EX99040

The plant was operating at 99% power when a transient occurred. Not all control rods fully inserted. The following conditions exist:

- Several SRVs have lifted causing a suppression pool temperature increase.
- The CRS directed the initiation of SLC.
- Level in the reactor was lowered to reduce power production
- The crew is now inserting rods by driving and scramming.

Which one of the following describes when it would be permitted to stop both SLC Pumps?

A. The Reactor Engineer says that subcriticality can be guaranteed to 200°F

B. All rods are at position 00 except for control rod 34-35 is at position 48.

C. All rods are at position 00 except three in different quadrants at position 02.

D. The Hot Shutdown Boron Weight of SLC has been injected.

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295015AA2.01 4.1/4.3 10CFR55.41.1/43.5/45.13

REFERENCE: PPM 5.0.10 rev 6, pages 185 and 186

SOURCE: **BANK QUESTION - #99040 – DIRECT –** SRO T1, GP1, #12 RO T1, GP1, #7

LO: 818

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: SLC injection cannot be terminated unless "existing rod pattern alone always assures the reactor is shutdown" per override step Q1 override no. 1. Any other answer that doesn't include shutdown under all condition by rods is incorrect.

COMMENTS:

EX01002

The plant was operating at 90 % power when a failure in the Main Turbine Pressure regulating system caused Reactor pressure to increase to 1089 psig. The reactor did not scram. PPM 5.1.2 directs that pressure be stabilized below 1060 psig.

Which one of the following describes the basis for this direction?

A. Maximizes the amount of steam condensed in the Wetwell.

B. Prevents SRV cycling and fluctuating RPV water level.

C. Reduces RPV pressure to permit high-pressure Systems injection.

D. Maintains Reactor water inventory in the Containment.

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295025EK3.01 4.2/4.3 10CFR55.41.5/45.6

REFERENCE: PPM 5.0.10 rev 6, pages 128, 130

SOURCE: **BANK QUESTION #682, #683 – MODIFIED –** SRO T1, GP1, #19
RO T1, GP1, #10

LO: 8053

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: A is incorrect because it is desirable to minimize the amount of steam condensed in the Wetwell. C is incorrect because the high-pressure systems will inject at this pressure. D is incorrect because there is no direction to maintain reactor inventory in the containment. PPM 5.0.10 states pressure stabilization less than 1060 psig prevents SRV cycling and reactor level fluctuation. B is correct.

COMMENTS:

The plant was operating at 97% power when a transient occurred resulting in a gaseous release. QEDPS indicates a TEDE (Whole Body) dose that requires a General Emergency classification. The CDE (Thyroid/Iodine) dose is only 20% of the required General Emergency dose threshold.

Which one of the following is correct concerning these conditions?

The release is from the …

A. Reactor building with SGT in service.

B. Reactor building with SGT **not** in service.

C. Turbine building with Turbine Building HVAC in service.

D. Turbine building with Turbine Building HVAC **not** in service.

ANSWER: A

QUESTION TYPE: SRO

KA # & KA VALUE: 295038EA2.04 4.1/4.5 10CFR55.41.1/43.5/45.13

REFERENCE: 82-RSY-0400-T3 pages 3, 4, and 6

SOURCE: **NEW QUESTION –** SRO T1, GP1, #24

LO: 5824/5821

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A filtered release, i.e. with SGT in operation, results in a relatively low CDE (Thyroid from Iodine) dose. A projected dose at the site boundary high enough for a General Emergency, but with a relatively low Thyroid dose can only be the result of a release through SGT. A is correct.

COMMENTS:

Preparations for startup are underway with the plant in Mode 4. The following conditions exist:

Reactor Water Level	36 inches
Drywell Temperature	139°F for the last 9 hours
Drywell Pressure	.8 psig
Suppression Pool Level	-1.8 inches
Suppression Pool Temperature	88°F

Concerning these conditions, which one of the following is the correct Tech Spec action?

A. Restore the Drywell average air temperature to within the limit in 8 hours.

B. Restore the Drywell average air temperature to within the limit in 12 hours.

C. The MODE Switch **cannot** be placed in STARTUP for Mode 2.

D. The MODE Switch can be placed in STARTUP for Mode 2.

ANSWER: C

QUESTION TYPE: SRO

KA # & KA VALUE: 295012 2.1.12 2.9/4.0 10CFR55.43.2/43.5/45.3

REFERENCE: TS LCO3.6.1.4 and LCO 3.0.4

SOURCE: **NEW QUESTION –** SRO T1, GP2, #5

LO: 6930

RATING: H3

ATTACHMENT: YES – TS 3.6.1.4

JUSTIFICATION: The Drywell temperature LCO is not required to be met in either MODE 4 or 5, so A and B are incorrect. No actions are required until a MODE change is made. D is incorrect because the drywell temperature is greater than the LCO limit, and TS 3.0.4 does not allow placing the MODE Switch in the STARTUP position. C is correct.

COMMENTS:

EX99086

The plant is shutdown with RHR-P-2B in operation for Shutdown Cooling. A crack in the SDC suction line causes a start of FDR-P-2 and a high water level alarm in the B RHR pump room.

In addition to this, automatic isolation of RHR SDC suction...

A. valve RHR-V- 9 takes place at +13 inches to prevent flooding the RHR pump room.

B. valve RHR-V-8 takes place at -50 inches to prevent flooding the RHR pump room.

C. valves RHR-V-8 and 9 take place at -50 inches to prevent the further loss of reactor water inventory.

D. valves RHR-V-8 and 9 take place at +13 inches to prevent the further loss of reactor water inventory.

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295036EK3.03 3.5/3.6 10CFR55.41.5/45.6

REFERENCE: 82-RSY-1300-T3 pages 11 and 12, and FSAR 6.2.4.3.2.1.2.4

SOURCE: **BANK QUESTION #99086 DIRECT –B** SRO T1, GP2, #15 RO T1, GP3, #4

LO: 5594

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: The basis for the level 3 isolation of SDC suction is to prevent further loss of reactor inventory per the FSAR. D is correct

COMMENTS:

EX01006

Which one of the following describes a design feature of an LPRM detector that reduces the rate of burnup of the detector?

A. Enriched U-234 is added to the coating on the inner chamber wall which "breeds" an additional quantity of fissile material.

B. Enriched U-235 is added to the coating on the inner chamber wall which "breeds" an additional quantity of fissile material.

C. PU-238 is added to the inner chamber wall to act as a barrier to fast neutron flux.

D. PU-239 is added to the inner chamber wall to act as a barrier to fast neutron flux.

ANSWER: A

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 215005K4.06 2.6/2.8 10CFR55.41.7

REFERENCE: 82-RSY-0400-T2 pages 3 and 4

SOURCE: **NEW QUESTION –** SRO T2, GP2, #7 RO T2, GP1, #12

LO: 7180

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: B is incorrect because U-235 is a fissile fuel, not fertile. It does not breed new fuel. C and D are both incorrect because neither PU-238 nor PU-239 are added as a design feature to act as a barrier to fast flux. A is correct because the added U-234 breeds new U-235 for fission and extends the life of the detector.

COMMENTS:

EX01007

The plant was operating at 75% power when a fire caused the loss of IN-1.

Which one of the following describes the effect of this loss on the Main Turbine?

A. DEH loses all AC Electrical power and trips the Main turbine.

B. DEH loses all AC Electrical power and the Main Turbine can only be tripped by the manual trip on the front standard.

C. The Main Turbine continues to operate with DEH Backup Power supplied by the Permanent Magnetic Generator in the Main Generator Exciter.

D. The Main Turbine continues to operate with DEH Backup Power supplied by IN-3.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 262002K3.15 2.6/2.7 10CFR55.41.7/45.4

REFERENCE: LO000194 rev 7, pages 32-34 and 82-RSY-0400-T5 rev 6, page48

SOURCE: **NEW QUESTION –** SRO T2, GP2, #9 RO T2, GP2, #11

LO: 5287/7782/5897

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A loss of IN-1 does not cause a trip of the Main Turbine nor does it cause a complete loss of AC to DEH. The turbine can be tripped from the control room. A and B are incorrect. D is incorrect because IN-3 does not supply backup power to DEH. Backup power the DEH System comes from the PMG in the Main Generator Exciter. C is correct.

COMMENTS:

EX01008

The plant is operating at 99% power with all equipment operating normally. A malfunction in the supply breaker for SL-81 causes it to trip.

Which one of the following is correct?

RCC flow is…

A. reduced to all components cooled by RCC, RCC-V-6 is open.

B. normal to all components cooled by RCC, RCC-V-6 is open.

C. shutoff to components outside the drywell, RCC-V-6 closes.

D. shutoff to components inside the drywell, RCC-V-6 closes.

ANSWER: A

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295018AA1.02 3.3/3.4 10CFR55.41.7/45.6

REFERENCE: 82-RSY-1300-T1 pages 8, 9, 10, and 17 rev 8

SOURCE: **NEW QUESTION –** SRO T1, GP2, #8 RO T1, GP2, #12

LO: 5706

RATING: H4

ATTACHMENT: NONE

JUSTIFICATION: B is incorrect because the loss of SL-81 causes a loss (no trip) of both RCC-P-1B and 1C. Flow is reduced to all components. C and D are incorrect because RCC-V-6 does not close. A is correct because a loss of RCC-P-1B and C causes reduction of flow to all components, but RCC-V-6 does not close.

COMMENTS:

EX01009

The plant was operating at 94% power. The following actions occur:

SW-P-1A	Auto starts
RRA-FN-5 (LPCS Room Cooling Fan)	Auto starts

All plant equipment operates as designed.

Which one of the following caused these auto starts?

A. Reactor level –46 inches.

B. Drywell pressure 1.62 psig.

C. High LPCS room temperature.

D. Manual start of LPCS-P-1.

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 209001K1.12 2.9/3.1 10CFR55.41/45

REFERENCE: 82-RSY-1000-T6 rev 8, pages 14, 15, and 20 LO000204 rev 11, page 8

SOURCE: **NEW QUESTION –** SRO T2, GP1, #1 RO T2, GP1, #3

LO: NO LO

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: The only auto start function for RRA-FN-5 is a start of LPCS-P-1. None of the other actions or signals would cause a start of LPCS-P-1. Therefore A, B, and C are all incorrect. D is correct.

COMMENTS:

EX00030

The plant is operating at rated conditions with the lead Fan SGT-FN-1B-2 discharge SGT-V-5B-2, Exhaust to Stack, tagged closed for maintenance. A scram occurs from a loss of feedwater.

Assuming no operator action, which ONE of the following is correct concerning these conditions?

A. SGT-FN-1B-2 auto starts and trips on low flow. SGT-FN-1B1 auto starts 10 seconds later and aligns to the stack.

B. SGT-FN-1B-2 auto starts and runs with low flow and must be manually tripped.

C. SGT-FN-1B1 auto starts and aligns to the stack immediately following the start signal.

D. SGT-FN-1B1 auto starts 20 seconds following the start of SGT-FN-1B2 and aligns to the stack.

ANSWER: A

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 261000A3.02 3.2/3.1 10CFR55.55.41

REFERENCE: 82-RSY-0400-T3 page 16 and 17

SOURCE: **BANK QUESTION – DIRECT – #EX00030 –** SRO T2, GP1, #20
RO T2, GP1, #26

LO: 5828

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: With SGT-V-5B-2 closed, the lead fan SGT-FN-1B2 auto starts but has no flow because the discharge valve is closed. After 30 seconds, the lead fan trips and the lag fan starts. A is correct.

COMMENTS:

EX01011

The plant is operating at 95% power when an air leak occurs.

Which one of the following is correct concerning this condition?

The CAS standby air compressor starts when…

A. service air header pressure decreases to 100 psig.

B. service air header pressure decreases to 105 psig.

C. instrument air header pressure decreases to 100 psig.

D. instrument air header pressure decreases to 105 psig.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 300000K5.01 2.5/2.5 10CFR55.41.5/45.3

REFERENCE: 82-RSY-1400-T4 rev 7, pages 13, 14

SOURCE: **NEW QUESTION –** SRO T2, GP2, #12 RO T2, GP2, #18

LO: 5878

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: A and B are both incorrect because instrument air header pressure is used to start the standby compressor. D is incorrect because the start pressure is LE 100 psig. C is correct.

COMMENTS:

EX00099

The reactor was operating at 78% power coming out of a refueling outage. A large steam leak in the drywell caused the following plant conditions:

Wetwell level	39 feet
Drywell pressure	30 psig
Reactor pressure	214 psig
Reactor level	-145 inches and stable

RCIC tripped several minutes ago.

Which ONE of the following caused the RCIC trip?

A. Low reactor level.

B. Isolation from low reactor pressure.

C. Low suction pressure.

D. High exhaust pressure.

ANSWER: D

QUESTION TYPE: SRO

KA # & KA VALUE: 2.1.7 3.7/4.4 10CFR55.55.43

REFERENCE: PPM 5.0.10 rev 6, page 70

SOURCE: **BANK QUESTION – DIRECT - #EX00099 –** SRO T3, #1

LO: 5722

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A is incorrect because there is no trip on low reactor level. Low pressure isolation has not yet been reached for B. C is incorrect because suction pressure would be relatively high from the conditions given. D is correct based on the explanation of Caution 4 in the EOPs.

COMMENTS:

EX01013

Which one of the following describes the basis for an Emergency Depressurization if Wetwell Temperature and RPV Pressure cannot be maintained less than the HCTL?

A. The code allowable stresses on the SRV Tailpipes will not be exceeded during the blowdown.

B. The Primary Containment Pressure Limit will not be exceeded during an RPV depressurization.

C. The Wetwell/Drywell interface will not fail during a DBA LOCA.

D. Containment failure due to rapid depressurization is prevented.

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295013AK1.04 2.9/3.2 10CFR55.41.8/41.10

REFERENCE: PPM 5.0.10 rev 6, pages 76, 77

SOURCE: **NEW QUESTION –** SRO T1, GP1, #8 RO T1, GP2, #7

LO: 5051

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: A, C, and D are all incorrect reasons/basis for the ED prior to exceeding the HCTL. B is the definition/basis for the HCTL.

COMMENTS:

EX01014

The plant is operating at 94% power when a loss of RPS A occurs.

Which one of the following is correct for these conditions?

Auto closure of…

A. RCC-V-104 (Outboard Isolation).

B. RCC-V-40 (Inboard Isolation).

C. RWCU-V-4 (Outboard Isolation).

D. RWCU-V-1 (Inboard Isolation).

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 223002K3.10 2.9/3.1 10CFR55.41.7/45.4

REFERENCE: 82-RSY-0900-T2 rev 8, pages 10, 14, and fig. 8

SOURCE: **NEW QUESTION –** SRO T2, GP1, #12 RO T2, GP1. #19

LO: 5604

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The loss of RPS A causes the same effect as arming and depressing the B MSIV isolation pushbutton. GP 7, outboard (RWCU-V-4) closes and only EDR-V-4 and 20 close in Gp4. A, B, and D are incorrect because these valves do no close. C is correct.

COMMENTS:

EX98074

You have been directed to maximize cooling of the suppression pool with the A loop of RHR.

Which ONE of the following describes the correct RHR lineup?

RHR-V-48A (HX bypass)...

A. open, RHR-V-3A (HX discharge) full open, RHR-V-27A (suppression pool spray) closed, and RHR-V-24A (suppression pool test return) open.

B. closed, RHR-V-3A (HX discharge) throttled, RHR-V-27A (suppression pool spray) open, and RHR-V-24A (suppression pool test return) closed.

C. open, RHR-V-3A (HX discharge) full open, RHR-V-27A (suppression pool spray) open, and RHR-V-24A (suppression pool test return) open.

D. closed, RHR-V-3A (HX discharge) full open, RHR-V-27A (suppression pool spray) closed, and RHR-V-24A (suppression pool test return) open.

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 219000A1.01 4.0/4.0 10CFR55.41.5/45.5

REFERENCE: PPM 2.4.2, rev 43, page 42

SOURCE: **BANK QUESTION - #98074 – DIRECT –** SRO T2, GP2, #4 RO T2, GP2, #5

LO: 5774

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: To maximize cooling, the bypass must be full closed, the HX inlet and outlet must be full open, and the Test Return must be open. D is the only correct answer.

COMMENTS:

EX01016

The plant is in MODE 5 with refueling in progress. Fuel Pool Cooling is in service with 1 pump, 1 heat exchanger, and 1 demineralizer in service. A leak in the Drywell Bellows seal has caused the Fuel Pool Cooling Skimmer Surge Tank level to decrease.

Which one of the following hard piped water sources can be used to limit the decreasing level?

A. Standby Service Water (SSW)

B. Turbine Service Water (TSW)

C. Fire Protection

D. Main Condensate (COND-P-1A discharge)

ANSWER: A

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 233000A1.01 2.6/2.9 10CFR55.41.5/45.5

REFERENCE: LO000202 rev 9, pages 14, 15, and 17

SOURCE: **NEW QUESTION –** SRO T2, GP3, #1 RO T2, GP3, #1

LO: 5369

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: Of the listed systems, only SSW provides makeup to the Spent Fuel Pool and hence to FPC Skimmer Surge tank. A is correct.

COMMENTS:

EX98092

Following a major plant transient, RPV water level is -162 inches and down slow and 3 control rods have not fully inserted.

Which ONE of the following describes the required Tech Spec actions for these conditions?

A. Initiate action within 1 hour to restore level to greater than -129 inches.

B. Within 8 hours, restore reactor level to greater than + 13 inches and insert all insertable control rods.

C. Within 2 hours, restore reactor level greater than –161 inches and insert all insertable control rods.

D. Initiate action within 2 hours to restore level to greater than -129 inches.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 2.2.22 3.4/4.1 10CFR55.43.2/45.2

REFERENCE: TS 2.1

SOURCE: **BANK QUESTION - #EX98092 – DIRECT –** SRO T3, #10 RO T3, #5

LO: 6934

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: TS 2.1
COMMENTS: Reactor level below –161 inches (TAF) exceeds the minimum water level Safety Limit. C is the correct action for this limit.

EX01018

The plant is in operation at 93% power with CB B7 tagged out and removed from the cubicle for maintenance. A failure at the ASHE Substation causes a Main Generator Trip and a failure of TRS to close in. SW-P-1A then trips on overload. All other auto actions occur.

Assuming no operator action, which one of the following is correct concerning these conditions?

A. DG-1 starts and closes onto the bus, then trips on High Jacket Water Temperature.
DG-2 starts but does not close onto the bus.

B. DG-1 starts and closes onto the bus and operates until the ASHE Substation failure is repaired.
DG-2 starts but does not close onto the bus.

C. DG-1 starts and closes onto the bus, then trips on High Jacket Water Temperature.
DG-2 starts and closes onto the bus.

D. DG-1 starts and closes onto the bus and operates until the ASHE Substation failure is repaired.
DG-2 starts and closes onto the bus.

ANSWER: A

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295003AA1.02 4.2/4.3 10CFR55.41.7/45.6

REFERENCE: LO000200 rev 8, pages 19 and 20

SOURCE: **NEW QUESTION –** SRO T1, GP1, #2 RO T1, GP2, #1

LO: 5313

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: An undervoltage on SM-7 and 8 causes a start of both DG-1 and SG-2. SM-7 has no backup supply and DG-1 closes onto the bus. Since SW-P-1A trips on overload, DG-1 water jacket heats up and the high temperature trips the DG. Since SM-8 has a backup supply, DG-2 starts but does not close onto the bus. A is correct.

COMMENTS:

EX01019

The plant was operating at 91% power when a small break LOCA occurred concurrently with a failure of TR-S. HPCS-P-1 trips due to an overcurrent lock out.

Which one of the following systems is designed specifically to mitigate the effects of this event?

A. RCIC

B. ADS

C. RHR

D. LPCS

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295031EK3.01 3.9/4.2 10CFR55.41.4/45.6

REFERENCE: 82-RSY-1100-T3 rev 8, page 1

SOURCE: **NEW QUESTION –** SRO T1, GP1, #21 RO T1, GP1, #11

LO: 5067

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: The purpose of ADS is to reduce reactor pressure during small break LOCAs, concurrently with a failure of HPCS, so the low-pressure ECCS systems can inject. B is correct.

COMMENTS:

EX01020

The plant was operating at 98% power when a transient occurred. Annunciators are received on both the front and back panels of the control room. During the recovery from the transient, it is noted that REA-V-1, REA-V-2, ROA-V-1, and ROA-V-2 have closed.

Assuming no operator action, which one of the following caused these indications?

A. Trip of RFP-DT-1A

B. Trip of COND-P-2A

C. Lockout of SH-5

D. Lockout on SM-7

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 288000K4.02 3.7/3.8 10CFR55.41.7

REFERENCE: 82-RSY-0900-T2 rev 8, pages 6, 12

SOURCE: **INPO BANK #851 – MODIFIED –**SRO T2, GP3, #4 RO T2, GP3, #3

LO: 5597

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A is incorrect because the loss of a feed pump causes a runback of Recirc and the plant continues to operate. C is incorrect because it causes the loss of a Recirc pump, which causes water level to increase, not decrease to an isolation. D is incorrect because it causes some isolations, not a closure of all 4 of these valves. B is correct be cause the loss of the booster pump causes a loss of all feedwater and a –50 isolation, which closes all 4 valves.

COMMENTS:

EX01021

Caution #1 in the EOPs states that RPV Level Instrumentation may not be used to determine RPV level if Drywell Temperature is at or above the RPV Saturation Temperature erroneous/erratic indication is observed.

Which one of the following explains this caution?

A. Temperature greater than the RPV Saturation Curve in the drywell results in conditions exceeding the equipment qualifications of the RPV level transmitter.

B. Temperature greater than the RPV Saturation Curve in the drywell results in steam flashing in the variable leg and erroneously low RPV level indications.

C. Boiling may occur in the reference leg resulting in erroneously high indicated RPV water level.

D. Boiling may occur in the reference leg resulting in erroneously low indicated RPV water level.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 2.1.17 3.5/3.6 10CFR55.45.12/45.13

REFERENCE: PPM 5.0.10 rev 6, page 67

SOURCE: **NEW QUESITON –** SRO T3, #14 RO T3, #11

LO: 8040

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: A is incorrect because the level transmitter is outside the drywell. B and D are incorrect because the boiling/steam flashing results in high indicated level.

COMMENTS:

EX01022

The plant was operating at 93% power when a fire broke out in the control room. Thick smoke is rapidly filling the control room, requiring immediate evacuation.

Which one of the following actions is correct under these conditions?

A. Manually Scram the reactor
Start RHR in suppression pool cooling
Notify the Hanford Fire Department by pushing the pushbutton on FCP-1
Announce (over the PA) the scram, evacuation, and operator to locally start DG2.

B. Close the MSIVs
Start RHR in suppression pool cooling
Request Security to unlock the security doors
Announce (over the PA) the scram, evacuation, and all operators to the RSD Panel.

C. Close the MSIVs
Start HPCS to maintain reactor level
Notify the Hanford Fire Department by pushing the pushbutton on FCP-1
Announce (over the PA) the scram, evacuation, and all operators to the RSD Panel.

D. Manually Scram the reactor
Close the MSIVs
Request Security to unlock the security doors
Announce (over the PA) the scram, evacuation, and operator to locally start DG2.

ANSWER: D

QUESTION TYPE:	RO/SRO
KA # & KA VALUE:	295016AK3.01 4.1/4.2 10CFR55.41.5/45.6
REFERENCE:	PPM 4.12.1.1 rev 38, pages 4 and 45
SOURCE:	**NEW QUESTION –** SRO T1, GP1, #14 RO T1, GP2, #9
LO:	6889
RATING:	L3
ATTACHMENT:	NONE
JUSTIFICATION:	PPM 4.1.1.1 requires the immediate actions stated in D. D is correct. A, B, and C are all collections of at least partially incorrect actions.
COMMENTS:	

The plant was operating at 90% power when a failure in the DEH System caused the Governer Valves to close. The Bypass Valves also failed closed. All control rods fully inserted except 30-31, which is at an unknown position. All other plant equipment operated as expected.

Concerning these conditions, which one of the following is correct?

Immediately enter PPM…

A. 5.1.1 RPV Control, place the Mode Switch in SHUTDOWN, monitor reactor power pressure and level, depress the manual scram pushbuttons, initiate ARI, insert the SRMs.

B. 5.1.1 RPV Control, PPM 5.1.2 RPV Control ATWS, place the Mode Switch in SHUTDOWN, monitor reactor power pressure and level, insert the SRMs.

C. 5.1.2 RPV Control ATWS, place the Mode Switch in SHUTDOWN, monitor reactor power pressure and level, insert the SRMs.

D. 5.1.2 RPV Control ATWS, open the Main Condenser Vacuum Breakers, place the Mode Switch in SHUTDOWN.

ANSWER: A

QUESTION TYPE: SRO

KA # & KA VALUE: 295007 2.4.1 4.3/4.6 10CFR55.41.1/43.5/45.13

REFERENCE: PPM 3.3.1 rev 37, page 6 PPM 5.0.10 rev 6, page 103

SOURCE: **NEW QUESTION –** SRO T1, GP1, #6

LO: 8017

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The closure of the GVs at high power causes a high pressure scram. The scram setpoint is an entry condition for PPM 5.1.1. Since only one control rod is not full in, there is no entry into PPM 5.1.2. Due to the PPM 5.1.1 entry condition, the Abnormal for Main Turbine Trip is not entered immediately but later in the recovery effort. A is correct.

COMMENTS:

EX01024

The plant has reached conditions which could cause a deflagration in the containment.

Which one of the following describes the reason an Emergency Depressurization is directed at this time?

The Emergency Depressurization…

A. stops the production of H_2 in the reactor.

B. stops the O_2 production in the reactor.

C. places the reactor in the lowest possible energy state.

D. reduces the amount of energy in the containment.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 500000EK3.04 3.1/3.9 10CFR55.41.4/45.6

REFERENCE: PPM 5.0.10 rev 6, page 276

SOURCE: **NEW QUESTION –** SRO T1, GP1, #25 RO T1, GP1, #12

LO: 8443

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: PPM 5.0.10 states the reason for the ED under these conditions is to place the reactor in the lowest possible energy state. C is correct. A and B are both incorrect because the ED will not stop the production of H2 and O2. D is incorrect because the ED does not change the amount of energy in the containment but transfers the energy from one area to another.

COMMENTS:

EX01025

The plant is operating at 68% power with RWCU-P-1A in service. CRD flow has to be isolated to the pump for a short period of time.

Which one of the following describes the area of the pump affected by the loss of CRD flow?

A. External heat exchanger

B. Pump pedestal heat exchanger

C. Cavitation reduction supply

D. Pump Motor Cavity

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295022AA1.04 2.5/2.6 10CFR55.41.7/45.6

REFERENCE: 82-RSY-1200-T1 rev 9, pages 4 and 16

SOURCE: **NEW QUESTION –** SRO T1, GP2, #10 RO T1, GP2, #13

LO: 5192

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: A is incorrect because CRD does not provide cooling to the external heat exchanger. B is incorrect because it does not exist. C is incorrect because the source of the cavitation reduction supply is from the discharge of the RWCU pump itself. D is correct. The pump motor cavity is the location that CRDH supplies.

COMMENTS:

EX01026

The plant was operating at 89% power when a Recirc Suction Line break caused a high drywell pressure reactor scram. The scram has been reset.

Which one of the following is correct concerning these conditions?

A. EDR-R-5 (Sump in the CRD Pump room) is filling from the scram discharge header, and pumps down based on the operation of the Fill/Pumpout Timer.

B. EDR-R-5 (Sump in the CRD Pump room) is filling from the scram discharge header, but does not pump down due to the isolation of the outlet discharge valve EDR-V-395.

C. FDR-R-3 (Sump in the HPCS Pump room) is filling from the broken RRC Suction line, but does not pump down due to the isolation of the outlet discharge valve FDR-V-220.

D. FDR-R-3 (Sump in the HPCS Pump room) is filling from the broken RRC Suction line and pumps down based on the operation of the Fill/Pumpout Timer.

ANSWER: B

QUESTION TYPE: SRO

KA # & KA VALUE: 295036EA2.03 3.4/3./8 10CFR55.41.1/43.5/45.13

REFERENCE: LO000130 rev8, pages 3, 5, 10, 12

SOURCE: **NEW QUESTION –** SRO T1, GP2, #17

LO: 5329

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: C and D are incorrect because the drywell outlet valves for the floor drains isolate on the high drywell pressure. A is incorrect because the sump outlet isolates on the high drywell pressure. B is correct because the water in the sump comes from the SDV and it does not pump down until the “F” signal is reset.

COMMENTS:

EX01027

The plant is operating at 99% power with MC-S2-1A tagged out for bus work. A failure causes a lockout on BKR N1-3.

Assuming no operator action, which one of the following is correct concerning these conditions?

A. The reactor scrams, RCIC and HPCS maintain water level in automatic from –50 inches to +54 inches.

B. The reactor scrams, HPCS maintains water level in automatic from –50 inches to +54 inches.

C. Reactor power is approximately 60% following a Recirculation Runback.

D. Reactor power remains at 99% power.

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 217000K6.01 3.4/3.5 10CFR55.41.7/45.7

REFERENCE: LO000188 rev 6, page 20

SOURCE: **NEW QUESTION –** SRO T2, GP1, #10 RO T2, GP1, #16

LO: 7657

RATING: H4

ATTACHMENT: NONE

JUSTIFICATION: The lockout on N1-3 causes a trip of COND-P-1A and 2A. With no operator action, this results in a reactor scram from a loss of feedwater. C and D are incorrect. Following the scram, reactor level decreases to –10 inches and starts HPCS. RCIC does not start due to no DC from MC-S2-1A. A is incorrect. HPCS then maintains level in automatic from –50 inches to +54 inches. B is correct.

COMMENTS:

Reactor power is 19% with a shutdown in progress. After opening RFW-V-118 (Main Startup Block Valve), direction is given to increase the output of RFW-LIC-620 (Startup Level Controller) to approximately 90% per PPM 2.2.4.

Which one of the following describes the reason for this direction?

A. Ensures sufficient flow capability in preparation for closing RFW-V-112A and 112B.

B. Strokes RFW-FCV-10A/10B in preparation for placing the valves in automatic.

C. RFW-LIC-600 (Master Level Controller) can only be placed in manual with the output of RFW-LIC-620 greater than 85%.

D. RFW-SC-601A/B (Feed Pump Speed Controllers) can only be placed in manual with the output of RFW-LIC-620 greater than 85%.

ANSWER: A

QUESTION TYPE: SRO

KA # & KA VALUE: 259002A4.07 3.8/3.6 10CFR55.41.7/45.5/45.8

REFERENCE: PPM 2.2.4 rev 35, page 55

SOURCE: **NEW QUESTION –** SRO T2, GP1, #18

LO: 5394

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: The note on page 49 states that reactor power is reduced to less than 20% to ensure sufficient flow capability through the RFW-FCV-10A/B. Opening RFW-FIC-620 to 90% output ensures sufficient flow capability of the startup valves. A is correct.

COMMENTS:

EX01029

The plant was operating at 100% power when a transient occurred causing a reactor scram due to instantaneous neutron flux. Immediately following the scram, a full MSIV Isolation occurred.

Which one of the following describes the cause of this transient?

A. Main Turbine Trip.

B. Main Generator ground causing a load rejection

C. Broken instrument air line to 1 MSIV.

D. Loss of IN-3 to the MSIV isolation logic.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 300000K1.05 3.1/3.2 10CFR55.41/45

REFERENCE: WNP-2 LER 98-002-00

SOURCE: **NEW QUESTION –** SRO T2, GP2, #11 RO T2, GP2, #17

LO: 7748

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: LER 98-002-00 states that the loss of air to one MSIV cause the valve to close, a scram from instantaneous flux, and then a full MSIV isolation. C is correct. A and B are both incorrect because they would not cause enough shrink to result in an MSIV isolation. D is incorrect because the loss of IN-3 only causes a GP 3 and 4 outboard isolation. No effect on the MSIVs.

COMMENTS:

EX98086

The reactor is in MODE 5 with fuel movement underway. After moving a bundle through the "cattle chute" and into the vessel cavity, it is observed that the "ROD BLOCK INTERLOCK #1" light does not illuminate. The "HOIST LOADED" indicator is illuminated. The control room reports no rod block indication.

Which of the following actions is correct for these conditions?

A. Immediately stop the refuel bridge until the inoperable rod block is corrected.

B. Immediately initiate action to insert all insertable control rods in core cells containing one or more fuel assemblies.

C. The fuel bundle may be moved back to the spent fuel pool, then immediately suspend in-vessel fuel movement.

D. Fuel movement may continue as long as ROD BLOCK INTERLOCK #2 is operable.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 2.1.11 3.0/3.8 10CFR55.43.2/45.13

REFERENCE: TS Bases page B 3.9.1-3, ACTIONS, rev 16

SOURCE: **BANK QUESTION #98086 – DIRECT –** SRO T3, #3 RO T3, #1

LO: 6926

RATING: H3 H4

ATTACHMENT: NONE

JUSTIFICATION: C is correct because TS Bases specifically allow the movement of the component to a safe condition even though the action is for immediate suspension of in vessel fuel movement. Tech Specs does not allow movement to continue until a second fault occurs.

COMMENTS:

EX99070

Which one of the following conditions shall be announced to the plant staff over the PA system?

A. A radioactive spill in the RW 437' level has just been reported by the laborer supervisor.

B. The CRO is starting the Auxiliary Oil pump for the 'B' RFP as part of a plant shutdown.

C. The CRO is starting the Turbine Seal Oil Backup pump as part of a plant startup.

D. Stopping SW-P-1A after securing from Shutdown cooling during a plant startup.

ANSWER: A

QUESTION TYPE: SRO

KA # & KA VALUE: 2.1.14 2.5/3.3 10CFR55.43.5/45.12

REFERENCE: PPM 1.3.1 rev 49, step 4.11.2, page 36

SOURCE: **BANK QUESTION #99070 – DIRECT –** SRO T3, #5

LO: 6086

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: Ans. A is correct because it is a condition with an "expected hazard". The other answers are incorrect, because they are not starting equipment 4160V or above or identified in the list of conditions in PPM 1.3.1.

COMMENTS:

EX98088

The plant is operating in single loop operation at 21% power. RRC-P-1A is running, RRC-P-1B is ready to restart.

Reactor pressure	986 psig
Bottom head drain temp	391°F
Recirc loop B temp	492°F
Recirc loop A temp	512°F
Reactor level	+36 inches

Considering all of the above data, which one of the following is correct concerning the start of RRC-P-1B?

A. The pump cannot be started, based on reactor coolant temperature to bottom head drain temperature.

B. The pump cannot be started, based on recirc loop B to operating loop temperature.

C. The pump can be started, based on recirc loop B to reactor coolant temperature.

D. The pump can be started, based on the above conditions.

ANSWER: A

QUESTION TYPE: SRO

KA # & KA VALUE: 2.1.32 3.4/3.8 10CFR55.41.10/43.2/45.12

REFERENCE: TS 3.4.11 page 3.4.11-1 and 4

SOURCE: **BANK QUESTION #98088 – DIRECT –** SRO T3, #6

LO: 5031

RATING: H3

ATTACHMENT: YES - TS 3.4.11 + STEAM TABLES

JUSTIFICATION: A is correct because the pump cannot be started with reactor coolant to bottom head drain temperature greater than 145°F. Coolant at 977 psig = 544°F which is 153°F GT. bottom head drain temp. B is incorrect because the loop to loop differential is not considered when greater than 200°F RC temp. C is incorrect because the difference is 53°F – has to be less LE 50°F.

EX99033

The plant has been operating since Monday at 0700 with HPCS out of service for replacement of the motor for HPCS-P-2, the water leg pump. On Friday at 1000 the breaker for RCIC-V-45 trips with the valve in the closed position.

Which one of the following is correct for these conditions?

A. Restore RCIC to operable within 14 days.

B. Be in MODE 3 in 12 hours and MODE 4 in 36 hours.

C. Be in MODE 3 in 12 hours and reduce reactor pressure to less than 150 psig in 36 hours.

D. Restore HPCS to operable within 14 days.

ANSWER: C

QUESTION TYPE: SRO

KA # & KA VALUE: 2.1.12 2.9/4.0 10CFR55.43.2/43.5/45.2

REFERENCE: Tech Spec 3.5.3, action B, amendment 150

SOURCE: **BANK QUESTION #EX99033 – DIRECT –** SRO T3, #7

LO: 5728

RATING: H3

ATTACHMENT: YES - TS 3.5.3

JUSTIFICATION: Tech Specs require that HPCS be operable if RCIC is inoperable. If not, 12 hours to MODE 3 and 36 to less than 150 psig. When reactor pressure is less than 150 psig, RCIC Tech Spec is not applicable. C is correct.

COMMENTS:

EX98091

The plant is operating at 99% power. A troubleshooting plan for RFW-P-1A is being developed that has a high potential to trip the pump.

Which one of the following describes whose concurrence is needed prior to implementation?

A. Licensed SRO, Operations Manager and Plant Manager.

B. Operations Manager, Licensed SRO, and Maintenance Manager.

C. Licensed SRO, CRS/Shift Manager, and Operations Manager.

D. CRS/Shift Manager, Technical Manager, and Engineering Manager.

ANSWER: C

QUESTION TYPE: SRO

KA # & KA VALUE: 2.2.20 2.2/3.3 10CFR55.43.5/45.13

REFERENCE: PPM 1.3.42 rev 20 page 7

SOURCE: **BANK QUESTION #EX98091 – DIRECT –** SRO T3, #9

LO: 6183

RATING: H4

ATTACHMENT: NONE

JUSTIFICATION: C is correct because any troubleshooting that has the potential to unexpectedly reduce unit load is a high risk. High risk troubleshooting requires a 50/59 evaluation and approval of the SM/CRS. and Ops Manager. A, B, and D are incorrect because they have the incorrect positions for this approval.

COMMENTS:

EX98126

You have assigned a maintenance person to briefly inspect a valve inside of a valve room, which is a posted RADIATION AREA. The Maintenance person informs you that he only has 10 mr left on his yearly dose limit. Health Physics informs you that the radiation levels where the mechanic will be working are at the minimum value as defined for a RADIATION AREA posting.

Which one of the following is the maximum time available for this mechanic to inspect the valve?

A. 1 hour

B. 2 hours

C. 2 ½ hours

D. 5 hours

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 2.3.1 2.6/3.0 10CFR55.41.2/43.4/45.9/45.1

REFERENCE: SWP-RPP-01, rev 3, page 37

SOURCE: **BANK QUESTION #98126 – MODIFIED –** SRO T3, #13 RO T3, #8

LO: 6013

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: The Radiation area minimum threshold is 5 mr/hr. The **maximum** amount of time available to a worker for a 10 mr limit would be 2 hours in the area. B is correct.

COMMENTS:

EX01036

The plant is operating at 61% power with RRC-P-1A out of service. A loss of SH-6 occurs.

Which one of the following is correct for this condition?

A. If operating in Region A of the Power to Flow Map, scram the plant

B. If operating in Region B or C of the Power to Flow Map, take action to exit the region in 15 minutes.

C. Immediately scram the plant.

D. Verify the runback of RRC-P-1A.

ANSWER: C

QUESTION TYPE: SRO

KA # & KA VALUE: 2.4.11 3.4/3.6 10CFR55.41.1/43.5/45.13

REFERENCE: ABN-CORE rev 0, page 4

SOURCE: **NEW QUESTION -** SRO T3, #16

LO: 6917

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: The loss of SH-6 causes a trip of RRC-P-1B and a loss of all core flow (RRC-P-1A already off). The immediate action for a loss of both RRC Pumps is to scram the plant. A and B are incorrect because there is no direction to determine if the plant is in region A, B, or C. D is incorrect because the pump trips; there is no power. C is correct.

COMMENTS:

EX01037

The plant was operating at 55% power when a scram occurred. The CRO notes several control rods that do not have the "FULL IN" indication on the Full Core Display. These control rods all indicate "00" on the 4 rod display.

Which one of the following explains these indications?

A. The lack of "FULL IN" indications are burned out light bulbs since both "FULL IN" and "00" indications come from the same reed switch.

B. High temperature water from the scram reduces the magnetic strength of the "FULL IN" reed switch causing it to remain open.

C. High control rod speeds during the scram drive the rod past the "FULL IN " reed switch.

D. High control rod speeds during the scram cause the rod to bounce out ½ notch past the 00 notch.

ANSWER: B

QUESTION TYPE: SRO

KA # & KA VALUE: 295006AA2.02 4.3/4.4 10CFR55.41.10/43.5/45.13

REFERENCE: LO000148 rev 9, pages 16, 17, and 19

SOURCE: **NEW QUESTION –** SRO T1, GP1, #4

LO: 5791

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A is incorrect because the FULL IN and the 00 indications do not come from the same reed switches. C is incorrect because the rod does not go past the FULL IN reed switch for a scram. D is incorrect because the indication for the ½ notch out from 00 is --. B is the explanation given in GE SIL #532.

COMMENTS:

EX01038

The plant is operating at 67% power when a complete loss of RCC requires a reactor scram.

Which one of the following describes the reason for this requirement?

The scram is directed because of the loss of cooling to the…

A. CRD pump seals.

B. RHR pump seal coolers.

C. RWCU Non-regen Heat Exchanger.

D. Recirculation Pump motors and seals.

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295018AK1.01 3.5/3.6 10CFR55.41.8/41.10

REFERENCE: 82-RSY-1300-T1 rev 8, page 14

SOURCE: **BANK QUESTION #561 – MODIFIED –** SRO T1, GP2, #7 RO T1, GP2, #11

LO: 6853

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: There is no scram required because of a loss of cooling to A and B. For C, the system isolates before any damage can be done to reactor water chemistry. D is correct. A loss of cooling the Recirc Pumps is an immediate concern.

COMMENTS:

EX01039

Which one of the following is designed to prevent secondary containment overpressurization during postulated piping break between the drywell and the Turbine Building?

A. Standby Gas Treatment.

B. Reactor Building Ventilation.

C. Reactor Building Blowout Panels.

D. Main Steam Tunnel Blowout Panels.

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295035EK1.02 3.7/4.2 10CFR55.41.8/41.10

REFERENCE: 82-RSY-0300-T3 rev 8, page 4

SOURCE: **NEW QUESTION –** SRO T1, GP2. #15 RO T1, GP3, #3

LO: 7003

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: An overpressurization in the Main Steam Tunnel results pressure relief through the MST Blowout panels. This relief minimizes the damage to the Secondary Containment and limits radioactive releases from any other part of the Sec. Cont. S is correct.

COMMENTS:

EX01106

A maintenance worker has received 839 mrem TEDE this calendar year. He is being assigned a job that has been projected to expose him to 1.2 rem TEDE.

Which one of the following is correct for this condition?

A. The task can be completed without any special authorization.

B. The employee's supervisor must approve the expected dose.

C. A Planned Special Exposure must be completed prior to task initiation.

D. The worker can complete the task after completion of an Increased Exposure Request.

ANSWER: D

QUESTION TYPE: SRO

KA # & KA VALUE: 2.3.2 2.5/2.9 10CFR55.41.2/43.4/45.9/45.10

REFERENCE: GEN-RPP-07 rev 3, pages 7 and 8

SOURCE: **NEW QUESTION –** RO T3, #12

LO: 6014

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The projected exposure exceeds the WNP-2 admin exposure limit and requires the completion of an Increased Exposure Request. Because the total dose does not exceed the Federal Limit of 5 rem TEDE per year, a Planned Special Exposure does not have to be completed. D is correct.

COMMENTS:

EX01041

The plant was operating at 91% power when a transient caused reactor water level to decrease and auto initiate HPCS. Reactor level has been recovered to the normal operating band and HPCS has been secured by placing the control switch for HPCS-P-1 in the Normal After Stop position and closing HPCS-V-4 with the control switch. Reactor level is now going down.

Assuming no other operator actions, which one of the following is true?

A. The HPCS System auto initiates with any valid auto start signal.

B. The HPCS System can only be auto initiated with the Arm and Depress pushbutton.

C. HPCS-P-1 must be manually started with the control switch; it will not auto initiate.

D. HPCS-P-1 auto starts with an initiation signal, but HPCS-V-4 has to be manually opened with the control switch.

ANSWER: C

QUESTION TYPE: SRO

KA # & KA VALUE: 209002A4.01 3.7/3.7 10CFR55.41.7/45.5/45.8

REFERENCE: 82-RSY-0900-T3 rev 8, page 9

SOURCE: **NEW QUESITON –** SRO T2, GP1, #3

LO: 5430

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: Stopping HPCS-P-1 and closing HPCS-V-4 with an auto initiation signal present causes a manual override of the auto initiation logic. With no other operator action, the only way for the system to restart is to manually start the pump and open the injection valve. C is correct.

COMMENTS:

EX01042

The plant was operating at 89% power when a transient occurred. The CRS has directed the CRO to open the 7 ADS SRVs by arming and depressing the A and C Logic Channel pushbuttons. When the CRO pushes the pushbuttons, the 7 ADS SRVs open immediately. All 7 ADS SRVs close immediately upon release of the pushbuttons by the CRO.

Which one of the following is correct concerning these conditions?

A. RHR-P-2A is not running.

B. RHR-P-2C is not running.

C. The Division 2 Inhibit switch is in the INHIBIT position.

D. The Division 1 Inhibit switch is in the INHIBIT position.

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 218000K5.01 3.8/3.8 10CFR55.41.5/45.3

REFERENCE: 82-RSY-1100-T3 rev 8, page 3

SOURCE: **NEW QUESTION –** SRO T2, GP1. #11 RO T2, GP1, #17

LO: 5073

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: With all ADS logic made up (all auto contacts made up and the 105 second timer timed out) and the INHIBIT Switches in inhibit, there is no auto initiation. If all ADS logic is made up and the Arm and Depress logic pushbuttons are pushed with the INHIBIT Switches in inhibit, the valves open. When the pushbutton is released, the valves close. D is correct.

COMMENTS:

EX01043

The plant is operating at 99% power. Surveillances have been run on MS-LIS-24A, B, C and D (Reactor level 3 isolation input). The setpoint for MS-LIS-24D was found to be 8.5 inches at 0800. During a review of the surveillance at 2000 it was discovered that appropriate actions have not yet been taken.

Which one of the following is the correct action for these conditions?

A. Place the channel in trip in one hour.

B. Restore the isolation capability in 1 hour.

C. Isolate the affected flowpath(s) in 1 hour.

D. Isolate the affected flowpath(s) in 24 hours.

ANSWER: C

QUESTION TYPE: SRO

KA # & KA VALUE: 223002 2.2.22 2.3/3.5 10CFR55.43.2/45.2

REFERENCE: Tech Spec 3.3.6.1 action F, table 3.3.6.1-1

SOURCE: **NEW QUESTION –** SRO T2, GP1, #13

LO: 9540

RATING: H3

ATTACHMENT: YES - Tech Spec 3.3.6.1 action F, table 3.3.6.1-1

JUSTIFICATION: This setpoint inops the LIS, which results in less than the required number of channels per trip system. 12 hours is the time limit for taking action, which results in the direction to isolate the affected flowpath in F in 1 hour. C is correct.

COMMENTS:

EX01044

The reactor was operating at 96% power when a transient occurred causing reactor level to decrease rapidly. The following conditions exist:

Reactor level	stable at –136 inches for 2 minutes.
SM-8	out of service due to a lockout.
RHR-P-2A	Off
LPCS-P-1	Off

Which one of the following is correct?

The 7 ADS SRVs automatically open…

A. immediately upon the breaker closure of RHR-P-2A or LPCS-P-1.

B. when sufficient discharge pressure develops from RHR-P-2A or LPCS-P-1.

C. as soon as the ADS timer timed out.

D. as soon as level decreased below the setpoint.

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 239002A2.04 4.1/4.2 10CFR55.41.5/45.6

REFERENCE: 82-RSY-1100-T3 rev 8, page 3

SOURCE: **NEW QUESTION –** SRO T2, GP1, #16 RO T2, GP1, #20

LO: 5071

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: With level at –136 inches for 2 minutes, all contacts for ADS initiation are made up except the discharge pressure from at least one RHR or LPCS pump. As soon either RHR-P-2A or LPCS-P-1 have sufficient discharge pressure, the 7 ADS valves auto open. B is correct.

COMMENTS:

EX01045

A plant startup is underway with the following conditions:

Reactor power	approximately 2% to 3%.
IRM A	75/125 R 8
IRM B	39/40 R 7
IRM C	45 /125 R 8

The CRO places the control switch for IRM C on Range 9.

Which one of the following is correct for these conditions?

A. There is a ½ scram on RPS B and a Rod Block from IRM B. A full Scram is generated when the CRO places the Range Switch for IRM C on R 9.

B. There is a ½ scram on RPS B and a Rod Block from IRM B. Another rod block is generated when the CRO places the Range Switch for IRM C on R 9.

C. A ½ scram on RPS A is generated from IRM A at 75 on R8.

D. A ½ scram on RPS A is generated from placing the Range Switch for IRM C on R 9.

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 215003A1.05 3.9/3.9 10CFR55.41.5/45.5

REFERENCE: LO000138 rev 7, pages 9 and 13

SOURCE: **NEW QUESTION –** SRO T2, GP2, #2 RO T2, GP1, #8

LO: 5459/5453

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: A reading of 40 on IRM B on Range 7 causes a ½ scram on RPS B. Ranging IRM C to range 9 causes an addition downscale rod block on IRM C. B is correct.

COMMENTS:

EX01046

The plant is operating at 92% power when a broken line causes the main CIA header pressure to decrease to 0 psig.

Based on the design of the system, which one of the following is correct for these conditions?

A. All SRVs can be opened 1 time from P601.

B. All SRVs can be opened 5 times from P628/P631.

C. Only ADS SRVs can be opened from P601.

D. Only ADS SRVs can be opened and must be opened from P628/P631.

ANSWER: A

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 239001K6.02 3.2/3.2 10CFR55.41.7/45.7

REFERENCE: 82-RSY-0100-T4 rev 9, pages 7 and 8 82-RSY-0600-T3 rev 5, page 1

SOURCE: **NEW QUESTION –** SRO T2, GP3, #2 RO T2, GP2, #9

LO: 7748

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: D is incorrect because a loss of the CIA header allows the use of all SRVs at least one time with the reactor at pressure. B is incorrect because only ADS SRVs can be operated from P628/631. C is incorrect all SRVs can be opened 1 time from P601. A is correct.

COMMENTS:

EX01047

The reactor was operating at 95% power when a reactor scram signal occurred. No control rods inserted. You have been directed to INHIBIT ADS.

Which one of the following describes the reason for this direction?

ADS is inhibited to prevent…

A. flashing of the RPV level instrument reference legs.

B. avoidable heat addition to the Suppression Pool.

C. uncontrolled injection from low-pressure injection systems.

D. cooldown before hot shutdown boron weight is injected.

ANSWER: C

QUESTION TYPE: SRO

KA # & KA VALUE: 295037EA2.06 4.0/4.1 10CFR55.41.10/43.5/45.13

REFERENCE: PPM 5.0.10 rev 6, page 145

SOURCE: **BANK QUESTION #675 – DIRECT –** SRO T1, GP1, #23

LO: 8089

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: PPM 5.0.10 states that ADS is inhibited to prevent rapid and uncontrolled injection from low-pressure systems. C is correct.

COMMENTS:

EX01048

A Main Turbine Startup is underway. The Turbine is accelerating towards 1800 RPM. A failure causes the loss of DC power from DP-S1-2B to the 20 AST solenoid coincidentally with a malfunction that causes the Turbine Throttle Valves to ramp open.

Which of the following is the result of this malfunction?

The Turbine trips from a/an…

A. electrical overspeed.

B. mechanical overspeed.

C. OPC solenoid.

D. Throttle Valve position.

ANSWER: B

QUESTION TYPE: SRO

KA # & KA VALUE: 295005AA2.01 2.6/2.7 10CFR55.41.10/43.5/45.13

REFERENCE: LO000129 rev 8, pages 23, 24, 25, 30, and 31

SOURCE: **NEW QUESTION –** SRO T1, GP2, #2

LO: 7020/5564

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The loss of DC causes the loss of the 20 AST trip. A and C both input to the 20 AST solenoid, so they are incorrect. There is no Turbine Trip from Throttle valve position, so D is incorrect. B is correct. Because the Turbine is not synced to the grid, the only thing to slow it down/trip the turbine is the Mechanical Overspeed trip.

COMMENTS:

EX01049

The plant was operating at 99% power when a Load Rejection occurred on the Main Generator.

Which one of the following is correct for this condition?

Both Recirc Pumps…

A. are running at 15 hz.

B. are running at 60 hz.

C. trip off with CB-RPT-3A and CB-RPT-3B tripped open.

D. trip off with CB-RPT-3A, 3B, 4A, and 4B tripped open.

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295005AA1.01 3.1/3.3 10CFR55.41.7/45.6

REFERENCE: 82-RSY-1000-T1 rev 11, pages 13 and 14

SOURCE: **NEW QUESTION –** SRO T1, GP1, #3 RO T1, GP1, #1

LO: 5023

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A Main Turbine Trip at greater than 30% power causes the EOC-RPT Logic to initiate. This causes both CB-RPT-3s and 4s to open to trip the pumps, as opposed to a level 3 Recirc trip that only opens the 3s. D is correct.

COMMENTS:

EX01050

The plant was operating at 99% power when a transient occurred. After the plant stabilized, both Recirc Pumps were operating at 15 hz. No operator actions have been taken.

Which one of the following caused these indications?

A. Reactor level of -5 inches.

B. Reactor Pressure of 1128 psig.

C. Main Turbine Trip.

D. COND-P-2A trip.

ANSWER: A

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295006AA1.04 3.1/3.2 10CFR55.41.7/45.6

REFERENCE: 82-RSY-1100-T1 rev 11, pages 23 and 24

SOURCE: **NEW QUESTION –** SRO T1, GP1, #3 RO T1, GP1, #2

LO: 9684

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: Reactor level less than +13 inches causes a Recirc Speed runback to 15 hz. B and C would both cause the RRC pumps to trip off. D should cause a loss of feedwater and a loss of both RRC Pumps because level would go to –50 inches. However, if there was no loss of feedwater, both RRC pumps would remain operating at their former speed and D is still incorrect. A is correct.

COMMENTS:

EX01051

The plant is in MODE 5 with movement of irradiated fuel assemblies in progress. A leak develops in the drywell bellows seal and reactor level slowly decreases to 20 ½ feet above the RPV Flange.

Which one of the following is correct Tech Spec action for these conditions?

A. Start at least one Recirc Loop in 2 hours.

B. Start the second RHR Loop in Shutdown Cooling in 2 hours.

C. If level is not restored in 15 min, suspend all movement immediately.

D. Suspend movement of irradiated fuel assemblies within the RPV immediately.

ANSWER: D

QUESTION TYPE: SRO

KA # & KA VALUE: 295023 2.1.11 3.0/3.8 10CFR55.43.2/45.8

REFERENCE: Tech Spec 3.9.6

SOURCE: **NEW QUESTION –** SRO T1, GP1, #16

LO: 6926

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A is incorrect because there is no direction to start a Recirc Loop with low level in the RPV. B and C are both incorrect due to the times listed. D is correct for the conditions given per TS 3.9.6.

COMMENTS:

EX00096

The plant is operating at 99% power with a small steam leak in the drywell. All systems are operable. RCIC is in operation for a surveillance. The following conditions exist

Wetwell temperature	91°F
Drywell temperature	132°F
Wetwell level	+1.8 inches
Drywell pressure	1.1 psig

Which ONE of the following is correct concerning these conditions?

A. One loop of RHR in operation is adequate for wetwell temperature reduction.

B. HPCS is operated with flow to the Condensate Storage Tanks to reduce the increasing suppression pool level.

C. Operation of available drywell cooling is maximized prior to initiation of more complex actions to terminate the increasing drywell temperature.

D. The drywell is vented through CEP-V-1A and CEP-V-2A, 24 inch drywell vent valves to prevent exceeding the drywell initiation pressure.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295028EK3.04 3.6/3.8 10CFR55.41.5/45.6

REFERENCE: PPM 5.0.10 rev 6, page 250

SOURCE: **BANK QUESTION #EX00096 –** SRO T1, GP1, #12 RO T1, GP2, #15

LO: 8312

RATING: H3

ATTACHMENT: YES – PPM 5.2.1 Wetwell Temp, drywell temp, wetwell level, and drywell pressure legs.

JUSTIFICATION: The use of available drywell cooling is directed prior to the initiation of more complex actions by PPM 5.0.10. A, B, and D are all incorrect actions for the give conditions. C is correct.

COMMENTS:

EX01053

The plant is operating at 97% power when annunciator SPRAY HEAD TO TOP OF CORE PLATE ΔP HIGH for the High Pressure Core Spray System illuminates.

Which one of the following is correct concerning this condition?

SLC…

A. injection is not affected.

B. may not be able to be directly injected into the core if needed.

C. will only inject if HPCS is running.

D. will only inject if HPCS is off.

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 211000K1.09 3.2/3.4 10CFR55.41.2-41.9/45.7-45.8

REFERENCE: PPM 4.601.A1.4-8 rev 13, page 32 82-RSY-0900-T1 rev 8, page 14

SOURCE: **NEW QUESTION –** SRO T2, GP1, #5 RO T2, GP1, #5

LO: 5922

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: The annunciator referenced indicates a break in the HPCS injection line between the reactor vessel wall and the core shroud. This failure would not allow SLC or HPCS to inject into the core area. B is correct.

COMMENTS:

EX01054

The plant was operating at 98% power when a loss of all feedwater occurred. All plant equipment initiated as designed.

Assuming no operator action, which one of the following is correct?

A. RCIC-V-45 closes at +54.5 inches and has to be manually opened before the RCIC Turbine restarts at the setpoint.

B. RCIC-V-1 trips at +54.5 inches and has to be reset from the control room before it can be restarted.

C. The HPCS DG High Crankcase Pressure trip is bypassed.

D. The HPCS DG Generator Differential Relay trip is bypassed.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 264000A1.04 2.6/2.7 10CFR55.41.5/45.5

REFERENCE: LO000200 rev8, page 26

SOURCE: **NEW QUESTION –** SRO T2, GP1, #22 RO T2, GP1, #27

LO: 5323

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A and b are both incorrect because RCIC-V-1 does not trip at +54.5 inches. D is incorrect because the Generator Differential Relay trip is 1 of 4 trips **not** bypassed with an auto start on low level. C is correct because high crankcase pressure is bypassed with an auto start on low level.

COMMENTS:

EX01055

The plant is operating at 95% power with HPCS-P-1 in Full Flow Test at 6000 gpm for surveillance. The HPCS PUMP RM WATER LEVEL HIGH annunciator illuminates. Ops 2 has verified the water level on the floor above the alarm setpoint and increasing.

Which one of the following are the required **immediate** actions for this condition?

A. Makeannouncement over the PA for personnel to evactuate the area and start LPCS-P-1 in anticipation of the loss of HPCS-P-2 HPCS/LPCS Water Leg Pump.

B. Enter PPM 5.3.1 Secondary Containment Control and make announcement over the PA for personnel to evacuate the area.

C. Make announcement over the PA to alert Maintenance personnel and stop HPCS-P-1.

D. Stop HPCS-P-1 and enter PPM 5.3.1 Secondary Containment Control.

ANSWER: D

QUESTION TYPE: SRO

KA # & KA VALUE: 290001 2.4.11 3.4/3.6 10CFR55.41.1/42.5/45.13

REFERENCE: PPM 4.12.4.10 rev 8, page 2

SOURCE: **NEW QUESTION –** SRO T2. GP1, #23

LO: 7555

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: A, B, and C are all incorrect because they contain either actions not required or subsequent actions. The immediate actions in the procedure are those listed under D. D is correct.

COMMENTS:

EX01056

The plant is in MODE 5 with fuel movement underway when the Bridge Air Compressor fails.

Which one of the following is inoperable without this air supply?

A. Main Hoist Safety Brake

B. Main Trolley Auxiliary Hoist Safety Brake

C. Main Hoist Grapple

D. Main Trolley Auxiliary Hoist

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 234000K6.04 2.9/3.7 10CFR55.41.7/45.7

REFERENCE: 82-RSY-1500-T1 N rev 8, pages 10 and 20

SOURCE: **NEW QUESTION –** SRO T2, GP2, #7 RO T2, GP3, #2

LO: NO LO

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: A, B, and D are all incorrect because they are AC solenoid operated or AC powered. C is correct because the loss of the Bridge air compressor inops the Main hoist Grapple.

COMMENTS:

The plant is operating at 98% power. It is turnover time for dayshift. The oncoming crew composition is as follows:

Shift Manager	1
Control Room Sup.	1
Shift Support Sup.	1
Control Room Oper.	3
Equip. Operator	4 – 1 is Fire Brigade Leader qualified, 3 not FB qualified
STA	1
HP	3
Chemistry	1
Elec/I+C	1
Mech Maint.	1
SCC Duty Officer	1
Security Responder	1
Plant Laborer	1

Which one of the following is correct for these conditions?

A. One EO (Fire Brigade qualified) must be held over from the previous shift until a replacement can be found for Fire Brigade requirements.

B. Two EOs (Fire Brigade qualified) must be held over from the previous shift until replacements can be found for Fire Brigade requirements.

C. The crew can take the watch as long as the Chemistry Tech is Fire Brigade qualified.

D. The crew can take the watch as long as the Control Room Supervisor is Fire Brigade qualified and assumes the position of Fire Brigade Leader.

ANSWER: A

QUESTION TYPE:	RO/SRO
KA # & KA VALUE:	2.1.3 3.0/3.4 10CFR55.41.1/45.13
REFERENCE:	PPM 1.3.1 rev 49, page 42
SOURCE:	**NEW QUESTION –** SRO T3, #4 RO T3, #2
LO:	6071
RATING:	H2
ATTACHMENT:	NONE
JUSTIFICATION:	All positions are filled as required except for the EO FB positions. PPM 1.3.1 requires at least 2 EOs be FB qualified. A is correct.
COMMENTS:	

EX01058

Which one of the following is designed to minimize the affects of the Design Basis Rod Drop Accident?

A. APRM Upscale scram (Mode Switch not in Run)

B. IRM Upscale scram

C. Rod Block Monitor

D. Rod Worth Minimizer

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295014AK1.05 3.7/4.2 10CFR55.41.8-41.10

REFERENCE: 82-RSY-0600-T1 rev 9, pages 1 and 28

SOURCE: **NEW QUESTION –** SRO T1, GP1, #11 RO T1, GP1, #5

LO: 5904

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: The RWM is designed to limit the fuel enthalpy surrounding fuel during the DB Rod Drop accident to less than 280 cal/gram. D is correct.

COMMENTS:

EX01059

The plant was operating at 99% power when a DBA LOCA occurred. A failure in the reactor pressure sensing instrumentation caused the indicated reactor pressure to increase to 1200 psig. You have been directed to start MSLC.

Which one of the following describes the effect on the operation of MSLC?

A. MSLC-FN-1 does not start. No MSLC valves open.

B. MSLC-FN-2 starts. MSLC-V-9 and 10 auto close.

C. MSLC-V-3A through 3D open (inboard bleed valves).

D. MSLC-V-1A through 1D open (inboard depressuization valves).

ANSWER: A

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 216000K3.11 2.8/2./8 10CFR55.41.7/45.4

REFERENCE: 82-RSY-0500-T3 rev 8, pages 7 and 8

SOURCE: **NEW QUESTION –** SRO T2, GP1, #8 RO T2, GP1, #14

LO: 7612

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION:
COMMENTS: With the reactor pressure inputGT 41 psig, no fans start and no valves auto open or close. A is the correct answer.

EX01060

The plant was operating at power when a Lockout on SM-7 occurred.

Which one of the following describes the location to send an operator to verify the operation of IN-3?

A. SM-7 Switchgear Room

B. SM-8 Switchgear Room

C. RPS-A MG Set-1 Room

D. RPS-B MG Set-2 Room

ANSWER: C

QUESTION TYPE: SRO

KA # & KA VALUE: 262001 2.4.35 3.3/3.5 10CFR5543.5/45.13

REFERENCE: M575

SOURCE: **NEW QUESTION –** SRO T2, GP1, #15

LO: NO LO

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: IN-3 is located in the RPS-A MG Set Room. C is correct.
COMMENTS:

EX01061

The plant was operating at power with BKR B-8 tagged out for maintenance. A fault caused BKR 3-8 to open.

Which one of the following is correct response for these conditions?

A. IRM-A indicates UPSCALE TR OR INOP, UPSCALE ALARM, and DNSC on P603.

B. IRM-B indicates UPSCALE TR OR INOP, UPSCALE ALARM, and DNSC on P603.

C. RBM-A indicates UPSCALE, INOP, and DOWNSCALE on P603.

D. RBM-B indicates UPSCALE, INOP, and DOWNSCALE on P603.

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 215002K2.01 2.5/2.8 10CFR55.41.7

REFERENCE: 82-RSY-0800-T1 rev 8, page 17

SOURCE: **NEW QUESTION –** SRO T2, GP2, #1 RO T2, GP2, #3

LO: 5700

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: A, B, and C are all incorrect because none are powered from RPS-B. A loss of RPS-B causes the panel indications given in D. D is correct.

COMMENTS:

EX01117

You have been given an operability procedure for HPCS to perform. A number of the steps in the procedure are preceded by a # in the left margin.

Which one of the following is correct concerning the # symbol?

The # symbol is used to denote a step in the procedure which requires successful completion for compliance with…

A. Licensee Controlled Specifications.

B. Fire Protection.

C. Tech Specs.

D. Offsite Dose Calculation Manual.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 2.1.10 2.7/3.9 10CFR43.1/45.13

REFERENCE: SWP-PRO-03 rev 3, pages 26 and 27

SOURCE: **NEW QUESTION –** RO T3, #4

LO: NO LO

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: At WNP-2 all steps in procedures that have to be completed for Tech Spec compliance are annotated with a # symbol. C is correct.

COMMENTS:

The plant was operating at 46% power when a Large Break LOCA occurred. After the main turbine tripped, bkrs S-1, S-2, and S-3 failed to close.

Following reenergization of SM-7 &8, which one of the following is correct for these conditions?

The restart of…

A. RHR-P-2A and RHR-P-2B is delayed 10 seconds.

B. RHR-P-2A and RHR-P-2B is delayed 5 seconds.

C. LPCS-P-1 and RHR-P-2C is delayed 10 seconds.

D. LPCS-P-1 and RHR-P-2C is delayed 5 seconds.

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295003AK3.03 3.5/3.6 10CFR55.41.5/45.6

REFERENCE: 82-RSY-1300-T3 rev 9, pages 9 and 10

SOURCE: **NEW QUESTION –** SRO T1, GP1, #1 RO T1, GP2, #2

LO: 5779

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: When SM-7 and SM-8 are powered for any source except TR-S, RHR-P-2C and LPCS-P-1 start immediately upon the re-enerization of the bus. RHR-P-2A and RHR-P-2B start 5 seconds later to prevent overloading the divisional power supply. A, C, and D are all incorrect because of the time delay (C and D additionally because the neither DG load to the bus). B is correct.

COMMENTS:

EX01064

The plant was operating at 28% power when a failure caused a full MSIV Isolation. One of the SRV tailpipes has sheared off just below the Drywell Floor. Suppression Chamber Pressure is 21 psig.

Which one of the following is correct for these conditions?

At this point, the expected Drywell Pressure is approximately…

A. 19.5 psig.

B. 20.5 psig.

C. 21.5 psig.

D. 22.5 psig.

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295024EA1.16 3.4/3.4 10CFR55.41.7/45.6

REFERENCE: TS 3.6.1.7 SR3.6.1.7.3

SOURCE: **NEW QUESTION –** SRO T1, GP1, #17 RO T1, GP1, #8

LO: 5636

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: The Wetwell/Drywell vacuum breakers open and maintain approximately .5 psig differential from the wetwell to the drywell. B is correct.

COMMENTS:

EX01065

With reactor level GT TAF, operation of HPCS Pump is **not** allowed with Suppression Pool level LT the Vortex Limit of the pump.

Which one of the following is the basis for this limitation/

A. Air entrainment could occur and cause system damage during subsequent restarts.

B. Air entrainment can cause pitting and failure in the spray ring nozzles.

C. Loss of NPSH resulting in a pump trip from low suction pressure.

D. Loss of NPSH resulting in pump runout and motor overheating.

ANSWER: A

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295030EK2.05 3.8/3.9 10CFR55.41.7/45.8

REFERENCE: PPM 5.0.10 rev 6, pages 97 and 115

SOURCE: **BANK QUESTION #332 – MODIFIED –** SRO T1, GP1, #20 RO T1, GP2, #17

LO: 8388

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: A is correct because that is the basis given in 5.0.10. B is incorrect because air entrainment is not know to cause spray ring nozzle failures. C is incorrect because there is no low suction pressure trip for HPCS. D is incorrect because low NPSH would not cause runout and motor overheating.

COMMENTS:

The plant was operating at 98% power when a failure caused all power connections between ASHE Substation and WNP-2 to trip open. One hour later, the following conditions exist at WNP-2:

Reactor Level	36 inches
Reactor Pressure	544 psig
Reactor Power	0% all rods in
RCIC	in operation for level control
Charger C1-1	failed, out of service
Battery B1-1	106 VDC
TRS	out of service

Which one of the following is correct for these conditions?

A. Maintain reactor level with Condensate Booster pumps and RFW-FCV-10A/B.

B. Stop RCIC and start HPCS for reactor level control.

C. Continue the shutdown, using the BPVs for pressure control.

D. Reset one Reactor Feedpump for level control.

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295004AK1.04 2.8/2.9 10CFR55.41.8/41.10

REFERENCE: PPM 4.7.8.1.A rev 0, pages 1-3

SOURCE: **NEW QUESTION –** SRO T1, GP2, #1 RO T1, GP2, #3

LO: 7652

RATING: H3

ATTACHMENT: YES - PPM 4.7.8.1.A rev 0, pages 1-3

JUSTIFICATION: With the loss of C1-1 and the low voltage, RCIC needs to be secured and HPCS started. Feedwater/Condensate is unavailable due to the loss of power. The BPVs are unavailable due to the MSIV Isolation from the loss of power. B is correct.

COMMENTS:

EX01067

A plant shutdown is underway. The Main Turbine has been tripped. Reactor power is 20%

Which one of the following is the correct Bypass Valve position for this power?

All Bypass Valves at approximately…

A. 60%

B. 70%

C. 80%

D. 90%

ANSWER: C

QUESTION TYPE: SRO

KA # & KA VALUE: 241000K4.19 3.6/3.7 10CFR55.41.7

REFERENCE: PPM 3.1.2 rev 53, page 54

SOURCE: **NEW QUESTION –** SRO T2, GP1, #17

LO: NO LO

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The MT BPVs pass 25% steam flow/reactor power when they are 100% open. 20% power is 80% of the capacity of the BPV and therefore is the expected position. C is correct.

COMMENTS:

The plant was operating at 45% power when a lockout occurred on BKR S-2. HPCS-P-2 (Service Water Pump) did not start.

Which of the following is correct for these conditions?

A. Trip HPCS-P-1 when it is determined unnecessary for adequate core cooling.

B. Trip HPCS-P-1 immediately at P601.

C. Immediately trip DG-3 at P601.

D. Immediately trip DG-3 at the local diesel control panel.

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 2.4.24 3.3/3.7 10CFR55.41.10/45.13

REFERENCE: ABN-SW rev 0, page 1

SOURCE: **NEW QUESTION –** SRO T3, #15 RO T3, #12

LO: 7846

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The only immediate action for a loss of HPCS-P-2 is to immediately trip DG-3. DG-3 has to be tripped locally at the control panel because of the auto start. D is correct.

COMMENTS:

EX01069

The plant was operating at 94% power when the "DRYWELL PRESS HIGH TRIP" annunciator illuminated on both A7 and A8 annunciator panels on P603. All plant equipment functioned as designed except 2 control rods, which are at position 04.

Which one of the following is correct concerning these conditions?

Enter PPM…

A. PPM 5.1.1 RPV Control, PPM 3.3.1 Reactor Scram and PPM 5.4.1 Secondary Containment Control.

B. PPM 3.3.1 Reactor Scram, PPM 5.2.1 Primary Containment Control, and PPM 5.4.1 Secondary Containment Control.

C. PPM 5.1.1 RPV Control, PPM 5.1.2 RPV Control ATWS, and PPM 5.2.1 Primary Containment Control.

D. PPM 5.1.2 RPV Control ATWS, PPM 5.2.1 Primary Containment Control, and PPM 5.4.1 Secondary Containment Control.

ANSWER: C

QUESTION TYPE:	SRO
KA # & KA VALUE:	295010 2.4.10 10CFR55.41.10/43.5/45.13
REFERENCE:	Entry conditions for PPM 5.1.1, 5.1.2, 5.2.1
SOURCE:	**NEW QUESTION -** SRO T1, GP1, #7
LO:	8017
RATING:	H2
ATTACHMENT:	NONE
JUSTIFICATION:	The high DW pressure trip causes a reactor scram and an entry into both PPM 5.1.1 and 5.2.1. With 2 control rods not full in, entry into 5.1.2 is required from 5.1.1. C is correct.
COMMENTS:	

EX01070

A control rod is being withdrawn for a plant startup. A ROD DRIFT annunciator is received on a control rod that is not selected (it is drifting out). Shortly thereafter, an SRM PERIOD FAST annunciator illuminates. Reactor period is 48 seconds.

Which one of the following is the correct **immediate** action for these conditions?

A. Stop control rod withdrawal.

B. Scram the reactor.

C. Insert the selected control rod to 00

D. Insert the drifting control rod to 00.

ANSWER: A

QUESTION TYPE: SRO

KA # & KA VALUE: 295014AA2.02 3.9/3.9 10CFR55.41.10/43.5/45.13

REFERENCE: PPM 4.603.A7 rev 23, page 49 PPM 4.1.1.1 rev 13, page 2

SOURCE: **NEW QUESTION –** SRO T1, GP1, #10

LO: 6695

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The immediate action for a rod drift/fast period is to terminate rod movement. A is the correct answer.

COMMENTS:

EX01071

The reactor was operating at 98% power when an Inop trip on APRM-A coincident to a failure on RPS-B caused a full scram. Reactor level is in automatic on RFW-LIC-620 (RFW-FCV-10A/B) at 36 inches with pressure control on the Bypass Valves at 736 psig. The scram is reset.

Assuming no operator action, which one of the following describes plant response to a subsequent failure of all Bypass Valves full open?

A. Reactor level decreases to approximately –20 inches and the Recirc pumps trip.

B. Reactor level decreases to approximately –20 inches and the Recirc pumps runback to 15 hz.

C. Reactor level increases to approximately +57 inches and returns +36 inches with Condensate/Condensate Booster pumps feeding through RFW-FCV-10A/B in automatic.

D. Reactor level increases to approximately +57 inches and returns +36 inches with reactor feed pumps feeding through RFW-FCV-10A/B in automatic.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295025EK1.06 3.5/3.6 10CFR55.41.8/41.10

REFERENCE: WNP-2 LER 2000-003-00

SOURCE: **NEW QUESTION –** SRO T1, GP1. #17 RO T1, GP1, #9

LO: 6737

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: As per the LER, reactor level increases and causes the trip of both feed pumps. When pressure decreases to LT 650 psig, level control returns to +36 inches with Condensate/Condensate Booster Pumps. C is correct.

COMMENTS:

EX00058

A plant shutdown is in progress at 24% power when an air leak develops in the Main Condenser. Off Gas flow is increasing at a rapid rate.

Assuming no operator action, which one of the following is correct for this condition?

The plant will scram from…

A. high RPV pressure.

B. low RPV water level.

C. MSIV isolation.

D. main turbine trip.

ANSWER: C

QUESTION TYPE: SRO

KA # & KA VALUE: 295002AA2.04 2.8/2.9 10CFR55.41.10/43.5/45.13

REFERENCE: PPM 4.6.5.1 rev 10, page 2

SOURCE: **BANK QUESTION #00058 - DIRECT –** SRO T1, GP2, #2

LO: 5621 5949

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The leak causes a loss of main condenser vacuum. As vacuum decreases, the turbine trips but does not scram the reactor with load less than 30 %. At 8.3 inches HG, the MSIVs close and cause a scram as long as the MODE SWITCH is in RUN. C is the correct answer.

COMMENTS: Added RPV to A and B for clarification.

The reactor is at 35% power following a refueling/maintenance outage. A pile of leftover outage debris, outside of the Tip Room, has caught on fire and caused an alarm in the control room. There is visible damage to cable and equipment in the area. All immediate actions have been performed.

Which one of the following is correct for these conditions?

A. Use MS-LR/PR-623B for level indication and immediately scram the reactor if C2-1 voltage is LT 220 volts.

B. Use MS-LR/PR-623B for level indication and start RHR-P-2B within 1 hour or verify locally that RHR-P-3 is running within one hour and each hour thereafter.

C. RFW-LI-606B and MS-LR/PR-623B are both affected by the fire. Ensure RFW-LI-606A is selected for input to the feedwater level control system.

D. RFW-LI-606B and MS-LR/PR-623B are both affected by the fire. Ensure RFW-LI-606C is selected for input to the feedwater level control system.

ANSWER: B

QUESTION TYPE: SRO

KA # & KA VALUE: 295032EA2.01 3.8/3.8 10CFR55.41.10/43.5/45.13

REFERENCE: PPM 4.12.4.1 rev 26, pages 3-7, 10, 30, 31, and 34

SOURCE: **NEW QUESTION –** SRO T1, GP2, #12

LO: 6904

RATING: H3

ATTACHMENT: YES - PPM 4.12.4.1 rev 26, pages 3-7, 10, 30, 31, and 34

JUSTIFICATION: This fire is located of the northeast corner on the 501 elevation of the reactor building. This is Appendix R fire area R-1. The protected level instrument is MS-LR/PR-623B. Of the listed actions, only the actions of B are required for this fire. B is correct.

COMMENTS:

EX01074

The plant was operating at 57% power when a LOCA occurred. HPCS-P-1 is injecting into the RPV at 4950 gpm; LPCS-P-1 is injecting into the RPV at 1300 gpm. Reactor level is –209 inches and stable.

Which one of the following is true concerning these conditions?

Adequate core cooling is maintained by …

A. Core Submergence.

B. Steam Cooling without injection.

C. Steam Cooling with injection.

D. Spray Cooling.

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 209001K5.04 2.8/2.9 10CFR55.41.8/45.3

REFERENCE: PPM 5.0.10 rev 6 pages 20 and 21.

SOURCE: **NEW QUESTION –** SRO T2, GP1, #2 RO T2, GP1, #4

LO: 8041

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: PPM 5.0.10 gives the definition of Adequate Core Cooling as reactor level GT –210 and combined HPCS and LPCS flowrate of at least 6000 gpm. D is correct.

COMMENTS:

X01075

The plant was operating at 100% power when a DBA LOCA occurred. Fuel damage has occurred along with a failure of primary containment. SGT-FN-1A1 has been in operation for the last 15 minutes. SGT-EHC-1A1 now fails.

Which one of the following is correct for these conditions?

The loss of heating causes the efficiency of the…

A. final HEPA Filter to decrease resulting in the offsite dose from the radioactive charcoal dust increasing.

B. pre-filter to decrease resulting in the offsite dose from radioactive dust increasing.

C. charcoal adsorbers to decrease resulting in the offsite dose from Iodine increasing.

D. moisture separators to decrease resulting in the offsite dose from Iodine increasing.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 261000A1.03 3.2/3.8 10CFR55.41.5/45.5

REFERENCE: 82-RSY-1400-T3 rev 10, pages 3-5

SOURCE: **NEW QUESTON -** SRO T2, GP1, #19 RO T2, GP1, #25

LO: 5825

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The electric heating coils heat the incoming containment atmosphere and reduce the moisture content of the process flow. This reduction in the moisture content increases the efficiency of the charcoal HEPA filters, which increases the amount of Iodine adsorbed in the filter. Thus the offsite release of Iodine is reduced. C is correct.

COMMENTS:

EX01076

The reactor was operating at 94% power when a leak in the suction line of RRC-P-1A caused a scram. It is now 4 minutes following the scram. Reactor level is –45 inches and going up. Reactor Pressure is 430 psig.

Which one of the following is correct concerning these conditions?

The operator can start…

A. RHR-P-2A and inject into the core with the Heat exchanger bypass open.

B. RHR-P-2A and inject into the core with the Heat exchanger bypass closed.

C. RHR-P-2B in Suppression Pool Cooling with the Heat exchanger bypass remaining closed.

D. RHR-P-2B in Suppression Pool Cooling with the Heat exchanger bypass remaining open.

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 219000K1.01 3.8/3.9 10CFR55.41/45

REFERENCE: 82-RSY-1300-T3 rev 9, pages 4 and 21

SOURCE: **NEW QUESTION –** SRO T2, GP2, #3 RO T2, GP2, #4

LO: 5774

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A and B are incorrect because the pump will not inject at 430 psig reactor pressure; it has to be less than 220 psig. C is incorrect because the bypass opens and stays open for 10 minutes following the initiation signal even if given a close signal with the control switch. D is correct.

COMMENTS:

EX01077

RHR-A loop was in Suppression Pool Spray when a LOCA occurred.

Which one of the following is correct concerning these conditions?

A. RHR-V-27A, Suppression Pool Spray auto closes, cannot be reopened until the LOCA signal has been reset.

B. RHR-V-27A, Suppression Pool Spray auto closes, cannot be reopened until RHR-V-42A, RPV Injection, is closed.

C. RHR-V-42A, RPV Injection does not open until RHR-V-27A, Suppression Pool Spray, is closed.

D. RHR-V-42A, RPV Injection, opens; RHR-V-27A, Suppression Pool Spray, must be manually closed.

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 230000K4.03 3.5/3.6 10CFR55.41.7

REFERENCE: 82-RSY-1300-T3, rev 9, pages 18 and 19

SOURCE: **BANK QUESTION #3314 – MODIFIED –** SRO T2, GP2, #5 RO T2, GP2, #8

LO: 5781

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The initiation signal causes RHR-V-27A to close and RHR-V-42A to open. With the initiation signal and 42A open, 27A will not open. It only opens with the accident signal if the 42A valve is closed. B is correct.

COMMENTS:

EX01078

The annunciator for MSLC LINE A FLOW HIGH is disabled as part of a TMR.

Which one of the following describes who is required to review the TMR Log once per shift?

A. Control Room Supervisor or the Shift Manager

B. Control Room Supervisor and the Shift Manager

C. On duty Work Team Supervisor

D. Shift Support Supervisor

ANSWER: A

QUESTION TYPE: SRO

KA # & KA VALUE: 239003 2.4.33 2.4/2.8 10CFR55.41.10/43.5/45.13

REFERENCE: PPM 1.3.9 rev 26, page 23

SOURCE: **NEW QUESTION** - SRO T2, GP2, #8

LO: 6288

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: As stated in PPM 1.3.9, either the CRS or the SM can perform the required once per shift TMR Log verification.

COMMENTS:

EX01079

The plant is operating at 99% power. Bus SM-82 is tagged out for maintenance. A failure causes a lockout on SM-75. All plant equipment operates as designed.

Which one of the following is correct for these conditions?

A. Drywell Pressure decreases.

B. Main Condenser Back Pressure decreases

C. Main Turbine Lube Oil Temperature increases.

D. CW Pit Level increases.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 400000A2.03 2.9/3.0 10CFR55.41.5/45.6

REFERENCE: ABN-TMU rev 0, page 2 LO000193 rev 10, page20

SOURCE: **NEW QUESTION –** SRO T2, GP2, #13 RO T2, GP2, #19

LO: 5252

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A and B are both incorrect because the loss of TMU cause both to increase. D is incorrect because the loss of TMU causes a loss of makeup to the CW Pit. C is correct because the loss of TMU causes an increase in the TSW temperature and an increase in MLO temperature.

COMMENTS:

EX01080

The plant is operating at 67% power. A large instrument air leak has developed in the area of COND-V-76 Condensate Demin Bypass.

Which one of the following is correct for this condition?

A. Manually open COND-V-76.

B. Close CAS-V-155, RW Building isolation.

C. Close CAS-V-153, TB 441 isolation.

D. Take the immediate scram actions.

ANSWER: B

QUESTION TYPE: SRO

KA # & KA VALUE: 268000 2.1.20 4.3/4.2 10CFR55.41.10/43.5/45.12

REFERENCE: ABN-CAS rev 0, page 4

SOURCE: **NEW QUESTION –** SRO T2, GP3, #3

LO: NO LO

RATING: H3

ATTACHMENT: YES – ABN-CAS rev 0, pages 1, 3, and 4

JUSTIFICATION: A is incorrect because COND-V-76 fails open on loss of air. C is incorrect because the air leak is in the Radwaste Building. D is incorrect because on the loss of air, COND-V-76 opens and does not starve the condensate system for water. B is correct per the given procedure.

COMMENTS:

EX01081

Which one of the following events requires an entry into the Barrier Impairment Log.

A. Replacement of the WNA-FU-54A (Control Room Emerg. Filter) charcoal adsorber.

B. Propping both control room doors open to allow passage of a supervisory panel.

C. De-energizing and danger tagging of WMA-FN-51 (toilet/kitchen exhaust fan).

D. Repair of WMA-AD-51A1 (fresh air inlet damper) actuator

ANSWER: A

QUESTION TYPE: SRO

KA # & KA VALUE: 2.2.14 2.1/3.0 10CFRE55.43.3/45.13

REFERENCE: PPM 1.3.57 rev 13, pages 7 and 23-26

SOURCE: **BANK QUESTION #3987 – DIRECT –** SRO T3, #8

LO: 8596

RATING: H2

ATTACHMENT: YES - PPM 1.3.57 rev 13, pages 7 and 23-26

JUSTIFICATION: B, C, and D are all incorrect because the do not require a barrier impairment. Only A does because it requires the opening/removal for ductwork to or from the main control room. A is correct.

COMMENTS:

EX01082

A plant shutdown is underway for a refuel outage. Reactor pressure has been reduced to 45 psig and RHR-P-2B has been placed in Shutdown Cooling. Due to a DEH malfunction, reactor pressure is now increasing.

Which one of the following is correct for these conditions?

A. At 48 psig, RHR Shutdown Cooling isolates and RHR-P-2B continues to run on minimum flow.

B. At 48 psig, RHR Shutdown Cooling isolates and RHR-P-2B trips.

C. At 125 psig, RHR Shutdown Cooling isolates and RHR-P-2B continues to run on minimum flow.

D. At 125 psig, RHR Shutdown Cooling isolates and RHR-P-2B trips.

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295007AK2.05 2.9/3.1 10CFR55.41.7/45.8

REFERENCE: 82-RSY-1300-T3 rev 9, page 12

SOURCE: **NEW QUESTION –** SRO T1, GP1, #5 RO T1, GP1, #3

LO: 5781/5780

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A and B are incorrect because the isolation takes place at 125 psig. A and C are incorrect because the pump trips when the 8 and 9 valves isolate. D is the correct answer.

COMMENTS:

The reactor was at 90% power when a LOCA occurred. The following conditions exist:

Reactor level Wide Range	-149 inches
Reactor level Uncompensated Fuel Zone	-144 inches
Reactor level Compensated Fuel Zone	-111 inches
Reactor pressure	834 psig
Drywell pressure	35 psig
Drywell temperature	275°F

The CRO at P601 reports reactor level is –149 inches and stable on Wide Range.

Which one of the following is correct for these conditions?

The report is incorrect because the…

A. RPV Saturation Temperature has been exceeded. The correct level report should be level is at –111 inches on the Compensated Fuel Zone.

B. Wide range is below the Minimum Usable level. The correct level report should be level is at –111 inches on the Compensated Fuel Zone.

C. RPV Saturation Temperature has been exceeded. The correct level report should be level is at –144 inches on the Uncompensated Fuel Zone.

D. Wide range is below the Minimum Usable level. The correct level report should be level is at –144 inches on the Uncompensated Fuel Zone.

ANSWER: B

QUESTION TYPE: SRO
KA # & KA VALUE: 295031EA2.01 4.6/4.6 10CFR55.41.10/43.5/45.13
REFERENCE: PPM 5.1.1 RPV SATURATION TEMP CURVE - PPM 5.0.10 rev 6, page 64
82-RSY-0100-T2 rev 7, page 4
SOURCE: **NEW QUESTION –** SRO T1, GP1, #22
LO: 5582
RATING: H3
ATTACHMENT: YES - PPM 5.1.1 RPV SATURATION TEMP CURVE – and Caution 1.
JUSTIFICATION: A and C are incorrect because the RPV Saturation Curve has not been exceeded. C and D are incorrect because the Uncompensated Fuel Zone instrument is out of calibration conditions.
COMMENTS:

The plant was operating at 90% power when a transient occurred. The following conditions exist:

LD-TE-4A/B - RCIC Pump Room	239°F (GT Max Safe Operating Value)
ARM-RIS-12 - RCIC Pump Room	Offscale High (GT Max Safe Operating Value)

Which one of the following is correct concerning these conditions?

A. A primary system is discharging into the area and RCIC operation can continue indefinitely under these conditions.

B. A primary system is discharging into the area and the continued operability of RCIC is in question.

C. There is a fire in the RCIC Pump Room and RCIC operation can continue indefinitely under these conditions.

D. There is a fire in the RCIC Pump Room and the continued operability of RCIC is in question.

ANSWER: B

QUESTION TYPE: SRO

KA # & KA VALUE: 295033EA2.02 3.1/3.2 10CFR55.41.10/43.5/45.13

REFERENCE: PPM 5.0.10 rev 6, pages 282-284 and 286-289

SOURCE: **NEW QUESTION –** SRO T1, GP2, #13

LO: 8456

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A and C are incorrect because the continued operation of RCIC is in question with the conditions listed. C and D are incorrect because the indications and the basis for the indications are for a primary system discharging into the area. B is correct because this is the basis for the entry conditions for radiation and temperature.

COMMENTS:

EX01085

An accident has occurred such that Drywell Temperature and Pressure are in the prohibited region of the Drywell Spray Initiation Limit curve.

Which one of the following is correct for this condition?

A. Initiation of Drywell Sprays can cause convective cooling which results in failure of the Wetwell to Drywell Interface.

B. Continued operation of Drywell Sprays can cause convective cooling which results in failure of the Wetwell to Drywell Interface.

C. Initiation of Drywell Sprays can cause evaporative cooling which results in failure of the Wetwell to Drywell Interface.

D. Continued operation of Drywell Sprays can cause evaporative cooling which results in failure of the Wetwell to Drywell Interface.

ANSWER: C

QUESTION TYPE: SRO

KA # & KA VALUE: 226001A2.17 3.2/3.2 10CFR55.41.5/45.6

REFERENCE: PPM 5.0.10 rev 6, pages 74 and 75

SOURCE: **NEW QUESTION –** SRO T2, GP1, #14

LO: 8314

RATING: L4

ATTACHMENT: NONE

JUSTIFICATION: A and B are incorrect because the cooling process is evaporative and not convective that causes the failure of the WW/DW Interface. B and D are incorrect because the initiating event is not continued operation of the sprays, but the initiation of DW Sprays. C is the statement of the reason/basis for not starting DW Sprays GT DISL.

COMMENTS:

EX01086

The plant is operating at 39% power with SM-7 powered from DG-1. All other supply breakers to SM-7 are open and operable. A spurious lockout on DG1 then occurs, causing a DG-1 trip.

Which one of the following is correct for this condition?

A. B-7 automatically closes and supplies power to SM-7.

B. 1-7 and 7-1 automatically close and supply power to SM-7.

C. B-7 has to be manually closed for SM-7 power supply.

D. No supply breakers can be closed until the lockout is cleared on 7-DG1

ANSWER: A

QUESTION TYPE: SRO

KA # & KA VALUE: 262001K4.01 3.0/3.4 10CFR55.

REFERENCE: LO000182 rev 12, pages 21, 39, and 47

SOURCE: **NEW QUESTION –** SRO T2, GP1, #21

LO: 5051

RATING: H4

ATTACHMENT: NONE

JUSTIFICATION: Generally if a lockout exists on a supply breaker to a bus, no other supply breakers can be closed onto the bus until the fault has been cleared and reset. B-7 and B-8 are the exception to the rule. When a lockout occurs on the DG-1, B-7 (B-8) will auto close. A is correct.

COMMENTS:

EX01087

The plant is in Mode 5 with refueling operations in progress. The Mode Switch is placed in the START/HOT STANDBY Position.

Which one of the following is the result of this action?

The Refuel Bridge automatically stops…

A. only when it is over the reactor cavity.

B. at any location over the Spent Fuel Pool or the Reactor Cavity.

C. as it approaches the Reactor Cavity from the Spent Fuel Pool.

D. only as it approaches the Reactor Cavity from the Spent Fuel Pool when loaded with a fuel bundle.

ANSWER: C

QUESTION TYPE: SRO

KA # & KA VALUE: 234000 2.4.46 3.5/3.6 10CFR55.43.51/45.3/45.12

REFERENCE: LO000207 rev 8, page 26 WNP-2 FSAR table 7.7-3

SOURCE: **NEW QUESTION –** SRO T2, GP2, #6

LO: 5360

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: Placing the Mode Switch to START/HOT STANDBY causes the refuel bridge to stop when the bridge is on the refueling switch #2. This prevents the bridge from traveling over the core with the Mode Switch in START/HOT STANDBY. A and B are both incorrect because the bridge is not limited when over the core or in the Spent Fuel Pool. D is incorrect because the hoist does not have to be loaded for the bridge to stop. C is correct.

COMMENTS:

EX01088

The plant is operating at 72% power when a ground alarm is received on Battery S1-2. CRO-2 reports that S1-2 Ground Detection Meter indicates 0KΩ (ohms).

Which one of the following is correct for this indication>

A. The annunciator is spurious; the meter indicates no ground on S1-2.

B. The annunciator is valid; the meter indicates a severe ground on S1-2.

C. The Ground Test Switch has been placed in POS (positive).

D. The Ground Test Switch has been placed in NEG (negative).

ANSWER: B

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 263000A3.01 3.2/3.3 10CFR55.41.7/45.7

REFERENCE: LO000188 rev 6, pages 11 and 12

SOURCE: **NEW QUESTION –** SRO T2, GP2, #10 RO T2, GP2, #13

LO: 5261

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A is incorrect because ∞ indicates no ground. C and D are both incorrect because the test switch only places a 10K ground for testing purposes. B is correct because a 0K-ohm ground is a severe ground.

COMMENTS:

EX00022

The plant is operating at 88% power, when the following auto actions take place:

SGT started
CSP/CEP isolated
CN makeups isolated
CR and TSC Emerg Filtration starts and aligns to remote air intakes
RB Emerg Room Coolers start
RB Lighting quenches
RB EDR and FDR discharge headers isolate

The plant remains operating at power following the initiations. All plant equipment operated as designed.

Which ONE of the following is correct concerning these initiations?

These initiations were caused by…….

A. 1.73 psig Drywell Pressure

B. - 52 inches Reactor Water Level

C. 15 mr/hr Reactor Building Exhaust Plenum

D. + 1.9 inches H2O Reactor Building Pressure

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295034EA2.01 3.9/3.9 10CFR55.41, 43

REFERENCE: 82-RSY-0900-T2 pages 6, 12, and 13, PPM 4.12.4.6A rev 0, pages 3 + 4

SOURCE: **BANK QUESTION – EX00022 – DIRECT–** SRO T1, GP2, #14 RO T1, GP2, #17

LO: 6914

RATING: H4

ATTACHMENT: NONE

JUSTIFICATION: A and B are incorrect because they would have scrammed the reactor along with starting the listed equipment. D is incorrect because High reactor building pressure is not a signal that starts the listed equipment.

COMMENTS:

EX01090

Which one of the following signals would directly input to ADS Logic and require an EOP entry?

A. Drywell temperature 155°F.

B. Drywell pressure 1.98 psig

C. Reactor pressure 1072 psig.

D. Reactor level +9 inches.

ANSWER: D

QUESTION TYPE: SRO

KA # & KA VALUE: 218000 2.4.1 10CFR55.41.1/43.5/45.13

REFERENCE: PPM 5.0.10 rev 6, page 103 82-RSY-1100-T3 rev 8, page 2

SOURCE: **NEW QUESTION** – SRO T2, GP1, #4

LO: 5070

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: A, B, and C are all incorrect because even though they are EOP entry conditions, they do not input directly to ADS. D is an EOP entry and also inputs to ADS as the level 3 confirmatory.

COMMENTS:

EX01091

The plant was operating at 89% power when a loss of MC-8A occurred.

Which one of the following is a result of this loss?

A. ½ Scram on RPS-A.

B. Full Reactor Scram.

C. Inboard and Outboard Isolation – MSIVs close and the reactor scrams.

D. Inboard and Outboard Isolation – MSIVs stay open.

ANSWER: D

QUESTION TYPE:	RO/SRO
KA # & KA VALUE:	212000K2.02 2.7/2.9 10CFR55.41.7
REFERENCE:	82-RSY-0900-T2 rev 8, page 5 82-RSY-0700-T2 rev 10, page 17
SOURCE:	**NEW QUESTION –** SRO T2, GP1, #6 RO T2, GP1, #6
LO:	5604
RATING:	H2
ATTACHMENT:	NONE
JUSTIFICATION:	A loss of MC-8A causes a loss of RPS-B and an inboard and outboard isolation. The MSIVs stay open and the reactor does not scram. D is correct.
COMMENTS:	

EX01092

A plant startup is underway. The reactor is critical with power indicated on IRM detectors. IRM range switches are being ranged as required by procedure. At approximately 25 on range 8, power stops increasing.

Which one of the following is the reason for this indication?

Power turned due to feedback from…

A. Xenon buildup.

B. fuel temperature increase.

C. void fraction increase.

D. pressure increase.

ANSWER: B

QUESTION TYPE: SRO

KA # & KA VALUE: 2.4.47 3.4/3.7 10CFR55.41.10/43.5/45.12

REFERENCE: LO000138 rev 7, page8 GP Reactor Theory chapter 4, pages 33 and 34

SOURCE: **NEW QUESTION –** SRO T3, #17

LO: 5454

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: Fuel temperature coefficient acts to turn power immediately as the temperature increase occurs. A, C, and D are incorrect because these effects do not occur at this power level. B is correct.

COMMENTS:

EX01093

The plant was operating at 97% power when a transient occurred. Wetwell temperature is now 93°F.

Which one of the following is correct concerning this condition?

A. EOP actions are not required until wetwell temperature exceeds 110°F.

B. EOP actions are not required until wetwell temperature exceeds 100°F.

C. Enter PPM 5.2.1 Primary Containment Control.

D. The high wetwell temperature is past the point at which SLC should be injected to prevent exceeding the HCTL.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295013AK2.01 3.6/3.7 10CFR55.41.7/45.8

REFERENCE: PPM 5.0.10 rev 6, page 245 and 246

SOURCE: **NEW QUESTION –** SRO T1, GP1, #9 RO T1, GP2, #8

LO: 8299

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The reason for entering PPM 5.2.1 at 90°F is because the high suppression pool temperature is a symptom of a condition that if not corrected could degrade into an emergency condition and the heat addition to the wetwell has exceeded the heat removal of suppression pool cooling. C is correct. A and B are incorrect because action is required when temperature exceeds 90°F. D is incorrect because the SLC injection temperature is 110°F.

COMMENTS:

EX01094

The plant was operating at 92% power when a transient caused an ATWS. The following conditions exist:

Reactor power	24%.
The MSIVs.	Open
SLC-P-1A and 1B	In operation
Reactor level	-70 inches on the Feedwater System

Which one of the following is correct concerning these conditions?

Cooldown…

A. is not permitted until Cold Shutdown Boron Weight has been injected because core reactivity response for a partially borated core is unpredictable.

B. is not permitted because additional heat load will be imposed on the primary containment that could lead to containment failure.

C. is permitted to start when Hot Shutdown Boron Weight is injected

D. is permitted as long as it is secured if the core returns to power.

ANSWER: A

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295015AK1.02 3.9/4.1 10CFR41.8/41.10

REFERENCE: PPM 5.0.10 rev 6, pages 72 and 73

SOURCE: **NEW QUESTION –** SRO T1, GP1, #13 RO T1, GP1, #6

LO: 8040

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: PPM 5.0.10 states that the reactivity response of a partially borated core is unpredictable and subsequent steps may not prescribe the correct actions if a return to criticality were to occur. A is correct. B is incorrect because with the MSIVs open, 24% power is within the capability of the BPVs. C is incorrect because HSBW is no longer used at WNP-2. D is incorrect because it contradicts the direction in 5.0.10.

COMMENTS:

EX01095

A fire has caused the control room to be abandoned.

Which one of the following describes level indications available at the Remote and the Alternate Remote Shutdown Panels?

A. Wide Range (-150 to +60), Narrow Range (0 to +60), and Fuel Zone (-310 to -110) at the RSD.
Wide Range (-150 to +60), Narrow Range (0 to +60), and Fuel Zone (-310 to -110) at the ARSD

B. Wide Range (-150 to +60) and Fuel Zone (-310 to -110) at the RSD.
Wide Range (-150 to +60) and Fuel Zone (-310 to -110) at the ARSD

C. Wide Range (-150 to +60) and Narrow Range (0 to +60) at the RSD.
Wide Range (-150 to +60) and Narrow Range (0 to +60) at the ARSD

D. Wide Range (-150 to +60) at the RSD.
Wide Range (-150 to +60) at the ARSD

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295016AA1.06 4.0/4.1 10CFR41.7/45.6

REFERENCE: 82 RSY-1600-T3 pages 14 and 15

SOURCE: **NEW QUESTION –** SRO T1, GP1, #15 RO T1, GP2, #10

LO: 5885

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: Only the Wide range is available at either the RSP or the ARSP. D is correct.
COMMENTS:

EX01096

The plant was operating at 95% power when an accident occurred. All procedural actions have been taken up to this point. The following conditions exist:

Reactor level	-210 inches
RHR-P-2A	Injecting
RHR-P-2B	Injecting
Drywell H2	6.2%
Wetwell O2	5.5%

Which one of the following is the next action to complete for these conditions?

A. Initiate CAC with suction from the wetwell.

B. Initiate CAC with suction from the drywell.

C. Emergency Depressurize the reactor.

D. Purge the drywell with Nitrogen.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 500000EA2.04 3.3/3.3 10CFR41.10/43.5/45.13

REFERENCE: PPM 5.2.1 PC Gas leg, rev 13.

SOURCE: **NEW QUESTION –** SRO T1, GP1, #26 RO T1, GP1, #13

LO: 8268

RATING: H3

ATTACHMENT: YES – PPM 5.2.1 PC Gas leg, rev 13.

JUSTIFICATION: Conditions given are above the combustible limits. This requires the override for leg T be exercised. The first step in T is to ED. C is correct.

COMMENTS:

EX99046

An EOP entry has been made following a reactor scram and steam leak in the drywell. The first step in the EOPs for controlling Drywell temperature is to maintain temperature with "available drywell cooling".

Which of the following describes the reason for this direction?

A. This action assures that the normal method of temperature control is attempted in advance of more complex actions.

B. This action assumes normal cooling is not functional and to use whatever cooling is "available" under the given plant conditions.

C. Other means to control temperature such as containment spray are not available until a LOCA signal has been received.

D. This direction is given as an initial action since drywell-cooling equipment will load shed if conditions degrade, resulting in a LOCA signal.

ANSWER: A

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295012AK2.02 3.6/3.7 10CFR55.41.7/45.8

REFERENCE: PPM 5.0.10 rev 6, pg. 250

SOURCE: **BANK QUESTIO #99046 – DIRECT –** SRO T1, GP2, #6 RO T1, GP2, #6

LO: 8312

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: Answer A is as described in the EOP reference. Ans. B is contrary to the EOP basis. Ans. C is incorrect in that wetwell spray mode is available without a LOCA signal. Ans. D is incorrect because these coolers do not load shed following a LOCA.

COMMENTS:

EX01098

Which one of the following describes equipment that has an auto action at the same reactor level for RHR Shutdown Cooling Isolation?

A. Auto close signal for CEP-V-2A/1A (upper drywell exhaust)

B. Auto close signal for REA-V-1/2 (reactor building exhaust)

C. Auto start signal for SGT-FN-1A1/1B1 (SGT lead fans)

D. Auto start signal for CRA-FN-4A/B (drywell head exhaust fans).

ANSWER: D

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 295021AK3.03 2.9/2.9 10CFR41.5/45.6

REFERENCE: 82-RSY-0100-T3 rev 9, page 11

SOURCE: **NEW QUESTION –** SRO T1, GP2, #9

LO: 5639

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A, B, and C are all incorrect because those auto actions take place at –50 inches. SDC isolates at 13 inches. CRA-FN-4A/B start on scram signal. Since 13 inches is a scram signal, the fans get an auto start signal. D is correct.

COMMENTS:

EX01099

The plant is shutdown for repair of a leak in a line attached to the head spray line. Post maintenance testing requires a full reactor vessel hydro to 1000 psig. During performance of the hydro, a problem with a valve has caused reactor pressure to increase to 1367 psig Steam Dome Pressure.

Which one of the following is correct for these conditions?

A. Reduce reactor pressure to LT 1060 psig immediately. Notify the NRC in 4 hours.

B. Immediately enter PPM 5.1.1 RPV Control and reduce reactor pressure to LT 1325psig in 2 hours.

C. Take action to reduce pressure to LT 1060 immediately. Complete the pressure reduction in 1 hour.

D. Reduce pressure to LT 1325 psig in 1 hour and enter PPM 5.1.1 RPV Control.

ANSWER: B

QUESTION TYPE: SRO

KA # & KA VALUE: 216000 2.4.38 2.2/4.0 10CFR55.45.1

REFERENCE: TS 2.1 Safety Limits PPM 5.1.1 Entry Conditions

SOURCE: **NEW QUESTION –** SRO T2, GP1, #9

LO: 8017/6924

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: Exceeding 1325 is a Safety Limit. TS gives 2 hours to reduce pressure to LT 1325. This is also an entry condition for PPM 5.1.1, which has to be entered immediately. A, C, and D are all time limits and/or pressure values. B is correct.

COMMENTS:

EX01100

The plant is operating at 20% power following a startup. A batch of nonradioactive CJW water has to be discharged following maintenance on the system. It has been sampled and is acceptable for release.

Which one of the following describes who authorizes this release?

A. CRS/Shift Manager

B. Operations Manager

C. Chemistry Manager

D. Rad Protection Manager

ANSWER: A

QUESTION TYPE: SRO

KA # & KA VALUE: 2.3.6 2.1/3.1 10CFR55.43.4

REFERENCE: PPM 12.2.14 rev 4, pages 4 and 7

SOURCE: **NEW QUESTION –** SRO T3, #11

LO: NO LO

RATING: L4

ATTACHMENT: NONE

JUSTIFICATION: The procedure states the CRS/SM has to approve the release. A is correct.
COMMENTS:

The plant is operating at 100% power. All systems are operating as expected. DEH has a 945 psig setpoint.

Which one of the following is correct for these conditions?

Reactor pressure is…

A. 1005 psig due to the 30 psig MSL pressure loss and the 30 psig control band from DEH.

B. 975 psig due to the 30 psig control band from DEH.

C. 1005 psig due to the 60 psig control band from DEH.

D. 975 psig due to the 30 psig MSL pressure loss.

ANSWER: A

QUESTION TYPE: RO

KA # & KA VALUE: 295007AK2.01 3.5/3.7 10CFR41.7/45.8

REFERENCE: 82-RSY-0400-T5 page 8

SOURCE: **NEW QUESTION –** RO T1, GP1, #4

LO: 5561/7020

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: Reactor pressure at 100% power is determined by the increase in reactor pressure due to the DEH control band of 30 psig over 100% power range and the pressure drop from losses in the main steam lines at 100% power. The losses are 30 psig. Adding the two together gives us a necessary reactor pressure of 1005 psig (assuming a 945 setpoint) to achieve 100% steam flow. A is correct.

COMMENTS:

A reactor startup is underway. IRM-E indicates 39 on range 4. The RO inadvertantly moves the range switch for IRM-E to range 3. Immediately thereafter, a loss of MC-8A occurs.

Which ONE of the following is the expected plant response?

A. A Rod Withdrawal Block only from IRM-E.

B. A 1/2 scram only on RPS-A.

C. A 1/2 scram only on RPS-B.

D. A full scram.

ANSWER: D

QUESTION TYPE: RO

KA # & KA VALUE: 215003A4.03 3.6/3.4 10CFR55.41.7/45.5-45.8

REFERENCE: LO000138 8, 9, and 13 82-RSY-0700-T2 rev 10, page 17

SOURCE: **BANK QUESTION #98078 – MODIFIED -** RO T2, G1, #9

LO: 5457

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A is incorrect because the E IRM gets a rod block and causes a ½ scram on RPS A. B and C are both incorrect because each has a ½ scram; A from IRM-E and B from the loss of MC-8A, power supply to RPS-B MG Set. D is correct because the result of these conditions is a full scram.

COMMENTS:

The plant is operating at 89% power. DG-1 has been started and loaded per the monthly operability surveillance. During the operability run, Drywell pressure increases to 2.02 psig. Five (5) minutes later, a loss of all offsite power occurs.

Which one if the following is correct for these conditions?

A. DG-1 continues to run until the trip of DG1-7 on the loss of offsite power.

B. DG-1 trips and has to be manually restarted. DG1-7 is manually synced to SM-7.

C. DG1-7 trips, DG-1 continues to run, DG1-7 auto closes when the loss of all offsite power occurs.

D. DG1-7 trips, DG-1 trips, DG-1 restarts and DG1-7 auto closes when the loss of all offsite power occurs.

ANSWER: C

QUESTION TYPE: RO

KA # & KA VALUE: 264000A2.10 3.9/4.2 10CFR55.41.5/45.6

REFERENCE: 82-RSY-1000-T5

SOURCE: **INPO BANK QUESTION #282 – MODIFIED –** RO T2, GP1, #28

LO: 7771

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: During the operability run, DG-1 is paralleled to the Backup Transformer. When the high drywell pressure occurs, DG1-7 trips and DG-1 continues to run. When the loss of offsite power occurs, DG1-7 recloses automatically. C is correct.

COMMENTS:

EX01104

The plant is operating at 93% power with Battery B1-1 and Charger C1-1 out of service. A DBA LOCA occurs. Reactor level is –144 inches. Reactor pressure is 198 psig.

Which one of the following is correct concerning these conditions?

A. RHR-P-2B and RHR-P-2C do not start.

B. RHR-P-2A and LPCS-P-1 do not start.

C. RHR-P-2B and RHR-P-2C start but do not inject.

D. RHR-P-2A and LPCS-P-1 start but do not inject.

ANSWER: B

QUESTION TYPE: RO

KA # & KA VALUE: 263000K4.02 3.1/3.5 10CFR55.41.7

REFERENCE: LO000188 rev 6, page 30

SOURCE: **NEW QUESTION –** RO T2, GP2, #14

LO: 5262

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The Div 1 battery, B1-1, supplies control power to the SM-7 switchgear. Due to the loss of B1-1, no Div 1 ECCS Pumps auto start on an auto initiation signal. B is correct. A is incorrect because the Div 2 pumps auto start. C is incorrect because they will inject under these conditions. D is incorrect because the Div1 pumps do not start.

COMMENTS:

EX01105

The old refuel floor Jib Crane (1308 lbs) is being replaced during R-15.

Which one of the following is the maximum height it can be transported over the spent fuel pool water level?

A. 2 ft.

B. 3 ft.

C. 4 ft.

D. 5 ft.

ANSWER: B

QUESTION TYPE: RO

KA # & KA VALUE: 2.2.26 2.5/3.7 10CFR55.43.5/45.3

REFERENCE: LCS 1.9.2 and table 1.9.2-1

SOURCE: **BANK QUESTION #3161 – DIRECT -** RO T3, #7

LO: 5362

RATING: H2

ATTACHMENT: YES - LCS 1.9.2 and table 1.9.2-1

JUSTIFICATION: The allowable weight for transportation overt the spent fuel pool is limited by LCS 1.9.2. According to table 1.9.2-1, 1308 lbs can only be lifted to a maximum height of 3 ft for transport. B is correct.

COMMENTS:

EX01106

Which one of the following is the Columbia Generating Station yearly administrative hold point?

A. 1 rem TEDE.

B. 2 rem TEDE.

C. 4 rem TEDE.

D. 5 rem TEDE.

ANSWER: B

QUESTION TYPE: RO

KA # & KA VALUE: 2.3.2 2.5/2.9 10CFR55.41.2/43.4/45.9/45.10

REFERENCE: GEN-RPP-07 rev 3, pages 7 and 8

SOURCE: **NEW QUESTION –** RO T3, #12

LO: 6014

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: Columbia Generating Station has established a 2 rem TEDE admin hold point per GEN-RPP-07. B is correct.

COMMENTS:

PPM 5.4.1 Radioactivity Release Control requires Emergency Depressurization if the exclusion area boundary release rate approaches or exceeds the General Emergency limit.

Which ONE of the following describes the reason for this requirement?

A. Emergency Depressurization reduces reactor pressure and allows low-pressure systems to inject into the reactor, limiting the release to the environment.

B. The pressure reduction realized by Emergency Depressurization slows the rate of fuel damage in the reactor core and reduces the rate of release outside of the containment.

C. The pressure reduction allows the containment vent path (MSIVs) to open and vent the primary system to the condenser, reducing the discharge to the environment.

D. RPV depressurization reduces the driving head and flow of primary systems that are unisolated and discharging outside of containment.

ANSWER: D

QUESTION TYPE: RO

KA # & KA VALUE: 2.3.11 2.7/3.2 10CFR55.45.9/45.10

REFERENCE: PPM 5.0.10 rev 6, page 303

SOURCE: **BANK QUESITON #98094 – DIRECT –** RO T3, #8

LO: 8481

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: A is incorrect because low-pressure injection does not limit the release. B is incorrect because pressure reduction does not slow the rate of fuel damage. C is incorrect because the pressure reduction in the reactor has nothing to do with opening the MSIVs. D is correct as defined in PPM 5.0.10.

COMMENTS:

During the course of a 12 hour shift, the following events occur;

power increase, using Recirc. flow, from 80 to 100%
failure of RHR-A system surveillance
a tour group visited the control room for 30 min.
CRO adjusted gland seal spillover pressure 3 psig to 2 psig
unexpected plant trip from 100% power due to I & C surveillance.

Which one of the following lists the minimum required Control Room Log entries for the above time period?

A. - the power increase and that it was accomplished using Recirc. flow
- the RHR-A TS action statement and the reason
- the reactor trip and the reason for the trip

B. - the power increase and that it was accomplished using Recirc. flow
- the time the tour group entered and exited the control room.
- the RHR-A TS action statement and the reason
- the reactor trip and the reason for the trip

C. - the power increase
- the RHR-A TS action statement and the reason
- the reactor trip and time immediate actions were completed

D. - the power increase
- the RHR-A TS action statement and the reason
- the gland seal adjustment
- the reactor trip

ANSWER: A

QUESTION TYPE: RO
KA # & KA VALUE: 2.1.18 2.9/3.9 10CFR55.45.12/45.13
REFERENCE: PPM 3.1.10 rev 24, pages 8 and 9
SOURCE: **BANK QUESITON #98120 – DIRECT –** RO T3, #3
LO: 6167
RATING: L3
ATTACHMENT: NONE
JUSTIFICATION: Per PPM 3.1.10, only the correct answer contains all the “minimum” required log entries.
COMMENTS:

EX01109

The plant is operating at 92% power when reactor level increases to 39 inches and then very slowly returns to 36 inches.

Which one of the following is the cause of this indication?

A. Feedflow transmitter fails low.

B. Steamflow transmitter fails low.

C. SRV fails open.

D. Selected level transmitter fails high.

ANSWER: A

QUESTION TYPE: RO

KA # & KA VALUE: 295008AA2.02 3.4/3.4 10CFR55.41.10/43.5/45.13

REFERENCE: 82-RSY-0610-T4 rev 10, pages 17 and 18

SOURCE: **NEW QUESTION –** RO T1, GP2, #4

LO: 5400

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The design of the feedwater level control system only allows the actual level to increase/decrease 3 inches during a FWLC System failure. By that point, it changes to single element and returns level to the normal level setpoint (36 inches). A failure of a feedflow transmitter downscale causes the FWLC System to immediately increase feedflow to make up for the sensed loss. The increase in feedflow causes level to increase to 39 inches when FWLC changes to single element and returns level to 36 inches. A is correct. B, C, and D would all cause the initial level response to decrease.

COMMENTS:

A plant startup is underway with CRD-P-1A tagged out for maintenance. Reactor pressure is 350 psig. Reactor power is 4%. A failure then occurs causing the loss of CRD-P-1B.

Which one of the following is correct concerning these conditions?

A. Reactor pressure is sufficient to ensure control rods can be fully scrammed at this point.

B. Reactor pressure alone is not sufficient to ensure control rods can be fully scrammed at this point.

C. Immediately trip the operating RWCU Pump.

D. Immediately trip both RRC Pumps.

ANSWER: B

QUESTION TYPE: RO

KA # & KA VALUE: 295022AA2.01 3.5/3.6 10CFR55.41.10/43.5/45.13

REFERENCE: LO000142 rev 10, pages 27 and 28 and figure 11

SOURCE: **NEW QUESTION –** RO T1, GP2, #14

LO: 5205

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: A is incorrect because below approximately 500 psig reactor pressure, control rods will not fully scram all control rods. C and D are both incorrect because there is no direction given to immediately trip either with a complete loss of CRD. C is correct because the energy contained in the accumulators is required to scram control rods at reactor pressures less than 500 psig.

COMMENTS:

EX01111

The plant is operating at 99% power with RCIC in operation for a surveillance. The CRS is conducting a shift brief concerning the surveillance.

For which one of the following indications should the CRO interrupt the shift brief?

A. Drywell pressure 1.1 psig and increasing.

B. Suppression pool level +2.1 inches and increasing.

C. Reactor level +33 inches and decreasing.

D. Reactor building pressure -.1 inch of water and increasing.

ANSWER: B

QUESTION TYPE: RO

KA # & KA VALUE: 295029 2.1.2 3.0/4.0 10CFR55.41.10/45.13

REFERENCE: PPM 1.3.1 rev 49, page 36

SOURCE: **NEW QUESTION –** RO T1, GP2, #16

LO: 6079

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: PPM 1.3.1 requires that when EOP entry is required, the CRO should interrupt the CRS with the information. B is correct.

COMMENTS:

EX01112

The plant is in Mode 5 with refueling underway. During movement of an irradiated fuel bundle from the reactor to the spent fuel pool, a bundle was dropped in the spent fuel pool. Damage was severe enough to the bundle to cause a radioactive release.

Which one of the following describes how refuel floor personnel are notified of the radioactive release?

A. Rotating beacon only.

B. Rotating beacon and local meter indication only.

C. Rotating beacon and local meter indication and alarm light only.

D. Rotating beacon, local meter indication and alarm light, and audible klaxon horn.

ANSWER: D

QUESTION TYPE: RO

KA # & KA VALUE: 295023AK2.03 3.4/3.6 10CFR55.41.7/45.8

REFERENCE: LO000141 rev 8, page 7

SOURCE: **NEW QUESTION –** RO T1, GP3, #2

LO: 5114

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: Only the New Fuel and the Spent Fuel Pool ARMs have the audible klaxon to provide extra notification incase of a refuel accident. D is correct.

COMMENTS:

EX01113

Which one of the following describes how low pressure LPCI Injection piping is protected from full reactor pressure?

RHR-V-42A (42B and 42C) are interlocked closed until reactor pressure is less than…

A. 160 psig.

B. 220 psig

C. 320 psig.

D. 470 psig.

ANSWER: D

QUESTION TYPE: RO

KA # & KA VALUE: 203000K4.02 3.3/3.4 10CFR55.41.7

REFERENCE: 82-RSY-1300-T3 rev 9, page 3

SOURCE: **NEW QUESTION –** T2, GP1, #1

LO: 5781/7728

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: The LPCI Injection valves are interlocked closed to prevent overpressurization until reactor pressure is reduced to less than 470 psig. D is correct.

COMMENTS:

EX01114

A plant startup is underway with RPS-A powered from the alternate power supply and RPS-B powered from the normal supply. A loss of SH-6 occurs.

Which one of the following is correct for these conditions?

A. RRC-P-1A trips and a ½ scram is received on RPS-A.

B. RRC-P-1B trips and a ½ scram is received on RPS-B.

C. RRC-P-1B trips and a ½ scram is received on RPS-A.

D. RRC-P-1A trips and a ½ scram is received on RPS-B.

ANSWER: C

QUESTION TYPE: RO

KA # & KA VALUE: 212000K2.01 3.2/3.3 10CFR55.41.7

REFERENCE: 82-RSY-0700-T2 rev 10, page 17

SOURCE: **NEW QUESTION –** RO T2, GP1, #7

LO: 5950

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: The alternate power supply for RPS is fed from MC-6B. MC-6B is fed from SH-6. The loss of SH-6 causes the loss of RRC-P-1B and the loss of RPS-A, causing a ½ scram on RPS-A. A is incorrect because RRC-P-1A does not trip. B and D are both incorrect because there is no ½ scram on RPS-B. C is correct.

COMMENTS:

EX01115

A reactor startup is underway. Reactor power is currently 1200 counts on the Source Range. SRM-B then fails upscale.

Which one of the follow describes the response to this failure?

A. RPS ½ scram on RPS-B, rod motion can continue with no action.

B. A Rod Block is applied, no further rod motion is allowed until the block is bypassed.

C. A full Scram is generated, all rods insert.

D. There are no rod blocks or scrams generated, rod motion continues.

ANSWER: B

QUESTION TYPE: RO

KA # & KA VALUE: 215004A3.03 3.6/3.5 10CFR55.41.7/45.7

REFERENCE: LO000132 rev 8, pages 22 and 23

SOURCE: **NEW QUESTION –** RO T2, GP1, #11

LO: 5943

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: The upscale trip for SRM is bypassed with the shorting links installed. They are installed for a normal startup. There is no scram from the upscale. There is a rod block applied at 10e5 counts. This would be applied and stop all rod motion until it is bypassed or repaired. B is correct.

COMMENTS:

Ex01116

The plant is operating at 75% power when RFP-DT-1B speed controller fails upscale causing the feedpump to speed up and reactor level to increase. The feedpump cannot be tripped from the control room.

Which one of the following describes local Reactor Feedpump Trips?

An Equipment Operator can trip RFW-DT-1B…

A. electrically and mechanically at the local RFPT control panel and mechanically only on the RFPT stanchion.

B. electrically only at the local RFPT control panel and mechanically only on the RFPT stanchion.

C. mechanically only at the local RFPT control panel and electrically only on the RFPT stanchion.

D. mechanically only at the local RFPT control panel and mechanically only on the RFPT stanchion.

ANSWER: A

QUESTION TYPE: RO

KA # & KA VALUE: 295008 2.1.8 3.8/3.6 10CFR55.45.5/12/13

REFERENCE: 82-RSY-0500-T4 rev 7, pages 9 and 10

SOURCE: **NEW QUESTION –** RO T1, GP2, #5

LO: 5750

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: The feed pump turbines have both an electrical and a mechanical trip on the local RFPT control panel. There is also a mechanical trip located in the feed pump room on the RFPT stanchion. A is correct.

COMMENTS:

EX01117

You have been given an operability procedure for HPCS to perform. A number of the steps in the procedure are preceded by a # in the left margin.

Which one of the following is correct concerning the # symbol?

The # symbol is used to denote a step in the procedure which requires successful completion for compliance with…

A. Licensee Controlled Specifications.

B. Fire Protection.

C. Tech Specs.

D. Offsite Dose Calculation Manual.

ANSWER: C

QUESTION TYPE: RO/SRO

KA # & KA VALUE: 2.1.10 2.7/3.9 10CFR43.1/45.13

REFERENCE: SWP-PRO-03 rev 3, pages 26 and 27

SOURCE: **NEW QUESTION –** RO T3, #4

LO: NO LO

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: At WNP-2 all steps in procedures that have to be completed for Tech Spec compliance are annotated with a # symbol. C is correct.

COMMENTS:

EX01118

The plant is operating at 99% power when High Pressure Heater 6B trips on high level. Reactor Feedwater Inlet Temperature has dropped. 12°F.

Which one of the following is correct for this condition?

Reduce…

A. core flow to at least 60MLbm/Hr to prevent fuel failure from pellet-clad interaction.

B. core flow to at least 60MLbm/Hr to prevent main generator overheating.

C. reactor power to at least 79% to prevent fuel failure from pellet-clad interaction.

D. reactor power to at least 79% to prevent main generator overheating.

ANSWER: C

QUESTION TYPE: RO

KA # & KA VALUE: 2.2.34 2.8/3.2 10CFR55.43.6

REFERENCE: PPM 4.2.7.2 rev 12, pages 3 and 5.

SOURCE: **NEW QUESTION –** RO T3, #6

LO: 6741

RATING: H4

ATTACHMENT: NONE

JUSTIFICATION: Direction is given in the procedure to reduce power to at least 20% less than the power level before the temperature reduction or 60MLbm/Hr core, whichever comes 1st. 60MLbm/Hr is about 55% power. The 20% reduction is completed 1st. The failure prevented by the immediate power reduction is fuel failure from pellet-clad interaction. C is correct.

COMMENTS:

A control rod withdrawal is in progress for a reactor startup. Reactor period is 140 seconds and decreasing (getting shorter). SRM/IRM overlap has been verified and SRM withdrawal has been started. SRM-C is not withdrawing from the core.

Which one of the following is correct for these conditions?

A. Control rod withdrawal stops immediately to prevent exceeding the high flux scram on SRM-C.

B. Control rod withdrawal can continue until power level exceeds 1E5 counts. Reactor power increases util the point of adding heat.

C. Reactor period indication on SRM-C is stable (140 seconds) as long as the detector does not move.

D. The startup continues per the procedure. There is no effect from the stuck detector.

ANSWER: B

QUESTION TYPE: RO

KA # & KA VALUE: 215004K3.04 3.7/3.7 10CFR41.7/45.4

REFERENCE: LO000132 rev 8, pages 21 and 22

SOURCE: **NEW QUESTION –** RO T2, GP1, #10

LO: 5943

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A combination of a continuing startup and a stuck SRM caused the indicated count level for the stuck SRM to increase. The count rate will exceed the 1E5 rod block and stop all rod motion. Rector power increases until there is reactivity feedback at the POAH. B is correct.

COMMENTS:

EX01120

The plant is operating at 98% power with all systems operable, when a loss of all feedwater occurs.

Assuming no operator actions, which one of the following is the **first** procedure entered?

A. PPM 5.3.1 Secondary Cont. Control

B. PPM 5.2.1 Pri. Cont. Control

C. PPM 5.1.2 RPV Cont. ATWS

D. PPM 5.1.1 RPV Control

ANSWER: D

QUESTION TYPE: RO

KA # & KA VALUE: 259001 2.4.1 4.3/4.6 10CFR55.41.10/4.35/45.13

REFERENCE: PPM 5.1.1. 5.1.2, 5.1.5, 5.2.1, 5.3.1

SOURCE: **NEW QUESTION –** RO T2, GP1, #23

LO: 8017

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: The loss of feedwater causes reactor level to decrease to less than +13 inches and an entry into PPM 5.1.1. A and B are entered during this transient, but they are entered subsequent to PPM 5.1.1. PPM 5.1.2 is not entered during this transient. D is correct.

COMMENTS:

EX01121

The plant is in Mode 5. You have attempted to close Bkr. 1-7 for a backfeed of SM-1, but the breaker does not close.

Which one of the following is the reason Bkr. 1-7 cannot be closed?

A. Undervoltage on SM-7

B. Undervoltage on SM-1

C. 86 L/O on 7-1

D. 86 L/O on N1-1

ANSWER: D

QUESTION TYPE: RO

KA # & KA VALUE: 262001A4.01 3.4/3.7 10CFR55.41.7/45.5-8

REFERENCE: 82-RSY-1000-T5 rev 11, page 39

SOURCE: **NEW QUESTION –** RO T2, GP2, #10

LO: 5050

RATING: L4

ATTACHMENT: NONE

JUSTIFICATION: A and B are both incorrect because neither one prevents the closure of 1-7 (even though UV on SM-1 trips 1-7). C is incorrect because an 86 on 7-1 is not a trip for 1-7. D is a prerequisite in the close circuit for 1-7. D is correct.

COMMENTS:

EX01122

The plant is shutdown when a loss of MC-7A occurs.

Which one of the following rad monitors is inoperable from this loss of power?

A. REA-RIS-609C

B. REA-RIS-609D

C. MS-RIS-610C

D. MS-RIS-610D

ANSWER: C

QUESTION TYPE: RO

KA # & KA VALUE: 272000K2.01 2.5/2.8 10CFR41.7/45.7

REFERENCE: 82-RSY-0400-T6 rev 9, page 38

SOURCE: **NEW QUESTION –** RO T2, GP2, #15

LO: 5649

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A and B are incorrect because they are supplied by UPS. D is incorrect because it is supplied by RPS-B. C is correct because when MC-7A is lost, RPS-A is lost which powers MS-RIS-610C.

COMMENTS:

EX01123

The plant is operating at 65% power when Ops 2 calls the control room and says he has a reverse transfer light illuminated on IN-3. The forward transfer light is out.

Which one of the following is the cause of these indications?

Loss of…

A. PP-7A

B. PP-8A

C. S1-1.

D. S1-2

ANSWER: C

QUESTION TYPE: RO

KA # & KA VALUE: 262002A3.01 2.8/3.1 10CFR55.41.7/45.7

REFERENCE: LO000194 rev 7, pages 6-8

SOURCE: **NEW QUESTION –** RO T2, GP2, #12

LO: 5894

RATING: H4

ATTACHMENT: NONE

JUSTIFICATION: The reverse transfer light on IN-3 (2) indicates the inverter has auto transferred from the normal DC source to the alternate AC source. The normal DC power supply for IN-3 is S1-1. C is correct.

COMMENTS:

EX01124

The plant was operating at 99% power when a DBA LOCA occurred. Reactor level is –166 inches and up slow. The only available source of injection is COND-P-1A. An earthquake results in Fuel Zone indication decreasing off scale low.

Which one of the following caused this indication?

A broken…

A. variable leg at the Jet Pump Diffuser instrument tap.

B. variable leg at the Above Core Plate instrument tap.

C. reference leg inside containment.

D. reference leg outside containment.

ANSWER: A

QUESTION TYPE: RO

KA # & KA VALUE: 290002K3.07 3.1/3.1 10CFR55.41.7/45.4

REFERENCE: 82-RSY-0100-T2 rev 7, page 13

SOURCE: **NEW QUESTION –** RO T2, GP3, #4

LO: 6740

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: C and D are incorrect because the broke reference leg causes indicted level to increase. B is incorrect because the variable leg does not use the above core plate tap for Fuel Zone indication. A is correct because the variable leg uses the Jet Pump Diffuser tap for the fuel zone. When the leg breaks it "sees" the water level in the downcomer region, which is now below the minimum level of the fuel zone.

COMMENTS:

EX01125

Which one of the following is the reason for operating the Standby Gas Treatment during accident conditions?

SGT…

A. recirculates and filters reactor building atmosphere to allow personnel entry.

B. recirculates and filters primary containment atmosphere to allow personnel entry.

C. limits the release of radioactive material within the guidelines of 10CFR100.

D. maintains a negative pressure if at least -.5 inches of water under all conditions.

ANSWER: C

QUESTION TYPE: RO

KA # & KA VALUE: 295034EK3.02 4.1/4.1 10CFR55.41.5/45.6

REFERENCE: 82-RSY-0400-T3 rev 10, page 3

SOURCE: **BANK QUESTION #99054 – MODIFIED –** RO T1, GP2, #19

LO: 5821

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: The purpose of SGT is given to be the reduction of discharge to the atmosphere to less than the guidelines of 10CFR100

COMMENTS:

EX01126

A plant startup is underway with the A2 sequence selected. All rod withdrawals in RSCS groups 1-4 have been completed.

Which one of the following is the correct control rod density for this condition?

A. 25%

B. 50%

C. 75%

D. 100%

ANSWER: B

QUESTION TYPE: RO

KA # & KA VALUE: 201004K5.02 3.1/3.3 10CFR55.41.5/45.3

REFERENCE: LO000160 rev 9, page 6

SOURCE: **NEW QUESTION –** RO T2, GP2, #1

LO: 5806

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: Completion of the 1st 4 RSCS rod groups places 50% of the rods in the full out position. This is 50% rod density. B is correct.

COMMENTS:

EX01127

The weekly Control Rod Operability Surveillance is in progress. The CRO is directed to apply a continuous withdraw signal to the selected control rod and verify stall flow on the selected rod.

Which one of the following is the reason for this direction?

Verifies…

A. adequate cooling water flow.

B. control rod coupling.

C. proper operation of the stabilizing valves.

D. proper operation of the withdraw directional control valves.

ANSWER: B

QUESTION TYPE: RO

KA # & KA VALUE: 201004A4.02 3.5/3.5 10CFR55.41.7/45.7

REFERENCE: LO000142 rev 11, page 27

SOURCE: **NEW QUESTION –** RO T2, GP1, #2

LO: NO LO

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: Stall flow for a coupled control rod should decrease to .5 to 1 gpm at position 48 with a continuous withdraw signal present. This indicates a coupled control rod. A, C, and D have nothing to do with stall flow. B is correct.

COMMENTS:

The plant was operating at 97% power when a LOCA occurred. The LOCA signal is sealed in and has not been reset. All plant equipment functioned as designed. RHR-P-2A is in operation in Upper Drywell Spray. RHR-P-2B is in operation in Wetwell Spray. A lockout on Bkr 7-1 then causes the Startup Transformer to trip.

Which one of the following is correct for these conditions?

A. RHR-P-2A and RHR-P-2B are in operation with power from the Backup Transformer.

B. RHR-P-2A and RHR-P-2B are in operation with power from their respective DGs.

C. RHR-P-2A is off. RHR-P-2B is in operation with power from the Backup Transformer

D. RHR-P-2A is off. RHR-P-2B is in operation with power from DG-2.

ANSWER: C

QUESTION TYPE: RO

KA # & KA VALUE: 226001K2.02 2.9/2.9 10CFR55.41.7

REFERENCE: 82-RSY-1300-T3 rev 9, pages 43 and 44 82-RSY-1000-T5 rev 11, pages 42 and 43

SOURCE: **NEW QUESTION –** RO T2, GP2, #6

LO: 5058/5050

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: RHR-P-2A is powered from SM-7. With the 86 on Bkr 7-1, neither the DG nor the Backup transformer close onto the bus. RHR-P-2A is not in operation. The loss of TR-S causes an undervoltage on SM-8. Bkr B-8 closes and supplies the bus. RHR-P-2B is in operation. C is correct.

COMMENTS:

EX01129

The plant was operating at 100% power when a LOCA coincident with a large leak in the Suppression Pool happens. The following conditions exist:

Wetwell level	20 feet and going down
Drywell Pressure	35 psig
Suppression Chamber Pressure	25 psig

Which one of the following is correct concerning these conditions?

A. Suppression chamber pressure increases to .5 psig greater than Drywell pressure when Wetwell level is less than the bottom of the SRV Tailpipes.

B. Suppression chamber pressure increases to .5 psig less than Drywell pressure when Wetwell level is less than the bottom of the SRV Tailpipes.

C. When Wetwell level is less than the bottom of the downcomers, Suppression chamber pressure increases util it is slightly less than drywell pressure,

D. When Wetwell level is less than the bottom of the downcomers, Suppression chamber pressure increases util it is slightly greater than drywell pressure,

ANSWER: C

QUESTION TYPE: RO

KA # & KA VALUE: 295030EA2.04 3.5/3.7 10CFR55.41.10/43.5/45.13

REFERENCE: PPM 5.0.10 rev 6, pages 91 and 92

SOURCE: **NEW QUESTION –** RO T1, GP2, #18

LO: 5635/5642

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: The Drywell downcomers become uncovered at less than 19.2 feet and the Pressure Suppression function of the wetwell is lost. Suppression chamber pressure increases until it reaches the point of being ½ psig higher than the drywell when the ww/dw vacuum breakers open. C is correct.

COMMENTS:

EX01130

The plant is operating at 93% power with surveillance for APRM-F Operability in progress. The I&C Technician places the APRM-F mode switch in the STANDBY position. However, no annunciators were received on P603 following the movement of the APRM mode switch.

Which one of the following is correct for these conditions?

A. Reactor operation may continue, there is no Tech Spec action required.

B. APRM Channel F must be placed in the tripped condition in 12 hours.

C. RPS-B must be placed in the tripped condition in 12 hours.

D. APRM Channel F must be placed in the tripped condition in 6 hours.

ANSWER: A

QUESTION TYPE: RO

KA # & KA VALUE: 215005A4.06 3.6/3.8 10CFR55.41.7/45.5/45.8

REFERENCE: Tech Spec 3.3.1.1, table 3.3.1.1-1

SOURCE: **NEW QUESTION –** RO T2, GP1, #13

LO: 5097

RATING: H3

ATTACHMENT: YES - Tech Spec 3.3.1.1, table 3.3.1.1-1

JUSTIFICATION: The INOP trip for APRM-F is out of service. Only 2 per trip system are required in MODE 1 so operation can continue. A is correct.

COMMENTS:

EX01131

Which one of the following describes the purpose of the Steam flow signal input to Feedwater Level Control?

Steam flow is directly summed with…

A. feedflow, which modifies the level signal input to anticipate short-term level changes.

B. feedflow, which modifies the level signal input to anticipate long term level changes.

C. the level signal input to Feedwater Level Control to modify the level feedback and anticipate short-term level changes.

D. the level signal input to Feedwater Level Control to modify the level feedback and anticipate long term level changes.

ANSWER: A

QUESTION TYPE: RO

KA # & KA VALUE: 216000K5.08 3.1/3.2 10CFR55.41.5/45.3

REFERENCE: LO000157 rev 11, pages 14 and 15

SOURCE: **NEW QUESTION –** RO T2, GP1, #15

LO: 5395

RATING: L2

ATTACHMENT: NONE

JUSTIFICATION: As stated in the system text, Steam flow is summed with Feed flow to provide an error signal. This signal is used to modify the incoming level signal to anticipate short-term level changes. A is correct.

COMMENTS:

EX01132

Direction is given in the Drywell Temperature Control leg to spray the drywell before temperature reaches 330°F.

Which one of the following is the basis for this direction?

Drywell sprays are initiated to cool the drywell and prevent exceeding the…

A. Drywell floor downward pressure limit.

B. Reactor Recirc Pump Motor temperature limit.

C. Primary Containment design pressure.

D. ADS design temperature.

ANSWER: D

QUESTION TYPE: RO

KA # & KA VALUE: 223001A2.10 3.6/3.8 10CFR55.41.5/45.6

REFERENCE: PPM 5.0.10 rev 6, page 250

SOURCE: **NEW QUESTION –** RO T2, GP1, #18

LO: 8318

RATING: L3

ATTACHMENT: NONE

JUSTIFICATION: The basis for the step directing drywell sprays prior to reaching 330F states it is to prevent exceeding the ADS Design temperature limit. D is correct.

COMMENTS:

EX01133

The plant was operating at 87% power when an MSIV isolation occurred. Following the isolation, a loss of DP-S1-1A occurred.

Which one of the following is correct concerning these conditions?

A. The relief function for all SRVs is disabled, manual operation can only be performed from the Div 2 ADS switches on P631.

B. The relief function for all SRVs is disabled, manual control can be performed for all SRVs from P601.

C. The relief function for all SRVs is operable, manual operation can only be performed from the Div 2 ADS switches on P631.

D. The relief function for all SRVs is operable, manual control can be performed for all SRVs from P601.

ANSWER: A

QUESTION TYPE: RO

KA # & KA VALUE: 239002K6.03 2.7/2.9 10CFR55.41.7/45.7

REFERENCE: 82-RSY-0100-T4 rev9, page 7 and8

SOURCE: **NEW QUESTION –** RO T2, GP1, #21

LO: 5536

RATING: H4

ATTACHMENT: NONE

JUSTIFICATION: DP-S1-1A powers the C solenoids for all SRVs and the A solenoids for the ADS SRVs. This leaves only the B solenoids with power. They are controlled manually from the Div 2 P631. A is correct.

COMMENTS:

EX01134

Which one of the following is the DEH Mode that responds to RPM input requests?

A. Reactor Start

B. Turbine Follow Reactor Manual

C. Turbine Start

D. Turbine Load Control

ANSWER: C

QUESTION TYPE: RO

KA # & KA VALUE: 241000K1.19 2.6/2.6 10CFR55.41.2-9/45.7-8

REFERENCE: 82-RSY-0400-T5 rev 6, pages 3, 9, and 10

SOURCE: **NEW QUESTION –** RO T2, GP1, 22

LO: 5268

RATING: H2

ATTACHMENT: NONE

JUSTIFICATION: The DEH system only responds to RPM input requests in Mode 2, Turbine Start. C is correct.

COMMENTS:

EX01135

A reactor startup is underway. FWLC is being changed from the 10 valves for level control to RFP Speed control. PPM directs that RFW-V-112A be opened, which has been done. The next step also directs that RFW-V-112A be opened.

Which one of the following is correct for these conditions?

A. A Verbal Temporary Change must be made to the procedure and approved by the SM/CRS. A TCN does not have to be completed.

B. An Editorial change can be made to the procedure, signed (by the SM/CRS) and dated copies of the changes are submitted to Admin Services, Procedure Control, and the startup can continue.

C. The CRO can make an editorial change to the procedure and submit it for approval to Admin Services, Procedure Control. The startup can continue.

D. The TCN must be completed by the SM/CRS and approved by one other member of the Management Staff before the startup continues.

ANSWER: B

QUESTION TYPE: RO

KA # & KA VALUE: 259002 2.2.11 2.5/3.4 10CFR55.41.10/43.3/45.13

REFERENCE: SWP-PRO-02 rev 8, page 13

SOURCE: **NEW QUESTION –** RO T2, GP1, #24

LO: 6065

RATING: H4

ATTACHMENT: NONE

JUSTIFICATION: The procedure problem identified requires an Editorial change only. The CRS/SM signs and dates a marked up copy of the procedure and forwards the copies to Admin Services, Procedure Control. B is correct.

COMMENTS:

EX01136

PPM 5.2.1 has been entered due to high Drywell Pressure. Neither RHR-A nor RHR-B can be placed in Containment Spray. Direction is given in the PC Pressure leg of PPM 5.2.1 to Emergency Depressurize the reactor if Wetwell Pressure cannot be maintained less than the Pressure Suppression Pressure.

Which one of the following is the basis for this direction?

A. Any LOCA subsequent to exceeding the Pressure Suppression Pressure will cause a containment failure due to exceeding the Primary Containment Pressure Limit.

B. Any LOCA subsequent to exceeding the Pressure Suppression Pressure will cause a containment failure due to failure of the Wetwell to Drywell Interface.

C. A subsequent reactor blowdown may exceed the Heat Capacity Temperature Limit when the SRVs are opened.

D. A subsequent reactor blowdown may exceed the Suppression Pool boundary design load when the SRVs are opened.

ANSWER: D

QUESTION TYPE: RO

KA # & KA VALUE: 226001K3.03 2.9/3.2 10CFR55.41.7/45.4

REFERENCE: PPM 5.0.10 rev 6, page 91-92

SOURCE: **NEW QUESTION –** RO T2, GP2, #7

LO: 8040

RATING: L4

ATTACHMENT: NONE

JUSTIFICATION: A and B are incorrect because while some LOCAs cause this to happen, not all LOCAs cause the failure. C is incorrect because the ED is the action specified if the HCTL is exceeded. PSP is a limit that has an indirect effect on the Suppression Pool Boundary. Only if Wetwell Level/Pressure exceed the limit and there is a subsequent reactor blowdown from pressure through the SRVs is there a chance of damage to the Suppression Pool Boundary. D is correct.

COMMENTS:

EX01137

The Control Room Emergency Filtration fans, WMA-FN-54A/B auto started due to an auto initiation. The auto initiation signal has been cleared and you have been directed to stop WMA-FN-54A/B and realign WMA-AD-54A1/B1.

Which one of the following describes the minimum action(s) necessary to realign these components?

A. Depress both ISOLATION LOGIC A AND B and ISOLATION LOGIC C AND D pushbuttons on P601 and place both WMA-FN-54A/B control switches to the RESET position.

B. Depress both ISOLATION LOGIC A AND B and ISOLATION LOGIC C AND D pushbuttons on P601 and both WMA-RMS-FAZ-3AXY/3BXY pushbuttons on RC-1 and RC-2.

C. Place both WMA-FN-54A/B control switches to the RESET and back to AUTO position.

D. Depress both WMA-RMS-FAZ-3AXY/3BXY pushbuttons on RC-1 and RC-2.

ANSWER: B

QUESTION TYPE: RO

KA # & KA VALUE: 290003A1.04 2.5/2.8 10CFR55.41.5/45.5

REFERENCE: LO000201 rev 9, page 14

SOURCE: **NEW QUESTION –** RO T2, GP2, #16

LO: 5603

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: To clear the initiation signal, both the ISOLATION LOGIC A AND B and ISOLATION LOGIC C AND D pushbuttons on P601 and the WMA-RMS-FAZ-3AXY/3BXY pushbuttons on RC-1 and RC-2 must be pushed. When the pushbuttons on RC-1 and 2 are pushed the respective CR HVAC systems re-align automatically. B is correct.

COMMENTS:

EX01138

A LOCA has just caused an automatic scram from 45% power. All systems operated as expected. Reactor pressure is 145 psig and reactor level is -206 inches and down slow. A BISI annunciator for RHR B OUT OF SERVICE illuminates. Investigation indicates RRA-FN-10 (RHR-B room cooling fan) has a power supply failure. The room temperature is normal. The CRS directs that RHR-B be operated in LPCI injection.

Which one of the following is correct for this condition?

The direction given is…

A. incorrect, continued operation of RHR is not assured without the room coolers.

B. incorrect, there are enough systems injection to ensure adequate core cooling.

C. correct, room coolers have no effect on continued operation of RHR in the LPCI Mode.

D. correct, all available injection systems should inject, regardless of operability concerns.

ANSWER: D

QUESTION TYPE: RO

KA # & KA VALUE: 203000K6.08 2.9/3.1 10CFR55.41.7/45.7

REFERENCE: PPM 5.0.10 rev 6, page11

SOURCE: **NEW QUESTION –** RO T2, GP1, #2

LO: 8040

RATING: H3

ATTACHMENT: NONE

JUSTIFICATION: A and B are both incorrect because the direction to continue injection with RHR-B is correct. C is incorrect because the room coolers do have an affect on the operability of RHR. D is correct because with level decreasing, all available systems are required to inject regardless of operability due to the room coolers.

COMMENTS: