core exit T/Cs are stable at an average value = 560 °F

Into which steam generator(s) should CA flow be restored and what limitations are required on CA flow rates?

A. **S/G D**
No limitation on CA flow rate

B. **Either S/Gs A or S/G C**
No limitation on CA flow rate

C. **S/G C**
100 gpm limitation on CA flow rate

D. **Both S/Gs C and D**
100 gpm limitation on CA flow rate

Distracter Analysis:.

A. **Incorrect**: "D" S/G is hot and dry and is limited to 100GPM.
Plausible:

B. **Incorrect**: Flow limited to 100gpm.
Plausible:

C. **Correct**:
Plausible:

D. **Incorrect** Only feed 1 S/G and flow limited to 100gpm.
Plausible:

LEVEL: RO & SRO

KA: W/E05 EK1.1 (3.8/4.1)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Analysis

AUTHOR: CWS

LESSON: OP-MC-EP-FRH

OBJECTIVES: OP-MC-EP-FRH Obj.4

REFERENCES: OP-MC- EP-FRH pg.32
EP/FR-H.1 pgs.5and 6

Bank Question: 1106 **Answer: B**

1 Pt. Given the following conditions on Unit 1:

- Large Break LOCA in containment – double ended shear of the '1A' Cold Leg
- Containment Pressure is 10 psig.
- Control room has transferred to EP/1/A/5000/ECA 1.1, Loss of Emergency Coolant Recirculation due to '1A' Train ND pumps being out of service for maintenance and 1NI-184B (RB Sump to Train B ND and NS) failed to open
- An NLO reports that 1NI-184B can **not** be opened locally without assistance from maintenance
- FWST level is currently 30"
- Assume that 1NI-184B can not be opened for at least on one hour

The following actions have been completed in accordance with EP/1/A/5000/ECA 1.1:

- Both NS Pumps have been secured
- Both NI pumps have been secured
- 1A NV pump has been secured
- NV to Cold Leg Flow has been verified sufficient to match decay heat (flow indicated 400 gpm)

Based on the above plant conditions how long will the operators have before it will be necessary to secure the '1B' NV pump per EP/1/A/5000/ECA1.1?

A. 0 minutes

B. 20 minutes

C. 25 minutes

D. 50 minutes

Distracter Analysis:. There are 792 gallons water per inch FWST level (approximately 800 gallons). The old 'shutoff-all-pumps-level' used to be at 5" and was changed to 20". To arrive at the right answer the student needs to know there are about 800 gallons per inch, and the shutoff point is 20", so would take 20 minutes to go from 30" to 20".

A. **Incorrect**:
Plausible: If the student thinks the level to shut-off all pumps is at the LO-LO level alarm.

B. **Correct**:

C. **Incorrect**:
Plausible: If the student thought there were 480,000 gallons, he would calculate 25 minutes (transposing the gallons vs inches)

D. **Incorrect**
Plausible: If the student still thought the shutoff level were 5", he would calculate 50 minutes.

LEVEL: RO & SRO

KA: W/E11 EK1.1 (3.7/4.1)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Analysis

AUTHOR: CWS

LESSON: OP-MC-PS-ND

OBJECTIVES: OP-MC-PS-ND Obj. 8

REFERENCES: OP-MC-PS-ND page 49

Bank Question: 1107 **Answer: D**

1 Pt. Which one of the following will cause annunciator alarm 1AD3-A5, Main Steam Isolation VLV Closed, to come into alarm?

A. Two psig per second rate of steam pressure decrease with NC pressure at 2000 psig.

B. 1/3 steam pressure detectors at 760 psig on 2/4 steam generators with NC pressure at 2000 psig.

C. Containment pressure 1.2 psig.

D. 1SM 5 (S/G 1B Main Steam Isolation Valve) has closed.

Distracter Analysis: A steamline rupture potentially will cause a main steamline isolation on low steam pressure, high rate of decrease, or high high containment pressure. This question is testing if the student knows the setpoints and logic for automatic main steam isolation.

A. **Incorrect**: correct less than 1955 psig
Plausible:

B. **Incorrect**: 2/3 on ¼ steam generators
Plausible:

C. **Incorrect**: pressure > 3# in containment
Plausible:

D. **Correct**
Plausible:

LEVEL: RO & SRO

KA: W/E12 G2.4.46 (3.5/3.6)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-ECC-ISE

OBJECTIVES: OP-MC-ECC-ISE Obj. 5

REFERENCES: OP-MC-ECC-ISR pages 17 and 31
OP/010D A5 page 8

Bank Question: 1108 **Answer: B**

1 Pt(s) Which one of the following describes why immediate action steps of AP/1/A/5500/14, Control Rod Malfunctions, are required rather than allowing the reactor control system to respond in automatic to recover power?

A. Automatic rod withdrawal is not allowed to prevent exceeding rod withdrawal limits.

B. Automatic rod withdrawal is not allowed to prevent exceeding DNBR limits.

C. Automatic rod insertion is not allowed to prevent reducing shutdown margin.

D. Automatic rod insertion is not allowed to prevent exceeding minimum temperature for criticality.

Distracter Analysis:

A. Incorrect:
Plausible:

B. Correct:

C. Incorrect:
Plausible:

D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: APE 000001 G2.1.10 (2.7/3.9)

SOURCE: BANK McGuire NRC Exam 1997

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR:

LESSON: AP-14 Background Document

OBJECTIVES: OP-MC-AP-14 Obj. 3

REFERENCES: AP/14 Background Document pages 3 and 4
AP/14 page 3

Bank Question: 1109 **Answer: A**

1 Pt. Unit 1 is operating a 100% power when rod M14 drops fully into the core causing Power Range N-41 to read lower than the other power range channels.

Which one of the following is the expected QPTR response over the next several hours and why?

A. QPTR will increase due to the buildup of Xenon in the dropped rod fuel assembly.

B. QPTR will decrease due to the build up Xenon in the dropped rod fuel assembly.

C. QPTR will increase due to the decreased temperature in the dropped rod fuel assembly.

D. QPTR will decrease due to the increased temperature in the dropped fuel rod assembly.

Distracter Analysis:.

A. **Correct:**
B. **Incorrect**: QPTR will increase as Xe builds up in the dropped rod fuel assembly.
Plausible:
C. **Incorrect**: QPTR will decrease due to decreased temp.
Plausible:
D. **Incorrect** QPTR will decrease due to decreased temp
Plausible:

LEVEL: RO & SRO

KA: 00003 AK1.11 (2.5/3.5)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Analysis

AUTHOR: CWS

LESSON: OP-MC-AP-14

OBJECTIVES: OP-MC-AP-14, obj 3

REFERENCES: AP/14 Background Document, pg 18

Bank Question: 1110 ***Answer: B***

1 Pt. Chemistry calls and reports that leakage from the Steam Generators is as follows:

- "A" Steam Generator leakage is .08 gpm
- "B" Steam Generator leakage is .07 gpm
- "C" Steam Generator leakage is .07 gpm
- "D" Steam Generator leakage is .06 gpm

Which one of the following Technical Specifications has been violated?

A. Unidentified LEAKAGE

B. Primary to secondary LEAKAGE through all steam generators (S/Gs)

C. Pressure boundary leakage

D. Primary to secondary LEAKAGE through any one S/G

Distracter Analysis:. The limit on leakage through all SGs is 389 gallons per day. The .28 gpm is just above that limit on a daily basis. This question depends on the candidate realizing that SG leakage is not pressure boundary leakage and knowing the limits for leakage. The leakage through "A" SG is less than the limit of 135 gallons per day.

A. Incorrect:
Plausible: The limit of 389 gallons per day through all SG is violated
B. Correct:
C. Incorrect:
Plausible: SG leakage is not pressure boundary leakage
D. Incorrect
Plausible: The .08 gpm through the "A" SG is less than 135 gallons per day.

LEVEL: RO & SRO

KA: 000037 AA2.10 (3.2/4.1)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehensive

AUTHOR: CWS

LESSON: OP-MC-STM-SG

OBJECTIVES: OP-MC-STM-SG Obj. 6

REFERENCES: Tech Spec 3.4.13

Bank Question: 1111 **Answer: B**

1 Pt. Given the following conditions:

- Waste Gas Decay Tank 'A' is aligned for planned release
- Waste Gas Decay Tank 'E' is also mistakenly aligned for release while in service
- EMF-50 (L) Waste Gas Discharge is not detecting release activity

Which one of the following would be the result of the release if the tanks exceeded Trip 2 expected levels?

A. Release will continue as an unmonitored release

B. 1EMF-36(L) (Unit 1 Unit Vent Gas) Trip 2 will secure the release

C. 2EMF-36(L) (Unit 2 Unit Vent Gas) Trip 2 will secure the release

D. Release is monitored, manual termination required

Distracter Analysis:. 1EMF 36 will also monitor the release. With EMF 50 not working properly EMF 36 will secure the release.

A. Incorrect:
Plausible:
B. Correct:
Plausible:
C. Incorrect:
Plausible:
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: 000060 AK2.01 (2.6/2.9)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-WE-WG

OBJECTIVES: OP-MC-WE-WG Obj. 5

REFERENCES: OP-MC-WE-WG page 29

Bank Question: 1112 **Answer: A**

1 Pt. Which one of the following conditions allows for the use of EP/1/A/5000/ES-0.0, Rediagnosis?

A. **Safety Injection Signal and EP/1/A/5000/E-0, Reactor Trip or Safety Injection completed**

B. **Main Steam Header Break Outside Containment and MSIVs are manually closed and EP/1/A/5000/ES-0.1, Reactor Trip Response completed**

C. **Safety Injection Signal and EP/1/A/5000/ECA-0.0, Loss of all AC Power implemented**

D. **Main Steam Header Break Outside Containment and MSIVs are manually closed and EP/1/A/5000/ECA-0.0, Loss of all AC Power implemented**

Distracter Analysis:. Step 1 of Rediagnosis states S/I signal has actuated, and E-0 has been completed.

A. **Correct**:
B. **Incorrect**: SI required
Plausible:
C. **Incorrect**: Rediagnosis not dependent on ECA-0.0
Plausible:
D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: W/E01 EK3.2 (3.0/3.9)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: EP-MC-EP-E0

OBJECTIVES: OP-MC-EP-E0 Obj. 2

REFERENCES: OP-MC-EP-E0 page 81
EP/ES0.0 page 2

Bank Question: 1113 **Answer: B**

1 Pt. Given the following conditions on Unit 1:

- LOCA inside containment
- Containment pressure is 3.2 psig and slowly increasing

Which one of the following is the **preferred** method to cooldown and depressurize the reactor coolant system per EP/1/A/5000/ES-1.2, Post LOCA Cooldown and Depressurization?

A. Reset Main Steam Isolation Signal
Cooldown using SM PORV
Depressurize using normal PZR Spray

B. Reset Main Steam Isolation Signal
Cooldown using condenser dumps
Depressurize using PZR PORV

C. Can not reset Main Steam Isolation Signal
Cooldown via manual operation of the SM PORVs
Depressurize using PZR PORV

D. Can not reset Main Steam Isolation Signal
Cooldown via manual operation of the SM PORVs
Depressurize using NV auxiliary spray

Distracter Analysis:. Main steam isolation can be reset above 3 psig. The preferred method is cooldown via condenser dump and depressurize using PZR PORV since NCP will be shutdown with containment pressure > 3 psig.

A. Incorrect:
Plausible:
B. Correct:
C. Incorrect:
Plausible:
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: W/E 03 EK1.2 (3.6/4.1)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Analysis

AUTHOR: CWS

LESSON: OP-MC-EP-E1

OBJECTIVES: OP-MC-EP-E1 Obj. 4

REFERENCES: OP-MC-EP-E1 pages 113 and 117
EP/ES-1.2 pages 9 -12

Bank Question: 1114 **Answer: C**

1 Pt.

A small break LOCA has occurred. Attempts to mitigate the event have been **unsuccessful**. Approximately one hour after the LOCA first occurred, the operators' noticed the Subcooling Margin Monitor in alarm.

Given the following conditions on the Inadequate Core Cooling Monitor plasma display:

- Core Exit Thermocouples 630 degrees
- Subcooling is 0 degrees and stable
- 'A' and 'B' Reactor Coolant Pumps have been secured
- 'C' and 'D' Reactor Coolant Pumps are running

Which one of the following is the required reactor vessel D/P?

Reference Provided
EP/1/A/5000/F-0 pages 4 and 5

A. **Train 'A' 23%, Train 'B' 23%**

B. **Train 'A' 23%, Train 'B' 15%**

C. **Train 'A' 15%, Train 'B' 23%**

D. **Train 'A' 15%, Train 'B' 15%**

Distracter Analysis:.

A. **Incorrect**:
Plausible:
B. **Incorrect**:
Plausible:
C. **Correct**:
Plausible:
D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: WE/07 G2.1.25 (2.8/3.1)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-EP-F0

OBJECTIVES: OP-MC-EP-F0 Obj. 4

REFERENCES: OP-MC-EP-F0 page 35
EP/F-0 pages 4 and 5

Bank Question: 1115 **Answer: B**

1 Pt. Given the following conditions on Unit 1:

- EP/1A/5000/ES.0.3, Natural Circulation Cooldown with Steam Void in Vessel is in progress
- Reactor Coolant Temperature is 450°F
- Reactor Coolant Pressure is 800 psig
- RVLIS is NOT available

With RVLIS NOT available to monitor void growth in the vessel which one of the following combined indications can be used to verify the presence of a void when reactor coolant pressure is decreased?

Pressurizer level ____(1)____ when charging flow _____(2)_____ letdown flow?

	(1)	(2)
A.	**Goes Up 1%/min**	**is 120 gpm greater than**
B.	**Goes Up 1%/min**	**matches**
C.	**Goes Down 1%/min**	**is 120 gpm less than**
D.	**Goes Down 1%/min**	**matches**

Distracter Analysis: .Student must realize that pressurizer level increases are generated by either a Tave increase or void growth, or charging flow > letdown flow. If charging and letdown are matched with temp. stable, the only plausible reason for pressurizer level increase is void growth.

A. **Incorrect:**
Plausible:

B. **Correct:**
Plausible:

C. **Incorrect:**
Plausible:

D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: W/E10 EA1.2 (3.6/3.8)

SOURCE: BANK Braidwood NRC Exam 2002

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: O-MC-EP-E0

OBJECTIVES: OP-MC-EP-E0 Obj. 5

REFERENCES: OP-MC-EP-E0 pages 171 and 193
EP/ES-0.3 page 16

Bank Question: 1116 **Answer: D**

1 Pt

Unit 1 is in Mode 4 and has experienced an unexplained rise in containment sump level.

Per EP/1/A/5000/FR-Z.2, Response to Containment Flooding, which of the following systems could cause containment water level to exceed 12.5 feet?

A. Reactor Coolant system (NC)

B. Chemical Volume and Control system (NV)

C. Residual Heat Removal system (ND)

D. Nuclear Service Water system (RN)

Distracter Analysis: Due to system design, the only source of water large enough to cause 12.5 ft. would be from the RN system.

A. Incorrect:
B. Incorrect:
Plausible:
C. Incorrect:
Plausible:
D. Correct:

Level: RO and SRO

KA: EPE W/E 15 EK3.1 (2.7/2.9)

Lesson Plan Objective: EP-MC-EP-F0 Obj. 4

Source: NEW

Level of knowledge: Comprehension

References:
1. OP-MC-EP-F0 page 65
2. OP-MC-EP-FRZ page 45
3. EP/5000/F-0 page 9
4. EP/FR-Z.2 page 2

Bank Question: 1117 **Answer: A**

1 Pt. Which one of the following represents the approximate leak off flow rates associated with NORMAL OPERATION of the Reactor Coolant Pump (NCP) Seals?

	#1 Seal	#2 Seal	#3 Seal
A.	3 gpm	3 gph	100 cc/hr
B.	6 gpm	3 gpm	300 cc/hr
C.	6 gpm	3 gph	100 cc/hr
D.	3 gpm	3 gpm	300 cc/hr

Distracter Analysis:.

A. **Correct:**
Plausible:
B. **Incorrect:**
Plausible:
C. **Incorrect:**
Plausible:
D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: 003 K1.03 (3.3/3.6)

SOURCE: BANK McGuire NRC Exam 1997

LEVEL OF KNOWLEDGE: Memory

AUTHOR:

LESSON: OP-MC-PS-NCP

OBJECTIVES: OP-MC-PS-NCP Obj.12

REFERENCES: OP-MC-PS-NCP pages 27 and 29

Bank Question: 1118 **Answer: C**

1 Pt. Given the following conditions on Unit 1:

- 100% Power
- Primary chemistry reports to the Control Room that Reactor Coolant is in Action Level 3 for high sulfates
- AP/1/A/5500/46, Abnormal Primary or Secondary Chemistry, has been implemented

Enclosure 1, steps 1 and 2 states:

"Check is Action Level 3 – CURRENTLY IN EFFECT" and then states to perform the appropriate Action Level 3 actions.

Which one of the following describes the purpose of these steps?

A. Represents the value, outside of which indicates that long-term system reliability may be affected. These steps ensure letdown flow through the NV demineralizers is increased to maximize cleanup.

B. Represents the value, above which significant damage could be done to the system in the short term, warranting prompt correction of the abnormal condition. These steps ensure a technical evaluation is conducted by station management to determine if the unit should be shutdown.

C. Represents a condition where it is inadvisable to continue to operate the plant. These steps ensure that unit shutdown and cooldown to MODE 5 is initiated and proceeds as quickly as safe plant operation permits.

D. Represents a condition where corrosion could cause the failure of primary system component(s) vital to safe operation of the plant. These steps ensure the reactor is shutdown immediately and maintained in MODE 3 until the condition is corrected.

Distracter Analysis:. Student needs to realize that action level 3 is the worst of the 3 action levels and that continued plant operation is not allowed.

A. **Incorrect**:
Plausible: Bases for action level 1

B. **Incorrect**:
Plausible: Bases for action level 2

C. **Correct**:

D. **Incorrect**
Plausible: No action level for this described condition.

LEVEL: RO & SRO

KA: 004 A2.19 (2.8/3.5)

SOURCE: BANK McGuire Requalification Exam Bank

LEVEL OF KNOWLEDGE: Memory

AUTHOR:

LESSON: OP-MC-AP-46

OBJECTIVES: OP-MC-AP-46 Obj. 2

REFERENCES: OP-MC-AP-46 page 7
AP/46 Enclosure 1 page 5

Bank Question: 1119 **Answer: C**

1 Pt. Given the following conditions on Unit 2:

- 2A ND is in RHR mode cooling
- NC System is 110°F, 335 PSIG
- PZR is solid

Which one of the following will cause a large increase in reactor coolant pressure?

Consider each failure independently

A. 2ND-29 (1A ND Hx outlet) fails open

B. 2KC-57 (1A ND Hx control) fails open

C. 2NV-121 (ND letdown control) fails closed

D. 2NV-238 (charging line flow control) fails closed

Distracter Analysis:. 2NV-121 failing closed upsets the charging and letdown balance. Now the system will have no letdown and whatever charging was previously going into the system. This will cause pressure to increase.

A. Incorrect:
Plausible:
B. Incorrect:
Plausible:
C. Correct:
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: 005 K5.05 (2.7*/3.1*)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-PS-NC

OBJECTIVES: OP-MC-PS-NC, obj 23

REFERENCES: OP/2/A/6100/SD-8 Enclosure 4.1 page 4-

Bank Question: 1120 **Answer: B**

1 Pt. Pressurizer Pressure below the P-11 setpoint will allow the blocking of which one of the following Engineered Safeguard Feature (ESF) design features?

A. **2/4 Low Pressurizer Pressure Safety Injection**
2/4 Low Steamline Pressure on 1/4 S/Gs Safety Injection
2/4 on 1/4 S/Gs Auxiliary Feedwater Pump auto start

B. **2/4 Low Pressurizer Pressure Safety Injection**
2/3 Low Steam Pressure on 1/4 S/Gs Steamline Isolation
2/4 on 1/4 S/Gs Auxiliary Feedwater Pump auto start

C. **2/3 Low Steam Pressure on 1/4 S/Gs Steamline Isolation**
2/4 on 2/4 S/Gs Turbine Driven Auxiliary Feedwater Pump auto start
2/2 Feedwater Isolation

D. **2/3 Low Pressurizer Pressure Safety Injection**
2/3 Low Steamline Pressure Safety Injection
2/2 Feedwater Isolation

Distracter Analysis:.

A. **Incorrect**:
Plausible:
B. **Correct**:
Plausible:
C. **Incorrect**:
Plausible:
D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: 006 K4.21 (4.1/4.3)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-ECC-ISE

OBJECTIVES: OP-MC-ECC-ISE Obj. 10

REFERENCES: OP-MC-ECC-ISE pages 23, 25 and 57
OP-MC-CF-CA, page 75

Bank Question: 1121 **Answer: C**

1 Pt. Unit 2 is starting up following a refueling outage. OP/2/A/6100/SU-6, Venting the NC System is complete. Procedure OP/2/A/6100/SU-8, Heatup to 200 °F is in progress.

Which one of the following describes how bulk non-condensable gases are removed from the reactor coolant system prior to forming a bubble in the pressurizer?

A. Cycle Pressurizer PORV

B. Notify Primary Chemistry to add Hydrazine

C. Cycle the reactor vessel head vents

D. Vent the Volume Control Tank (VCT)

Distracter Analysis:. There is no tie between the pressurizer and the PRT when forming a bubble at McGuire. The Pzr is taken water solid first with non-condensables removed via the PORV's, then heated to saturation while water solid. After SU-8 is entered with the Pzr water solid, non-condensible gasses are removed from the Reactor Coolant System via the Rx Head Vents. Then letdown flow is increased to "draw" the bubble.

A. **Incorrect**:
Plausible:
B. **Incorrect**:
Plausible:
C. **Correct**:
D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: 007 K5.02 (3.1/3.4)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-PS-NC

OBJECTIVES: OP-MC-PS-NC Obj. 4

REFERENCES: OP/2/A/ 6100/SU-8 page 3

Bank Question: 1122 **Answer: A**

1 Pt. Abnormal Pressurizer Relief Tank conditions would indicate a primary system leak at which one of the following locations?

A. 1NV- 6 (Letdown Line Relief)

B. Reactor Coolant Pump Number 2 Seal failure

C. Reactor Vessel O-ring leak off

D. Seat failure on a reactor coolant system loop drain

Distracter Analysis:. 1NV-6 leaking is an AP/10 (NC System Leakage Within the Capacity of both NV Pumps) entry condition. Although the other leak locations may be require entry into AP/10, they discharge to the NCDT. Only 1NV-6 would result in abnormal PRT conditions.

A. Correct:
B. Incorrect:
Plausible:
C. Incorrect:
Plausible:
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: 007 G2.4.4 (4.0/4.3)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-PS-NV

OBJECTIVES: OP-MC-PS-NV, obj 2

REFERENCES: OP-MC-PS-NV, page 119
OP/1/A/6100/010 H, pages 43 & 44

Bank Question: 1123 **Answer: A**

1 Pt. The OAC Alarm Summary screen comes into alarm due to the following point:

"U1 KC PUMPS B DISCHARGE HEADER PRESSURE" at 59 PSIG.

Which one of the following describes the significance of this alarm?

A. High flow, pump runout

B. High flow, heat exchanger tube vibration

C. Low flow, pump cavitation

D. Low flow, loss of mini-flow protection

Distracter Analysis:. Correct answer based on the student knowing that 60 psig is a low pressure, high flow condition.

A. **Correct**:
B. **Incorrect**:
Plausible: Heat exchanger vibration is a concern on the RN side.
C. **Incorrect**: Not low flow
Plausible: If student thought low flow, cavitation would be a concern.
D. **Incorrect** Not low flow
Plausible: . If student thought that low flow was caused by loss of mini-flow protection.

LEVEL: RO & SRO

KA: 008 A1.03 (2.7/2.9)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-PSS-KC

OBJECTIVES: OP-MC-PSS-KC, obj 10

REFERENCES: OP-MC-PSS-KC, pages 13 & 25

Bank Question: 1124 **Answer: B**

1 Pt. The required **time critical** operator action associated with isolating a KC leak in accordance with AP/1/A/5500/021, Loss of KC or KC System Leakage states:

> "Operator locally initiates makeup within ___ minutes of dispatch using either YM or RN, or gets leak isolated prior to emptying surge tank for design basis leak of ___ gallons per minute."

Which one of the following correctly completes the above statement?

A. 10, 30

B. 10, 50

C. 30, 30

D. 30, 50

Distracter Analysis:. Operators are expected to know basis for time critical actions.

A. Incorrect
Plausible:
B. Correct:
C. Incorrect:
Plausible
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: 008 G2.4.11 (3.4/3.6)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-AP-21

OBJECTIVES: OP-MC-AP-21, obj 3

REFERENCES: OP-MC-AP-21, pages 9 & 10
Basis Document for Time Critical Actions, page 18

Bank Question: 1125 **Answer: B**

1 Pt. Initial condition on Unit 2:

- A weld for the Pressurizer Pressure Channel 1 instrument line cracks
- Pressurizer Pressure Control switch is in the 1-2 position

Which one of the following describes the Pressurizer Pressure control response with no operator action?

A. 2NC-32A, 2NC-36B and PZR Spray Valves will not open
All Pressurizer heaters energize
Reactor Coolant System pressure cycles between 2335 and 2185 psig

B. 2NC-34A and PZR Spray Valves will not open
All Pressurizer heaters energize
Reactor Coolant System pressure cycles between 2335 and 2315 psig

C. 2NC-34A will not open
Only backup Pressurizer Heaters will energize
PZR Spray valves cycle to maintain the pressure increase

D. 2NC-32A, 2NC-36B and PZR Spray Valves will not open
Only backup Pressurizer Heaters energize
Reactor trip on high pressure

Distracter Analysis:.

A. Incorrect:
Plausible:
B. Correct:
C. Incorrect:
Plausible:
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: 010 K6.02 (3.2/3.5)

SOURCE: Bank Seabrook 2003 NRC Exam

LEVEL OF KNOWLEDGE: Analysis

AUTHOR:

LESSON: OP-MC-PS-IPE

OBJECTIVES: OP-MC-PS-IPE Obj. 12

REFERENCES: OP-MC-PS-IPE page 35

Bank Question: 1126 **Answer: B**

1 Pt. Given the following conditions on Unit 2:

- Reactor Power 100%
- Rod control in manual
- All other controls in automatic

Which one of the following will cause the Channel 2 Over Temperature Delta T trip setpoint to decrease?

A. Auctioneered high Tave fails high.

B. N-42 power range Δ Flux fails high.

C. RCS Wide Range pressure channel fails low.

D. Power reduction to 50% with normal pressure and temperature.

Distracter Analysis:.

A. Incorrect:
Plausible: If the student gets turned around. High T-avg will lower setpoint.

B. Correct:

C. Incorrect:
Plausible: A lower pressure would lower the setpoint, but "WR" pressure doesn't input the calculation

D. Incorrect
Plausible: If the student gets turned around, lower power levels increase the setpoint.

LEVEL: RO and SRO

KA: 012 A1.01 (2.9*/3.4*)

SOURCE: BANK Cook 1 2001 NRC Exam

LEVEL OF KNOWLEDGE: Analysis

AUTHOR:

LESSON: OP-MC-IC-IPE

OBJECTIVES: OP-MC-IC-IPE Obj. 10

REFERENCES: OP-MC-IC-IPE page 45

Bank Question: 1127 **Answer: C**

1 Pt. During normal power operations the following conditions exist on Unit 2:

- Channel 1 containment pressure failed 12 hours ago
- The Channel 1 Containment Spray bistable is placed in the Tech Spec required condition

If containment pressure Channel 2 loses power, which one of the following would be the effect on the logic to initiate containment spray?

A. Channel 1 "tripped", Channel 2 will not trip, remaining logic 1/2 from channels 3 and 4.

B. Channel 1 not tripped, Channel 2 "tripped", remaining logic 1/2 from channels 3 and 4.

C. Channel 1 not "tripped", Channel 2 will not trip, remaining logic 2/2 from channels 3 and 4.

D. Channel 1 "tripped", Channel 2 "tripped", Containment Spray will actuate.

Distracter Analysis:.

A. Incorrect
Plausible: If operator thinks T.S. required position is tripped.

B. Incorrect:
Plausible If operator thinks channel losing power fails to the tripped position.

C. Correct:

D. Incorrect
Plausible: If student thinks T.S. position is tripped and loss of power position is tripped.

LEVEL: RO & SRO

KA: 013 K6.01 (2.7/3.1)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Analysis

AUTHOR: CWS

LESSON: OP-MC-ECC-ISE

OBJECTIVES: OP-MC-ECC-ISE, obj 13

REFERENCES: OP-MC-ECC-ISE, page 27
Tech Spec pg 3.3.2-3

Bank Question: 1128 **Answer: B**

1 Pt. On Unit 2 a plant cooldown and depressurization is in progress:

- All actions associated with Reactor Coolant System Pressure reaching P-11 are complete
- 'B' Train components are in service

A Steamline fault results in the following conditions:

- 'A' Main Steam pressure is 775 psig and going down
- Steam Generator level is 20% and going down
- Pressurizer Pressure is 1840 psig and going down
- Containment pressure is 0.8 psig and going up
- ETB has zero volts
- The Immediate Actions of AP/2/A/5500/07, Loss of Electrical Power have not been implemented

What is the status of the Unit 2 Emergency Core Cooling System (ECCS) equipment?

A. All ECCS equipment is operating.

B. None of the ECCS equipment is operating.

C. Only 'A' Train ECCS equipment is operating.

D. Only 'B' Train ECCS equipment is operating.

Distracter Analysis: Since ETB is de-energized, only 'A' train ECCS would be operating.

A. **Incorrect:**
Plausible:

B. **Correct:**
Plausible

C. **Incorrect:**
Plausible:

D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: 013 A4.03 (4.5/4.7)

SOURCE: BANK Point Beach NRC Exam 2002

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-ECC-ISE

OBJECTIVES: OP-MC-ECC-ISE, obj 6

REFERENCES: OP-MC-ECC-ISE, page 21

Bank Question: 1129 **Answer: D**

1 Pt

Unit 2 was operating at 100% when a complete loss of offsite power (LOOP) occurred. All systems were operable and in a normal alignment.

Which one of the following containment ventilation systems will have **all** operating fans/air handling units stopped due to a loss of offsite power?

A. VU ventilation units
B. Pressurizer booster fans
C. Pipe tunnel booster fans
D. Steam generator booster fans

Distracter Analysis:

A. **Incorrect**: VU AHUs and return air fans will start on a LOOP/blackout – they have an emergency power supply.
Plausible: They will not start in a safety injection signal

B. **Incorrect**: Pressurizer booster fans will start on a LOOP from the B/O sequencer – they have an emergency power supply.
Plausible: If the candidate confuses the emergency power supply for the pressurizer booster fans with the steam generator booster fans

C. **Incorrect**: Pipe tunnel booster fans will start on a LOOP from the B/O sequencer – they have an emergency power supply.
Plausible: They will not start in a safety injection signal

D. **Correct**: Steam generator booster fans do not restart on a LOOP - B/O signal – they do not have an emergency power supply

Level: RO

KA: SYS 022 K2.01 (3.0*/3.1)

Lesson Plan Objective: CNT-VUL LPRO 5

Source: McGuire Bank NRC Exam 2003

Level of Knowledge: Memory

References:
1. OP-MC-CNT-VUL pages 35, 39

Bank Question: 1130 **Answer: D**

1 Pt. 1NF-848, NF Floor Cooling Slab Temp Control has failed closed.

Which one of the following is an operational concern with 1NF-848 failing closed?

A. The air in the lower ice condenser would be less dense and allow the ice condenser doors to open.

B. Excessive sublimation could cause ice build up around the base of the ice condenser lower inlet doors and inhibit doors from opening.

C. The air in the lower ice condenser would be denser and not allow the ice condenser doors to open at the desired pressure.

D. Buckling will occur as a result of the freeze/thaw cycles in the ice condenser wear slab and as a result inhibit doors from opening.

Distracter Analysis:. The glycol that passes through the ice condenser floor is a closed loop. 1NF-848 works on temperature and as the temperature of the glycol in the loop increases the valve opens to bleed out warm glycol and allow colder glycol in the system. A concern for the industry has been "buckling" where the temperature of the ice condenser floor goes through freeze/thaw cycles and as a result raises the level of the ice condenser floor. This raising of the floor will impede actual ice condenser door opening.

A. **Incorrect**:
Plausible:

B. **Incorrect**:
Plausible:

C. **Incorrect**:
Plausible:

D. **Correct**

LEVEL: RO & SRO

KA: 025 A2.03

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-CNT-NF

OBJECTIVES: OP-MC-CNT-NF Objectives 2 & 3

REFERENCES: OP-MC-CNT-NF pages 7, 21, and 43

Bank Question: 1131 **Answer: D**

1 Pt. The following conditions exist on Unit 1:

- LOCA inside containment
- 1ETB has experienced a ground fault
- Auto swap to Cold Leg Recirc. has failed due to 1NI-185A not opening
- Attempts to manually open 1NI-185A has failed
- Control Room has implemented ECA-1.1, Loss of Emergency Coolant Recirc
- Containment pressure is 12 psig and slowly going up

Which one of the following describes the NS system operation following the receipt of "FWST Lo Lo Level?"

A. Open 1NS-18A (A NS Pump suct from Cont Sump) and close 1NS-20A (A NS Pump suct from FWST), '1A' NS pump remains running.

B. Secure '1A' NS pump, close 1NS-20A and open 1NS-18A, restart '1A' NS pump

C. Secure '1A' NS pump, close 1ND-19A (1A ND pump suct. from FWST or NC), swap NS suction to Containment Sump, restart NS pump

D. Secure '1A' NS pump, NS cannot be aligned to Containment Sump until 1NI-185A is open

---

Distracter Analysis: Operator must know that at FWST lo lo level the NS pump must be secured. Operator must realize that the NS pump cannot take suction from the Containment Sump without 1NI-185A open.

A. Incorrect
Plausible:
B. Incorrect:
Plausible .
C. Incorrect:
Plausible
D. Correct

LEVEL: RO & SRO

KA: 026 A2.02 (4.2*/4.4*)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprensive

AUTHOR: CWS

LESSON: OP-MC-ECC-NS

OBJECTIVES: OP-MC-ECC-NS, obj 2 & 6

REFERENCES: OP-MC-ECC-NS, pages 39 & 35

Bank Question: 1132 ***Answer: C***

1 Pt. Unit 1 is operating a 100% power when Steam Generator 'A' Level Channel 1 loses power. No operator actions have been taken.

Which one of the following completes the statement below?

Of the remaining channels, ____(A)___ is the MINIMUM number of channels that have to trip to cause a Feedwater Isolation Actuation, and ___(B)___is the MINIMUM number of channels that have to trip to cause an Auxiliary Feedwater Actuation?

Reference Provided
1SI-5

	(A)	(B)
A.	1	1
B.	1	2
C.	2	1
D.	2	2

Distracter Analysis:. The student must realize this ESFAS channel fails to the tripped condition on a loss of power. Then realize the AFW Actuation is 2/4 logic to actuate, so only one more channel required. For the FW Isolation, must realize it's 2/3 logic, so failed channel may not be one of the three. Then make the connection the provided 1SI-05 Status Light Panel provides the information the failed channel is not in this logic, so two of the remaining three channels would be required to actuate.

A. **Incorrect**:
Plausible:
B. **Incorrect**:
Plausible:
C. **Correct**:
D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: 035 A3.01 (4.0/3.9)

SOURCE: Bank Prairie Island NRC Exam 2003

LEVEL OF KNOWLEDGE: Analysis

AUTHOR: CWS

LESSON: OP-MC-ECC-ISE
OP-MC-CF-CA
OP-MC-SF-C07

OBJECTIVES: OP-MC-ECC-ISE, obj 13
OP-MC-CF-CA, obj 4
OP-MC-SF-C07, Exercise Guide Term obj

REFERENCES: OP-MC-ECC-ISE, pg 33
OP-MC-CF-CA, pg 13
OP-MC-SF-C07, pg 2 & 5
1SI-05 Status Light Panel

Bank Question: 1133 ***Answer: D***

1 Pt. Upon receipt of a P-14 signal which one of the following occurs?

A. **Main Steam Isolation Valves close**
Main Feedwater Pumps go to roll back hold
S/G CF Control Valves close
S/G CF Containment Isolations close.

B. **Main Steam Isolation Valves close**
S/G CF Control Valves close
S/G CF Control Valve Bypasses close
S/G CF Containment Isolations close

C. **Main Feedwater Pumps go to rollback hold**
S/G CF Control Valves close
S/G CF Containment Isolations close
CF to CA Nozzle Isolations close

D. **S/G CF Control Valves close**
S/G CF Control Valve Bypasses close
S/G CF Containment Isolations close
CF to CA Nozzle Isolations close

Distracter Analysis:. Must realize the Main steam Isolation Valves do not close on high level. Also, the Main Feedwater Pumps go to roll back hold on a reactor trip signal, not FW Isolation signal

A. **Incorrect**:
Plausible:
B. **Incorrect**:
Plausible:
C. **Incorrect**:
Plausible:
D. **Incorrect**
Plausible:

LEVEL: RO

KA: 059 A3.06 (3.2/3.3)

SOURCE: BANK Cook 1, NRC EXAM 2001

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-CF-CF

OBJECTIVES: OP-MC-CF-CF, Obj.13

REFERENCES: OP-MC-CF-CF page 33

Bank Question: 1134 **Answer: C**

1 Pt. Given the following indications on Unit 1:

- Power Range N-41 is reading 51%
- Power Range N-42 is reading 52%
- Power Range N-43 is reading 50%
- Power Range N-44 has failed

Power Range N-44 has been removed from service per AP/1/A/5500/016, Malfunction of Nuclear Instrumentation.

Which one of the following describes how Steam Generator Program level is being controlled?

A. N-41 controlling S/Gs A and D
N-42 controlling S/Gs B and C

B. N-41 controlling S/Gs A and B
N-42 controlling S/Gs C and D

C. N-41 controlling S/Gs A, B, C, and D

D. N-42 controlling S/Gs A, B, C, and D

Distracter Analysis:. The student must realize that the auctioneered high channel of the selected pair sets the program setpoint.

A. Incorrect:
Plausible:

B. Incorrect:
Plausible:

C. Incorrect:
Plausible:

D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: 059 A3.02 (2.9/3.1)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-CF-IFE

OBJECTIVES: OP-MC-CF-IFE Obj. 6

REFERENCES: OP-MC-CF-IFE page 19

Bank Question: 1135 **Answer: A**

1 Pt. Which one of the following is the power supply to the '1A' Auxiliary Feedwater Pump?

A. **1ETA**

B. **1EMXA**

C. **1TA**

D. **1EMXH**

Distracter Analysis:.

A. **Correct:**
B. **Incorrect:**
Plausible:
C. **Incorrect:**
Plausible:
D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: 061 K2.02 (3.7*/3.7)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-CF_CA

OBJECTIVES: OP-MC-CF-CA Obj. 7

REFERENCES: OP-MC-CF-CA page 13

Bank Question: 1136 **Answer: A**

1 Pt. Which one of the following conditions will PREVENT the 2A Diesel Generator output breaker from closing in on 2ETA?

A. Normal incoming breaker overcurrent trip

B. Standby incoming breaker undervoltage trip

C. 51G Relay energized on the normal incoming breaker during Safety Injection

D. 2/3 degraded voltage trip of normal incoming breaker

Distracter Analysis:

A. **Correct**:
B. **Incorrect**: there is not undervoltage trip associated with the standby incoming breaker
Plausible:
C. **Incorrect**: Diesel breaker will attempt to close with a SI signal present.
Plausible:
D. **Incorrect:** same a "C" above
Plausible: student may think degraded conditions on the bus would necessitate a bus lockout

LEVEL: RO & SRO

KA: SYS 062 K4.01 (2.6/3.2)

SOURCE: BANK Beaver Valley NRC Exam 2002

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-DG-EQB

OBJECTIVES: OP-MC-DG-EQB Obj. 5

REFERENCES: OP-MC-DG-EQB pages 21 and 23
OP-MC-EL-ERD page 219

Bank Question: 1137 **Answer: D**

1 Pt. Given the following conditions on Unit 1:

- Annunciator 'D/G A 125VDC CTRL PWR TRBL' comes into alarm
- An operator is dispatched and discovers that the 125 VDC Diesel Control Power breaker for the '1A' Diesel has tripped and will not reset.

Which one of the following describes the effect of the loss of DC Control Power on the '1A' Diesel Generator if a Safety Injection signal were to occur?

A. The diesel can only be manually started from the local panel.

B. The diesel would start in Control Room Override Mode.

C. The diesel would start automatically.

D. The diesel can not be started automatically or manually.

Distracter Analysis: With no control power available the diesel will not start as a result of an automatic or manual start signal.

A. Incorrect:
Plausible:
B. Incorrect:
Plausible:
C. Incorrect:
Plausible:
D. Correct

LEVEL: RO & SRO

KA: SYS 063 K3.02 (3.5/3.7)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-DG-EPQ

OBJECTIVES: OP-MC-DG-EPQ Obj. 1

REFERENCES: OP-MC-DG EPQ page 11
OP/1/A/6100/010 L A8

Bank Question: 1138 **Answer: D**

1 Pt. Which one of the following will PREVENT an Emergency Diesel Generator automatic start during a Blackout?

A. Diesel Generator Lube Oil temperature 193°F

B. KD (Jacket Water) Surge Tank 0.9 feet

C. Fire Lockout not RESET

C. 2/2 Turning Gear limit switches failed in engaged position

---

Distracter Analysis:.

A. **Incorrect**: this a Manual Mode permissive
Plausible:

B. **Incorrect**: this is a Manual Mode permissive
Plausible:

C. **Incorrect**: this is a Manual Mode permissive
Plausible:

D. **Correct**

LEVEL: RO & SRO

KA: 064 K3.02 (4.2/4.4)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-DG-DG

OBJECTIVES: OP-MC-DG-DG Obj. 9

REFERENCES: OP-MC-DG-DG pages 41 and 43

Bank Question: 1139 **Answer: A**

1 Pt. A Manual Control Room start of the '1A' Diesel Generator is being performed per OP/1/A/6350/002, 1A D/G Startup.

The following conditions were noted:

- Line volts - 4160v
- Diesel Generator volts - 4210v
- Synchroscope is moving rapidly in the counter clockwise direction.

In accordance with the Diesel Generator startup procedure which one of the following must be done before closing the 1ETA Emergency Breaker?

A. Raise the Diesel Generator governor control

B. Lower the Diesel Generator governor control

C. Raise the Diesel Generator voltage adjust

D. Lower the Diesel Generator voltage adjust

Distracter Analysis:.

A. Incorrect:
Plausible:
B. Incorrect:
Plausible:
C. Incorrect:
Plausible:
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: 064 A4.03 (3.2/3.3)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-SF-C18

OBJECTIVES: - OP-MC-SF-C18, Terminal Objective

REFERENCES: OP-MC-SF-C18, page 5

Bank Question: 1140 **Answer: B**

1 Pt. The Auxiliary building Ventilation System (VA) system is in normal alignment.

Which one of the following describes the VA system alignment as a result of a 1EMF-35L (Unit Vent Particulate Low Range) Trip 2?

A. Four Filtered Exhaust Fans running in the filter mode

B. Four Filtered Exhaust Fans running in the filter bypass mode

C. Four supply fans and four filtered exhaust fans running in the filter mode

D. Four supply fans and four filtered exhaust fans running in the filter bypass mode

---

Distracter Analysis:. 1EMF35L in Trip two will trip off all unfiltered exhaust fans which will trip the supply fans. EMF 42 in trip 2 places the filter in service

A. Incorrect:
Plausible:
B. Correct:
C. Incorrect:
Plausible:
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: 073 K1.01 (3.6/3.9)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-PSS-VA

OBJECTIVES: OP-MC-PSS-VA Obj. 12

REFERENCES: OP-MC-PSS-VA page 27

Bank Question: 1141 **Answer: B**

1 Pt. Given the following conditions on Unit 1 and 2:

- **Unit 1** is in MODE 3
- **Unit 2** is in MODE 6 for a refueling outage
- **Unit-2** RC system is tagged out

Which one of the following loads will heat up as a result of the loss of the **Unit 1** RC Pumps?

A. Unit 1 6900 Switchgear AHUs

B. "A" through "F" VI Compressors

C. Unit 1 AB Ventilation AHUs

D. Computer Room Chillers

Distracter Analysis.

.

A. **Incorrect**: Cooled by RN through RV to RL
Plausible:. Most SB components cooled by KR or RL but not RN

B. **Correct** :Cooling lost to KR heat exchangers which cools VI.

C. **Incorrect**: Cooled by RN or RV
Plausible: Non-Safeguards AHUs,

D. **Incorrect** Cooled by RN
Plausible: Non –Safeguards and a Service Building load.

LEVEL: RO & SRO

KA: 076 K3.02 (2.5*/2.8*)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Knowledge

AUTHOR: CWS

LESSON:

OBJECTIVES:

REFERENCES: AP/1/A/5500/20 page 5

Bank Question: 1142 **Answer: C**

1 Pt. Unit 1 has experienced a Loss of Offsite Power with a loss of VI (Instrument Air) to the Auxiliary Building. No Safety Injection signal exists.

Which one of the following is correct concerning the alignment of VG (Diesel Generator Starting Air) to VI and the status of the Diesel Generator?

A. VG auto aligns; D/G running

B. VG auto aligns: D/G shutdown

C. VG manually aligned; D/G running

D. VG manually aligned; D/G shutdown

Distracter Analysis: VG to VI solenoid valves do auto open but locked closed manual valves prevent auto alignment. Auto valves require > 95 % D/G speed and no SI signal present..

A. Incorrect:
Plausible:

B. Incorrect:
Plausible:

C. Correct:

D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: 078 K4.02 (3.2*/3.5*)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: DG-DGA

OBJECTIVES: OP-MC-obj. 7

REFERENCES: OP-MC DG-DGA page 27 and 29.

Bank Question: 1143 **Answer: B**

1 Pt. Given the following conditions on Unit 1:

- Mode 3
- A small instrument leak inside Containment causes a slow rise in Containment pressure
- Containment pressure is currently 0.5 psig

Which one of the following is the designed response to mitigate the Containment pressure rise?

A. Start one train of Containment Purge Fans.

B. Ensure VL AHUs shifted to high speed.

C. Increase RV flow to the VL AHUs.

D. Ensure VU AHUs shifted to high speed.

Distracter Analysis: The fact that the VL AHUs shift to high speed will significantly reduce Containment pressure.

A. **Incorrect**: Can not place VP in service in Mode 3.
Plausible: Student may think that VP can be placed in service.
B. **Correct**:
C. **Incorrect**: Can not increase RV flow to AHUs
Plausible: Prior to recent MOD RV flow could be maximized
D. **Incorrect:** VU do not shift to high speed
Plausible: student may have VU and VL confused

LEVEL: RO & SRO

KA: SYS 103 A1.01(3.7/4.1)

SOURCE: NEW used Kewanee NRC 2002 Exam as idea for question

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-CNT-VUL

OBJECTIVES: OP-MC-CNT-VUL Obj. 4

REFERENCES: OP-MC-CNT-VUL page 31

Bank Question: 1144 **Answer: C**

1 Pt. Given the following conditions on Unit 1:

- Small break LOCA
- Containment Pressure is 3.2 psig
- NO CA flow available
- EP/1/A/5000/E-1, Loss of Reactor or Secondary Coolant has been implemented

Which one of the following is the earliest time entry condition into EP/1/A/5000/FR-H.1, Loss of Secondary Heat Sink is met?

Time Highest Reading S/G N/R Level	0200	0210	0220	0230
'A' S/G	35%	33%	31%	29%
'B" S/G	31%	31%	30%	30%
'C' S/G	34%	31%	31%	29%
'D' S/G	32%	30%	29%	28%

A. 0200

B. 0210

C. 0220

D. 0230

Distracter Analysis:.

A. Incorrect:
Plausible:
B. Incorrect:
C. Correct:
Plausible:
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: 103 G2.4.2 (3.9/4.1)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: O-MC-EP-FRH

OBJECTIVES: OP-MC-EP-FRH Obj. 2

REFERENCES: OP-MC-EP-FRH page 11
EP/1A/5000/F-0 page 6

Bank Question: 1145 **Answer: C**

1 Pt. Which of the following Control Rod Drive events would **require** notifying offsite agencies and match the correct emergency communication system method to the correct agency?

A. **Two dropped rods from normal 100% power operations.**
Use Selective Signaling Telephone to notify State and counties.

B. **Two dropped rods from normal 100% power operations.**
Use Selective Signaling Telephone to notify the NRC.

C. **Ejected rod while performing a reactor startup.**
Use Selective Signaling Telephone to notify State and counties.

D. **Ejected rod while performing a reactor startup.**
Use Selective Signaling Telephone to notify the NRC.

Distracter Analysis:. The only event listed that would require notifying the state and counties is the ejected rod. This would be at least an Alert event classification. The Selective Signaling telephone is the method by which the state and counties are notified.

A. **Incorrect**:
Plausible:
B. **Incorrect**:
Plausible:
C. **Correct**:
D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: 001GK2.4.43 (2.8/3.5)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-EP-EAL

OBJECTIVES: OP-MC-EP-EAL Obj. 6
EP-MC-OACLS-02 Obj. 4

REFERENCES: OP-MC-EP-EAL page 11

Bank Question: 1146 **Answer: A**

1 Pt. Given the following conditions on Unit 1:

- Unit initially 100% power
- All four reactor coolant pumps trip due underfrequency relay malfunction
- Reactor trip occurs

Based on the above transient which one of the following describes the automatic response of the feedwater system and the reason for this response?

A. CFPTs go to rollback hold, CA auto starts at 17% S/G level To maintain required Heat Sink

B. CFPTs trip, CA auto starts due to feed pumps trip To maintain required Heat Sink

C. CFPTs go to rollback hold, CA auto starts at 17% S/G level To maintain S/Gs no load level

D. CFPTs trip, CA auto starts due to feed pumps trip To maintain S/Gs no load level

---

Distracter Analysis: CFPTs do not trip when the Reactor trips. They go to rollback hold. CA will auto start due to S/G lo level of 17%. If student thinks the reactor trip will cause both CFPTs to trip, then this would auto start CA.

A. **Correct**:
B. **Incorrect**: CFPTs do not trip on a Reactor trip.
Plausible:
C. **Incorrect**: CA does not maintain S/Gs at no load level.
Plausible:
D. **Incorrect** CFPTs do not trip on a Reactor trip
Plausible:

LEVEL: RO & SRO

KA: 00275 K5.16(3.5/4.0)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-CF-CA, OP-MC-CF-LF

OBJECTIVES: OP-MC-CF-CA Obj. 1 and 4, OP-MC-CF-LF Obj.17

REFERENCES: OP-MC-CF-CA page 13, OP-MC-CF-LF page 33

Bank Question: 1147 **Answer: B**

1 Pt. Unit 2 was at 100% normal power operation when:

- A Rod Deviation Monitor alarm was received
- Channel N-41 NIS is indicating an AFD anomaly at -10%
- AFD is reading -2% on the other three NIS channels
- No rod bottom lights exists

Which one of the following methods can be used to determine if an actual AFD deviation exists on channel N-41 NIS?

A. Reduction in Core Rated Thermal Power

B. Incore flux map

C. Reactor Coolant Loop Tave channel deviations

D. Unexplained increase in Reactor Coolant Tave

Distracter Analysis:.

A. Incorrect:
Plausible:
B. Correct:
C. Incorrect:
Plausible:
D. Incorrect

LEVEL: RO & SRO

KA: 015 K4.09 (2.8/3.3)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-IC-ENA

OBJECTIVES: OP-MC-IC-ENA Obj. 1

REFERENCES: OP-MC-IC-ENA page 11

Bank Question: 1148 **Answer: C**

1 Pt. Which one of the following is the **major** concern with Core Exit Thermocouples being **unavailable** during natural circulation cooldown?

A. Inability to verify reactor coolant cooldown limitations

B. Inability to correct for RVLIS reference leg heat-up

C. Inability to predict the onset of voiding

D. Inability to detect the presence of non-condensable voids

Distracter Analysis:.

A. **Incorrect**: T hot and T cold are used for cooldown limits.
Plausible: Cooldown limitations are based on NCS temperatures

B. **Incorrect**: Other parameters will verify natural circ. flow.
Plausible: Incore T/Cs are one of the five parameters used to verify natural circ. flow.

C. **Correct**:

D. **Incorrect** Steam voiding is the concern on loss of sub cooling.
Plausible: Voiding is a concern with natural circ. cooldown.

LEVEL: RO & SRO

KA: 017 K3.01 (3.5*/3.7*)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-EP-E0

OBJECTIVES: OP-MC-EP-E0 obj. 6

REFERENCES: OP-MC- EP-E0 page 161

Bank Question: 1149 **Answer: D**

1 Pt. Given the following conditions on Unit 2:

- Unit 2 is in Mode 6
- Core unload is in progress
- VP is operating in 100% mode
- All GWR paperwork current

Due to an electrical short, the VP supply valves receive a Containment Ventilation Isolation signal (S_h). VP continues to operate. What concerns would this cause if Operator action is **not** taken?

A. Unmonitored release of containment atmosphere

B. Prevent ice condenser doors from opening if needed

C. Excessive spent fuel pool level

D. Excessive vacuum in Containment

Distracter Analysis:.

A. Incorrect:
Plausible: if fuel handling were not in progress, equipment hatch could be open.

B. Incorrect:
Plausible: This configuration would open ice cond. Doors and Ice cond. Not required in Mode 6

C. Incorrect:
Plausible: VP performs no safety related function

D. Correct

LEVEL: RO & SRO

KA: 029 A1.03 (3.0*/3.3*)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-CNT-VP

OBJECTIVES: OP-MC-CNT-VP Obj. 2

REFERENCES: OP-MC-CNT-VP page 23

Bank Question: 1150 **Answer: C**

1 Pt. Given the following conditions on Unit 1:

- VF in Filter Mode
- Loaded Dry Cask movement in progress in Unit 1 SFP
- 0700 Control Room received Cabinet Trouble Annun. Due to loss of power to 1EMF-42 (Spent Fuel Pool Rad. Monitor)
- 0800 Control Room received OAC alarm indicating the 1B VF exhaust fan tripped
- All other equipment in normal operations

Which one of the following is the correct action based on the above information?

Reference Provided
Tech Spec 3.7.12
SLC 16.7.6
SLC 16.11.7

A. Dry Cask movement may continue since this is not movement of irradiated fuel assemblies.

B. Dry Cask movement should have been stopped at 0700 due to 1EMF-42 loss of power.

C. Dry Cask movement should have been stopped at 0800 due to the tripping of 1B VF exhaust fan.

D. Dry Cask movement may continue since 1A VF exhaust fan is a 100% capacity fan.

Distracter Analysis:.

A. **Incorrect**:
Plausible: If student does not realize that moving loaded dry cask had the same requirements as moving irradiated fuel.

B. **Incorrect**:
Plausible: If student does not realize that 1EMF-36 satisfies the T.S. requirements

C. **Correct**:

D. **Incorrect**
Plausible: If student believes that the exhaust fans are still considered 100% capacity.

LEVEL: RO & SRO

KA: 034 K6.02 (2.6/3.3)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-WE-EMF

OBJECTIVES: OP-MC- WE-EMF, Obj. 10

REFERENCES: Tech. Spec. 3.7.12, SLC 16.7.6, and 16.11.7

Bank Question: 1151 **Answer: A**

1 Pt. Given the following conditions on Unit 1:

- Power reduction from 100% to 88% performed from 2200 to 2300 in preparation for Turbine Valve Movement Testing (TVMT)
- At 2330 the TVMT is in progress
- Control Rods are in Manual

Which one of the following is the expected initial plant response (2300 to 2400) and the required Operator action to compensate for the plant conditions?

A. Xe ↑, T-ave ↓, Dilute

B. Xe ↓, T-ave ↓, Dilute

C. Xe ↑, T-ave ↑, Borate

D. Xe↓, T-ave ↑, Borate

Distracter Analysis:. NC pressure is essentially unchanged during the TVMT. Temperature will change.

A. Correct:
B. Incorrect:
Plausible:
C. Incorrect:
Plausible:
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: 045 A4.08 (2.7*/2.6*)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON:

OBJECTIVES:

REFERENCES:

Bank Question: 1152 **Answer: C**

1 Pt(s) EMF-59 (Equipment Staging Building Ventilation Monitor) is in 'Trip 2' alarm.

Which one of the following describes the action(s) that occur as a result of the 'Trip 2' alarm?

A. **If VK *(Equipment Staging Building Vent.)* is in 'Auto' the supply fans will trip**

B. **If VK is in 'On' the supply fans will trip**

C. **If VK is in 'Auto' the exhaust and supply fans will trip**

D. **If VK is in 'On' the exhaust and supply fans will trip**

Distracter Analysis:

A. **Incorrect**: The exhaust and supply fans trip..
Plausible:

B. **Incorrect**: No effect on system.
Plausible:.

C. **Correct**:

D. **Incorrect**: No effect on system in ON position.
Plausible:

Level: RO&SRO

KA: SYS 072 K1.01 (3.6/3.6)

Source: McGuire Bank, NRC Exam Retake 2003

Level of knowledge: memory

AUTHOR: CWS

Lesson: OP-MC-WE-EMF

Lesson Plan Objective: OP-MC-WE-EMF, Obj. 3

References: OP-MC-WE-EMF, p. 41

Bank Question: 1153 **Answer: A**

1 Pt. Unit 1 has experienced a loss of 1EVDD Panel board.

Based on the above failure which one of the following is a complete list of the '1B' RN pump start capability(s)?

A. Local breaker operation Only

B. Local breaker operation, and manually from the main control board Only

C. Local breaker operation, and manually from the main control board, and CA auto start Only

D. Local breaker operation, and manually from the main control board, and CA auto start, and auxiliary shutdown panel

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Distracter Analysis:.

A. Correct:
B. Incorrect:
Plausible:
C. Incorrect:
Plausible:
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: 075 K2.03 (2.6*/2.7*)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-AP-AP15

OBJECTIVES: OP-MC-AP-AP15, obj 3

REFERENCES: AP/15 Enclosure 9 page 102

Bank Question: 1154 **Answer: D**

1 Pt. The Unit 1 RO has been informed that Maintenance no longer needs "A" Main Fire pump running. A RO performed the following steps when returning the 'A' Main Fire pump to standby readiness:

- 'A' Jockey pump started in "manual"
- 'A' Main Fire pump "off" pushbutton is depressed and held
- RF header pressure drops to and remains at 80#
- 'A' Main Fire pump "off" pushbutton released
- 'A' Main Fire pump remains off
- 'A' and "B" Jockey pumps returned to 'auto'

What is the status of the 'A' Main Fire pump and the actions to restore the 'A' Main Fire Pump to standby readiness (if any)?

A. The 'A' Main Fire pump is operable since auto (normal and backup) and manual start available. No actions required.

B. The 'A' Main Fire pump is operable but degraded due to "anti pump circuit" activated; the backup pressure switch (60#) is the only start capability available to the pump.

C. The 'A' Main Fire pump is operable since manual start is available. Auto start capability (normal and backup) not required for operability.

D. The 'A' Main Fire pump inoperable due to "anti pump circuit" activated. Breaker control power fuses need to be removed and installed to clear circuitry.

Distracter Analysis:.

A. Incorrect:
Plausible:
B. Incorrect:
Plausible:
C. Incorrect:
Plausible:
D. Correct

LEVEL: RO & SRO

KA: 086 A2.01 (2.9/3.1)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON: OP-MC-SS-RFY

OBJECTIVES: OP-MC-SS-RFY, obj 27

REFERENCES: OP-MC-SS-RFY, page 63

Bank Question: 1155 **Answer: C**

1 Pt. Per OMP 2-2, Conduct of Operations, which one of the following would **NOT** require alerting plant personnel via the page?

A. Starting a Safety Injection Pump

B. Initiation of Steam Generator Blowdown

C. Starting a Reactor Makeup Water Pump

D. Opening CF Isolation Valves

Distracter Analysis:

A. **Incorrect:**
Plausible:
B. **Incorrect:**
Plausible:
C. **Correct:**
D. **Incorrect**
Plausible:

LEVEL: RO & SRO

KA: G2.1.1 (3.7/3.8)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-ADM-OMP

OBJECTIVES: OP-MC-ADM-OMP, obj 3

REFERENCES: OMP 2-2 page 7

Bank Question: 1156 **Answer: D**

In accordance with OMP 5-2, Maintenance of Operations Logbooks, which one of the following is **NOT** required to be recorded in the Unit 2 Control Room Unit Log (autolog)?

A. **Cleared Removal and Restoration on 'B' RL Pump**

B. **Stopping '2A' Diesel Generator**

C. **Starting '2B' SSPS test**

D. **Fire Drill In Unit 2 Cable Spreading Room**

Distracter Analysis:.

A. **Incorrect:**
Plausible:
B. **Incorrect:**
Plausible:
C. **Incorrect:**
Plausible:
D. **Correct**

LEVEL: RO & SRO

KA: G2.1.18 (2.9/3.0)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-ADM-OMP

OBJECTIVES: OP-MC-ADM-OMP, obj 10

REFERENCES: OMP 5-2, page 6

Bank Question: 1157 **Answer: D**

1 Pt. Per Technical Specifications Definitions, a MODE is determined by power level and....

A. **Decay heat and average Reactor Coolant System temperature**

B. **Core reactivity, and auctioneered high Reactor Coolant System temperature**

C. **Decay heat and auctioneered high Reactor Coolant System temperature**

D. **Core reactivity and average Reactor Coolant System temperature**

Distracter Analysis:.

A. **Incorrect:**
Plausible:

B. **Incorrect:**
Plausible:

C. **Incorrect:**
Plausible:

D. **Correct**
Plausible:

LEVEL: RO & SRO

KA: 2.1.22 (2.8/3.3)

SOURCE: BANK Braidwood 1 NRC Exam 2000

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-ADM-TS

OBJECTIVES: OP-MC-ADM-TS, obj 4

REFERENCES: OP-MC-ADM-TS, page 49

Bank Question: 1158 **Answer: C**

1 Pt. Given the following conditions on Unit 2:

- Core unload is in progress
- IAE informs the Control Room that both N-31 and N-32 Source Range Channels must be considered INOPERABLE due to detector deterioration concerns
- Both W/R neutron detectors are OPERABLE

Which one of the following describes the administrative requirements in effect with N-31 and N-32 being INOPERABLE during core unload operations?

A. Refueling may continue provided both W/R neutron detector shutdown monitors are OPERABLE.

B. Refueling may continue provided a Reactor Operator is designated to initiate containment evacuation on a high flux alarm.

C. Immediately suspend refueling until at least N-31 or N-32 is restored to OPERABLE.

D. Immediately suspend refueling until both N-31 and N-32 are restored to OPERABLE.

Distracter Analysis:.

A. Incorrect:
Plausible:
B. Incorrect:
Plausible:
C. Correct:
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: G2.2.26 (2.5/3.7)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-FH-FC

OBJECTIVES: OP-MC-FH-FC, obj 7

REFERENCES: OP-MC-FH-FC, page 27
T.S. Basis, page B 3.9.3-1

Bank Question: 1159 **Answer: B**

1 Pt. In accordance with procedures which one of the following is a responsibility of the Operator at the Controls during fuel movement?

A. Give permission to bypass a fuel handling interlock.

B. Give permission to unload each fuel assembly prior to unloading the fuel assembly.

C. Give permission to fuel transfer personnel to raise fuel assembly in the upender.

D. Give fuel handling crew permission prior to latching and unlatching control rods.

Distracter Analysis:.

A. Incorrect:
Plausible:
B. Correct:
C. Incorrect:
Plausible:
D. Incorrect

LEVEL: RO & SRO

KA: G2.2.30 (3.5/3.3)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-FH-FC

OBJECTIVES: OP-MC-FH-FC, obj 1

REFERENCES: OP-MC-FH-FC pages 9 and 11

Bank Question: 1160 **Answer: B**

1 Pt. Given the following conditions on Unit 1:

- Semi-Daily PT PT/1/A/4600/003A is being performed
- Channel 1 FWST level is INOPERABLE and logged in Technical Specifications

Which one of the following is the correct method for completing the item sign off box, discrepancy sheet, and evaluating this item per OMP 4.1, Use of Operating and Periodic Test Procedures?

A. Number the item in sign off box, record item and T.S. number on discrepancy sheet, RO evaluate and complete discrepancy sheet.

B. Number the item in sign off box, record item and T.S. number on discrepancy sheet, SRO evaluate and complete discrepancy sheet.

C. RO will initial sign off box since item is being tracked in Tech. Specs. Discrepancy sheet not required.

D. Leave sign off box blank, record item and T.S. number on discrepancy sheet, SRO evaluate and complete discrepancy sheet and sign off box.

Distracter Analysis:.

A. Incorrect:
Plausible:
B. Correct:
C. Incorrect:
Plausible:
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: 2.2.23 (2.6/3.8)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Comprehension

AUTHOR: CWS

LESSON:

OBJECTIVES:

REFERENCES: OMP 4.1 pg. 25

Bank Question: 1161 ***Answer: D***

1 Pt. 10CFR20 limits the radiation exposure (dose) to a qualified radiation worker to _____ per year. Duke Power limits the radiation dose to a qualified radiation worker to _____ per year without special authorization.

Which of the following describes these limits?

A. **10CFR20 limit 3000 mrem**
Duke Power limit 1500 mrem

B. **10CFR20 limit 5000 mrem**
Duke Power limit 3000 mrem

C. **10CFR20 limit 3000 mrem**
Duke Power limit 2000 mrem

D. **10CFR20 limit 5000 mrem**
Duke Power limit 2000 mrem

Distracter Analysis:.

A. **Incorrect**:
Plausible:
B. **Incorrect**:
Plausible:
C. **Incorrect**:
Plausible:
D. **Correct**

LEVEL: RO

KA: G2.3.1

SOURCE: BANK Prairie Island 1 2003 NRC Exam

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON:

OBJECTIVES:

REFERENCES:

Bank Question: 1162 **Answer: D**

1 Pt. Independent Verification is required on various Unit 1 components. The following dose and dose rates are present.

- Single component verification will result in a 5 mrem dose
- Weekly dose for IV will result in a 75 mrem dose
- Components in a 750 mrem/hr field

Which one of the following conditions (if any) would allow Independent Verification to be waived per OMP 8-2, Component Verification Techniques?

A. The single component exposure

B. The weekly dose exposure

C. The dose rate exposure

D. Independent Verification can not be waived

Distracter Analysis:. Per the OMP 8-2 IV for components in these areas will not be waived

A. Incorrect:
Plausible:
B. Incorrect:
Plausible:
C. Incorrect:
Plausible:
D. Correct

LEVEL: RO & SRO

KA: G2.3.3 (2.5/2.9)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-ADM-OMP

OBJECTIVES: OP-MC-ADM-OMP Obj. 24

REFERENCES: OMP 8-2 page 21

Bank Question: 1163 **Answer: B**

1 Pt. The following sequence of events has occurred on Unit 1:

- 2/1/05 at 0100 the unit was tripped per the shutdown procedure
- 2/4/05 at 0100 the unit entered MODE 5
- 2/10/05 at 0100 the control room entered AP/1/A/5500/19, Loss of ND or ND System Leakage, due to a loss of ND

Currently 2/10/05 at 0115 the following conditions exist:

- The Reactor Coolant System is open to atmosphere
- The FWST temperature is 80°F
- Core Exit T/Cs are not available
- The Reactor Coolant System is close to saturation

What is the MINIMUM amount of makeup flow required to prevent boiling in the Reactor Coolant System?

Reference Provided
OP/1/A/6100/22
Enclosure 4.3, Section 2.10.4

A. 600 GPM

B. 660 GPM

C. 720 GPM

D. 792 GPM

Distracter Analysis:.

A. Incorrect:
Plausible:
B. Correct:
C. Incorrect:
Plausible:
D. Incorrect
Plausible:

LEVEL: RO & SRO

KA: G2.4.9 (3.3/3.9)

SOURCE: BANK Braidwood 1 NRC Exam 1999

LEVEL OF KNOWLEDGE: Analysis

AUTHOR: CWS

LESSON: OP-MC-AP-AP19

OBJECTIVES: OP-MC-AP-AP19, obj 2

REFERENCES: AP19 Basis Document, page 16
Data Book Curve 2.10.4, page 1 & 2

Bank Question: 1164 **Answer: A**

1 Pt. Per OMP 2-2, Conduct of Operations, which one of the following alarms **DO NOT** require 3 Way communications between the RO and the CRSRO?

A. OAC "above the bar" computer alarm

B. OAC "below the bar" computer alarm

C. "Unexpected" Annunciator alarm

D. "Expected" Annunciator alarm

Distracter Analysis:.

A. Correct:
B. Incorrect: Below the bar OAC alarms are handled just like annunciator alarms
Plausible:
C. Incorrect: Per OMP, unexpected alarms require repeat back.
Plausible:
D. Incorrect Until the CRSRO decides the alarm is a nuisance, repeat back is required.
Plausible:

LEVEL: RO & SRO

KA: G 2.4.10. (3.0/3.1)

SOURCE: NEW

LEVEL OF KNOWLEDGE: Memory

AUTHOR: CWS

LESSON: OP-MC-ADM-OMP

OBJECTIVES: OP-MC-ADM-OMP, obj 3

REFERENCES: OMP 2-2 pg. 25 & 26