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QUESTION 1

The plant is operating at 20 % power following RF11.

A ground fault on the Entergy Grid resulted in the Main Generator output circuit breakers J5228 and J5232 automatically opening on a Generator Lockout.

Which one of the following describes the reaction of the plant to this trip?
ASSUME NO OPERATOR ACTIONS.

A. Main Steam Bypass Valves will automatically open maintaining reactor pressure. The reactor will scram following the closure of the Main Turbine Stop and Control Valves.

B. Main Steam Bypass Valves will automatically open maintaining reactor pressure. The reactor will remain at power with the Main Turbine remaining in operation.

C. Main Steam Bypass Valves will automatically open maintaining reactor pressure. The reactor will remain at power with the Main Turbine Stop and Control Valves closing.

D. The reactor will scram due to the Main Turbine Control Valve fast closure that will result in a subsequent normal closure of the Main Turbine Control Valves to maintain reactor pressure.

QUESTION 1 **NRC RECORD # WRI 553**
ANSWER: C **SYSTEM # N41;** **K/A 295005** **AA2.05: 3.8/3.9**
N32-2; C71 **AA2.04: 3.7/3.8**
LP# GG-1-LP-OP-C7100 **AA2.03: 3.1/3.1**
OBJ. 9
LP# GG-1-LP-OP-N3202
OBJ. 2
LP# GG-1-LP-OP-N4151
OBJ. 11 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 1**
REFERENCE: **Tech. Spec 3.3.1.1** ***NEW***
05-1-02-I-2 sect 4.1 MODIFIED BANK
DIFF 2; CA
RO SRO ***BOTH*** **CFR 41.5/41.6**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 2

Which one of the following is a correct method of verifying the position of the control rods? (The scram has NOT been reset.)

A. Using the full core display on H13-P680, depress ALL RODS with RCIS in Raw Data and observe a blank display with only green LEDs for all control rods.

B. Using the full core display on H13-P680, depress ALL RODS with RCIS in Raw Data and observe all control rods indicate 00 with a green LED for all control rods.

C. Using the full core display on H13-P680, depress ALL RODS with RCIS out of Raw Data and observe a blank display with only red LEDs for all control rods.

D. Using the full core display on H13-P680, depress ALL RODS with RCIS out of Raw Data and observe all control rods indicate 00 with a red LED for all control rods.

QUESTION 2 **NRC RECORD # WRI 10**
ANSWER: A. **SYSTEM # C11-2; C11-1B** **K/A 295006 AA2.02: 4.3/4.4**
201005 A3.02: 3.5/3.5
A4.02: 3.7/3.7
LP# GG-1-LP-OP-C111B
OBJ. 3c, 3f
LP# GG-1-LP-OP-C1102
OBJ. 12 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: 04-1-01-C11-2 NEW
sect. 4.7.2p & 4.8.2i MODIFIED ***BANK***
DIFF: 2; CA **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.6/41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 3

Plant conditions are as follows:

MODE:	Mode 1
Rx power:	28 %
T-G Load:	365 MWE
Load Demand	390 MWE
Bypass position:	0 %

All other parameters are per plant design.

The operator withdraws a control rod that raises Reactor power to 29 %.

How will the Turbine EHC Control System respond?

A. The Bypass Control Valves will open by whatever amount is required to maintain Rx pressure.

B. The Turbine Control Valves will open by whatever amount is required to maintain Rx pressure.

C. The Bypass Control Valves will close by whatever amount is required to maintain Rx pressure.

D. The Turbine Control Valves will close by whatever amount is required to maintain Rx pressure.

QUESTION 3 **NRC RECORD # WRI 69**
ANSWER: B. **SYSTEM # N32-2** **K/A 295007** **AK2.01: 3.5/3.7**
241000 **A2.02: 3.7/3.7**
LP# GG-1-LP-RO-N3202 **K4.01: 3.8/3.8**
OBJ 4b, 6b, 7b **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: 03-1-01-2 sect. 5.2 NEW
MODIFIED ***BANK***
DIFF: 2; CA **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 4

The plant is operating at 70 % power.

Which of the following best describes the response of the Reactor Water Level Control System on a failure of a single Feed Flow Transmitter UPSCALE?

A. The Digital Feed System will recognize the failure and de-select 3 - element control and return level to the level setpoint.

B. The Digital Feed System will lower feed flow until reactor level drops to 32 inches at which time it will become level dominant remaining in 3 - element control.

C. The Digital Feed System will lower feed flow and reactor level will stabilize out at a new low level below the low level alarm setpoint.

D. The Digital Feed System will lock up the controls and hold level at the normal level, remain in 3 - element control, and actuate the DFCS TROUBLE annunciator on P680.

QUESTION 4 **NRC RECORD # WRI 68**
ANSWER: A. **SYSTEM # C34** **K/A 295009 AA1.02: 4.0/4.0**
AA2.02: 3.6/3.7
LP# GG-1-LP-RO-C3401 **259002 K6.04: 3.1/3.1**
OBJ 1.10 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: ARI 04-1-02-H13-P680 NEW
2A-C9 MODIFIED ***BANK***
DIFF: 2; CA **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.7**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 5

The plant is operating at 70 % power.

Determine the calculated Drywell Floor Drain (Unidentified Leakage) rate and Drywell Total Leakage.

ATTACHED are indications from the Drywell Floor Drain Sump Chart Recorder E31-LR-R618 and information provided from the Daily Operations Log 06-OP-1000-D-0001 item 25 and 26

PDS Computer is inoperable.

	Drywell Unidentified Leakage rate	Drywell Total Leakage rate
A.	1.50	3.66
B.	1.50	4.50
C.	2.00	4.16
D.	2.00	5.00

QUESTION 5 **NRC RECORD # WRI 502**
ANSWER: A. **SYSTEM # E31** **K/A 295010** **AA2.01: 3.4/3.8**
2.1.2: 3.0/4.0
LP# GG-1-QC-RO-CRO01 **2.1.18: 2.9/3.0**
2.1.25: 2.8/3.1
OBJ **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: 06-OP-1000-D-0001 ***NEW***
Drywell Floor Drain Chart MODIFIED BANK
DIFF: 2; CA E31-LR-R618
RO SRO ***BOTH*** **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: 06-OP-1000-D-0001 Attachment I Item 25 & method 1 & calculator Chart paper indications of sump readings

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QUESTION 6

The plant is performing a reactor startup from cold shutdown.

The reactor was at the point of adding heat.

The Control Room Supervisor instructed the operators to stop the startup for a short duration to perform a surveillance.

During this time, the reactor went subcritical and power dropped to range 3 of the IRMs.

The At-The-Controls Operator, noting that reactor power had dropped selected the next control rod and withdrew the control rod from 20 to 48 with continuous motion as allowed by the Control Rod Movement Sequence Sheet.

This resulted in a sustained 20-second period.

The following are the plant parameters at present:

Reactor Pressure	80 psig
Reactor Level	+ 40 inches

Which one of the following describes the next action the At-The-Controls operator should take?

A. Immediately range all IRMs to range 10 and monitor overlap data between IRMs and APRMs.

B. Perform the coupling checks for the Control Rod, and inform the Reactor Engineer of the power rise.

C. Withdraw the next in sequence Control Rod to maintain the power rise to reach the point of adding heat.

D. Insert the Control Rod to a position which causes reactor period to be > 50 seconds.

QUESTION 6 **NRC RECORD # WRI 204**
ANSWER: D. **SYSTEM # C11-2; C51** **K/A 295014** **AK3.01: 4.1/4.1**
LP# GG-1-LP-OP-IOI01
OBJ. 3c & d **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: **03-1-01-1 sect. 2.1.4** NEW
Susquehanna reactivity MODIFIED ***BANK***
DIFF 1; M **Event 7/98** **NRC 4/00**
04-1-01-C51-1 sect 4.3.2 NOTE RO SRO ***BOTH*** **CFR 41.1/41.2/ 41.6/43.6**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 7

Scram conditions exist. All control rods did NOT fully insert.

Reactor water level is being maintained at –60 inches.

Reactor pressure is being maintained at 910 psig.

Reactor power is 20 %.

The following indications exist:

RPS white lights on H13-P680 are extinguished.
Scram Air Header Pressure low annunciator is illuminated.
RX SCRAM TRIP annunciator is illuminated.

The following actions have been taken:

Defeat the RPS scram signal and reset RPS
Unisolate the Instrument Air header
Defeat Alternate Rod Insertion
A CRD pump is confirmed operating and the CRD FCV is open to achieve 250 psig Drive pressure.

Which one of the following contains the minimum actions required to drive the control rods to position 00 using Rod Control and Information System?

A. Bypass Control Rod Drive withdrawal blocks, select control rods and insert.

B. Bypass Control Rod Drive withdrawal blocks, select control rods in sequence and insert.

C. Bypass Control Rod Drive insert and withdrawal blocks, select control rods and insert.

D. Select control rods in sequence and insert.

QUESTION 7 **NRC RECORD # WRI 203**
ANSWER: C. **SYSTEM # C11-2; C71; C11-1A** **K/A 295015 AK3.01: 3.4/3.7**
LP# GG-1-LP-RO-EP02A
OBJ. 5 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: **EP 05-S-01-EP-2A** NEW
Step 48 Att. 18, 19 & 20 MODIFIED ***BANK***
DIFF 3; CA **NRC 4/00**
RO SRO ***BOTH*** **CFR 41.6/43.6**
REFERENCE MATERIAL REQUIRED: 05-S-01-EP-2 EP-2A

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QUESTION 8

Which one of the following identifies the significance of exceeding the maximum Drywell pressure?

A. The Drywell Purge Compressor discharge valve differential pressure limit would be exceeded preventing the operation of the Drywell Purge Compressors and the combustible gas control function.

B. The Drywell structure could be breached resulting in the loss of the pressure suppression function resulting in the direct pressurization of Containment in a DBA that would result in a failure of Containment.

C. The resultant Suppression Pool surge upon depressurization of the Drywell would cause the structures inside the Containment to exceed the maximum loading and could result in a compounded failure.

D. The Suppression Pool surge upon depressurization of the Drywell would result in the overflowing of the Weir Wall and the degradation of equipment in the lower elevation of the Drywell required for accident mitigation.

QUESTION 8 **NRC RECORD # WRI 259**
ANSWER: B. **SYSTEM # M41** **K/A 295024** **EK1.01: 4.1/4.2**
LP# GG-1-LP-OP-M4101
OBJ. 4, 5 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: FSAR sect 3.8.1; 6.2.1.1.1j NEW
Table 6.2-1 MODIFIED ***BANK***
DIFF 1; M **NRC 12/00**
RO SRO ***BOTH*** **CFR 41.9**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 9

Which of the following is the basis for the correlation between Reactor Pressure and Suppression Pool Temperature concerning Heat Capacity Temperature Limit (HCTL) during an ATWS?

A. It is the highest suppression pool temperature from which an Emergency Depressurization will not raise suppression pool temperature above the capability to monitor suppression pool temperature with the reactor still pressurized.

B. It is the highest suppression pool temperature from which an Emergency Depressurization can be performed and the suppression pool still capable of absorbing all the energy from the reactor at all pressures.

C. It is the highest suppression pool temperature from which an Emergency Depressurization will not raise containment temperature above the maximum temperature capability of the containment and equipment in containment that may be required to operate with the reactor still pressurized.

D. It is the highest suppression pool temperature from which an Emergency Depressurization will not result in direct steam introduction into the containment through a Suppression Pool approaching saturation conditions with the reactor still pressurized.

QUESTION 9 **NRC RECORD # WRI 503**
ANSWER: C. **SYSTEM # M41-1** **K/A 295025** **A2.03: 3.9/4.1**
LP# GG-1-LP-RO-EP02.01
OBJ. 12 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: GGNS PSTG Appendix B ***NEW***
MODIFIED BANK
DIFF 1;M
RO SRO ***BOTH*** **CFR 41.9/41.10/43.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 10

The plant is in an ATWS condition. Reactor power was at 80% after the scram condition occurred. Standby Liquid Control has been initiated but failed to inject.

Which of the following conditions would adequate core cooling ***NOT*** be assured?

A.
Drywell Temperature 185°F
Reactor Pressure 600 psig
Suppression Pool Level 18 feet
2 SRVs open
Reactor Water Level -187 inches Fuel Zone
Feedwater is injecting.

B.
Drywell Temperature 200°F
Reactor Pressure 350 psig
Suppression Pool Level 21.5 feet
8 SRVs open
Reactor Water Level -215 inches Fuel Zone
No high pressure injection systems available

C.
Drywell Temperature 190°F
Reactor Pressure 150 psig
Suppression Pool Level 22 feet
8 SRVs open
Reactor Water Level -205 inches Fuel Zone
LPCS is injecting, no other systems available

D.
Drywell Temperature 220°F
Reactor Pressure 200 psig
Suppression Pool Level 23 feet
8 SRVs open
Reactor Water Level -165 inches Fuel Zone (level instruments are suspect per caution 1)
Feedwater is injecting.

QUESTION 10 **NRC RECORD # WRI 504**
ANSWER: C. **SYSTEM # B21; EP** **K/A 295031** **A2.04: 4.6/4.8**
LP# GG-1-LP-RO-EP02A
OBJ. 2 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: 05-S-01-EP-2A ***NEW***
GGNS PSTG MODIFIED BANK
DIFF 3;CA
RO SRO ***BOTH*** **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: 05-S-01-EP-2A

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QUESTION 11

Which one of the following describes the conditions that Cold Shutdown Boron Weight is designed to over come?

A. 68 °F, xenon free, water level at steam lines, 50 % rod density.

B. 68 °F, xenon free, water level in normal band, all rods fully withdrawn.

C. 110 °F, xenon free, water level in normal band, all rods fully withdrawn.

D. 110 °F, xenon free, water level at steam lines, 50 % rod density.

QUESTION 11 **NRC RECORD # WRI 38**
ANSWER: B. **SYSTEM #** **K/A 295037** **EK3.05: 3.2/3.7**
EOP-2A BASES
LP# GG-1-LP-RO-EP02A
OBJ 2 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: 05-S-01-EP-2A Bases NEW
Step 21 PSTG App C 2.1 MODIFIED ***BANK***
DIFF 1; M Tech Spec 3.1.7 Bases **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.6/41.10/43.6**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 12

Which one of the following is the basis for the Hydrogen Deflagration Overpressure Limit (HDOL)?

A. Ignition of excess Hydrogen concentrations could result in peak pressures in excess of either Drywell structural capability **or** Drywell-to-Containment differential pressure.

B. Ignition of excess Hydrogen concentrations could result in peak pressures in excess of either Containment structural capability **or** Drywell-to-Containment differential pressure.

C. Ignition of excess Hydrogen concentrations could result in peak pressures in excess of either Drywell structural capability **or** Containment pressurization rates.

D. Ignition of excess Hydrogen concentrations could result in peak pressures in excess of either Drywell-to-Containment differential pressure **or** Containment pressurization rates.

QUESTION 12 **NRC RECORD # WRI 505**
ANSWER: B. **SYSTEM # EP Bases** **K/A 500000** **K1.01: 3.3/3.9**
LP# GG-1-LP-RO-EP03
OBJ. 6 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: GGNS PSTG Appendix B ***NEW***
16.7 & 16.9 MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 13

The plant is in an ATWS condition and EP-2A is being implemented.

Under which one of the following conditions is the Reactor considered shutdown?

A. 12 Rods at position 02, 1 Rod at position 04, all other Rods at position 00.

B. 2 Rods at position 04, all other Rods at position 00.

C. 1 Rod at position 44, all other Rods at position 00.

D. 4 Rods at position 48, all other Rods at position 00, Standby Liquid Control has injected the entire contents of the SLC tank to the reactor.

QUESTION 13 **NRC RECORD # WRI 506**
ANSWER: C. **SYSTEM # B21; C11** **K/A 295037** **K1.07: 3.4/3.8**
LP# GG-1-LP-RO-EP02
OBJ. 11 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: EP-2A ***NEW***
GGNS PSTG RC/Q-1 MODIFIED BANK
DIFF. 2; CA
RO SRO ***BOTH*** **CFR 41.1/41.2/41.10**
REFERENCE MATERIAL REQUIRED: 05-S-01-EP-2A **43.5/43.6**

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QUESTION 14

The plant was operating at full power when a malfunction during a surveillance resulted in a Recirc Flow Control Valve runback.

Reactor Power is presently 79 %.
Total Core Flow is at 62 Mlbm/hr.
Both PBDS Cards are operable.

Which one of the following best describes the actions to be taken for the present situation?

(05-1-02-III-3 Reduction in Recirculation System Flow Rate is attached.)

A. Immediately scram the reactor.

B. Monitor for thermal hydraulic instability, operation can continue in the region without thermal hydraulic instability.

C. Monitor for thermal hydraulic instability and verify FCBB is ≤ 1.0 within 15 minutes. Insert control rods to exit the region.

D. Monitor for thermal hydraulic instability and verify FCBB is ≤ 1.0 within 15 minutes. Reduce recirculation flow to exit the region.

QUESTION 14 **NRC RECORD # WRI 303**
ANSWER: B. **SYSTEM # B33** **K/A 295001** **AA2.01: 3.5/3.8**
LP# GG-1-LP-OP-B3300 **AK1.02: 3.3/3.5**
OBJ 41, 42, 43, 49 **2.4.4: 4.0/4.3**
LP# GG-1-LP-OP-ONEP1 **2.4.11: 3.4/3.6**
OBJ 24, 25 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 05-1-02-III-3 P/F MAP NEW
sect. 3.1; 3.3 for Monitored MODIFIED ***BANK***
DIFF 2; CA Region - Recirc FCV **NRC 12/00**
Runback in Fast Speed RO SRO ***BOTH*** **CFR 41.5/41.10/43.5**
REFERENCE MATERIAL REQUIRED: 05-1-02-III-3 w/o Imm Actions &
Color Power to Flow Map

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QUESTION 15

Which one of the following describes the automatic actions that will occur as Main Condenser vacuum degrades to 0 inches Hg vacuum?

A. 21" vac, Main Turbine trip
16" vac, Main bypass valves close
12" vac, Rx feed pumps trip
9" vac, MSIV closure

B. 21" vac, Main Turbine trip
16" vac, Rx feed pumps trip
12" vac, Main bypass valves close
9" vac, MSIV closure

C. 21" vac, Main Turbine trip
16" vac, MSIV closure
12" vac, Main bypass valves close
9" vac, Rx feed pumps trip

D. 21" vac, Main Turbine trip
16" vac, MSIV closure
12" vac, Rx feed pumps trip
9" vac, Main bypass valves close

QUESTION 15 **NRC RECORD # WRI 40**
ANSWER: B. **SYSTEM # N62** **K/A 295002** **AK1.03: 3.6/3.8**
LP# GG-1-LP-OP-N6200
OBJ 14
LP# GG-1-LP-OP-ONEP1
OBJ 39 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 05-1-02-V-8 sect. 5.0 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 12/00**
RO SRO ***BOTH*** **CFR 41.4**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 16

The plant is in a normal electrical line-up with all busses fed from their preferred power source. If a lockout of BOP Transformer 12B were to occur,

Which of the following indicates the correct status of BOP busses?

A.
11HD	ENERGIZED
12HE	DE-ENERGIZED
13AD	DE-ENERGIZED
14AE	ENERGIZED
18AG	ENERGIZED
28AG	DE-ENERGIZED

B.
11HD	DE-ENERGIZED
12HE	ENERGIZED
13AD	ENERGIZED
14AE	DE-ENERGIZED
18AG	ENERGIZED
28AG	ENERGIZED

C.
11HD	ENERGIZED
12HE	DE-ENERGIZED
13AD	DE-ENERGIZED
14AE	ENERGIZED
18AG	DE-ENERGIZED
28AG	DE-ENERGIZED

D.
11HD	DE-ENERGIZED
12HE	ENERGIZED
13AD	ENERGIZED
14AE	DE-ENERGIZED
18AG	DE-ENERGIZED
28AG	ENERGIZED

QUESTION 16 **NRC RECORD # WRI 507**
ANSWER: B **SYSTEM # R21** **K/A 295003** **A1.01: 3.7/3.8**
LP# GG-1-LP-OP-R2700.03
OBJ. 8 &15 A. **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 2**
REFERENCE: **04-1-01-R21-11 sect 3.2** ***NEW***
04-1-01-R21-12 sect 3.2 MODIFIED BANK
DIFF 1; M **04-1-01-R21-13 sect 3.2**
04-1-01-R21-14 sect 3.2 RO SRO ***BOTH*** **CFR 41.7**
04-1-01-R21-18 sect 3.2
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 17

Which of the following is the correct sequence for restoring a battery charger to service?

A. Close charger output breaker, close charger AC feeder breaker, close DC switch, close AC switch.

B. Close charger output breaker, close charger AC feeder breaker, close AC switch, close DC switch.

C. Close charger AC feeder breaker, close charger output breaker, close AC switch, close DC switch.

D. Close charger AC feeder breaker, close AC switch, close charger output breaker, close DC switch.

QUESTION 17 **NRC RECORD # WRI 508**
ANSWER: A. **SYSTEM # L11** **K/A 295004** **Generic 2.1.32: 3.4/3.8**
LP# GG-1-LP-OP-L1100
OBJ. 11 a **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 04-1-01-L11-1 ***NEW***
sect 3.6 & 4.6.2 MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.10**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 18

The plant was operating at 80 % power.

Reactor Narrow Range Water Level transmitter C34-N004B has failed downscale and brought in annunciator "RX WTR LVL SIG FAIL HI/LO".

The Operator at the Controls notices the Reactor Narrow Range Level indicator C34-LI-R606A indicates offscale HIGH and annunciator "RFPT/MN TURB LVL 8 TRIP" is in.

Reactor Narrow Range Water Level indicator R606C is reading + 36 inches.

Reactor Upset Range Water Level indicator is reading + 38 inches.

Reactor Wide Range Water Level indicator on P680 is reading + 40 inches.

Reactor Wide Range Water Level indicators A & B on P601 are reading + 40 inches.

Which one of the following describes the actions to be taken?
(NO OTHER ALARMS ARE PRESENT.)

A. Immediately initiate a Reactor Scram and trip the Main Turbine and the Reactor Feed Pump Turbines because they failed to trip.

B. Manually select Reactor Water Level Control to Single Element control and verify Reactor level returns to normal.

C. Select the Master Level Controller to MANUAL to lock the level signals at the present setting to prevent any level perturbations and establish stable level control.

D. Continue monitoring Reactor Water Level on P680 and compare with other indications on P601 and the PDS computer and contact I&C.

QUESTION 18 **NRC RECORD # WRI 275**
ANSWER: D. **SYSTEM # C34; N21; N30** **K/A 295008 AK1.01: 3.0/3.2**
245000 A3.01: 3.6/3.6
LP# GG-1-LP-RO-C3401 **259001 K6.07: 3.8/3.8**
OBJ. 1.4, 1.5, 1.7 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 04-1-02-H13-P680 4A2-A2 & D1 NEW
MODIFIED ***BANK***
DIFF 3; CA **NRC 4/00**
RO SRO ***BOTH*** **CFR 41.4/41.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 19

Which of the following is the bases for securing Containment Spray prior to going below "0" psig in Containment?

A. Containment pressure instruments are unable to monitor below 0 psig.

B. Containment vent valves sized to reject decay heat from the Containment are unable to be opened and closed below 0 psig.

C. Safety Relief Valves (SRVs) are unable to be opened and/or remain open below 0 psig.

D. Sufficient margin is provided that Containment pressure does not exceed the negative pressure design of the Containment structure.

QUESTION 19 **NRC RECORD # WRI 509**
ANSWER: D. **SYSTEM # M41-1** **K/A 295011** **K1.01: 4.0/4.1**
LP# GG-1-LP-RO-EP03
OBJ. 6 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: GGNS PSTG ***NEW***
second PC override MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.9/41.10/43.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 20

The Control Room has been abandoned and control has been established at the Remote Shutdown Panels.

Reactor pressure	400 psig
Indicated Reactor level at the Remote Shutdown Panel	66 inches

With present plant conditions, which one of the following describes Narrow Range Level, Actual Level and the availability of RCIC for level control?

05-1-02-II-1 Attachments I and II are provided.

	NARROW RANGE LEVEL	ACTUAL LEVEL	RCIC
A.	55 inches	48 inches	Not available
B.	51 inches	53 inches	Available
C.	48 inches	43 inches	Available
D.	60 inches	60 inches	Not available

QUESTION 20 **NRC RECORD # WRI 524**
ANSWER: C. **SYSTEM # C61; B21** **K/A 295016** **AA2.02: 4.2/4.3**
2.1.25: 2.8/3.1
LP# GG-1-LP-OP-C6100 **2.4.11: 3.4/3.6**
OBJ 19 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 05-1-02-I-1 Att I & II ***NEW***
MODIFIED BANK
DIFF 2; CA
RO SRO ***BOTH*** **CFR 41.5/41.10/43.5**
REFERENCE MATERIAL REQUIRED: 05-1-02-II-1 Att. I & II

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QUESTION 21

The Radwaste contractor was attempting to load a High Intensity Cask (HIC) with spent Reactor Water Cleanup Resin when an equipment malfunction caused the filling equipment to spray approximately 2 cubic yards of dry spent resin out the railroad door of the Radwaste Building.

The wind has dispersed the resin and its contaminants into the air.

The Shift Manager has declared a General Emergency due to EAL 5.4.1b.

Field monitoring teams and Chemistry have reported a 5450 mRem Thyroid CDE dose commitment at the Claiborne County Emergency Operations Center.

Which one of the following is the Protective Action Recommendation to be issued to the state?

10-S-01-1 Activation of the Emergency Plan and the 5-Mile Emergency Planning Zone Map are provided.

A. Evacuate 2 mile radius of the plant, and evacuate the 5 mile down wind sectors and shelter the remaining of the 10 mile Emergency Planning Zone.

B. Evacuate 2 mile radius of the plant, and evacuate the 10 mile down wind sectors and shelter the remaining of the 10 mile Emergency Planning Zone.

C. Evacuate 2 mile and the 5 mile radius of the plant and evacuate the 10 mile down wind sectors and shelter the remaining of the 10 mile Emergency Planning Zone.

D. Evacuate 2 mile, 5 mile, and 10 mile radius of the plant and shelter the 50 mile down wind sectors of the Emergency Planning Zone.

QUESTION 21 **NRC RECORD # WRI 112**
ANSWER: B. **SYSTEM # EPP PARs** **K/A 295017** **AK2.06: 4.6**
LP# GG-1-LP-EP-EPTS6
OBJ 2 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 2**
REFERENCE: 10-S-01-1 sect. 6.1.4 NEW
EAL 5.4.1b MODIFIED ***BANK***
DIFF 2; CA 5 mile EPZ Map **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.10/41.12/43.4**
REFERENCE MATERIAL REQUIRED: 10-S-01-1 & 5 Mile EPZ Map **43.5**

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QUESTION 22

Which one of the following identifies the system loads allowed to be supplied by Component Cooling Water (CCW) during a **partial** loss of CCW?

A. Fuel Pool Heat Exchangers, Control Rod Drive oil coolers

B. Reactor Water Clean-Up, Control Rod Drive oil coolers

C. Recirculation pump/motor, Control Rod Drive oil coolers

D. Recirculation pump/motor, Reactor Water Clean-Up

QUESTION 22 **NRC RECORD # WRI 510**
ANSWER: C. **SYSTEM # P42; B33; C11-1A** **K/A 295018** **K2.01: 3.3/3.4**
LP# GG-1-LP-OP-ONEP1
OBJ. 2 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: **GG-1-LP-OP-B3300.01/ 42** ***NEW***
GG-1-LP-OP-G3336.00/ 14 MODIFIED BANK
DIFF 1; M **GG-1-LP-OP-G4146.02/ 15**
05-1-02-V-1 RO SRO ***BOTH*** **CFR 41.7/41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 23

The plant is operating at 100 % power.

A rupture in the Instrument Air header supplying the Radwaste and Offgas Building has been isolated.

The remainder of the Instrument Air header is pressurized.

Which one of the following describes the implications of the loss of Instrument Air to the Offgas and Radwaste Buildings?

A. Offgas system valves will fail closed and isolate the Offgas System.

B. Offgas system purge is lost resulting in a possible explosion and gaseous radiation hazards in the Offgas System.

C. Offgas system valves lose stem seal air resulting in possible high airborne radiation levels in the Offgas Building.

D. Offgas Preheaters will lose the purge air required to establish the proper temperatures entering the Offgas Catalytic Recombiners.

QUESTION 23 **NRC RECORD # WRI 315**
ANSWER: C. **SYSTEM # P53; N64** **K/A 295019** **AK2.06: 2.8/2.9**
LP# GG-1-LP-OP-N6465 **271000** **K6.01: 2.7/2.8**
OBJ. 13b **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 05-1-02-V-9 NEW
Section 3.12 & 5.8 MODIFIED ***BANK***
DIFF 1; M **NRC 12/00**
RO SRO ***BOTH*** **CFR 41.4/41.12/41.13/**
REFERENCE MATERIAL REQUIRED: None **43.4/43.5**

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QUESTION 24

The plant is operating at 30 % power.

The following Main Steam Isolation Valves have closed:

B21-F022B
B21-F022D
B21-F028B

Which one of the following describes the status of the Reactor Protection System?

A. No RPS actuation.

B. Half Scram on Division I.

C. Half Scram on Division II.

D. Full Reactor Scram.

QUESTION 24 **NRC RECORD # WRI 316**
ANSWER: A. **SYSTEM # B21; C71** **K/A 295020** **AK3.01: 3.8/3.8**
LP# GG-1-LP-OP-C7100
OBJ. 6c, d, 9 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: E-1173-15, 16, 17, 18, 19 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 12/00**
RO SRO ***BOTH*** **CFR 41.9**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 25

The plant is in a startup following a 32 day outage.

MSIVs are closed.

Recirc loop temperatures are at 180 ?F.

Control rods are being withdrawn to achieve criticality. (Minimal decay heat)

Feedwater is operating in long cycle cleanup.

The operating CRD Pump tripped.

What will be the response of the plant?
(ASSUME NO FURTHER OPERATOR ACTIONS)

A. The reactor water level will remain stable at its present level.

B. The reactor water level will rise to the point that a reactor scram is received on High water level.

C. The reactor water level will drop to the point that a reactor scram is received on Low water level.

D. The plant will scram due to a loss of charging water pressure to the Hydraulic Control Units.

QUESTION 25 **NRC RECORD # WRI 55**
ANSWER: C. **SYSTEM # C11-1A;** **K/A 295022** **AK2.04: 2.5/2.7**
G33/36; IOI- 1 **AK2.05: 2.4/2.5**
LP# GG-1-LP-OP-G3336 **AA1.04: 2.5/2.6**
OBJ 3c, 8f, 21
LP# GG-1-LP-OP-C111A
OBJ 23 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: **03-1-01-1** NEW
sect. 2.2.5; 3.3.1d; 3.3.3a MODIFIED ***BANK***
DIFF 2; CA **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 26

Suppression Pool temperature has gone up due to the performance of a Reactor Core Isolation Cooling (RCIC) quarterly surveillance.

Residual Heat Removal (RHR) 'B' has been place in Suppression Pool Cooling Mode of operation.

Which of the following describes the operability of the RHR 'B' system under these conditions?

A. RHR 'B' Containment Spray Mode is INOP at this time

B. RHR 'B' Low Pressure Core Injection (LPCI) Mode is INOP at this time

C. RHR 'B' Shutdown Cooling Mode is INOP at this time

D. All Modes of RHR 'B' are operable at this time

QUESTION 26 **NRC RECORD # WRI 511**
ANSWER: B. **SYSTEM # E12** **K/A 295026** **Generic 2.1.33: 3.4/4.0**
LP# GG-1-LP-OP-E1200
OBJ. 14 A **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 2**
REFERENCE: 04-1-01-E12-1 ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 43.2/43.3**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 27

The plant was operating at 100 % Power.

A steam leak has developed in the Containment steam tunnel.

Containment temperature has gone up to 85°F and still rising.

A power reduction has commenced but Containment temperature continues to rise.

Tech. Specs states if Containment temperature exceeds 95°F to restore to < 95°F within 8 hours.

If Containment temperature is unable to be restored to < 95°F within 8 hours; then be in MODE 3 in 12 hours and be in MODE 4 in 36 hours.

Which of the following is the reason for this action?
Tech Spec 3.6.1.5 is provided.

A. Shut down of the Reactor is done to prevent having to initiate Containment Spray to maintain Containment temperature below 185°F.

B. Shut down of the Reactor is done to place the plant in a MODE that the LCO does not apply.

C. Shut down of the Reactor is done to prevent having to Emergency Depressurize to maintain Containment temperature below 185°F.

D. Shut down of the Reactor is done to prevent damaging operating equipment inside Containment due to high temperature.

QUESTION 27 **NRC RECORD # WRI 512**
ANSWER: B. **SYSTEM # M41-1** **K/A 295027** **K3.03: 3.7/3.7**
LP# GG-1-LP-OP-M4101
OBJ. 12 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 2**
REFERENCE: **TECH. SPEC. 3.6.1.5** ***NEW***
TECH. SPEC. BASES MODIFIED BANK
DIFF 1; M **3.6.1.5**
RO SRO ***BOTH*** **CFR 41.9/41.10/43.2**
REFERENCE MATERIAL REQUIRED: **Tech Spec 3.6.1.5**

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QUESTION 28

The following conditions are observed after a Loss of Coolant Accident:

Reactor Pressure	50 psig
166' elev. temperature in the Drywell	205?F
Drywell Pressure	5.8 psig
139' elev. temperature in the Containment	150 ?F
119' elev. temperature in the Containment	130 ?F
Containment Pressure	2.0 psig
Shutdown Range Level Indication	+ 20 inches
Upset Range Level Indication	+ 50 inches
Wide Range Level Indication	- 40 inches

Operators were unable to verify any trends of level instruments.

Which one of the following indicates the most accurate level indication?

A. Upset Range

B. Wide Range

C. Level cannot be determined.

D. All level instruments may be considered accurate.

QUESTION 28 **NRC RECORD # WRI 520**
ANSWER: B. **SYSTEM # B21** **K/A 295028** **EK2.03: 3.6/3.8**
EK1.01: 3.5/3.7
LP# GG-1-LP-RO-EP02A **K/A 295027** **EK1.02: 3.0/3.2**
OBJ. 9 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 05-S-01-EP-2 Caution 1 NEW
MODIFIED BANK
DIFF 2; CA **NRC 3/98 WRI001**
RO SRO ***BOTH*** **CFR 41.3/43.5**
REFERENCE MATERIAL REQUIRED: 05-S-01-EP-2 CAUTION 1

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QUESTION 29

Which of the following is the basis for Emergency Reactor Pressure Vessel (RPV) Depressurization when Suppression Pool Level CANNOT be maintained below 24.4 feet?

A. 24.4 feet is the highest Suppression Pool level at which the pressure suppression capability of Containment can be maintained.

B. 24.4 feet is the highest Suppression Pool level at which the Suppression Pool will not overflow the weir wall resulting in flooding the Drywell.

C. 24.4 feet is the highest Suppression Pool level at which Suppression Pool level instrumentation taps will become covered resulting in loss of ability to monitor Suppression Pool level.

D. 24.4 feet is the highest Suppression Pool level at which opening Safety Relief Valves (SRVs) will not exceed the design pressure for the SRV discharge piping.

QUESTION 29 **NRC RECORD # WRI 513**
ANSWER: A. **SYSTEM # M41-1** **K/A 295029** **K1.01: 3.4/3.7**
LP# GG-1-LP-OP-EP03
OBJ. 6 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: GGNS PSTG APP B 16.11 ***NEW***
SP/L-3 MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.9/41.10**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 30

Given the following conditions:

Reactor power	20% and stable
Reactor level	-120 inches and stable on Startup Level Control
Reactor pressure	900 psig and stable on SRVs
Suppression pool temperature	1500F and rising
Suppression pool level	15.7 feet and slowly rising
4 SRVs are open.	

Which one of the following best describes the correct actions to be taken given the above conditions?

A. Maintain conditions allowing time for attachments for power reduction.

B. Reduce use of SRVs and raise pressure band allowing pressure to rise to 1050 psig.

C. Terminate and prevent injection from ECCS and Feedwater to lower reactor level to between TAF and –192 inches.

D. Terminate and prevent injection from ECCS and Feedwater and Emergency Depressurize waiting for MARFP conditions.

QUESTION 30 **NRC RECORD # WRI 526**
ANSWER: D. **SYSTEM # Prim CTMT EOP** **K/A 295030** **EK1.03: 3.8/4.1**
LP# GG-1-LP-RO-EP03
OBJ 3 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 2**
REFERENCE: 05-S-01-EP-2A NEW
Steps 33, 51, 53, 54, 55, 58 ***MODIFIED*** BANK
DIFF 2;CA **Figure 1** **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.9/41.10/43.5**
REFERENCE MATERIAL REQUIRED: 05-S-01-EP-2/2A & 3

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QUESTION 31

The plant is in a Refueling Outage.

PSW RAD HI/INOP alarm was received.

PSW Rad monitor reading is 53,000 cpm.

No other alarms are present

Which of the following is the probable source of radioactive release and correct actions to be taken?

A. CCW Heat Exchangers, Swap CCW Heat Exchangers to SSW

B. CCW Heat Exchangers, Secure CCW system and isolate CCW Heat Exchangers

C. ADHR Heat Exchangers, Swap ADHR Heat Exchangers to SSW

D. ADHR Heat Exchangers, Secure ADHR system and isolate ADHR Heat Exchangers

QUESTION 31 **NRC RECORD # WRI 514**
ANSWER: D. **SYSTEM # D17** **K/A 295038** **A2.04: 4.1/4.5**
LP# GG-1-LP-OP-D1721
OBJ. 2 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 2**
REFERENCE: 04-1-02-1H13-P601-18A-F1 ***NEW***
MODIFIED BANK
DIFF 2; CA
RO SRO ***BOTH*** **CFR 41.10/41.11/**
REFERENCE MATERIAL REQUIRED: NONE **41.12/41.13/43.4/43.5**

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QUESTION 32

A fire has engulfed the H13-P601 panel.

The fire has forced the evacuation of the Main Control Room.

The Reactor is shutdown and control has been established at the Remote Shutdown Panel.

The appropriate attachments for a fire have been completed.

Which one of the following describes a service that may be affected by the fire in the Control Room?

A. Cooling of the Suppression Pool with Residual Heat Removal

B. Cooling of Safe Shutdown components with Standby Service Water

C. Shutdown cooling operation of Residual Heat Removal

D. Opening of up to six Safety Relief Valves for depressurizing the reactor

QUESTION 32 **NRC RECORD # WRI 178**
ANSWER: C. **SYSTEM # C61; B21; E12; P41; E21** **K/A 600000 AA2.17: 3.6**
LP# GG-1-LP-OP-C6100
OBJ. 4b, 6, 9, 11 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 05-1-02-II-1 Att III & IV NEW
E-1160-10 (E12-F009) MODIFIED ***BANK***
DIFF 2; CA **NRC 4/00**
RO SRO ***BOTH*** **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: 05-1-02-II-1 Att. III & IV

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QUESTION 33

Which of the following is the reason for raising Reactor Water Level to +82 inches with no Recirculation pumps in operation per the Inadequate Decay Heat Removal ONEP?

A. +82 inches is the height required to establish flow through Safety Relief Valves (SRVs) to the Suppression Pool.

B. +82 inches is the height required to establish alternate cooling using Fuel Pool Cooling and Clean-up system (FPCCU).

C. +82 inches is the height required to allow natural circulation through the core and feedwater annulus.

D. +82 inches is the level required for the Time to Boil Curve from the Main Steam Line to be valid.

QUESTION 33 **NRC RECORD # WRI 515**
ANSWER: C. **SYSTEM # B21; B33** **K/A 295021** **K3.01: 3.3/3.4**
LP# GG-1-LP-OP-ONEP1
OBJ. 17 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 3**
REFERENCE: 05-1-02-III-1sect 3.1.2a ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.5/41.10**
REFERENCE MATERIAL REQUIRED: NONE **41.14/43.5**

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QUESTION 34

The plant is operating at rated conditions.

The following indications of Secondary Containment temperatures were just obtained by the Roving Nuclear Operator 'A':

RHR A Pump Room	170 °F	RWCU Pump Room A	150 °F
RHR A HX Room	130 °F	RWCU Pump Room B	140 °F
RHR B Pump Room	150 °F	RCIC Pump Room	130 °F
RHR B HX Room	100 °F	Main Steam Tunnel	150 °F

Which one of the following describes the systems that will receive an isolation signal?

A. RHR A ONLY.

B. RHR A & RCIC.

C. RHR A & B.

D. RHR A & B & RCIC.

QUESTION 34 **NRC RECORD # WRI 229**
ANSWER: B. **SYSTEM # E31; E12; E51** **K/A 295032** **EA1.05: 3.7/3.9**
LP# GG-1-LP-OP-E5100
OBJ. 8g
LP# GG-1-LP-OP-M7101
OBJ. 8b, c **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 3**
REFERENCE: **04-1-02-H13-P601 20A-B1** NEW
05-1-02-III-5 MODIFIED ***BANK***
DIFF 1; M **Isolation Checklist** **NRC 4/00**
RO SRO ***BOTH*** **CFR 41.4/41.9/**
REFERENCE MATERIAL REQUIRED: None **41.10/43.5**

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QUESTION 35

The plant is operating at 100% power.

Fuel Handling Area Exhaust Fan A is tagged out of service for motor replacement.

Fuel Pool Sweep System is out of service for exhaust duct work replacement.

Fuel Handling Area Exhaust Fan B trips and cannot be reset.

Auxiliary Building differential pressure is +0.3 inches wc.

Which one of the following best describes the correct actions to be taken given the above conditions?

A. Immediately shutdown and depressurize the reactor to prevent the possible release of radioactive materials to the environment.

B. Open Secondary Containment doors between the Auxiliary Building and the Turbine Building and operate both Turbine Building Exhaust Filter Trains.

C. Close Fuel Handling Area Outside Air Intake valves and secure Auxiliary Building General Area Fan Coil Units.

D. Manually initiate a train of Standby Gas Treatment and monitor Auxiliary Building pressure.

QUESTION 35 **NRC RECORD # WRI 516**
ANSWER: D. **SYSTEM # Secondary CTMT** **K/A 295035** **EK1.01: 3.9/4.2** **2.4.50: 3.3/3.3**
LP# GG-1-LP-OP-T4200
OBJ 2, 22
LP# GG-1-LP-OP-T4800
OBJ 2, 18 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 3**
REFERENCE: **04-1-02-1H13-P842** ***NEW***
1A-E3 & 1A-E4 MODIFIED BANK
DIFF 2; CA **04-1-01-T42-1 sect 3.1**
UFSAR 9.4.2; 9.4.2.1.1.d; 6.5.3.2 RO SRO ***BOTH*** **CFR 41.7/41.8/41.10/ 43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 36

The 'B' sump pump breaker on the RHR 'C' room floor drain sump was Red Tagged for electrical maintenance to perform preventive maintenance (PMs) on the motor.

The handswitch line-up for the RHR 'C' room floor drain sump is as follows:

RHR Room C Floor Drain Sump Pump "A" HS M020C	AUTO
RHR Room C Floor Drain Sump Pump "B" HS M021C	STOP
RHR Room C Floor Drain Sump Pumps A/B Mode Switch HS M019C	ALTERNATE

Which of the following would be the response of the RHR 'C' floor drain sump to a HI level under the present conditions?

A. The 'A' sump pump would auto start on every HI level condition.

B. The 'A' sump pump would auto start on the next HI level condition but would NOT start on any subsequent HI level conditions.

C. The 'A' sump pump would auto start on a HI HI level condition.

D. The 'A' sump pump will NOT auto start on any HI level conditions.

QUESTION 36 **NRC RECORD # WRI 517**
ANSWER: D. **SYSTEM # P45** **K/A 295036** **K2.01: 3.1/3.2**
LP# GG-1-LP-OP-P4500
OBJ. 11 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 3**
REFERENCE: **04-1-01-P45-2 sect 3.5** ***NEW***
04-1-02-1H13-P680-8A1-C2 MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 37

The reactor is shutdown and the plant is in a forced cooldown to achieve cold shutdown conditions.

Which one of the following best describes the method used to control CRD Flow and Drive pressure during the depressurization process?

A. The Pressure Control Valve automatically throttles to maintain 250 psid Drive DP and the Flow Control Valve automatically throttles in response to a CRD flow setpoint of ≈ 60 GPM.

B. The Pressure Control Valve automatically throttles to maintain 250 psid Drive DP and the Flow Control Valve is manually throttled to maintain a CRD flow of ≈ 60 GPM.

C. The Pressure Control Valve is manually throttled to maintain 250 psid Drive DP and the Flow Control Valve automatically throttles in response to a CRD flow setpoint of ≈ 60 GPM.

D. The Pressure Control Valve is manually throttled to maintain 250 psid Drive DP and the Flow Control Valve is manually throttled to maintain a CRD flow of ≈ 60 GPM.

QUESTION 37 **NRC RECORD # WRI 059**
ANSWER: C. **SYSTEM # C11-1A** **K/A 201001** **K4.08: 3.1/3.0**
LP# GG-1-LP-OP-C111A
OBJ 8a & b, 9 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 1**
REFERENCE: **M – 1081-B** NEW
E-1166- 003; 017 MODIFIED ***BANK***
DIFF 2; CA **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.6**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 38

A plant start-up is in progress.

Reactor Power is 40%.

Control Rod 32-09 is at position 12.

All RC&IS functions are normal.

Control Rod 32-09 is selected and is allowed to be withdrawn to position 24 per the pull sheet.

At what rod position and by which function of RCIS will a rod block occur?

A. At position 16 due to Rod Withdraw Limiter (RWL).

B. At position 16 due to Banked Position Withdrawal Sequence (BPWS).

C. At position 20 due to Rod Withdraw Limiter (RWL).

D. At position 20 due to Banked Position Withdrawal Sequence (BPWS).

QUESTION 38 **NRC RECORD # WRI 518**
ANSWER: C. **SYSTEM # C11-2** **K/A 201005** **K5.10: 3.2/3.3**
LP# GG-1-LP-OP-C1102
OBJ. 6, 12, 13c **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **04-1-01-C11-2** ***NEW***
sect 4.3.2.g Note MODIFIED BANK
DIFF 2; CA **06-OP-1C11-V-003**
TECH SPEC TR 3.3.2.1-1 RO SRO ***BOTH*** **CFR 41.6/43.6**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 39

A shutdown is in progress with reactor power approximately 42%.

Both reactor recirculation pumps are operating on fast speed with their respective FCV's at minimum position in preparation for downshifting.

During transfer to LFMG, the Recirculation pump A tripped. The Recirculation pump 'A' discharge valve has been closed.

Present indications are:

'A' Loop Total Jet Pump flow	5 mlbm/hr
'B' Loop Total Jet Pump flow	26 mlbm/hr
Total core flow	21 mlbm/hr
Reactor power	29%

Which one of the following correctly describes the method to determine total core flow?

A. Subtract Loop 'A' Total Jet Pump flow twice from Total core flow.

B. Total core flow indication is indicating actual Total core flow.

C. Add Loop 'B' Total Jet Pump flow to Loop 'A' Total Jet Pump flow.

D. Add Loop 'A' Total Jet Pump flow to Total core flow.

QUESTION 39 **NRC RECORD # WRI A037**
ANSWER: C. **SYSTEM # B33** **K/A 202002** **A1.06: 3.4/3.3; A1.07: 3.1/3.1**
A2.01: 3.4/3.4; A2.09: 3.1/3.3
A4.08: 3.3/3.3; A4.09: 3.2/3.3
LP# GG-1-LP-OP-B3300 **295001** **AK2.01: 3.6/3.7**
OBJ. 3 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-B33-1 sect. 3.18 NEW
MODIFIED ***BANK***
DIFF 2; CA **Audit 12/00**
RO SRO ***BOTH*** **CFR 41.2/41.3/41.5**
REFERENCE MATERIAL REQUIRED: None **41.6/41.7**

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QUESTION 40

The plant is starting up and is currently operating at 80% power.

All systems are operating properly.

There is a spurious High Pressure Core Spray (HPCS) initiation.

All other systems respond properly.

NO operator action is taken.

Which of the following identifies the effect on Reactor Water Level the spurious HPCS initiation will have?

A. Reactor Water Level will RISE, Feedwater Level Control will respond, and Reactor Water level will stabilize at a HIGHER than normal condition.

B. Reactor Water level will RISE, Feedwater Level Control will respond, and Reactor Water level will be returned to NORMAL level.

C. Reactor Water level will RISE, Feedwater Level Control will respond, and Reactor Water level will stabilize at a LOWER than normal condition.

D. Reactor Water level will not be affected due to Feedwater Level Control will respond and maintain Reactor Water level at NORMAL level.

QUESTION 40 **NRC RECORD # WRI 519**
ANSWER: A. **SYSTEM # C34; E22** **K/A 209002** **K3.01: 3.9/3.9**
LP# GG-1-LP-OP-MCD7b.00
OBJ. 2 A **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **UFSAR 15.5.1.2.1** ***NEW***
UFSAR FIG. 15.5-1 MODIFIED BANK
DIFF 2; CA
RO SRO ***BOTH*** **CFR 41.7/41.8**
REFERENCE MATERIAL REQUIRED: **NONE**

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QUESTION 41

Given a prolonged loss of Instrument Air to the Standby Liquid Control (SBLC) system, which of the following identifies the SBLC component(s) that would be affected?

A. SBLC storage tank air sparge capability

B. SBLC storage tank level indication

C. SBLC test tank level indication

D. SBLC storage tank level indication ***AND*** SBLC test tank level indication

QUESTION 41 **NRC RECORD # WRI 521**
ANSWER: B. **SYSTEM # C41; P53** **K/A 211000** **K1.03: 2.5/2.6**
LP# GG-1-LP-OP-C4100
OBJ. 14D **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: P&ID M-1067H (F-3) ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.6/41.7/41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 42

The plant is operating at 100% power steady state conditions.

All systems are functioning properly.

No tests or surveillance's are in progress.

The following alarms and indications were just received on P680:

RX SCRAM TRIP annunciator sealed in.

HCU TROUBLE annunciator sealed in.

DIV 1 and 3 white scram solenoid indicating lights are ON.

DIV 2 and 4 white scram solenoid indicating lights are OFF.

HCU FAULT pushbutton on the operator's control module is BACKLIT.

HCUs 12-13, 12-53, 20-05, 20-61 have blinking red LEDs for accumulator faults.

Which of the following identifies the cause for the alarms and indications?

A. A half scram has occurred due to a loss of RPS A.

B. A half scram has occurred due to a loss of RPS B.

C. Control Rods 12-13, 12-53, 20-05, and 20-61 have scrammed in.

D. A fuse has blown in the power monitoring circuit for HCUs 12-13, 12-53, 20-05, and 20-61.

QUESTION 42 **NRC RECORD # WRI 522**
ANSWER: B. **SYSTEM # C71; C11-2** **K/A 212000** **A3.04: 3.9/3.8**
LP# GG-1-LP-OP-C7100
OBJ. 6a **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **04-1-02-1H13-P680-7A-A2** ***NEW***
04-1-02-1H13-P680-4A2-D4 MODIFIED BANK
DIFF 3; CA **05-1-02-III-2 sect 4.2, 4.3**
RO SRO ***BOTH*** **CFR 41.6/41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 43

The plant is in a reactor startup just after reaching critical.

The Operator-at-the-Controls is withdrawing SRMs.

The following conditions exist:

All IRMs are on Range 2.

SRM A reads 2×10^4	SRM D reads 6×10^3
SRM B reads 8×10^3	SRM E reads 8×10^4
SRM C reads 2×10^3	SRM F reads 3×10^5

Which one of the following best describes plant conditions?

A. Rod block only.

B. Half scram, rod block.

C. Full scram, rod block.

D. No trips or blocks are present.

QUESTION 43 **NRC RECORD # WRI 071**
ANSWER: A. **SYSTEM # C11-2; C51; C71** **K/A 215004** **A1.04: 3.5/3.5**
A3.04: 3.6/3.6
LP# GG-1-LP-OP-C1102 **201005** **K4.03: 3.5/3.5**
OBJ 13
LP# GG-1-LP-OP-C51-1
OBJ 8b **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: Tech Specs TR3.3.2.1 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.6**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 44

The plant is operating at 100% power steady state.

LPRM 34-51C for APRM C has failed downscale and its mode switch has been placed in BYPASS.

The following is the status of LPRMs for APRM C

10-43B	OPERATE	34-51C	BYPASS	58-43D	OPERATE
10-27D	BYPASS	34-35A	OPERATE	58-27B	BYPASS
10-11B	OPERATE	34-19C	BYPASS		
18-51A	OPERATE	42-59D	OPERATE		
18-35C	BYPASS	42-43B	BYPASS		
18-19A	OPERATE	42-27D	OPERATE		
26-59B	OPERATE	42-11B	OPERATE		
26-43D	BYPASS	50-51A	BYPASS		
26-27B	OPERATE	50-35C	OPERATE		
26-11D	OPERATE	50-19A	OPERATE		

Which of the following identifies the condition of APRM C per Technical Specifications and why?

A. APRM C is OPERABLE.

B. APRM C is INOPERABLE due to insufficient LPRMs per level.

C. APRM C is INOPERABLE due to insufficient total LPRM inputs.

D. APRM C is INOPERABLE due to insufficient LPRMs per level and total inputs.

QUESTION 44 **NRC RECORD # WRI 523**
ANSWER: B. **SYSTEM # C71; C51** **K/A 215005** **A4.04: 3.2/3.2**
LP# GG-1-LP-OP-C5104 **A4.06: 3.6/3.8**
OBJ. 14 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **TECH SPEC B 3.3.1.1** ***NEW***
04-1-01-C51-1 MODIFIED BANK
DIFF 2; CA **sect 5.2.2 Caution**
17-S-02-40 ATT. V RO SRO ***BOTH*** **CFR 41.7/43.2**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 45

The plant was operating at full power when a failure of the Reactor Feedwater System caused a reactor scram due to lowering reactor water level.

During the transient, workers in Containment caused the reference leg of condensing pot D004A to rupture.

Which one of the following describes the response of the ECCS Systems as reactor water level drops?

Answer:	Division I	Division II	Division III	RCIC
A.	Will initiate	Will initiate	Will initiate	Manual initiation
B.	Manual initiation	Will initiate	Will initiate	Will initiate
C.	Manual initiation	Manual initiation	Will initiate	Manual initiation
D.	Will initiate	Manual initiation	Manual initiation	Will initiate

QUESTION 45 **NRC RECORD # WRI 529**
ANSWER: B. **SYSTEM # E12; E21; E22; E51** **K/A 216000 K4.05: 3.9/4.1**
LP# GG-1-LP-OP-B2101
OBJ. 8b
LP# GG-1-LP-OP-E1200
OBJ. 9, 23
LP# GG-1-LP-OP-E2201
OBJ. 11, 23
LP# GG-1-LP-OP-E5100
OBJ. 10, 22
LP# GG-1-LP-OP-E2100
OBJ. 9, 19 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **E-1181-67, 68, 82; M-1077B** NEW
E-1182-26, 29 ***MODIFIED*** BANK
DIFF 2; CA **E-1183-23, 27** **NRC 4/00 WRI 243**
E-1185-34, 42, 44
04-1-01-B21-1 Att V Data Sh 3 B21-D004A RO SRO ***BOTH*** **CFR 41.7/41.14**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 46

Reactor Core Isolation Cooling (RCIC) is being operated for performance of its quarterly surveillance.

A ground develops on DC bus 1DA1 causing it to de-energize.

Which of the following RCIC components will be without power due to the loss of 1DA1?

A. E51-F046 RCIC WTR TO TURB LUBE OIL CLR ***AND*** E51-F064 RCIC STM SPLY DRWL OTBD ISOL VLV.

B. E51-F019 RCIC MIN FLO TO SUPP POOL ***AND*** E51-F063 RCIC STM SPLY DRWL INBD ISOL VLV

C. E51-F022 RCIC INBD TEST RTN TO CST ***AND*** E51-F076 RCIC STM LINE WARMUP VLV.

D. E51-F045 RCIC STM SPLY TO RCIC TURB ***AND*** E51-C002 RCIC TURB TRIP/THROT VLV.

QUESTION 46 **NRC RECORD # WRI 525**
ANSWER: D. **SYSTEM # E51** **K/A 217000** **K2.04: 2.6/2.6**
LP# GG-1-LP-OP-E5100
OBJ. 6A **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-E51-1 ATT. III ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.6/41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 47

A LOCA has occurred.

Plant conditions are as follows:

Reactor water level is -163 inches

Drywell pressure is 2 psig

All Low Pressure ECCS pumps are operating.

ADS A (B) MANUAL INHIBIT keylock switches are in NORMAL.

ADS has AUTO initiated and 8 ADS valves are open.

Which of the following would result in the 8 ADS valves going closed ***and*** remaining closed?

A. Placing the ADS A (B) MANUAL INHIBIT keylock switches to INHIBIT.

B. Depress the ADS RESET pushbuttons.

C. Reactor water level being restored to > +11.4 inches.

D. Trip all low-pressure ECCS pumps.

QUESTION 47 **NRC RECORD # WRI 527**
ANSWER: D. **SYSTEM # E22-2** **K/A 218000 A4.01: 4.4/4.4**
LP# GG-1-LP-OP-E2202
OBJ. 12 B & C **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: E1161-005 ***NEW***
E1161-011 MODIFIED BANK
DIFF 3; CA
RO SRO ***BOTH*** **CFR 41.5/41.7/41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 48

The plant is operating at 100% power steady state.

All power from offsite is lost.

All systems respond and function properly.

All plant parameters remain in their normal band.

Division 1 and 2 Load Shedding and Sequencing (LSS) functions properly.

Which of the following components is without power at this time?

A. Drywell Chillers A.

B. Division 1 Drywell Cooler Fans.

C. Drywell Chillers B.

D. Division 2 Drywell Cooler Fans.

QUESTION 48 **NRC RECORD # WRI 528**
ANSWER: A. **SYSTEM # M51** **K/A 223001** **K2.09: 2.7/2.9**
LP# GG-1-LP-OP-M5100
OBJ. 7A&C **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **04-1-01-R21-1 Table 1** ***NEW***
04-1-01-M51-1 Att III MODIFIED BANK
DIFF 2; CA **04-1-01-P72-1 Att II**
RO SRO ***BOTH*** **CFR 41.7/41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 49

The plant is operating at 100% power steady state.

All electrical busses are being supplied from their preferred power source.

I&C is performing a half scram surveillance on RPS "B" High Scram Discharge Volume.

RPS logic channel "B" is tripped at this time.

A fault occurs on ESF transformer 11 causing it to de-energize.

Which of the following identifies the status of RPS and the MSIVs at this time?

(Consider only the immediate effects of the ESF transformer loss and given plant conditions)

A. Full Reactor Scram and MSIVs closed

B. Full Reactor Scram and MSIVs open

C. Half Reactor Scram and MSIVs closed

D. Half Reactor Scram and MSIVs open

QUESTION 49 **NRC RECORD # WRI 530**
ANSWER: D. **SYSTEM # B21; C71; E31** **K/A 223002** **K6.01: 3.1/3.3**
LP# GG-1-LP-RO-E3100
OBJ. 9j
LP# GG-1-LP-OP-C7100
OBJ. 6a **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **04-1-01-R21-16 sect 3.3** ***NEW***
04-1-01-R21-15 sect 3.3; Att I MODIFIED BANK
DIFF 3; CA
RO SRO ***BOTH*** **CFR 41.7/41.9**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 50

A LOCA has occurred.

The ADS A (B) MANUAL INHIBIT keylock switches to INHIBIT.

The ADS Inhibit white status lights are on.

Emergency Depressurization is required to allow low-pressure ECCS pumps to restore Reactor level.

An operator places the handswitches for the 8 ADS valves on 1H13-P601 to OPEN.

The following conditions exist:

Reactor pressure	0 psig
Reactor water level	-205 inches
Drywell pressure	3.5 psig
All low-pressure ECCS pumps are operating	

Which of the following identifies the correct RED light indication for the 8 ADS valves on the specified panel locations under current plant conditions?

	P601 Handswitch	P601 Vertical	P628 Upper Control Room	P631 Main Control Room
A.	ON	OFF	ON	OFF
B.	OFF	ON	OFF	ON
C.	ON	ON	ON	ON
D.	OFF	OFF	ON	OFF

QUESTION 50 **NRC RECORD # WRI 531**
ANSWER: D. **SYSTEM # B21** **K/A 239002 A4.07: 3.6/3.6**
LP# GG-1-LP-OP-E2202.00
OBJ. 10 E & 18 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-B21-1sect 4.2.2f ***NEW***
MODIFIED BANK
DIFF 3; CA
RO SRO ***BOTH*** **CFR 41.3/41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 51

The plant is operating at rated conditions steady state.

The Initial Pressure Control (IPC) subsystem of the Main Turbine EHC Control System has failed in a manner that has opened the Bypass Valves to 30% when the valves should be closed.

If the operator activates the Bypass Valve Manual Jack and tries to close the bypass valves using the jack,

Which of the following describes the results of these actions?

A. The Bypass valves will remain open.

B. The Bypass valves will close to 25%, but no further.

C. The Bypass valves will close to 10%, but no further.

D. The Bypass valves will close and remain closed.

QUESTION 51 **NRC RECORD # WRI 533**
ANSWER: A. **SYSTEM # N32-2** **K/A 241000** **A2.03: 4.1/4.2**
LP# GG-1-LP-RO-N3202
OBJ. 3E&8B **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **T/G Instruction Manual** NEW
Volume 1 460000665 MODIFIED ***BANK***
DIFF 2; CA **Volume 2 460000353** **LORT 6/00**
RO SRO ***BOTH*** **CFR 41.5/41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 52

Concerning P53-F026A and F026B (Instrument Air Supply Header to Aux. Building Isolation Valves), which of the following correctly identifies how these valves would respond to a Loss of Instrument Air?

A. FAIL OPEN.

B. FAIL CLOSED.

C. FAIL AS IS.

D. FAIL CLOSED, but could be reopened by taking DIV I and II AUX BLD ISO BYPASS switches to BYPASS.

QUESTION 52 **NRC RECORD # WRI 534**
ANSWER: B. **SYSTEM # P53** **K/A 290001** **K1.09: 2.9/2.9**
LP# GG-1-LP-OP-P5300
OBJ. 30 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: GGNS P&ID 1067M ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.7/41.9**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 53

The plant was operating at 80% power when an Offsite Power fluctuation caused the reactor to scram.

The following subsequent events occurred at the times indicated:

Time	**Event/Manipulation**
09:05:56	Reactor Scram; reactor water level immediately drops to +8 inches NR
09:06:12	Reactor water level bottom peaks at +2.5 inches NR
09:06:20	Reactor water level is +10.4 inches NR

Which one of the following is the setpoint indicated on the Master Level Controller at **Time 09:06:20**?

A. + 12.4 inches

B. + 18.0 inches

C. + 36.0 inches

D. + 54.0 inches

QUESTION 53 **NRC RECORD # WRI 274**
ANSWER: B. **SYSTEM # C34** **K/A 259002** **A3.06: 3.0/3.0**
LP# GG-1-LP-RO-C3401
OBJ. 1.8 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: 05-1-02-I-1sect 5.3 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 12/00**
RO SRO ***BOTH*** **CFR 41.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 54

Standby Gas Treatment Trains 'A' and 'B' have received an initiation signal on Reactor Water Level.

Which one of the following describes the response of the Process Radiation Monitoring (D17) System?

A. The SBGT Radiation Monitors are in standby until a High Radiation signal is received by SBGT logic.

B. The SBGT Radiation Monitors are in service continuously requiring NO further action.

C. The SBGT Radiation Monitor Sample Pumps will automatically start on SBGT initiation.

D. The SBGT Radiation Monitor Sample Pumps require an operator to be dispatched to start the pumps locally.

QUESTION 54 **NRC RECORD # WRI 265**
ANSWER: C. **SYSTEM # T48; D17** **K/A 261000** **K1.08: 2.8/3.1**
K4.01: 3.7/3.8
LP# GG-1-LP-OP-D1721
OBJ. 18 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **04-1-01-T48-1 sect 5.2.2d** NEW
04-1-01-D17-1 MODIFIED ***BANK***
DIFF 1, M **Sect 3.4, 4.5, Att V** **NRC 4/00**
RO SRO ***BOTH*** **CFR 41.7/41.11**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 55

The plant was operating at 100% power with all electrical busses powered from their preferred power source.

A lockout of ESF Transformer 21 occurred along with a small break LOCA.

Division 3 Diesel Generator is running and carrying Bus 17AC.

The High Pressure Core Spray (HPCS) system auto initiated and is operating properly.

Plant conditions are as follows:

Reactor Level	+25 inches
Drywell Pressure	3.2 psig
Drywell Temperature	185°F

Which of the following would be the correct response of the Division 3 Diesel Generator and output breaker if an operator depressed the HPCS INIT RESET pushbutton and then a "Generator Loss of Excitation" condition occurred on Division 3 Diesel Generator?

A. The output breaker would TRIP and the engine would TRIP.

B. The output breaker would remain CLOSED and the engine would remain RUNNING.

C. The output breaker would TRIP and the engine would remain RUNNING.

D. The output breaker would remain CLOSED and the engine would TRIP.

QUESTION 55 **NRC RECORD # WRI 536**
ANSWER: A. **SYSTEM # P81** **K/A 264000** **A1.09: 3.0/3.1**
LP# GG-1-LP-OP-P8100
OBJ. 13&14 (A,B,C) **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-P81-1 sect 3.26 ***NEW***
E-1188-014, 015, 018 MODIFIED BANK
DIFF 3; CA **E-1183-023**
RO SRO ***BOTH*** **CFR 41.7/41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 56

The plant was operating at 100% power.

An ATWS has occurred along with a steam leak inside the Drywell.

All systems responded properly (except CRD)

Actions are being taken per EP 2A.

All Low Pressure ECCS pumps and injection valves have been OVERRIDDEN OFF/CLOSED with OVERRIDE annunciators sealed in for RHR A, RHR B, RHR C and LPCS pumps and injection valves.

Plant conditions are as follows:

Reactor level	-180 inches
Reactor pressure	900 psig
Drywell pressure	4 psig
Bypass valves available	
Feedwater available	

If power were lost to the 16AB bus and the Division 2 diesel generator restored power to the 16AB bus, which of the following would be correct concerning the response of RHR C, under current plant conditions and NO operator actions?

A. RHR C pump would start and RHR C injection valve would open.

B. RHR C pump would start and RHR C injection valve would remain closed.

C. RHR C pump would remain off and RHRC injection valve would remain closed.

D. RHR C pump would remain off and RHR C injection valve would open.

QUESTION 56 **NRC RECORD # WRI 537**
ANSWER: B. **SYSTEM # E12** **K/A 203000** **K6.01: 3.6/3.7**
LP# GG-1-LP-OP-E1200
OBJ. 9G **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: GG-1-FIG-OP-E1200.02 ***NEW***
04-1-01-E12-1 sect 3.3, 3.4 MODIFIED BANK
DIFF 3; CA
RO SRO ***BOTH*** **CFR 41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 57

The plant is in a refuel outage.

Bus 15AA is being tagged out for electrical maintenance.

Which of the following ECCS pumps will be affected by this tagout?

A. RHR B

B. RHR C

C. HPCS

D. LPCS

QUESTION 57 **NRC RECORD # WRI 538**
ANSWER: D. **SYSTEM # E21** **K/A 209001** **K2.01: 3.03.1**
LP# GG-1-LP-OP-E2100
OBJ. 7B **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-E21-1 Att III ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.7/41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 58

The plant was operating at 80% power.

A small steam leak developed in the Drywell.

The Reactor has been scrammed and Standby Gas Treatment Systems (SBGTS) 'A' and 'B' have AUTO initiated.

All systems responded properly.

SBGT 'A' has been placed in STANDBY per the SOI.

Which of the following set of conditions would restart the SBGT 'A' system from STANDBY?

CONSIDER EACH ANSWER AS A SET OF PLANT CONDITIONS.

	Enclosure Building Recirc Fan 'B' Flow	Exhaust Filter Train 'B' Flow	Enclosure Building Pressure
A.	9,000 scfm	2500 scfm	-0.55 inches wc
B.	12,300 scfm	1650 scfm	-0.65 inches wc
C.	11, 250 scfm	2200 scfm	-0.05 inches wc
D.	10, 500 scfm	1375 scfm	-0.35 inches wc

QUESTION 58 **NRC RECORD # WRI 539**
ANSWER: C. **SYSTEM # T48** **K/A 261000** **A2.01: 2.9/3.1**
LP# GG-1-LP-OP-T4801
OBJ. 8G&H **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **04-1-01-T48-1 sect 5.2.2c3** ***NEW***
04-1-02-1H13-P870-2A-D2 MODIFIED BANK
DIFF 2; CA **04-1-02-1H13-P870-2A-E3**
04-1-02-1H13-P870-2A-F3 RO SRO ***BOTH*** **CFR 41.7/41.10**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 59

Select the statement that describes the MOST probable cause of the following plant conditions:

Annunciator "**RECIRC PMP B SEAL STG FLO HI/LO**" alarms.

Annunciator "**RECIRC PMP B OUTR SEAL LEAK HI**" alarms.

Recirc pump 'B' # 1 seal cavity pressure: 1020 psig.

Recirc pump 'B' # 2 seal cavity pressure: 100 psig

A. Failure of the # 1 seal.

B. Failure of the # 2 seal.

C. Failure of the CRD seal purge regulator.

D. Plugging of the orifice between # 1 and # 2 seals.

QUESTION 59 **NRC RECORD # WRI 540**
ANSWER: B. **SYSTEM # B33** **K/A 202001 A2.10: 3.5/3.9**
LP# GG-1-LP-OP-B3300
OBJ. 29D **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: **04-1-02-1H13-P680-3A-A12** NEW
04-1-02-1H13-P680-3A-B11 MODIFIED ***BANK***
DIFF 2; CA **LOT 7/95**
RO SRO ***BOTH*** **CFR 41.3/41.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 60

An ATWS has occurred.

Standby Liquid Control Pump 'A' is tagged out.

The Control Room Operator starts Standby Liquid Control Pump 'B'.

Which one of the following describes the response of the Reactor Water Cleanup System?

A. RWCU will isolate the Filter Demineralizers and open G33-F044, RWCU F/D Byp to continue circulation of reactor water for level control and sampling purposes.

B. RWCU will isolate G33-F004, RWCU Pmp Suct Isol causing both RWCU pumps to trip and the Filter Demineralizers to lock in hold.

C. RWCU will isolate G33-F001, RWCU Pmp Suct Isol and G33-F251, RWCU Sply to RWCU Hxs causing both RWCU pumps to trip and the Filter Demineralizers to lock in hold.

D. RWCU will isolate G33-F004 and G33-F001, RWCU Pmp Suct Isol and G33-F251, RWCU Sply to RWCU Hxs causing both RWCU pumps to trip and the Filter Demineralizers to lock in hold.

QUESTION 60 **NRC RECORD # WRI 251**
ANSWER: C. **SYSTEM # G33; C41** **K/A 204000** **K6.07: 3.3/3.5**
LP# GG-1-LP-OP-G3336
OBJ. 8f, 9a **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: **04--1-01-C41-1** NEW
Sect 5.3.2b4 MODIFIED ***BANK***
DIFF 1; M **NRC 4/00**
RO SRO ***BOTH*** **CFR 41.6**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 61

The plant is in a refuel outage.

Reactor Water Clean-Up (RWCU) is operating.

Residual Heat Removal (RHR) B is in Shutdown Cooling.

E12-F048B RHR B Heat Exchanger Bypass valve is FULL OPEN.

E12-F003B RHR B Heat Exchanger Outlet valve is FULL CLOSED.

Which of the following would be a valid indication of Reactor Coolant Temperature under present plant conditions?
P & IDs M-1079 and M-1085A are provided.

A. RHR B heat exchanger B001B inlet temperature E12 TE-N004B

B. RHR B heat exchanger B002B inlet temperature E12 TE-N002B.

C. RHR B heat exchanger discharge temperature E12 TE-N027B.

D. RWCU Non-Regen heat exchanger inlet temperature G33 TE-N006.

QUESTION 61 **NRC RECORD # WRI 541**
ANSWER: C. **SYSTEM # E12** **K/A 205000** **K1.03: 3.4/3.5**
LP# GG-1-LP-OP-E1200
OBJ. 14 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: **04-1-01-E12-1** ***NEW***
sect 4.2.2.e.13 Caution MODIFIED BANK
DIFF 2; CA **P&ID M1085A**
M-1079 RO SRO ***BOTH*** **CFR 41.2/41.3/41.4**
REFERENCE MATERIAL REQUIRED: **M-1079 & M-1085A** **41.5**

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QUESTION 63

The plant was operating at rated conditions steady state.

A steam line rupture occurs in the Drywell at 3:00 A.M.

All low pressure ECCS AUTO Initiate and respond properly.

The SRO directs MANUAL initiation of Containment spray due to Containment temperature exceeding 185°F at 3:05 A.M.

Plant conditions are as follows:

Reactor level	-130 inches
Drywell pressure	6.2 psig

Containment Spray is initiated at 3:06 A.M.

Which of the following is correct concerning the E12-F048A RHR 'A' Heat Exchanger Bypass valve?

A. E12- F048A will remain open for 5 minutes then auto close.

B. E12-F048A will auto close for 5 minutes then auto open.

C. E12-F048A will cycle open and closed for 5 minutes then remain closed.

D. E12-F048A will cycle open and closed for 5 minutes then remain open.

QUESTION 63 **NRC RECORD # WRI 543**
ANSWER: C. **SYSTEM # E12** **K/A 226001** **A2.03: 3.1/3.1**
LP# GG-1-LP-OP-E1200
OBJ. 8G **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 2**
REFERENCE: GG-1-FIG-OP-E1200 ***NEW***
E-1181-27,68,69 MODIFIED BANK
DIFF 2; CA
RO SRO ***BOTH*** **CFR 41.7/41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 63

The plant was operating at rated conditions steady state.

A steam line rupture occurs in the Drywell at 3:00 A.M.

All low pressure ECCS AUTO Initiate and respond properly.

The SRO directs MANUAL initiation of Containment spray due to Containment temperature exceeding 185°F at 3:05 A.M.

Plant conditions are as follows:

Reactor level	-130 inches
Drywell pressure	6.2 psig

Containment Spray is initiated at 3:06 A.M.

Which of the following is correct concerning the E12-F048A RHR 'A' Heat Exchanger Bypass valve?

A. E12- F048A will remain open for 5 minutes then auto close.

B. E12-F048A will auto close for 5 minutes then auto open.

C. E12-F048A will cycle open and closed for 5 minutes then remain closed.

D. E12-F048A will cycle open and closed for 5 minutes then remain open.

QUESTION 63 **NRC RECORD # WRI 543**
ANSWER: C. **SYSTEM # E12** **K/A 226001** **A2.03: 3.1/3.1**
LP# GG-1-LP-OP-E1200
OBJ. 8G **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 2**
REFERENCE: GG-1-FIG-OP-E1200 ***NEW***
E-1181-27,68,69 MODIFIED BANK
DIFF 2; CA
RO SRO ***BOTH*** **CFR 41.7/41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 64

The following are the current conditions of the RHR A circuit breaker 152-1509:

Racked in open
Control fuses installed
Closing springs charged
Charging motor off

Considering only the current conditions, which one of the following describes the operational status of the circuit breaker?

A. The circuit breaker will electrically close and open locally as many times as required.

B. The circuit breaker will close locally one time only. Once closed the circuit breaker will NOT open.

C. The circuit breaker will close remotely one time only. Once closed the circuit breaker CANNOT be opened remotely.

D. The circuit breaker will close remotely one time only. Once closed the circuit breaker can be opened remotely.

QUESTION 64 **NRC RECORD # WRI 335**
ANSWER: D. **SYSTEM # R21** **K/A 262001** **K4.03: 3.2/3.4**
2.1.30: 3.9/3.4
LP# GG-1-LP-OP-PROC
OBJ. 42o; 55b(2)
LP# GG-1-LP-OP-E1200
OBJ. 14
LP# OP-NOB-EL-LP-011
OBJ. 3
LP# GG-1-LP-OP-ELBKR
OBJ. 11, 22 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 2**
REFERENCE: 04-1-01-E12-1 sect 3.2.7 NEW
04-S-04-2 sect 4.4 MODIFIED ***BANK***
DIFF 2; CA 02-S-01-2 Att III, III A **NRC 12/00**
RO SRO ***BOTH*** **CFR 41.4/41.7/41.10**
REFERENCE MATERIAL REQUIRED: None **43.5**

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QUESTION 65

Static inverter 1Y95 has automatically transferred to its alternate power source because of a fault on its normal power source.

Two hours later, the electricians have repaired the fault and the normal power source for 1Y95 is re-energized.

Which one of the following statements describes the restoration of the inverter to its NORMAL source?

A. The inverter static switch can be manually transferred back to the normal power source, only if the power sources are IN SYNC.

B. The inverter static switch will automatically transfer back to the normal power source, only if the power sources are IN SYNC.

C. The inverter static switch will automatically transfer back to the normal power source, regardless of whether the power sources are IN SYNC.

D. The inverter static switch can be manually transferred back to the normal power source, regardless of whether the power sources are IN SYNC.

QUESTION 65 **NRC RECORD # WRI 544**
ANSWER: A. **SYSTEM # L62** **K/A 262002** **A3.01: 2.8/3.1**
LP# GG-1-LP-OP-L6200
OBJ. 7b&8b **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: 04-1-01-L62-1 sect 3.2 & 3.5 NEW
MODIFIED ***BANK***
DIFF 1; M **LP L62 SQ #3**
RO SRO ***BOTH*** **CFR 41.7/41.10/43.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 66

The plant is operating at 85% power with the Offgas System in its normal SOI lineup.

The ADSORBER TRAIN BYPASS VALVE, N64-F045 is in TREAT.

The OFFGAS DISCHARGE VALVE, N64-F060 in AUTO.

In the Control Room, the Operator observes the closure of the following valves:

- N64-F060, OFFGAS DISCHARGE TO VENT
- N64-F054, PRE FILTER INLET DRAIN
- N64-F034A & B, COOLER CONDENSER DRAIN A & B
- N64-F441, HOLDUP LINE DRAIN

Which one of the following signals could cause all these valves to close almost simultaneously?

A. Main Steam Line radiation HI-HI (all channels)

B. Radwaste Ventilation Exhaust radiation HI-HI (all channels)

C. Offgas Post-Treatment radiation HI-HI-HI (all channels)

D. Offgas Pre-Treat radiation HI-HI (all channels)

QUESTION 66 **NRC RECORD # WRI 545**
ANSWER: C. **SYSTEM # N64; D17** **K/A 271000** **A3.01: 3.3/3.3**
LP# GG-1-LP-OP-N6465
OBJ. 10i&12 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: 05-1-02-II-2 sect 5.2 NEW
MODIFIED ***BANK***
DIFF 1; M **LP-N64-SQ-#1**
RO SRO ***BOTH*** **CFR 41.7/41.13**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 67

Drywell and Containment airborne activity has been going up over the past few days.

Annunciators "CTMT CLG EXH DIV 1, 4 RAD HI-HI" and "CTMT CLG EXH DIV 2, 3 RAD HI-HI" are received.

All other plant parameters are below their TRIP setpoints.

Which of the following identifies the correct valve configuration due to present plant conditions?

(Assume all valves were open initially)

A.	M41-F034 CTMT CLG EXH TO CTMT VENT	OPEN
	M41 F035 CTMT CLG EXH TO CTMT VENT	OPEN
	M41-F036 CTMT CLG VENT EXH AUX BLDG INBD ISOL	OPEN
	M41-F037 CTMT CLG VENT EXH AUX BLDG OTBD ISOL	OPEN
B.	M41-F034 CTMT CLG EXH TO CTMT VENT	CLOSED
	M41 F035 CTMT CLG EXH TO CTMT VENT	CLOSED
	M41-F036 CTMT CLG VENT EXH AUX BLDG INBD ISOL	CLOSED
	M41-F037 CTMT CLG VENT EXH AUX BLDG OTBD ISOL	CLOSED
C.	M41-F034 CTMT CLG EXH TO CTMT VENT	CLOSED
	M41 F035 CTMT CLG EXH TO CTMT VENT	CLOSED
	M41-F036 CTMT CLG VENT EXH AUX BLDG INBD ISOL	OPEN
	M41-F037 CTMT CLG VENT EXH AUX BLDG OTBD ISOL	OPEN
D.	M41-F034 CTMT CLG EXH TO CTMT VENT	OPEN
	M41 F035 CTMT CLG EXH TO CTMT VENT	OPEN
	M41-F036 CTMT CLG VENT EXH AUX BLDG INBD ISOL	CLOSED
	M41-F037 CTMT CLG VENT EXH AUX BLDG OTBD ISOL	CLOSED

QUESTION 67 **NRC RECORD # WRI 546**
ANSWER: C. **SYSTEM # D17/D21** **K/A 272000** **K4.02: 3.7/4.1**
LP# GG-1-LP-OP-D1721
OBJ. 8 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: **04-1-02-1H13-P601-18A-D5** ***NEW***
04-1-02-1H13-P601-18A-D6 MODIFIED BANK
DIFF 1; M **05-1-02-III-5 Group 7 &**
Aux Bldg Vent RO SRO ***BOTH*** **CFR 41.7/41.11/43.4**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 68

Concerning the Fire Protection CO2 storage tank;

Which of the following conditions would the CO2 storage tank meet the MINIMUM requirements to be considered **OPERABLE** per Technical specifications?

A. CO2 storage tank level 55% **and** pressure 275 psig

B. CO2 storage tank level 60% **and** pressure 275 psig

C. CO2 storage tank level 70% **and** pressure 270 psig

D. CO2 storage tank level 75% **and** pressure 290 psig

QUESTION 68 **NRC RECORD # WRI 547**
ANSWER: B. **SYSTEM # P64** **K/A 286000** **A1.06: 2.9/3.0**
LP# GG-1-LP-OP-N4400
OBJ. 10, 15
LP# GG-1-LP-OP-P6400
OBJ. 10 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: TECH. SPECS. 6.2.4 ***NEW***
04-1-01-N44-1 sect 3.8 MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.8/43.2**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 69

Concerning the operation of the Reactor Feed Pump (RFP) Turbines governor control in MANUAL and SPEED AUTO,

Which of the following correctly identifies the limitations imposed when in MANUAL **and** in SPEED AUTO if the raise pushbutton is depressed and held from 0 to 100%?

A. In MANUAL, the governor will stroke 0-100% in 15 seconds and
In SPEED AUTO, the speed setpoint will change at a rate of 10 rpm/sec for one second and 120 rpm/ second thereafter.

B. In MANUAL, the governor will stroke 0-100% in 10 seconds and
In SPEED AUTO, the speed setpoint will change at a rate of 15 rpm/sec for one second and 120 rpm/ second thereafter.

C. In MANUAL, the governor will stroke 0-100% in 15 seconds and
In SPEED AUTO, the speed setpoint will change at a rate of 10 rpm/sec for one second and 150 rpm/ second thereafter.

D. In MANUAL, the governor will stroke 0-100% in 10 seconds and
In SPEED AUTO, the speed setpoint will change at a rate of 15 rpm/sec for one second and 150 rpm/ second thereafter.

QUESTION 69 **NRC RECORD # WRI 548**
ANSWER: A. **SYSTEM # N21** **K/A 259001** **K5.03: 2.8/2.8**
LP# GG-1-LP-OP-N2100
OBJ. 19 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: 04-1-01-N21-1 sect 3.14 ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.5/41.10/43.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 70

Which of the following sets of conditions correctly identifies those required for Control Room HVAC to isolate and Control Room Fresh Air Units to start?

A. Reactor water level –150.3 inches **and** Drywell pressure + 1.39 psig **and** Control Room Vent Rad monitor reading 3.6 mR/hr.

B. Reactor water level –150.3 inches **or** Drywell pressure + 1.39 psig **or** Control Room Vent Rad monitor reading 3.6 mR/hr.

C. Reactor water level –41.6 inches **and** Drywell pressure + 1.23 psig **and** Control Room Vent Rad monitor reading 5 mR/hr.

D. Reactor water level –41.6 inches **or** Drywell pressure + 1.23 psig **or** Control Room Vent Rad monitor reading 5 mR/hr.

QUESTION 70 **NRC RECORD # WRI 549**
ANSWER: D. **SYSTEM # Z51** **K/A 290003** **A3.01: 3.3/3.5**
LP# GG-1-LP-OP-Z5100
OBJ. 11 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: **04-S-01-Z51-1 sect 5.4.1** ***NEW***
05-1-02-III-5 Aux Bldg Vent MODIFIED BANK
DIFF 1; M **TECH. SPECS. 3.3.7.1**
RO SRO ***BOTH*** **CFR 41.7/41.11/43.4**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 71

The plant is operating at 100% power steady state.

Which of the following heat loads of Component Cooling Water (CCW) would be of most concern, under present conditions, if a Loss of CCW were to occur?

A. Reactor Water Clean-up

B. Fuel Pool Cooling and Clean-up

C. Reactor Recirculation pumps

D. Control Rod Drive pumps

QUESTION 71 **NRC RECORD # WRI 550**
ANSWER: C. **SYSTEM # P42** **K/A 400000** **K3.01: 2.9/3.3**
LP# GG-1-LP-OP-P4200
OBJ. 11A&12A&B **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: **04-1-01-P42-1 sect 3.7** ***NEW***
05-1-02-V-1 Note & MODIFIED BANK
DIFF 1; M **sect 2.1.2, 3.3**
RO SRO ***BOTH*** **CFR 41.7**
REFERENCE MATERIAL REQUIRED: **NONE**

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QUESTION 72

Which one of the following will cause a running Fuel Pool Cooling and Clean-up (FPCCU) pump to trip?

A. FPCCU pump discharge flow of 440 gpm for 32 seconds.

B. Fuel Pool drain tank level at 16%.

C. System differential flow of 92 gpm for 50 seconds.

D. Pump suction pressure at 8 psig for 5 seconds.

QUESTION 72 **NRC RECORD # WRI A024**
ANSWER: B. **SYSTEM # G41** **K/A 233000 A3.02: 2.6/2.6**
LP# GG-1-LP-OP-G4146
OBJ. 7b **SRO TIER 2 GROUP 3 / RO TIER 2 GROUP 3**
REFERENCE: 04-1-02-1H13-P680-4A2-C7 NEW
MODIFIED ***BANK***
DIFF 1; M **AUDIT 12/00**
RO SRO ***BOTH*** **CFR 41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 73

Which of the following methods is correct for verifying proper Fuel Bundle Orientation in a fuel cell?

A. The channel fastener of each assembly must be pointed toward the outside of the control cell.

B. All channel spacer buttons on each fuel assembly must face inwards in the cell.

C. The fuel orientation boss on the lifting bail must point toward the outside of the cell.

D. The serial number of the assemblies must be readable, right to left, from the outside of the cell looking inward.

QUESTION 73 **NRC RECORD # WRI 551**
ANSWER: B. **SYSTEM # J11** **K/A 234000** **K5.05: 3.0/3.7**
LP# GG-1-LP-OP-B1300
OBJ. 5i **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 3**
REFERENCE: 17-S-02-108sect 6.2.3 ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.2/41.10/43.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 74

The plant is operating at rated conditions steady state.

"RCIC PIPE/EQUIP AMBIENT TEMP HI" annunciator is received.

The Alarm Response Instruction (ARI) directs to check area temperature on recorder E31-R608.

The Control Room Supervisor has ordered the Riley Temperature indicators NOT be used.

Which of the following indicate the location of recorder E31-R608?

A. 1H13-P601 in main control room.

B. 1H13-P632 in upper control room.

C. 1H13-P642 in main control room back panel area.

D. 1H22-P150 in remote shutdown panel area.

QUESTION 74 **NRC RECORD # WRI 552**
ANSWER: B. **SYSTEM # E31** **K/A 288000** **A4.02: 2.8/2.8**
LP# GG-1-QC-RO-CRO01
OBJ. Qual Card Rounds
LP# GG-1-LP-RO-E3100
OBJ. 6c **SRO TIER 2 GROUP 3 / RO TIER 2 GROUP 3**
REFERENCE: **GG-1-LP-OP-E5100.02** ***NEW***
04-1-02-1H13-P601-21A-H2 MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 75

The plant is performing the Reactor Vessel In-Service Leak Test after 15 EFPY of operation at the end of RF11.
The following parameters existed during the test:

Time	Rx Pressure	Rx Metal Temp
1000	100 psig	160 °F
1030	200 psig	158 °F
1100	250 psig	158 °F
1130	500 psig	157 °F
1200	600 psig	150 °F
1230	800 psig	140 °F
1300	1025 psig	140 °F
1330	1025 psig	138 °F
1400	1025 psig	135 °F

Which one of the following statements is correct concerning the Reactor Coolant System? (Assume depressurization will straight drop within rate limits set in the IOI.)

Tech Specs are provided.

A. RPV pressure vs temperature limits are within specifications.

B. RPV pressure vs. temperature limits are satisfied, but the reactor requires heatup to complete the test.

C. RPV pressure vs. temperature limits have been violated and the reactor requires pressure reduction within 30 minutes.

D. RPV pressure vs. temperature limits have been violated and the reactor requires pressure reduction immediately.

QUESTION 75 **NRC RECORD # WRI 532**
ANSWER: A. **SYSTEM # B13** **K/A 290002** **K5.05: 3.1/3.3**
LP# GG-1-LP-OP-B1300 **2.1.25: 2.8/3.1**
OBJ. 16
LP# GG-1-LP-OP-IOI03
OBJ. 2c, d **SRO TIER 2 GROUP 3 / RO TIER 2 GROUP 3**
REFERENCE: **Figure 3.4.11-1 curve A** NEW
03-1-01-6 Caution ***MODIFIED*** BANK
DIFF 3, CA **03-1-01-3 sect 2.5, 2.6, 2.7** **NRC 4/00 WRI 261**
RO SRO ***BOTH*** **CFR 41.3/41.14/**
REFERENCE MATERIAL REQUIRED: **Tech Spec 3.4.11 & curves** **43.2**

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QUESTION 76

Which one of the following is the reason the LPCI Injection Valves, E12-F042A, B, and C, are designed to remain closed at normal reactor vessel pressure following a LOCA initiation signal?

A. This allows the pump time to pressurize the header, thus minimizing the differential pressure across the injection valve.

B. This ensures reactor pressure has dropped sufficiently to prevent the possibility of over pressurizing low pressure piping.

C. This allows the pump to develop enough discharge head to overcome reactor pressure for injection preventing back flow of hot reactor water into LPCI piping.

D. This ensures reactor pressure has equalized with LPCI pressure to prevent the injection check valves E12-F041A, B, C from slamming the injection piping causing damage.

QUESTION 76 RO **NRC RECORD # WRI 060**
ANSWER: B. **SYSTEM # E12** **K/A 203000** **K1.17: 4.0/4.0**
K4.01: 4.2/4.2
K4.02: 3.3/3.4
A3.01: 3.8/3.7
A3.08: 4.1/4.1
LP# GG-1-LP-OP-E1200 **A4.08: 4.3/4.3**
OBJ 8i, 14b **SRO TIER GROUP / RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-E12-1 sect. 3.4 NEW
Tech Spec Bases B3.3.5.1 MODIFIED ***BANK***
DIFF 1; M **NRC 3/98**
RO SRO BOTH **CFR 41.8**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 77

A LOCA has occurred and plant conditions are as follows:

Reactor pressure	900 psig
Reactor water level	- 100 inches
Drywell pressure	1.10 psig
LPCS Injection Line pressure	450 psig

Which of the following describes how the LPCS injection valve E21-F005 would respond if its handswitch is taken to the OPEN position?

A. The valve will NOT open.

B. The valve will open and remain open.

C. The valve will open and remain open for 15 minutes at which time it will stroke closed.

D. The valve will NOT open until reactor level or drywell pressure has reached the LPCS System initiation setpoint.

QUESTION 77 RO **NRC RECORD # WRI 002**
ANSWER: B. SYSTEM # E21 **K/A 209001 K4.01: 3.2/3.4**
A3.01: 3.6/3.6
LP# GG-1-LP-OP-E2100 **A4.03: 3.7/3.6**
OBJ. 8c, 11 SRO TIER GROUP / RO TIER 2 GROUP 1
REFERENCE: 04-1-01-E21-1 sect. 3.11 NEW
sect. 3.12 MODIFIED ***BANK***
DIFF 2; CA **NRC 3/98**
RO SRO BOTH **CFR 41.7/41.8**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 78

The plant is in mode 2 after a normal refueling outage.

The following parameters are indicated in the Main Control Room:

IRMs (range/reading)

A	B	C	D	E	F	G	H
R2/ 100	R3/ 30	R2/ 39	R3/ 37	R2/ 80	R3/ 15	R3/ 18	R3/ 33

With present plant conditions, which one of the following is correct with regard to the status of the Reactor Protection System (RPS)?

A. No RPS actuation and no Control Rod Blocks

B. Control Rod Block only.

C. Half scram and Control Rod Block.

D. Full scram and Control Rod Block.

QUESTION 78 RO **NRC RECORD # WRI 581**
ANSWER: B. **SYSTEM # C51; C11-2; C71** **K/A 215003 K6.01: 3.8**
LP# GG-1-LP-OP-C5102
OBJ. 8a&c **SRO TIER GROUP** **RO TIER 2 GROUP 1**
REFERENCE: **04-1-02-1H13-P680-7A-A9** NEW
04-1-02-1H13-P680-7A-B8 ***MODIFIED*** BANK
DIFF 2; CA **04-1-02-1H13-P680-7A-B9** **NRC 5/00**
RO SRO BOTH **CFR 41.6**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 79

The plant was operating at 100 % power.

Standby Liquid Control (SLC) was being lined up to the SLC Test Tank for surveillance testing.

Operators had opened the SLC Test Tank Outlet Valve, C41-F031 to 50% when a transient occurred causing a plant scram.

Multiple control rods failed to fully insert, resulting in reactor power staying at 45%.

The Shift Manager ordered a Containment evacuation.

Standby Liquid Control 'A' and 'B' injection was ordered.

Which one of the following describes the SLC response with the SLC Test Tank outlet valve 50% open?

A. SLC will only inject the contents of the SLC Test Tank into the reactor.

B. SLC will only inject the contents of the SLC Boron Tank into the reactor.

C. SLC will inject the contents of the SLC Boron Tank and SLC Test Tank into the reactor.

D. SLC will NOT inject the contents of the SLC Boron Tank into the reactor.

QUESTION 79 RO **NRC RECORD # WRI 239**
ANSWER: D. **SYSTEM # C41** **K/A 211000 A1.09: 4.0**
LP# GG-1-LP-OP-C4100
OBJ. 10a,b&c **SRO TIER GROUP** **RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-C41-1 section 3.5 NEW
06-OP-1C41-Q-0001 sect.2.2 MODIFIED ***BANK***
DIFF 1; M **NRC 12/00**
RO SRO BOTH **CFR 41.6/41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 80

The plant was operating at 100% power steady state.

The Reactor Protection System (RPS) "B" MG Set output breaker C71-S003B tripped causing a loss of RPS B normal power supply.

An operator responded to transfer RPS B to ALTERNATE power supply. He inadvertently swapped RPS A to the ALTERNATE power source.

The Reactor scrammed and Reactor water level dipped down to –45 inches and is now in the normal band.

All systems functioned properly following the scram.

Which one of the following is the correct status of Scram pilot solenoids, Backup scram solenoids, and ARI solenoids?

(ASSUME NO OPERATOR ACTION HAS BEEN TAKEN SINCE THE RPS A TRANSFER.)

	SCRAM PILOT VALVE SOLENOIDS	BACKUP SCRAM VALVE SOLENOIDS	ARI VALVE SOLENOIDS
A.	De-energized	Energized	Energized
B.	De-energized	Energized	De-energized
C.	Energized	De-energized	Energized
D.	Energized	De-energized	De-energized

QUESTION 80 RO **NRC RECORD # WRI 302**
ANSWER: A. **SYSTEM # C71; C11-1A** **K/A 212000** **K3.06: 4.0**
LP# GG-1-LP-OP-C111A
OBJ. 5c,d&e **SRO TIER GROUP** **RO TIER 2 GROUP 1**
REFERENCE: **04-1-01-C11-1sect 3.2** NEW
E-1173-14 MODIFIED ***BANK***
DIFF 2; CA **NRC 12/00**
RO SRO BOTH **CFR 41.6**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 81

The Electrical line up is normal.

A LOCA condition has caused Drywell Pressure to rise to 1.6 psig.

A switching error causes 500 kV voltage to drop.

The voltage to ALL ESF busses drops to 3290 volts.

The voltage transient duration is 10 seconds and then voltage returns to normal.

Which one of the following statements is the condition of the ESF busses after this voltage transient?

A. 15AA is being supplied from ESF 11
16AB is being supplied from ESF 21
17AC is being supplied from ESF 21

B. 15AA is being supplied from Div I D/G
16AB is being supplied from Div II D/G
17AC is being supplied from Div III D/G

C. 15AA is being supplied from ESF 11
16AB is being supplied from ESF 21
17AC is being supplied from Div III D/G

D. 15AA is being supplied from Div I D/G
16AB is being supplied from Div II D/G
17AC is being supplied from ESF 21

QUESTION 81 RO **NRC RECORD # WRI 11**
ANSWER: B. **SYSTEM # R21** **K/A 264000 2.4.4: 4.0**
LP# GG-1-LP-OP-R2100
OBJ. 12,20&22 **SRO TIER GROUP** **RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-R21-1 sect 5.1.1a NEW
04-1-01-P81-1 sect 3.22 MODIFIED ***BANK***
DIFF 2; CA **NRC 3/98**
RO SRO BOTH **CFR 41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 82

Which of the following conditions is ***NOT*** associated with an Uncoupled Control Rod?

A. Neutron monitoring indication does not change when attempting to move control rods.

B. Loss of position 48 indicators.

C. Rod position indication does not change when attempting to move control rods.

D. Loss of FULL OUT red LED lights.

QUESTION 82 RO **NRC RECORD # WRI 586**
ANSWER: C. **SYSTEM # C11-2; C11-1B** **K/A 201003 A1.01: 3.7**
LP# GG-1-LP-OP-C111B
OBJ. 5b **SRO TIER GROUP** **RO TIER 2 GROUP 2**
REFERENCE: GG-1-FIG-OP-C111B fig. 3 ***NEW***
05-1-02-IV-1 sect 4.4, 4.5 MODIFIED BANK
DIFF 1; M
RO SRO BOTH **CFR 41.6/41.10/43.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 83

The plant has scrammed.

Main Condenser Vacuum is 15 inches Hg.

Which one of the following identifies the status of the Main and Reheat Steam System?

(ASSUME NO OPERATOR ACTION.)

	RFP High Press Steam Valve	RFP Low Press Steam Valve	Main Steam Bypass Valves	Combined Main Stop & Control Valves
A.	Closed	Closed	Open	Closed
B.	Open	Open	Closed	Open
C.	Open	Closed	Open	Closed
D.	Closed	Open	Closed	Open

QUESTION 83 RO **NRC RECORD # WRI 269**
ANSWER: A. **SYSTEM # N11; N62** **K/A 239001** **A3.01: 4.2**
LP# GG-1-LP-OP-N6200
OBJ. 14 **SRO TIER GROUP** **RO TIER 2 GROUP 2**
REFERENCE: 05-1-02-V-8 sect. 5.0 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 5/00**
RO SRO BOTH **CFR 41.4/41.14**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 84

The plant is starting up from a refueling outage and is operating at 41% power as sensed by turbine 1st stage pressure.

An Electro Hydraulic Control (EHC) fluid leak develops on the header, which supplies control oil to the Main Turbine Control valves.

Turbine Control valve trip fluid pressures are as follows:

A turbine control valve trip fluid pressure	45 psig
B turbine control valve trip fluid pressure	48 psig
C turbine control valve trip fluid pressure	45 psig
D turbine control valve trip fluid pressure	45 psig

Which of the following indicate the correct status of the Reactor Protection System (RPS) under these plant conditions?

(Assume all other parameters are within an acceptable band)

A. RPS A and RPS B are unaffected/reset.

B. RPS A only is tripped.

C. RPS B only is tripped.

D. Both RPS A and RPS B are tripped.

QUESTION 84 RO **NRC RECORD # WRI 588**
ANSWER: D. **SYSTEM # C71** **K/A 245000** **K1.04: 3.6**
LP# GG-1-LP-OP-C7100
OBJ. 9 **SRO TIER** **GROUP** **RO TIER 2 GROUP 2**
REFERENCE: **04-1-02-1H13-P680-7A-A1** ***NEW***
05-1-02-I-1 sect. 4.5.7 MODIFIED BANK
DIFF 2; CA **05-1-02-I-2 sect. 5.4**
TECH. SPEC TR3.3.1.1-1 ***RO*** SRO BOTH **CFR 41.4/41.10/43.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 85

The plant is operating at 50 % power.

The "A" Circulating Water Pump develops a phase to phase short that trips the Circ Water Pump.

The "B" Circulating Water Pump is tagged out for motor bearing replacement.

Which one of the following best describes the response of the Main Condenser and Condensate System?

(ASSUME NO OPERATOR ACTION.)

A. Main Condenser vacuum will drop approaching 0 inches Hg Vacuum and Condensate Depression will rise.

B. Main Condenser vacuum will drop approaching 0 inches Hg Vacuum and Condensate Depression will be reduced.

C. Main Condenser vacuum will drop and stabilize just below the turbine trip setpoint and Condensate Depression will rise.

D. Main Condenser vacuum will drop and stabilize just below the turbine trip setpoint and Condensate Depression will be reduced.

QUESTION 85 RO **NRC RECORD # WRI 589**
ANSWER: B. **SYSTEM # N19; N71** **K/A 256000** **K1.18: 2.9/3.0**
K6.02: 3.1/3.1
LP# GG-1-LP-OP-N1900 **A1.10: 3.1/3.1**
A2.11: 3.2/3.2
OBJ 22b, 30 **SRO TIER GROUP / RO TIER 2 GROUP 2**
REFERENCE: **05-1-02-V-8 sect. 4.1 & 3.3** ***NEW***
UFSAR Tables 15.2.7 & 15.2.8 MODIFIED BANK
DIFF 2; CA **Steam Tables**
RO SRO BOTH **CFR 41.4/41.14**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 86

DC Control Power is lost to Bus 13AD (4160 volt).

Which one of the following describes the operation of circuit breakers supplying loads from 13AD?

A. The circuit breakers can be closed from the Main Control Room but opened only at the local cubicle.

B. The circuit breakers can only be manually closed and opened at the local cubicle.

C. The circuit breakers can only be closed locally however, all circuit breaker trips are available local and remote.

D. The circuit breakers can be closed and opened from the Main Control Room however, all automatic breaker closures and trips are disabled.

QUESTION 86 RO **NRC RECORD # WRI 254**
ANSWER: B. **SYSTEM # L11; R27** **K/A 263000** **K3.02: 3.5/3.8**
LP# GG-1-LP-OP-L1100
OBJ. 8a, 10a
LP# GG-1-LP-OP-R2700
OBJ. 14 **SRO TIER GROUP / RO TIER 2 GROUP 2**
REFERENCE: E-0111-01 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 4/00**
RO SRO BOTH **CFR 41.4**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 87

The plant is operating at rated conditions.

A rupture on the Instrument Air header in the Auxiliary Building has depleted the header to 0 psig.

Which one of the following describes the response of the Reactor Water Cleanup (RWCU) System?

(ASSUME NO OPERATOR ACTION; ALL SYSTEMS FUNCTION NORMALLY.)

A. RWCU will continue to operate by automatically opening the Filter Demineralizer Bypass Valve G33-F044.

B. RWCU will continue to operate until the RWCU pumps trip on motor overload due to operating at shutoff head.

C. RWCU will isolate and shutdown the system due to system differential flow being exceeded.

D. RWCU Filter Demineralizers will isolate and the RWCU pumps will trip on low flow.

QUESTION 87 RO **NRC RECORD # WRI 587**
ANSWER: D. **SYSTEM # P53; G33/36** **K/A 300000 K3.02: 3.3**
LP# GG-1-LP-OP-P5300 **204000 K6.04: 2.7**
OBJ. 30 **A2.07: 2.5**
LP# GG-1-LP-OP-G3336
OBJ. 8a, 9e **SRO TIER GROUP / RO TIER 2 GROUP 2**
REFERENCE: 04-1-02-1H13-P680 ***NEW***
11A-C4 & A6 MODIFIED BANK
DIFF 2; CA 05-1-02-V-9 sect 5.9
05-1-02-III-5 Ck list Group 8 ***RO*** SRO BOTH **CFR 41.4/41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 88

The plant is at 135?F.

All ECCS systems are in standby.

The Reactor Mode Switch is in SHUTDOWN.

Refuel Floor Surveillances are being performed on the Refuel Bridge.

The Reactor Head is installed with the first head closure bolt is de-tensioned.

Secondary Containment is in effect.

With the above conditions, which one of the following is the Plant Operational Mode?

A. Mode 2 - Startup

B. Mode 3 - Hot Shutdown

C. Mode 4 - Cold Shutdown

D. Mode 5 - Refueling

QUESTION 88 RO **NRC RECORD # WRI 585**
ANSWER: D. **SYSTEM # ADMIN** **K/A Generic 2.1.22: 2.8**
Conduct of Ops.
LP# GG-1-LP-LO-TS001
OBJ. 5 **SRO TIER GROUP / RO TIER 3 GROUP**
REFERENCE: Tech Specs sect. 1.1 NEW
table 1.1-1 ***MODIFIED*** BANK
DIFF 1; M **NRC 3/98 WRI 142**
RO SRO BOTH **CFR 41.10/43.1**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 89

Which one of the following describes the purpose of the Equipment Drain System?

The Equipment Drain System:

A. collects high conductivity liquid wastes from potentially radioactive systems throughout the protected area.

B. collects drains from all systems carrying radioactive or potentially radioactive liquids inside the power block.

C. collects clean drains from systems carrying radioactive or potentially radioactive liquids inside the power block.

D. collects high conductivity liquid wastes from ECCS Rooms and systems throughout the power block

QUESTION 89 RO **NRC RECORD # WRI 584**
ANSWER: C. **SYSTEM # P45; G17** **K/A 268000 2.1.27: 2.8**
LP# GG-1-LP-OP-P4500
OBJ. 1, 2, 4a
LP# GG-1-LP-OP-G1718
OBJ. 3a1 **SRO TIER GROUP / RO TIER 3 GROUP**
REFERENCE: FSAR 9.3.3.2.3b ***NEW***
M-1094A, B, C, E MODIFIED BANK
DIFF 1; M
RO SRO BOTH **CFR 41.13/43.4**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 90

A plant startup is in progress following a forced outage at the end of the operating cycle.

Reactor Recirculation Pumps are being shifted to fast speed.

Which one of the following personnel is allowed to shift Reactor Recirculation Pumps to fast speed?

A. The Shift Engineer under instruction for a license with the supervision of the Control Room Supervisor.

B. The Reactor Engineer working as a member of the shift to assess core operating performance during the startup.

C. The B33 System Engineer with the supervision of the Control Room Supervisor.

D. The NRC Senior Resident Inspector with the supervision of the Operator at the Controls.

QUESTION 90 RO **NRC RECORD # WRI 583**
ANSWER: A. **SYSTEM # Conduct of Operations** **K/A Generics 2.1.2: 3.0**
LP# GG-1-LP-OP-PROC
OBJ. 11 v & w **SRO TIER GROUP / RO TIER 3 GROUP**
REFERENCE: **01-S-06-2** ***NEW***
sect 5.1; 5.2; 6.4.5; 6.4.6 MODIFIED BANK
DIFF 1; M **10 CFR 50.54 i & j**
10 CFR 55.13 ***RO*** SRO BOTH **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 91

A plant startup is in progress following a forced outage.

The reactor is at the point of adding heat with reactor pressure at 400 psig.

An NPE engineer has returned a Condition Report to the Control Room that indicates the sealant used on the A & B Control Room Fresh Air Units seals fail to meet the ASME specifications.

The Operations Representative has dispositioned both Control Room Fresh Air Units as INOP.

Which one of the following describes the actions to be taken?

Technical Specifications 3.0 and 3.7.3 are provided as references.

A. The Control Room has 24 hours to perform an operability determination during which time the plant is allowed to remain in the current operational Mode.

B. Restore the Control Room Fresh Air systems to operable status within 7 days. Power ascension may continue.

C. Immediately enter LCO 3.0.3 and within one hour initiate actions to be in Mode 3 within 13 hours and Mode 4 within 37 hours.

D. Be in Mode 3 within 12 hours and Mode 4 within 36 hours.

QUESTION 91 RO **NRC RECORD # WRI 582**
ANSWER: C. **SYSTEM # Tech Specs** **K/A Generics 2.1.12: 2.9**
LP# GG-1-LP-LO-TS001
OBJ. 34 **SRO TIER GROUP / RO TIER 3 GROUP**
REFERENCE: Tech Specs 3.0.3 ***NEW***
3.7.3 condition D MODIFIED BANK
DIFF 2; CA
RO SRO BOTH **CFR 41.10/43.2**
REFERENCE MATERIAL REQUIRED: Tech Specs 3.0.3 & 3.7.3

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QUESTION 92

Which of the following statements best describes the reason personnel performing core alterations shall be in constant communications with the Operator-at-the-Controls?

A. To allow the on-duty STA to perform a shutdown margin check required during Core Alterations.

B. To allow the Operator-at-the-Controls to monitor for and notify the Refuel floor in the event of an inadvertent criticality.

C. Core alterations are considered a special evolution requiring constant communication with the Control Room.

D. A core alteration is considered a change in reactivity that requires the knowledge and consent of the Operator-at-the-Controls.

QUESTION 92 RO **NRC RECORD # WRI 576**
ANSWER: B. **SYSTEM # Refueling** **K/A Generics 2.2.30: 3.0**
LP# GG-1-LP-OP-PROC
OBJ. 10dd **SRO TIER GROUP / RO TIER 3 GROUP**
REFERENCE: 01-S-06-2 sect 6.7.16 NEW
MODIFIED ***BANK***
DIFF 1; M **LOT 6/01 ADMIN**
RO SRO BOTH **CFR 41.10/43.5/43.7**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 93

The Component Cooling Water Supply to the Non-Regenerative Heat Exchangers P42-F103 is to be used as a boundary valve for a tagout for Mechanical Maintenance.

Which one of the following describes the items to be tagged to utilize this valve as a boundary valve?

P&IDs M-1063B and M-1067H, and Electrical E-1226-05 are provided as reference.

A. Handswitch tagged in closed position.
Air supply P53-FY087 tagged in closed position.
Air supply to actuator vented and tagged.

B. Handswitch tagged in closed position.
P42-F103 jacked closed with an installed jacking device.
Air supply to actuator vented and tagged.

C. Air supply P53-FY087 tagged in closed position.
P42-F103 jacked closed with an installed jacking device.
Air supply to actuator vented and tagged.

D. Handswitch tagged in closed position.
Air supply P53-FY087 tagged in closed position.
P42-F103 jacked closed with an installed jacking device.

QUESTION 93 RO **NRC RECORD # WRI 580**
ANSWER: A. **SYSTEM # Protective Tagging** **K/A Generics 2.2.13: 3.6**
LP# GG-1-LP-OP-PROC
OBJ. 10j, k, l **SRO TIER GROUP / RO TIER 3 GROUP**
REFERENCE: **01-S-06-1 sect 6.2.1g – i** ***NEW***
M-1067H MODIFIED BANK
DIFF 2; CA **M-1063B**
E-1226-05 ***RO*** SRO BOTH **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: **M-1063B , M-1067H, & E-1226-05**

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QUESTION 94

A Radwaste Contractor is needed for a job in a Very High Radiation Area.

The dose rate in the area of the job is 1.2 Rem/hr.

The job is expected to take 1 hour and 45 minutes.

The contractor's exposure history to date for the year is 3000 mRem.

Can the contractor be utilized for this job and WHY?

A. Yes, the contractor will NOT exceed his administrative limits.

B. Yes, however the contractor must have an approved extension on dose limits before the job.

C. No, the contractor will exceed his federal dose limits.

D. No, the contractor will exceed administrative dose limits that are NOT allowed to be extended.

QUESTION 94 RO **NRC RECORD # WRI 277**
ANSWER: C. **SYSTEM # Rad Con – Exposure Limits** **K/A Generics 2.3.4: 2.5**
LP# EOI-S-LP-GET-RWT01
OBJ. RWT 30 – 33 **SRO TIER GROUP / RO TIER 3 GROUP**
REFERENCE: 01-S-08-2 Sect 6.3 NEW MODIFIED ***BANK*** **NRC 4/00**
DIFF 2; CA ***RO*** SRO BOTH **CFR 41.10/43.4**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 95

Residual Heat Removal 'A' is being lined up to operate in Suppression Pool Cooling.

The Plant Supervisor has requested you contact Health Physics.

Which one of the following describes the purpose of this phone notification?

A. Allows Health Physics personnel to evacuate any personnel from the Containment.

B. Allows Health Physics personnel to perform surveys of the RHR rooms and Containment for elevated radiation levels.

C. Informs Health Physics of elevated heat and noise levels in the vicinity of the RHR Rooms such that personnel entering the areas may be informed.

D. Informs Health Physics that the transient High Radiation areas for the RHR loop are now in effect.

QUESTION 95 RO **NRC RECORD # WRI 287**
ANSWER: B. **SYSTEM # Rad Con – ALARA** **K/A Generic 2.3.2: 2.5**
2.1.32: 3.4
LP# GG-1-LP-OP-E1200
OBJ. 11 **SRO TIER GROUP / RO TIER 3 GROUP**
REFERENCE: 04-1-01-E12-1 sect 3.1 NEW
MODIFIED ***BANK***
DIFF 1, M **NRC 4/00**
RO SRO BOTH **CFR 41.10/43.4**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 96

While in Mode 1, the "A" CRD Pump tripped.

Following an improper start of the "B" CRD Pump, the Operator-at-the-Controls noticed four (4) control rods drifting in with no drive command.

What is the proper action to take?

A. Reduce core flow to 60%.

B. Immediately scram the reactor.

C. Take no action until the control rod motion has stopped or reached the full-in position, then immediately return the control rods to their required position.

D. Select the control rod closest to the center of the core and apply a continuous insert signal to it until it reaches position 00.

QUESTION 96 RO **NRC RECORD # WRI 101**
ANSWER: B. **SYSTEM # C11-1A** **K/A Generic 2.4.1: 4.3**
LP# GG-1-LP-OP-C111A
OBJ. 15
LP# GG-1-LP-OP-ONEP1
OBJ. 1 **SRO TIER GROUP / RO TIER 3 GROUP**
REFERENCE: 05-1-02-IV-1 sect. 2.2.3 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 3/98**
RO SRO BOTH **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 97

An emergency condition has resulted in an Alert being declared.

The Emergency Response Organization is in route for manning.

How many and what are the responsibilities of Non-Licensed Operators dispatched to the Control Room during the initial phase of the emergency?

A. One Non-Licensed Operator is to perform the duties of safe shutdown operator, communications will be handled by the TSC when manned. All other operators report to the OSC.

B. Two Non-Licensed Operators are to perform the duties of communicators. All other operators report to the OSC.

C. Two Non-Licensed Operators are to perform the duties of communicators and one operator as the safe shutdown operator. All other operators report to the OSC.

D. Two Non-Licensed Operators are to perform the duties of communicators and two operators to perform equipment operations required outside the Control Room. All other operators report to the OSC.

QUESTION 97 RO **NRC RECORD # WRI 577**
ANSWER: D. **SYSTEM # E-Plan** **K/A Generics 2.4.35: 3.3**
LP# GG-1-LP-OP-PROC
OBJ. 11d **SRO TIER GROUP / RO TIER 3 GROUP**
REFERENCE: 01-S-10-6 Att II & III ***NEW***
01-S-06-2 sect 6.2.1d MODIFIED BANK
DIFF 1; M **Recent E-plan change 2/2001**
RO SRO BOTH **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 98

A loss of coolant accident has occurred.

During the implementation of the Emergency Procedures, the Control Room Supervisor reaches a step in the Emergency Procedure flowcharts directing the exit of all EP's and enter SAPs.

The Emergency Response Organization is manned and all required facilities are operational.

Who is required to concur with the transition from Emergency Procedures to Severe Accident Procedures?

A. Shift Manager

B. Operations Coordinator

C. Emergency Director

D. Offsite Emergency Coordinator

QUESTION 98 RO **NRC RECORD # WRI 483**
ANSWER: C. **SYSTEM # Severe Accident Procedures** **K/A Generics 2.4.6: 3.1**
LP# GG-1-LP-EP-EPT19
OBJ. 1, 2b **SRO TIER GROUP / RO TIER 3 GROUP**
REFERENCE: SAP –1 General Note ***NEW***
MODIFIED BANK
DIFF 1;M
RO SRO BOTH **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 99

In which one of the following situations would a Peer Check NOT be expected?

A. An operator is performing subsequent actions of an ONEP.

B. An operator is overriding low pressure ECCS injection in accordance with the EPs.

C. An electrician is lifting a lead that requires a concurrent verification.

D. An operator is placing the standby CRD pump in service after the running pump tripped.

QUESTION 99 RO **NRC RECORD # WRI 391**
ANSWER: D. **SYSTEM # Emergency Procedures/Plan - Peer Checking Expections** **K/A Generic 2.4.12: 3.4**
LP# GG-1-LP-OP-PROC
OBJ. 55c **SRO TIER GROUP** **RO TIER 3 GROUP**
REFERENCE: **Operations Expectations and Standards sect 9.0** NEW
05-1-02-IV-1 sect 2.1.2 MODIFIED ***BANK***
DIFF 2; CA **02-S-01-27 sect 6.5.1** **NRC 12/00 RO NOT USED**
RO SRO BOTH **CFR 41.10/43.5**
REFERENCE MATERIAL EQUIRED: None

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QUESTION 100

A fire has been reported in the Division I Diesel Generator Room.

The Fire Brigade is in route to the fire.

Which one of the following describes responses of the Control Room Operator?

A. Manually start all three fire pumps and the outside air fans for Division II and III Diesel Generator Rooms.

B. Manually start the motor driven fire pump and the outside air fans for Division II and III Diesel Generator Rooms.

C. Manually start all three fire pumps and the outside air fans for all three Diesel Generator Rooms.

D. Manually start the motor driven fire pump and the outside air fans for all three Diesel Generator Rooms.

QUESTION 100 RO **NRC RECORD # WRI 578**
ANSWER: B. **SYSTEM # Fire Protection** **K/A Generics 2.4.25: 2.9**
LP# GG-1-LP-OP-PROC
OBJ. 61c(1) **SRO TIER GROUP / RO TIER 3 GROUP**
REFERENCE: 10-S-03-2 ***NEW***
Sect 6.2.2 NOTE & 6.2.2d MODIFIED BANK
DIFF 1; M
RO SRO BOTH **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 1

The plant is operating at 20 % power following RF11.

A ground fault on the Entergy Grid resulted in the Main Generator output circuit breakers J5228 and J5232 automatically opening on a Generator Lockout.

Which one of the following describes the reaction of the plant to this trip?
ASSUME NO OPERATOR ACTIONS.

A. Main Steam Bypass Valves will automatically open maintaining reactor pressure. The reactor will scram following the closure of the Main Turbine Stop and Control Valves.

B. Main Steam Bypass Valves will automatically open maintaining reactor pressure. The reactor will remain at power with the Main Turbine remaining in operation.

C. Main Steam Bypass Valves will automatically open maintaining reactor pressure. The reactor will remain at power with the Main Turbine Stop and Control Valves closing.

D. The reactor will scram due to the Main Turbine Control Valve fast closure that will result in a subsequent normal closure of the Main Turbine Control Valves to maintain reactor pressure.

QUESTION 1 **NRC RECORD # WRI 553**
ANSWER: C **SYSTEM # N41;** **K/A 295005** **AA2.05: 3.8/3.9**
N32-2; C71 **AA2.04: 3.7/3.8**
LP# GG-1-LP-OP-C7100 **AA2.03: 3.1/3.1**
OBJ. 9
LP# GG-1-LP-OP-N3202
OBJ. 2
LP# GG-1-LP-OP-N4151
OBJ. 11 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 1**
REFERENCE: **Tech. Spec 3.3.1.1** ***NEW***
05-1-02-I-2 sect 4.1 MODIFIED BANK
DIFF 2; CA
RO SRO ***BOTH*** **CFR 41.5/41.6**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 2

Which one of the following is a correct method of verifying the position of the control rods? (The scram has NOT been reset.)

A. Using the full core display on H13-P680, depress ALL RODS with RCIS in Raw Data and observe a blank display with only green LEDs for all control rods.

B. Using the full core display on H13-P680, depress ALL RODS with RCIS in Raw Data and observe all control rods indicate 00 with a green LED for all control rods.

C. Using the full core display on H13-P680, depress ALL RODS with RCIS out of Raw Data and observe a blank display with only red LEDs for all control rods.

D. Using the full core display on H13-P680, depress ALL RODS with RCIS out of Raw Data and observe all control rods indicate 00 with a red LED for all control rods.

QUESTION 2 **NRC RECORD # WRI 10**
ANSWER: A. **SYSTEM # C11-2; C11-1B** **K/A 295006 AA2.02: 4.3/4.4**
201005 A3.02: 3.5/3.5
A4.02: 3.7/3.7
LP# GG-1-LP-OP-C111B
OBJ. 3c, 3f
LP# GG-1-LP-OP-C1102
OBJ. 12 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: 04-1-01-C11-2 NEW
sect. 4.7.2p & 4.8.2i MODIFIED ***BANK***
DIFF: 2; CA **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.6/41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 3

Plant conditions are as follows:

MODE:	Mode 1
Rx power:	28 %
T-G Load:	365 MWE
Load Demand	390 MWE
Bypass position:	0 %

All other parameters are per plant design.

The operator withdraws a control rod that raises Reactor power to 29 %.

How will the Turbine EHC Control System respond?

A. The Bypass Control Valves will open by whatever amount is required to maintain Rx pressure.

B. The Turbine Control Valves will open by whatever amount is required to maintain Rx pressure.

C. The Bypass Control Valves will close by whatever amount is required to maintain Rx pressure.

D. The Turbine Control Valves will close by whatever amount is required to maintain Rx pressure.

QUESTION 3 **NRC RECORD # WRI 69**
ANSWER: B. **SYSTEM # N32-2** **K/A 295007** **AK2.01: 3.5/3.7**
241000 **A2.02: 3.7/3.7**
LP# GG-1-LP-RO-N3202 **K4.01: 3.8/3.8**
OBJ 4b, 6b, 7b **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: 03-1-01-2 sect. 5.2 NEW
MODIFIED ***BANK***
DIFF: 2; CA **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 4

The plant is operating at 70 % power.

Which of the following best describes the response of the Reactor Water Level Control System on a failure of a single Feed Flow Transmitter UPSCALE?

A. The Digital Feed System will recognize the failure and de-select 3 - element control and return level to the level setpoint.

B. The Digital Feed System will lower feed flow until reactor level drops to 32 inches at which time it will become level dominant remaining in 3 - element control.

C. The Digital Feed System will lower feed flow and reactor level will stabilize out at a new low level below the low level alarm setpoint.

D. The Digital Feed System will lock up the controls and hold level at the normal level, remain in 3 - element control, and actuate the DFCS TROUBLE annunciator on P680.

QUESTION 4 **NRC RECORD # WRI 68**
ANSWER: A. **SYSTEM # C34** **K/A 295009 AA1.02: 4.0/4.0**
AA2.02: 3.6/3.7
LP# GG-1-LP-RO-C3401 **259002 K6.04: 3.1/3.1**
OBJ 1.10 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: ARI 04-1-02-H13-P680 NEW
2A-C9 MODIFIED ***BANK***
DIFF: 2; CA **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.7**

REFERENCE MATERIAL REQUIRED: None

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QUESTION 5

The plant is operating at 70 % power.

Determine the calculated Drywell Floor Drain (Unidentified Leakage) rate and Drywell Total Leakage.

ATTACHED are indications from the Drywell Floor Drain Sump Chart Recorder E31-LR-R618 and information provided from the Daily Operations Log 06-OP-1000-D-0001 item 25 and 26

PDS Computer is inoperable.

	Drywell Unidentified Leakage rate	Drywell Total Leakage rate
A.	1.50	3.66
B.	1.50	4.50
C.	2.00	4.16
D.	2.00	5.00

QUESTION 5 **NRC RECORD # WRI 502**
ANSWER: A. **SYSTEM # E31** **K/A 295010** **AA2.01: 3.4/3.8**
2.1.2: 3.0/4.0
LP# GG-1-QC-RO-CRO01 **2.1.18: 2.9/3.0**
2.1.25: 2.8/3.1
OBJ **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: 06-OP-1000-D-0001 ***NEW***
Drywell Floor Drain Chart MODIFIED BANK
DIFF: 2; CA E31-LR-R618
RO SRO ***BOTH*** **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: 06-OP-1000-D-0001 Attachment I Item 25 & method 1 & calculator Chart paper indications of sump readings

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QUESTION 6

The plant is performing a reactor startup from cold shutdown.

The reactor was at the point of adding heat.

The Control Room Supervisor instructed the operators to stop the startup for a short duration to perform a surveillance.

During this time, the reactor went subcritical and power dropped to range 3 of the IRMs.

The At-The-Controls Operator, noting that reactor power had dropped selected the next control rod and withdrew the control rod from 20 to 48 with continuous motion as allowed by the Control Rod Movement Sequence Sheet.

This resulted in a sustained 20-second period.

The following are the plant parameters at present:

Reactor Pressure	80 psig
Reactor Level	+ 40 inches

Which one of the following describes the next action the At-The-Controls operator should take?

A. Immediately range all IRMs to range 10 and monitor overlap data between IRMs and APRMs.

B. Perform the coupling checks for the Control Rod, and inform the Reactor Engineer of the power rise.

C. Withdraw the next in sequence Control Rod to maintain the power rise to reach the point of adding heat.

D. Insert the Control Rod to a position which causes reactor period to be > 50 seconds.

QUESTION 6 **NRC RECORD # WRI 204**
ANSWER: D. **SYSTEM # C11-2; C51** **K/A 295014** **AK3.01: 4.1/4.1**
LP# GG-1-LP-OP-IOI01
OBJ. 3c & d **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: **03-1-01-1 sect. 2.1.4** NEW
Susquehanna reactivity MODIFIED ***BANK***
DIFF 1; M **Event 7/98** **NRC 4/00**
04-1-01-C51-1 sect 4.3.2 NOTE RO SRO ***BOTH*** **CFR 41.1/41.2/ 41.6/43.6**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 7

Scram conditions exist. All control rods did NOT fully insert.

Reactor water level is being maintained at –60 inches.

Reactor pressure is being maintained at 910 psig.

Reactor power is 20 %.

The following indications exist:

RPS white lights on H13-P680 are extinguished.
Scram Air Header Pressure low annunciator is illuminated.
RX SCRAM TRIP annunciator is illuminated.

The following actions have been taken:

Defeat the RPS scram signal and reset RPS
Unisolate the Instrument Air header
Defeat Alternate Rod Insertion
A CRD pump is confirmed operating and the CRD FCV is open to achieve 250 psig Drive pressure.

Which one of the following contains the minimum actions required to drive the control rods to position 00 using Rod Control and Information System?

A. Bypass Control Rod Drive withdrawal blocks, select control rods and insert.

B. Bypass Control Rod Drive withdrawal blocks, select control rods in sequence and insert.

C. Bypass Control Rod Drive insert and withdrawal blocks, select control rods and insert.

D. Select control rods in sequence and insert.

QUESTION 7 **NRC RECORD # WRI 203**
ANSWER: C. **SYSTEM # C11-2; C71; C11-1A** **K/A 295015 AK3.01: 3.4/3.7**
LP# GG-1-LP-RO-EP02A
OBJ. 5 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: **EP 05-S-01-EP-2A** NEW
Step 48 Att. 18, 19 & 20 MODIFIED ***BANK***
DIFF 3; CA **NRC 4/00**
RO SRO ***BOTH*** **CFR 41.6/43.6**
REFERENCE MATERIAL REQUIRED: 05-S-01-EP-2 EP-2A

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QUESTION 8

Which one of the following identifies the significance of exceeding the maximum Drywell pressure?

A. The Drywell Purge Compressor discharge valve differential pressure limit would be exceeded preventing the operation of the Drywell Purge Compressors and the combustible gas control function.

B. The Drywell structure could be breached resulting in the loss of the pressure suppression function resulting in the direct pressurization of Containment in a DBA that would result in a failure of Containment.

C. The resultant Suppression Pool surge upon depressurization of the Drywell would cause the structures inside the Containment to exceed the maximum loading and could result in a compounded failure.

D. The Suppression Pool surge upon depressurization of the Drywell would result in the overflowing of the Weir Wall and the degradation of equipment in the lower elevation of the Drywell required for accident mitigation.

QUESTION 8 **NRC RECORD # WRI 259**
ANSWER: B. **SYSTEM # M41** **K/A 295024** **EK1.01: 4.1/4.2**
LP# GG-1-LP-OP-M4101
OBJ. 4, 5 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: FSAR sect 3.8.1; 6.2.1.1.1j NEW
Table 6.2-1 MODIFIED ***BANK***
DIFF 1; M **NRC 12/00**
RO SRO ***BOTH*** **CFR 41.9**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 9

Which of the following is the basis for the correlation between Reactor Pressure and Suppression Pool Temperature concerning Heat Capacity Temperature Limit (HCTL) during an ATWS?

A. It is the highest suppression pool temperature from which an Emergency Depressurization will not raise suppression pool temperature above the capability to monitor suppression pool temperature with the reactor still pressurized.

B. It is the highest suppression pool temperature from which an Emergency Depressurization can be performed and the suppression pool still capable of absorbing all the energy from the reactor at all pressures.

C. It is the highest suppression pool temperature from which an Emergency Depressurization will not raise containment temperature above the maximum temperature capability of the containment and equipment in containment that may be required to operate with the reactor still pressurized.

D. It is the highest suppression pool temperature from which an Emergency Depressurization will not result in direct steam introduction into the containment through a Suppression Pool approaching saturation conditions with the reactor still pressurized.

QUESTION 9 **NRC RECORD # WRI 503**
ANSWER: C. **SYSTEM # M41-1** **K/A 295025** **A2.03: 3.9/4.1**
LP# GG-1-LP-RO-EP02.01
OBJ. 12 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: GGNS PSTG Appendix B ***NEW***
MODIFIED BANK
DIFF 1;M
RO SRO ***BOTH*** **CFR 41.9/41.10/43.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 10

The plant is in an ATWS condition. Reactor power was at 80% after the scram condition occurred. Standby Liquid Control has been initiated but failed to inject.

Which of the following conditions would adequate core cooling ***NOT*** be assured?

A.
Drywell Temperature	185°F
Reactor Pressure	600 psig
Suppression Pool Level	18 feet
2 SRVs open	
Reactor Water Level	-187 inches Fuel Zone
Feedwater is injecting.	

B.
Drywell Temperature	200°F
Reactor Pressure	350 psig
Suppression Pool Level	21.5 feet
8 SRVs open	
Reactor Water Level	-215 inches Fuel Zone
No high pressure injection systems available	

C.
Drywell Temperature	190°F
Reactor Pressure	150 psig
Suppression Pool Level	22 feet
8 SRVs open	
Reactor Water Level	-205 inches Fuel Zone
LPCS is injecting, no other systems available	

D.
Drywell Temperature	220°F
Reactor Pressure	200 psig
Suppression Pool Level `	23 feet
8 SRVs open	
Reactor Water Level	-165 inches Fuel Zone (level instruments are
Feedwater is injecting.	suspect per caution 1)

QUESTION 10 **NRC RECORD # WRI 504**
ANSWER: C. **SYSTEM # B21; EP** **K/A 295031** **A2.04: 4.6/4.8**
LP# GG-1-LP-RO-EP02A
OBJ. 2 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: 05-S-01-EP-2A ***NEW***
GGNS PSTG MODIFIED BANK
DIFF 3;CA
RO SRO ***BOTH*** **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: 05-S-01-EP-2A

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QUESTION 11

Which one of the following describes the conditions that Cold Shutdown Boron Weight is designed to over come?

A. 68 °F, xenon free, water level at steam lines, 50 % rod density.

B. 68 °F, xenon free, water level in normal band, all rods fully withdrawn.

C. 110 °F, xenon free, water level in normal band, all rods fully withdrawn.

D. 110 °F, xenon free, water level at steam lines, 50 % rod density.

QUESTION 11 **NRC RECORD # WRI 38**
ANSWER: B. **SYSTEM #** **K/A 295037** **EK3.05: 3.2/3.7**
EOP-2A BASES
LP# GG-1-LP-RO-EP02A
OBJ 2 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: 05-S-01-EP-2A Bases NEW
Step 21 PSTG App C 2.1 MODIFIED ***BANK***
DIFF 1; M Tech Spec 3.1.7 Bases **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.6/41.10/43.6**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 12

Which one of the following is the basis for the Hydrogen Deflagration Overpressure Limit (HDOL)?

A. Ignition of excess Hydrogen concentrations could result in peak pressures in excess of either Drywell structural capability **or** Drywell-to-Containment differential pressure.

B. Ignition of excess Hydrogen concentrations could result in peak pressures in excess of either Containment structural capability **or** Drywell-to-Containment differential pressure.

C. Ignition of excess Hydrogen concentrations could result in peak pressures in excess of either Drywell structural capability **or** Containment pressurization rates.

D. Ignition of excess Hydrogen concentrations could result in peak pressures in excess of either Drywell-to-Containment differential pressure **or** Containment pressurization rates.

QUESTION 12 **NRC RECORD # WRI 505**
ANSWER: B. **SYSTEM # EP Bases** **K/A 500000** **K1.01: 3.3/3.9**
LP# GG-1-LP-RO-EP03
OBJ. 6 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: GGNS PSTG Appendix B ***NEW***
16.7 & 16.9 MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 13

The plant is in an ATWS condition and EP-2A is being implemented.

Under which one of the following conditions is the Reactor considered shutdown?

A. 12 Rods at position 02, 1 Rod at position 04, all other Rods at position 00.

B. 2 Rods at position 04, all other Rods at position 00.

C. 1 Rod at position 44, all other Rods at position 00.

D. 4 Rods at position 48, all other Rods at position 00, Standby Liquid Control has injected the entire contents of the SLC tank to the reactor.

QUESTION 13 **NRC RECORD # WRI 506**
ANSWER: C. **SYSTEM # B21; C11** **K/A 295037** **K1.07: 3.4/3.8**
LP# GG-1-LP-RO-EP02
OBJ. 11 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 1**
REFERENCE: EP-2A ***NEW***
GGNS PSTG RC/Q-1 MODIFIED BANK
DIFF. 2; CA
RO SRO ***BOTH*** **CFR 41.1/41.2/41.10**
REFERENCE MATERIAL REQUIRED: 05-S-01-EP-2A **43.5/43.6**

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QUESTION 14

The plant was operating at full power when a malfunction during a surveillance resulted in a Recirc Flow Control Valve runback.

Reactor Power is presently 79 %.
Total Core Flow is at 62 Mlbm/hr.
Both PBDS Cards are operable.

Which one of the following best describes the actions to be taken for the present situation?

(05-1-02-III-3 Reduction in Recirculation System Flow Rate is attached.)

A. Immediately scram the reactor.

B. Monitor for thermal hydraulic instability, operation can continue in the region without thermal hydraulic instability.

C. Monitor for thermal hydraulic instability and verify FCBB is ≤ 1.0 within 15 minutes. Insert control rods to exit the region.

D. Monitor for thermal hydraulic instability and verify FCBB is ≤ 1.0 within 15 minutes. Reduce recirculation flow to exit the region.

QUESTION 14 **NRC RECORD # WRI 303**
ANSWER: B. **SYSTEM # B33** **K/A 295001** **AA2.01: 3.5/3.8**
LP# GG-1-LP-OP-B3300 **AK1.02: 3.3/3.5**
OBJ 41, 42, 43, 49 **2.4.4: 4.0/4.3**
LP# GG-1-LP-OP-ONEP1 **2.4.11: 3.4/3.6**
OBJ 24, 25 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 05-1-02-III-3 P/F MAP NEW
sect. 3.1; 3.3 for Monitored MODIFIED ***BANK***
DIFF 2; CA Region - Recirc FCV **NRC 12/00**
Runback in Fast Speed RO SRO ***BOTH*** **CFR 41.5/41.10/43.5**
REFERENCE MATERIAL REQUIRED: 05-1-02-III-3 w/o Imm Actions &
Color Power to Flow Map

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QUESTION 15

Which one of the following describes the automatic actions that will occur as Main Condenser vacuum degrades to 0 inches Hg vacuum?

A. 21" vac, Main Turbine trip
16" vac, Main bypass valves close
12" vac, Rx feed pumps trip
9" vac, MSIV closure

B. 21" vac, Main Turbine trip
16" vac, Rx feed pumps trip
12" vac, Main bypass valves close
9" vac, MSIV closure

C. 21" vac, Main Turbine trip
16" vac, MSIV closure
12" vac, Main bypass valves close
9" vac, Rx feed pumps trip

D. 21" vac, Main Turbine trip
16" vac, MSIV closure
12" vac, Rx feed pumps trip
9" vac, Main bypass valves close

QUESTION 15 **NRC RECORD # WRI 40**
ANSWER: B. **SYSTEM # N62** **K/A 295002** **AK1.03: 3.6/3.8**
LP# GG-1-LP-OP-N6200
OBJ 14
LP# GG-1-LP-OP-ONEP1
OBJ 39 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 05-1-02-V-8 sect. 5.0 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 12/00**
RO SRO ***BOTH*** **CFR 41.4**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 16

The plant is in a normal electrical line-up with all busses fed from their preferred power source. If a lockout of BOP Transformer 12B were to occur,

Which of the following indicates the correct status of BOP busses?

A.
11HD	ENERGIZED
12HE	DE-ENERGIZED
13AD	DE-ENERGIZED
14AE	ENERGIZED
18AG	ENERGIZED
28AG	DE-ENERGIZED

B.
11HD	DE-ENERGIZED
12HE	ENERGIZED
13AD	ENERGIZED
14AE	DE-ENERGIZED
18AG	ENERGIZED
28AG	ENERGIZED

C.
11HD	ENERGIZED
12HE	DE-ENERGIZED
13AD	DE-ENERGIZED
14AE	ENERGIZED
18AG	DE-ENERGIZED
28AG	DE-ENERGIZED

D.
11HD	DE-ENERGIZED
12HE	ENERGIZED
13AD	ENERGIZED
14AE	DE-ENERGIZED
18AG	DE-ENERGIZED
28AG	ENERGIZED

QUESTION 16 **NRC RECORD # WRI 507**
ANSWER: B **SYSTEM # R21** **K/A 295003** **A1.01: 3.7/3.8**
LP# GG-1-LP-OP-R2700.03
OBJ. 8 &15 A. **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 2**
REFERENCE: **04-1-01-R21-11 sect 3.2** ***NEW***
04-1-01-R21-12 sect 3.2 MODIFIED BANK
DIFF 1; M **04-1-01-R21-13 sect 3.2**
04-1-01-R21-14 sect 3.2 RO SRO ***BOTH*** **CFR 41.7**
04-1-01-R21-18 sect 3.2
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 17

Which of the following is the correct sequence for restoring a battery charger to service?

A. Close charger output breaker, close charger AC feeder breaker, close DC switch, close AC switch.

B. Close charger output breaker, close charger AC feeder breaker, close AC switch, close DC switch.

C. Close charger AC feeder breaker, close charger output breaker, close AC switch, close DC switch.

D. Close charger AC feeder breaker, close AC switch, close charger output breaker, close DC switch.

QUESTION 17 **NRC RECORD # WRI 508**
ANSWER: A. **SYSTEM # L11** **K/A 295004** **Generic 2.1.32: 3.4/3.8**
LP# GG-1-LP-OP-L1100
OBJ. 11 a **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 04-1-01-L11-1 ***NEW***
sect 3.6 & 4.6.2 MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.10**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 18

The plant was operating at 80 % power.

Reactor Narrow Range Water Level transmitter C34-N004B has failed downscale and brought in annunciator "RX WTR LVL SIG FAIL HI/LO".

The Operator at the Controls notices the Reactor Narrow Range Level indicator C34-LI-R606A indicates offscale HIGH and annunciator "RFPT/MN TURB LVL 8 TRIP" is in.

Reactor Narrow Range Water Level indicator R606C is reading + 36 inches.

Reactor Upset Range Water Level indicator is reading + 38 inches.

Reactor Wide Range Water Level indicator on P680 is reading + 40 inches.

Reactor Wide Range Water Level indicators A & B on P601 are reading + 40 inches.

Which one of the following describes the actions to be taken?
(NO OTHER ALARMS ARE PRESENT.)

A. Immediately initiate a Reactor Scram and trip the Main Turbine and the Reactor Feed Pump Turbines because they failed to trip.

B. Manually select Reactor Water Level Control to Single Element control and verify Reactor level returns to normal.

C. Select the Master Level Controller to MANUAL to lock the level signals at the present setting to prevent any level perturbations and establish stable level control.

D. Continue monitoring Reactor Water Level on P680 and compare with other indications on P601 and the PDS computer and contact I&C.

QUESTION 18 **NRC RECORD # WRI 275**
ANSWER: D. **SYSTEM # C34; N21; N30** **K/A 295008 AK1.01: 3.0/3.2**
245000 A3.01: 3.6/3.6
LP# GG-1-LP-RO-C3401 **259001 K6.07: 3.8/3.8**
OBJ. 1.4, 1.5, 1.7 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 04-1-02-H13-P680 4A2-A2 & D1 NEW
MODIFIED ***BANK***
DIFF 3; CA **NRC 4/00**
RO SRO ***BOTH*** **CFR 41.4/41.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 19

Which of the following is the bases for securing Containment Spray prior to going below "0" psig in Containment?

A. Containment pressure instruments are unable to monitor below 0 psig.

B. Containment vent valves sized to reject decay heat from the Containment are unable to be opened and closed below 0 psig.

C. Safety Relief Valves (SRVs) are unable to be opened and/or remain open below 0 psig.

D. Containment pressure could exceed the negative pressure design of the Containment structure.

QUESTION 19 **NRC RECORD # WRI 509**
ANSWER: D. **SYSTEM # M41-1** **K/A 295011** **K1.01: 4.0/4.1**
LP# GG-1-LP-RO-EP03
OBJ. 6 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: GGNS PSTG ***NEW***
second PC override MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.9/41.10/43.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 20

The Control Room has been abandoned and control has been established at the Remote Shutdown Panels.

Reactor pressure	400 psig
Indicated Reactor level at the Remote Shutdown Panel	66 inches

With present plant conditions, which one of the following describes Narrow Range Level, Actual Level and the availability of RCIC for level control?

05-1-02-II-1 Attachments I and II are provided.

	NARROW RANGE LEVEL	ACTUAL LEVEL	RCIC
A.	55 inches	48 inches	Not available
B.	51 inches	53 inches	Available
C.	48 inches	43 inches	Available
D.	60 inches	60 inches	Not available

QUESTION 20 **NRC RECORD # WRI 524**
ANSWER: C. **SYSTEM # C61; B21** **K/A 295016** **AA2.02: 4.2/4.3**
2.1.25: 2.8/3.1
LP# GG-1-LP-OP-C6100 **2.4.11: 3.4/3.6**
OBJ 19 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 05-1-02-I-1 Att I & II ***NEW***
MODIFIED BANK
DIFF 2; CA
RO SRO ***BOTH*** **CFR 41.5/41.10/43.5**
REFERENCE MATERIAL REQUIRED: 05-1-02-II-1 Att. I & II

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QUESTION 21

The Radwaste contractor was attempting to load a High Intensity Cask (HIC) with spent Reactor Water Cleanup Resin when an equipment malfunction caused the filling equipment to spray approximately 2 cubic yards of dry spent resin out the railroad door of the Radwaste Building.

The wind has dispersed the resin and its contaminants into the air.

The Shift Manager has declared a General Emergency due to EAL 5.4.1b.

Field monitoring teams and Chemistry have reported a 5450 mRem Thyroid CDE dose commitment at the Claiborne County Emergency Operations Center.

Which one of the following is the Protective Action Recommendation to be issued to the state?

10-S-01-1 Activation of the Emergency Plan and the 5-Mile Emergency Planning Zone Map are provided.

A. Evacuate 2 mile radius of the plant, and evacuate the 5 mile down wind sectors and shelter the remaining of the 10 mile Emergency Planning Zone.

B. Evacuate 2 mile radius of the plant, and evacuate the 10 mile down wind sectors and shelter the remaining of the 10 mile Emergency Planning Zone.

C. Evacuate 2 mile radius and the 5 mile radius of the plant and evacuate the 10 mile down wind sectors and shelter the remaining of the 10 mile Emergency Planning Zone.

D. Evacuate 2 mile radius, 5 mile radius, and 10 mile radius of the plant and shelter the 50 mile down wind sectors of the Emergency Planning Zone.

QUESTION 21 **NRC RECORD # WRI 112**
ANSWER: B. **SYSTEM # EPP PARs** **K/A 295017** **AK2.06: 4.6**
LP# GG-1-LP-EP-EPTS6
OBJ 2 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 2**
REFERENCE: 10-S-01-1 sect. 6.1.4 NEW
EAL 5.4.1b MODIFIED ***BANK***
DIFF 2; CA 5 mile EPZ Map **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.10/41.12/43.4**
REFERENCE MATERIAL REQUIRED: 10-S-01-1 & 5 Mile EPZ Map **43.5**

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QUESTION 22

Which one of the following identifies the system loads allowed to be supplied by Component Cooling Water (CCW) during a **partial** loss of CCW?

A. Fuel Pool Heat Exchangers, Control Rod Drive oil coolers

B. Reactor Water Clean-Up, Control Rod Drive oil coolers

C. Recirculation pump/motor, Control Rod Drive oil coolers

D. Recirculation pump/motor, Reactor Water Clean-Up

QUESTION 22 **NRC RECORD # WRI 510**
ANSWER: C. **SYSTEM # P42; B33; C11-1A** **K/A 295018 K2.01: 3.3/3.4**
LP# GG-1-LP-OP-ONEP1
OBJ. 2 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: **GG-1-LP-OP-B3300.01/ 42** ***NEW***
GG-1-LP-OP-G3336.00/ 14 MODIFIED BANK
DIFF 1; M **GG-1-LP-OP-G4146.02/ 15**
05-1-02-V-1 RO SRO ***BOTH*** **CFR 41.7/41.10/43.5**
REFERENCE MATERIAL REQUIRED: **05-1-02-V-1 w/o immediate actions**

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QUESTION 23

The plant is operating at 100 % power.

A rupture in the Instrument Air header supplying the Radwaste and Offgas Building has been isolated.

The remainder of the Instrument Air header is pressurized.

Which one of the following describes the implications of the loss of Instrument Air to the Offgas and Radwaste Buildings?

A. Offgas system valves will fail closed and isolate the Offgas System.

B. Offgas system purge is lost resulting in a possible explosion and gaseous radiation hazards in the Offgas System.

C. Offgas system valves lose stem seal air resulting in possible high airborne radiation levels in the Offgas Building.

D. Offgas Preheaters will lose the purge air required to establish the proper temperatures entering the Offgas Catalytic Recombiners.

QUESTION 23 **NRC RECORD # WRI 315**
ANSWER: C. **SYSTEM # P53; N64** **K/A 295019** **AK2.06: 2.8/2.9**
LP# GG-1-LP-OP-N6465 **271000** **K6.01: 2.7/2.8**
OBJ. 13b **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 05-1-02-V-9 NEW
Section 3.12 & 5.8 MODIFIED ***BANK***
DIFF 1; M **NRC 12/00**
RO SRO ***BOTH*** **CFR 41.4/41.12/41.13/**
REFERENCE MATERIAL REQUIRED: None **43.4/43.5**

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QUESTION 24

The plant is operating at 30 % power.

The following Main Steam Isolation Valves have closed:

B21-F022B
B21-F022D
B21-F028B

Which one of the following describes the status of the Reactor Protection System?

A. No RPS actuation.

B. Half Scram on Division I.

C. Half Scram on Division II.

D. Full Reactor Scram.

QUESTION 24 **NRC RECORD # WRI 316**
ANSWER: A. **SYSTEM # B21; C71** **K/A 295020** **AK3.01: 3.8/3.8**
LP# GG-1-LP-OP-C7100
OBJ. 6c, d, 9 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: E-1173-15, 16, 17, 18, 19 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 12/00**
RO SRO ***BOTH*** **CFR 41.9**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 25

The plant is in a startup following a 32 day outage.

MSIVs are closed.

Recirc loop temperatures are at 180 ?F.

Control rods are being withdrawn to achieve criticality. (Minimal decay heat)

Feedwater is operating in long cycle cleanup.

The operating CRD Pump tripped.

What will be the response of the plant?
(ASSUME NO FURTHER OPERATOR ACTIONS)

A. The reactor water level will remain stable at its present level.

B. The reactor water level will rise to the point that a reactor scram is received on High water level.

C. The reactor water level will drop to the point that a reactor scram is received on Low water level.

D. The plant will scram due to a loss of charging water pressure to the Hydraulic Control Units.

QUESTION 25 **NRC RECORD # WRI 55**
ANSWER: C. **SYSTEM # C11-1A;** **K/A 295022** **AK2.04: 2.5/2.7**
G33/36; IOI- 1 **AK2.05: 2.4/2.5**
LP# GG-1-LP-OP-G3336 **AA1.04: 2.5/2.6**
OBJ 3c, 8f, 21
LP# GG-1-LP-OP-C111A
OBJ 23 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: **03-1-01-1** NEW
sect. 2.2.5; 3.3.1d; 3.3.3a MODIFIED ***BANK***
DIFF 2; CA **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 26

Suppression Pool temperature has gone up due to the performance of a Reactor Core Isolation Cooling (RCIC) quarterly surveillance.

Residual Heat Removal (RHR) 'B' has been place in Suppression Pool Cooling Mode of operation.

Which of the following describes the operability of the RHR 'B' system under these conditions?

A. RHR 'B' Containment Spray Mode is INOP at this time

B. RHR 'B' Low Pressure Core Injection (LPCI) Mode is INOP at this time

C. RHR 'B' Shutdown Cooling Mode is INOP at this time

D. All Modes of RHR 'B' are operable at this time

QUESTION 26 **NRC RECORD # WRI 511**
ANSWER: B. **SYSTEM # E12** **K/A 295026** **Generic 2.1.33: 3.4/4.0**
LP# GG-1-LP-OP-E1200
OBJ. 14 A **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 2**
REFERENCE: 04-1-01-E12-1 ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 43.2/43.3**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 27

The plant was operating at 100 % Power.

A steam leak has developed in the Containment steam tunnel.

Containment temperature has gone up to 85°F and still rising.

A power reduction has commenced but Containment temperature continues to rise.

Tech. Specs states if Containment temperature exceeds 95°F to restore to < 95°F within 8 hours.

If Containment temperature is unable to be restored to < 95°F within 8 hours; then be in MODE 3 in 12 hours and be in MODE 4 in 36 hours.

Which of the following is the basis for this action?
Tech Spec 3.6.1.5 is provided.

A. Shut down of the Reactor is done to prevent having to initiate Containment Spray to maintain Containment temperature below 185°F.

B. Shut down of the Reactor is done to place the plant in a MODE that the LCO does not apply.

C. Shut down of the Reactor is done to prevent having to Emergency Depressurize to maintain Containment temperature below 185°F.

D. Shut down of the Reactor is done to prevent damaging operating equipment inside Containment due to high temperature.

QUESTION 27 **NRC RECORD # WRI 512**
ANSWER: B. **SYSTEM # M41-1** **K/A 295027** **K3.03: 3.7/3.7**
LP# GG-1-LP-OP-M4101
OBJ. 12 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 2**
REFERENCE: **TECH. SPEC. 3.6.1.5** ***NEW***
TECH. SPEC. BASES MODIFIED BANK
DIFF 1; M **3.6.1.5**
RO SRO ***BOTH*** **CFR 41.9/41.10/43.2**
REFERENCE MATERIAL REQUIRED: **Tech Spec 3.6.1.5**

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QUESTION 28

The following conditions are observed after a Loss of Coolant Accident:

Reactor Pressure	50 psig
166' elev. temperature in the Drywell	205?F
Drywell Pressure	5.8 psig
139' elev. temperature in the Containment	150 ?F
119' elev. temperature in the Containment	130 ?F
Containment Pressure	2.0 psig
Shutdown Range Level Indication	+ 20 inches
Upset Range Level Indication	+ 50 inches
Wide Range Level Indication	- 40 inches

Operators were unable to verify any trends of level instruments.

Which one of the following indicates the most accurate level indication?

A. Upset Range

B. Wide Range

C. Level cannot be determined.

D. All level instruments may be considered accurate.

QUESTION 28 **NRC RECORD # WRI 520**
ANSWER: B. **SYSTEM # B21** **K/A 295028** **EK2.03: 3.6/3.8**
EK1.01: 3.5/3.7
LP# GG-1-LP-RO-EP02A **K/A 295027** **EK1.02: 3.0/3.2**
OBJ. 9 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 05-S-01-EP-2 Caution 1 NEW
MODIFIED BANK
DIFF 2; CA **NRC 3/98 WRI001**
RO SRO ***BOTH*** **CFR 41.3/43.5**
REFERENCE MATERIAL REQUIRED: 05-S-01-EP-2 CAUTION 1

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QUESTION 29

Which of the following is the basis for Emergency Reactor Pressure Vessel (RPV) Depressurization when Suppression Pool Level CANNOT be maintained below 24.4 feet?

A. 24.4 feet is the highest Suppression Pool level at which the pressure suppression capability of Containment can be maintained.

B. 24.4 feet is the highest Suppression Pool level at which the Suppression Pool will not overflow the weir wall resulting in flooding the Drywell.

C. 24.4 feet is the highest Suppression Pool level at which Suppression Pool level instrumentation taps will become covered resulting in loss of ability to monitor Suppression Pool level.

D. 24.4 feet is the highest Suppression Pool level at which opening Safety Relief Valves (SRVs) will not exceed the design pressure for the SRV discharge piping.

QUESTION 29 **NRC RECORD # WRI 513**
ANSWER: A. **SYSTEM # M41-1** **K/A 295029** **K1.01: 3.4/3.7**
LP# GG-1-LP-OP-EP03
OBJ. 6 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: GGNS PSTG APP B 16.11 ***NEW***
SP/L-3 MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.9/41.10**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 30

Given the following conditions:

Reactor power	20% and stable
Reactor level	-120 inches and stable on Startup Level Control
Reactor pressure	900 psig and stable on SRVs
Suppression pool temperature	1500F and rising
Suppression pool level	15.7 feet and slowly rising

4 SRVs are open.

Which one of the following best describes the correct actions to be taken given the above conditions?

A. Maintain conditions allowing time for attachments for power reduction.

B. Reduce use of SRVs and raise pressure band allowing pressure to rise to 1050 psig.

C. Terminate and prevent injection from ECCS and Feedwater to lower reactor level to between TAF and –192 inches.

D. Terminate and prevent injection from ECCS and Feedwater and Emergency Depressurize waiting for MARFP conditions.

QUESTION 30 **NRC RECORD # WRI 526**
ANSWER: D. **SYSTEM # Prim CTMT EOP** **K/A 295030** **EK1.03: 3.8/4.1**
LP# GG-1-LP-RO-EP03
OBJ 3 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 2**
REFERENCE: 05-S-01-EP-2A NEW
Steps 33, 51, 53, 54, 55, 58 ***MODIFIED*** BANK
DIFF 2;CA **Figure 1** **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.9/41.10/43.5**
REFERENCE MATERIAL REQUIRED: 05-S-01-EP-2/2A & 3

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QUESTION 31

The plant is in a Refueling Outage.

PSW RAD HI/INOP alarm was received.

PSW Rad monitor reading is 53,000 cpm.

No other alarms are present

Which of the following is the probable source of radioactive release and correct actions to be taken?

A. CCW Heat Exchangers, Swap CCW Heat Exchangers to SSW

B. CCW Heat Exchangers, Secure CCW system and isolate CCW Heat Exchangers

C. ADHR Heat Exchangers, Swap ADHR Heat Exchangers to SSW

D. ADHR Heat Exchangers, Secure ADHR system and isolate ADHR Heat Exchangers

QUESTION 31 **NRC RECORD # WRI 514**
ANSWER: D. **SYSTEM # D17** **K/A 295038** **A2.04: 4.1/4.5**
LP# GG-1-LP-OP-D1721
OBJ. 2 **SRO TIER 1 GROUP 1 / RO TIER 1 GROUP 2**
REFERENCE: 04-1-02-1H13-P601-18A-F1 ***NEW***
MODIFIED BANK
DIFF 2; CA
RO SRO ***BOTH*** **CFR 41.10/41.11/**
REFERENCE MATERIAL REQUIRED: NONE **41.12/41.13/43.4/43.5**

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QUESTION 32

A fire has engulfed the H13-P601 panel.

The fire has forced the evacuation of the Main Control Room.

The Reactor is shutdown and control has been established at the Remote Shutdown Panel.

The appropriate attachments for a fire have been completed.

Which one of the following describes a service that may be affected by the fire in the Control Room?

A. Cooling of the Suppression Pool with Residual Heat Removal

B. Cooling of Safe Shutdown components with Standby Service Water

C. Shutdown cooling operation of Residual Heat Removal

D. Opening of up to six Safety Relief Valves for depressurizing the reactor

QUESTION 32 **NRC RECORD # WRI 178**
ANSWER: C. **SYSTEM # C61; B21; E12; P41; E21** **K/A 600000 AA2.17: 3.6**
LP# GG-1-LP-OP-C6100
OBJ. 4b, 6, 9, 11 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 2**
REFERENCE: 05-1-02-II-1 Att III & IV NEW
E-1160-10 (E12-F009) MODIFIED ***BANK***
DIFF 2; CA **NRC 4/00**
RO SRO ***BOTH*** **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: 05-1-02-II-1 Att. III & IV

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QUESTION 33

Which of the following is the reason for raising Reactor Water Level to +82 inches with no Recirculation pumps in operation per the Inadequate Decay Heat Removal ONEP?

A. +82 inches is the height required to establish flow through Safety Relief Valves (SRVs) to the Suppression Pool.

B. +82 inches is the height required to establish alternate cooling using Fuel Pool Cooling and Clean-up system (FPCCU).

C. +82 inches is the height required to allow natural circulation through the core and feedwater annulus.

D. +82 inches is the level required for the Time to Boil Curve from the Main Steam Line to be valid.

QUESTION 33 **NRC RECORD # WRI 515**
ANSWER: C. **SYSTEM # B21; B33** **K/A 295021** **K3.01: 3.3/3.4**
LP# GG-1-LP-OP-ONEP1
OBJ. 17 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 3**
REFERENCE: 05-1-02-III-1sect 3.1.2a ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.5/41.10**
REFERENCE MATERIAL REQUIRED: NONE **41.14/43.5**

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QUESTION 34

The plant is operating at rated conditions.

The following indications of Secondary Containment temperatures were just obtained by the Roving Nuclear Operator 'A':

RHR A Pump Room	170 °F	RWCU Pump Room A	150 °F
RHR A HX Room	130 °F	RWCU Pump Room B	140 °F
RHR B Pump Room	150 °F	RCIC Pump Room	130 °F
RHR B HX Room	100 °F	Main Steam Tunnel	150 °F

Which one of the following describes the systems that will receive an isolation signal?

A. RHR A ONLY.

B. RHR A & RCIC.

C. RHR A & B.

D. RHR A & B & RCIC.

QUESTION 34 **NRC RECORD # WRI 229**
ANSWER: B. **SYSTEM # E31; E12; E51** **K/A 295032** **EA1.05: 3.7/3.9**
LP# GG-1-LP-OP-E5100
OBJ. 8g
LP# GG-1-LP-OP-M7101
OBJ. 8b, c **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 3**
REFERENCE: **04-1-02-H13-P601 20A-B1** NEW
05-1-02-III-5 MODIFIED ***BANK***
DIFF 1; M **Isolation Checklist** **NRC 4/00**
RO SRO ***BOTH*** **CFR 41.4/41.9/**
REFERENCE MATERIAL REQUIRED: None **41.10/43.5**

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QUESTION 35

The plant is operating at 100% power.

Fuel Handling Area Exhaust Fan A is tagged out of service for motor replacement.

Fuel Pool Sweep System is out of service for exhaust duct work replacement.

Fuel Handling Area Exhaust Fan B trips and cannot be reset.

Auxiliary Building differential pressure is +0.3 inches wc.

Which one of the following best describes the correct actions to be taken given the above conditions?

A. Immediately shutdown and depressurize the reactor to prevent the possible release of radioactive materials to the environment.

B. Open Secondary Containment doors between the Auxiliary Building and the Turbine Building and operate both Turbine Building Exhaust Filter Trains.

C. Close Fuel Handling Area Outside Air Intake valves and secure Auxiliary Building General Area Fan Coil Units.

D. Manually initiate a train of Standby Gas Treatment and monitor Auxiliary Building pressure.

QUESTION 35 **NRC RECORD # WRI 516**
ANSWER: D. **SYSTEM # Secondary CTMT** **K/A 295035** **EK1.01: 3.9/4.2** **2.4.50: 3.3/3.3**
LP# GG-1-LP-OP-T4200
OBJ 2, 22
LP# GG-1-LP-OP-T4800
OBJ 2, 18 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 3**
REFERENCE: **04-1-02-1H13-P842** ***NEW***
1A-E3 & 1A-E4 MODIFIED BANK
DIFF 2; CA **04-1-01-T42-1 sect 3.1**
UFSAR 9.4.2; 9.4.2.1.1.d; 6.5.3.2 RO SRO ***BOTH*** **CFR 41.7/41.8/41.10/ 43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 36

The 'B' sump pump breaker on the RHR 'C' room floor drain sump was Red Tagged for electrical maintenance to perform preventive maintenance (PMs) on the motor.

The handswitch line-up for the RHR 'C' room floor drain sump is as follows:

RHR Room C Floor Drain Sump Pump "A" HS M020C	AUTO
RHR Room C Floor Drain Sump Pump "B" HS M021C	STOP
RHR Room C Floor Drain Sump Pumps A/B Mode Switch HS M019C	ALTERNATE

Which of the following would be the response of the RHR 'C' floor drain sump to a HI level under the present conditions?

A. The 'A' sump pump would auto start on every HI level condition.

B. The 'A' sump pump would auto start on the next HI level condition but would NOT start on any subsequent HI level conditions.

C. The 'A' sump pump would auto start on a HI HI level condition.

D. The 'A' sump pump will NOT auto start on any HI level conditions.

QUESTION 36 **NRC RECORD # WRI 517**
ANSWER: D. **SYSTEM # P45** **K/A 295036** **K2.01: 3.1/3.2**
LP# GG-1-LP-OP-P4500
OBJ. 11 **SRO TIER 1 GROUP 2 / RO TIER 1 GROUP 3**
REFERENCE: **04-1-01-P45-2 sect 3.5** ***NEW***
04-1-02-1H13-P680-8A1-C2 MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 37

The reactor is shutdown and the plant is in a forced cooldown to achieve cold shutdown conditions.

Which one of the following best describes the method used to control CRD Flow and Drive pressure during the depressurization process?

A. The Pressure Control Valve automatically throttles to maintain 250 psid Drive DP and the Flow Control Valve automatically throttles in response to a CRD flow setpoint of ≈ 60 GPM.

B. The Pressure Control Valve automatically throttles to maintain 250 psid Drive DP and the Flow Control Valve is manually throttled to maintain a CRD flow of ≈ 60 GPM.

C. The Pressure Control Valve is manually throttled to maintain 250 psid Drive DP and the Flow Control Valve automatically throttles in response to a CRD flow setpoint of ≈ 60 GPM.

D. The Pressure Control Valve is manually throttled to maintain 250 psid Drive DP and the Flow Control Valve is manually throttled to maintain a CRD flow of ≈ 60 GPM.

QUESTION 37 **NRC RECORD # WRI 059**
ANSWER: C. **SYSTEM # C11-1A** **K/A 201001** **K4.08: 3.1/3.0**
LP# GG-1-LP-OP-C111A
OBJ 8a & b, 9 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 1**
REFERENCE: **M – 1081-B** NEW
E-1166- 003; 017 MODIFIED ***BANK***
DIFF 2; CA **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.6**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 38

A plant start-up is in progress.

Reactor Power is 40%.

Control Rod 32-09 is at position 12.

All RC&IS functions are normal.

Control Rod 32-09 is selected and is allowed to be withdrawn to position 24 per the pull sheet.

At what rod position and by which function of RCIS will a rod block occur?

A. At position 16 due to Rod Withdraw Limiter (RWL).

B. At position 16 due to Banked Position Withdrawal Sequence (BPWS).

C. At position 20 due to Rod Withdraw Limiter (RWL).

D. At position 20 due to Banked Position Withdrawal Sequence (BPWS).

QUESTION 38 **NRC RECORD # WRI 518**
ANSWER: C. **SYSTEM # C11-2** **K/A 201005** **K5.10: 3.2/3.3**
LP# GG-1-LP-OP-C1102
OBJ. 6, 12, 13c **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-C11-2 ***NEW***
sect 4.3.2.g Note MODIFIED BANK
DIFF 2; CA 06-OP-1C11-V-003
TECH SPEC TR 3.3.2.1-1 RO SRO ***BOTH*** **CFR 41.6/43.6**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 39

A shutdown is in progress with reactor power approximately 42%.

Both reactor recirculation pumps are operating on fast speed with their respective FCV's at minimum position in preparation for downshifting.

During transfer to LFMG, the Recirculation pump A tripped. The Recirculation pump 'A' discharge valve has been closed.

Present indications are:

'A' Loop Total Jet Pump flow	5 mlbm/hr
'B' Loop Total Jet Pump flow	26 mlbm/hr
Total core flow	21 mlbm/hr
Reactor power	29%

Which one of the following correctly describes the method to determine total core flow?

A. Subtract Loop 'A' Total Jet Pump flow twice from Total core flow.

B. Total core flow indication is indicating actual Total core flow.

C. Add Loop 'B' Total Jet Pump flow to Loop 'A' Total Jet Pump flow.

D. Add Loop 'A' Total Jet Pump flow to Total core flow.

QUESTION 39 **NRC RECORD # WRI A037**
ANSWER: C. **SYSTEM # B33** **K/A 202002** **A1.06: 3.4/3.3; A1.07: 3.1/3.1**
A2.01: 3.4/3.4; A2.09: 3.1/3.3
A4.08: 3.3/3.3; A4.09: 3.2/3.3
LP# GG-1-LP-OP-B3300 **295001** **AK2.01: 3.6/3.7**
OBJ. 3 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-B33-1 sect. 3.18 NEW
MODIFIED ***BANK***
DIFF 2; CA **Audit 12/00**
RO SRO ***BOTH*** **CFR 41.2/41.3/41.5**
REFERENCE MATERIAL REQUIRED: None **41.6/41.7**

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QUESTION 40

The plant is starting up and is currently operating at 80% power.

All systems are operating properly.

There is a spurious High Pressure Core Spray (HPCS) initiation.

All other systems respond properly.

NO operator action is taken.

Which of the following identifies the effect on Reactor Water Level the spurious HPCS initiation will have?

A. Reactor Water Level will RISE, Feedwater Level Control will respond, and Reactor Water level will stabilize at a HIGHER than normal condition.

B. Reactor Water level will RISE, Feedwater Level Control will respond, and Reactor Water level will be returned to NORMAL level.

C. Reactor Water level will RISE, Feedwater Level Control will respond, and Reactor Water level will stabilize at a LOWER than normal condition.

D. Reactor Water level will not be affected due to Feedwater Level Control will respond and maintain Reactor Water level at NORMAL level.

QUESTION 40 **NRC RECORD # WRI 519**
ANSWER: A. **SYSTEM # C34; E22** **K/A 209002** **K3.01: 3.9/3.9**
LP# GG-1-LP-OP-MCD7b.00
OBJ. 2 A **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **UFSAR 15.5.1.2.1** ***NEW***
UFSAR FIG. 15.5-1 MODIFIED BANK
DIFF 2; CA
RO SRO ***BOTH*** **CFR 41.7/41.8**
REFERENCE MATERIAL REQUIRED: **NONE**

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QUESTION 41

Given a prolonged loss of Instrument Air to the Standby Liquid Control (SBLC) system, which of the following identifies the SBLC component(s) that would be affected?

A. SBLC storage tank air sparge capability

B. SBLC storage tank level indication

C. SBLC test tank level indication

D. SBLC storage tank level indication ***AND*** SBLC test tank level indication

QUESTION 41 **NRC RECORD # WRI 521**
ANSWER: B. **SYSTEM # C41; P53** **K/A 211000** **K1.03: 2.5/2.6**
LP# GG-1-LP-OP-C4100
OBJ. 14D **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: P&ID M-1067H (F-3) ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.6/41.7/41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 42

The plant is operating at 100% power steady state conditions.

All systems are functioning properly.

No tests or surveillance's are in progress.

The following alarms and indications were just received on P680:

RX SCRAM TRIP annunciator sealed in.

HCU TROUBLE annunciator sealed in.

DIV 1 and 3 white scram solenoid indicating lights are ON.

DIV 2 and 4 white scram solenoid indicating lights are OFF.

HCU FAULT pushbutton on the operator's control module is BACKLIT.

HCUs 12-13, 12-53, 20-05, 20-61 have blinking red LEDs for accumulator faults.

Which of the following identifies the cause for the alarms and indications?

A. A half scram has occurred due to a loss of RPS A.

B. A half scram has occurred due to a loss of RPS B.

C. Control Rods 12-13, 12-53, 20-05, and 20-61 have scrammed in.

D. A fuse has blown in the power monitoring circuit for HCUs 12-13, 12-53, 20-05, and 20-61.

QUESTION 42 **NRC RECORD # WRI 522**
ANSWER: B. **SYSTEM # C71; C11-2** **K/A 212000** **A3.04: 3.9/3.8**
LP# GG-1-LP-OP-C7100
OBJ. 6a **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **04-1-02-1H13-P680-7A-A2** ***NEW***
04-1-02-1H13-P680-4A2-D4 MODIFIED BANK
DIFF 3; CA **05-1-02-III-2 sect 4.2, 4.3**
RO SRO ***BOTH*** **CFR 41.6/41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 43

The plant is in a reactor startup just after reaching critical.

The Operator-at-the-Controls is withdrawing SRMs.

The following conditions exist:

All IRMs are on Range 2.

SRM A reads 2×10^4	SRM D reads 6×10^3
SRM B reads 8×10^3	SRM E reads 8×10^4
SRM C reads 2×10^3	SRM F reads 3×10^5

Which one of the following best describes plant conditions?

A. Rod block only.

B. Half scram, rod block.

C. Full scram, rod block.

D. No trips or blocks are present.

QUESTION 43 **NRC RECORD # WRI 071**
ANSWER: A. **SYSTEM # C11-2; C51; C71** **K/A 215004** **A1.04: 3.5/3.5**
A3.04: 3.6/3.6
LP# GG-1-LP-OP-C1102 **201005** **K4.03: 3.5/3.5**
OBJ 13
LP# GG-1-LP-OP-C51-1
OBJ 8b **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: Tech Specs TR3.3.2.1 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 3/98**
RO SRO ***BOTH*** **CFR 41.6**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 44

The plant is operating at 100% power steady state.

LPRM 34-51C for APRM C has failed downscale and its mode switch has been placed in BYPASS.

The following is the status of LPRMs for APRM C

10-43B	OPERATE	34-51C	BYPASS	58-43D	OPERATE
10-27D	BYPASS	34-35A	OPERATE	58-27B	BYPASS
10-11B	OPERATE	34-19C	BYPASS		
18-51A	OPERATE	42-59D	OPERATE		
18-35C	BYPASS	42-43B	BYPASS		
18-19A	OPERATE	42-27D	OPERATE		
26-59B	OPERATE	42-11B	OPERATE		
26-43D	BYPASS	50-51A	BYPASS		
26-27B	OPERATE	50-35C	OPERATE		
26-11D	OPERATE	50-19A	OPERATE		

Which of the following identifies the condition of APRM C per Technical Specifications and why?

A. APRM C is OPERABLE.

B. APRM C is INOPERABLE due to insufficient LPRMs per level.

C. APRM C is INOPERABLE due to insufficient total LPRM inputs.

D. APRM C is INOPERABLE due to insufficient LPRMs per level and total inputs.

QUESTION 44 **NRC RECORD # WRI 523**
ANSWER: B. **SYSTEM # C71; C51** **K/A 215005** **A4.04: 3.2/3.2**
LP# GG-1-LP-OP-C5104 **A4.06: 3.6/3.8**
OBJ. 14 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **TECH SPEC B 3.3.1.1** ***NEW***
04-1-01-C51-1 MODIFIED BANK
DIFF 2; CA **sect 5.2.2 Caution**
17-S-02-40 ATT. V RO SRO ***BOTH*** **CFR 41.7/43.2**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 45

The plant was operating at full power when a failure of the Reactor Feedwater System caused a reactor scram due to lowering reactor water level.

During the transient, workers in Containment caused the reference leg of condensing pot D004A to rupture.

Which one of the following describes the response of the ECCS Systems as reactor water level drops?

Answer:	Division I	Division II	Division III	RCIC
A.	Will initiate	Will initiate	Will initiate	Manual initiation
B.	Manual initiation	Will initiate	Will initiate	Will initiate
C.	Manual initiation	Manual initiation	Will initiate	Manual initiation
D.	Will initiate	Manual initiation	Manual initiation	Will initiate

QUESTION 45 **NRC RECORD # WRI 529**
ANSWER: B. **SYSTEM # E12; E21; E22; E51** **K/A 216000 K4.05: 3.9/4.1**
LP# GG-1-LP-OP-B2101
OBJ. 8b
LP# GG-1-LP-OP-E1200
OBJ. 9, 23
LP# GG-1-LP-OP-E2201
OBJ. 11, 23
LP# GG-1-LP-OP-E5100
OBJ. 10, 22
LP# GG-1-LP-OP-E2100
OBJ. 9, 19 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **E-1181-67, 68, 82; M-1077B** NEW
E-1182-26, 29 ***MODIFIED*** BANK
DIFF 2; CA **E-1183-23, 27** **NRC 4/00 WRI 243**
E-1185-34, 42, 44
04-1-01-B21-1 Att V Data Sh 3 B21-D004A RO SRO ***BOTH*** **CFR 41.7/41.14**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 46

Reactor Core Isolation Cooling (RCIC) is being operated for performance of its quarterly surveillance.

A ground develops on DC bus 1DA1 causing it to de-energize.

Which of the following RCIC components will be without power due to the loss of 1DA1?

A. E51-F046 RCIC WTR TO TURB LUBE OIL CLR ***AND*** E51-F064 RCIC STM SPLY DRWL OTBD ISOL VLV.

B. E51-F019 RCIC MIN FLO TO SUPP POOL ***AND*** E51-F063 RCIC STM SPLY DRWL INBD ISOL VLV

C. E51-F022 RCIC INBD TEST RTN TO CST ***AND*** E51-F076 RCIC STM LINE WARMUP VLV.

D. E51-F045 RCIC STM SPLY TO RCIC TURB ***AND*** E51-C002 RCIC TURB TRIP/THROT VLV.

QUESTION 46 **NRC RECORD # WRI 525**
ANSWER: D. **SYSTEM # E51** **K/A 217000** **K2.04: 2.6/2.6**
LP# GG-1-LP-OP-E5100
OBJ. 6A **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-E51-1 ATT. III ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.6/41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 47

A LOCA has occurred.

Plant conditions are as follows:

Reactor water level is -163 inches

Drywell pressure is 2 psig

All Low Pressure ECCS pumps are operating.

ADS A (B) MANUAL INHIBIT keylock switches are in NORMAL.

ADS has AUTO initiated and 8 ADS valves are open.

Which of the following would result in the 8 ADS valves going closed ***and*** remaining closed?

A. Placing the ADS A (B) MANUAL INHIBIT keylock switches to INHIBIT.

B. Depress the ADS RESET pushbuttons.

C. Reactor water level being restored to > +11.4 inches.

D. Trip all low-pressure ECCS pumps.

QUESTION 47 **NRC RECORD # WRI 527**
ANSWER: D. **SYSTEM # E22-2** **K/A 218000 A4.01: 4.4/4.4**
LP# GG-1-LP-OP-E2202
OBJ. 12 B & C **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: E1161-005 ***NEW***
E1161-011 MODIFIED BANK
DIFF 3; CA
RO SRO ***BOTH*** **CFR 41.5/41.7/41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 48

The plant is operating at 100% power steady state.

All power from offsite is lost.

All systems respond and function properly.

All plant parameters remain in their normal band.

Division 1 and 2 Load Shedding and Sequencing (LSS) functions properly.

Which of the following components is without power at this time?

A. Drywell Chillers A.

B. Division 1 Drywell Cooler Fans.

C. Drywell Chillers B.

D. Division 2 Drywell Cooler Fans.

QUESTION 48 **NRC RECORD # WRI 528**
ANSWER: A. **SYSTEM # M51** **K/A 223001** **K2.09: 2.7/2.9**
LP# GG-1-LP-OP-M5100
OBJ. 7A&C **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **04-1-01-R21-1 Table 1** ***NEW***
04-1-01-M51-1 Att III MODIFIED BANK
DIFF 2; CA **04-1-01-P72-1 Att II**
RO SRO ***BOTH*** **CFR 41.7/41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 49

The plant is operating at 100% power steady state.

All electrical busses are being supplied from their preferred power source.

I&C is performing a half scram surveillance on RPS "B" High Scram Discharge Volume.

RPS logic channel "B" is tripped at this time.

A fault occurs on ESF transformer 11 causing it to de-energize.

Which of the following identifies the status of RPS and the MSIVs at this time?

(Consider only the immediate effects of the ESF transformer loss and given plant conditions)

A. Full Reactor Scram and MSIVs closed

B. Full Reactor Scram and MSIVs open

C. Half Reactor Scram and MSIVs closed

D. Half Reactor Scram and MSIVs open

QUESTION 49 **NRC RECORD # WRI 530**
ANSWER: D. **SYSTEM # B21; C71; E31** **K/A 223002** **K6.01: 3.1/3.3**
LP# GG-1-LP-RO-E3100
OBJ. 9j
LP# GG-1-LP-OP-C7100
OBJ. 6a **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **04-1-01-R21-16 sect 3.3** ***NEW***
04-1-01-R21-15 sect 3.3; Att I MODIFIED BANK
DIFF 3; CA
RO SRO ***BOTH*** **CFR 41.7/41.9**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 50

A LOCA has occurred.

The ADS A (B) MANUAL INHIBIT keylock switches to INHIBIT.

The ADS Inhibit white status lights are on.

Emergency Depressurization is required to allow low-pressure ECCS pumps to restore Reactor level.

An operator places the handswitches for the 8 ADS valves on 1H13-P601 to OPEN.

The following conditions exist:

Reactor pressure	0 psig
Reactor water level	-205 inches
Drywell pressure	3.5 psig
All low-pressure ECCS pumps are operating	

Which of the following identifies the correct RED light indication for the 8 ADS valves on the specified panel locations under current plant conditions?

	P601 Handswitch	P601 Vertical	P628 Upper Control Room	P631 Main Control Room
A.	ON	OFF	ON	OFF
B.	OFF	ON	OFF	ON
C.	ON	ON	ON	ON
D.	OFF	OFF	ON	OFF

QUESTION 50 **NRC RECORD # WRI 531**
ANSWER: D. **SYSTEM # B21** **K/A 239002 A4.07: 3.6/3.6**
LP# GG-1-LP-OP-E2202.00
OBJ. 10 E & 18 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-B21-1sect 4.2.2f ***NEW***
MODIFIED BANK
DIFF 3; CA
RO SRO ***BOTH*** **CFR 41.3/41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 51

The plant is operating at rated conditions steady state.

The Initial Pressure Control (IPC) subsystem of the Main Turbine EHC Control System has failed in a manner that has opened the Bypass Valves to 30% when the valves should be closed.

If the operator activates the Bypass Valve Manual Jack and tries to close the bypass valves using the jack,

Which of the following describes the results of these actions?

A. The Bypass valves will remain open.

B. The Bypass valves will close to 25%, but no further.

C. The Bypass valves will close to 10%, but no further.

D. The Bypass valves will close and remain closed.

QUESTION 51 **NRC RECORD # WRI 533**
ANSWER: A. **SYSTEM # N32-2** **K/A 241000** **A2.03: 4.1/4.2**
LP# GG-1-LP-RO-N3202
OBJ. 3E&8B **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **T/G Instruction Manual** NEW
Volume 1 460000665 MODIFIED ***BANK***
DIFF 2; CA **Volume 2 460000353** **LORT 6/00**
RO SRO ***BOTH*** **CFR 41.5/41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 52

Concerning P53-F026A and F026B (Instrument Air Supply Header to Aux. Building Isolation Valves), which of the following correctly identifies how these valves would respond to a Loss of Instrument Air?

A. FAIL OPEN.

B. FAIL CLOSED.

C. FAIL AS IS.

D. FAIL CLOSED, but could be reopened by taking DIV I and II AUX BLD ISO BYPASS switches to BYPASS.

QUESTION 52 **NRC RECORD # WRI 534**
ANSWER: B. **SYSTEM # P53** **K/A 290001** **K1.09: 2.9/2.9**
LP# GG-1-LP-OP-P5300
OBJ. 30 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: GGNS P&ID 1067M ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.7/41.9**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 53

The plant was operating at 80% power when an Offsite Power fluctuation caused the reactor to scram.

The following subsequent events occurred at the times indicated:

Time	**Event/Manipulation**
09:05:56	Reactor Scram; reactor water level immediately drops to +8 inches NR
09:06:12	Reactor water level bottom peaks at +2.5 inches NR
09:06:20	Reactor water level is +10.4 inches NR

Which one of the following is the setpoint indicated on the Master Level Controller at **Time 09:06:20**?

A. + 12.4 inches

B. + 18.0 inches

C. + 36.0 inches

D. + 54.0 inches

QUESTION 53 **NRC RECORD # WRI 274**
ANSWER: B. **SYSTEM # C34** **K/A 259002** **A3.06: 3.0/3.0**
LP# GG-1-LP-RO-C3401
OBJ. 1.8 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: 05-1-02-I-1sect 5.3 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 12/00**
RO SRO ***BOTH*** **CFR 41.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 54

Standby Gas Treatment Trains 'A' and 'B' have received an initiation signal on Reactor Water Level.

Which one of the following describes the response of the Process Radiation Monitoring (D17) System?

A. The SBGT Radiation Monitors are in standby until a High Radiation signal is received by SBGT logic.

B. The SBGT Radiation Monitors are in service continuously requiring NO further action.

C. The SBGT Radiation Monitor Sample Pumps will automatically start on SBGT initiation.

D. The SBGT Radiation Monitor Sample Pumps require an operator to be dispatched to start the pumps locally.

QUESTION 54 **NRC RECORD # WRI 265**
ANSWER: C. **SYSTEM # T48; D17** **K/A 261000** **K1.08: 2.8/3.1**
K4.01: 3.7/3.8
LP# GG-1-LP-OP-D1721
OBJ. 18 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **04-1-01-T48-1 sect 5.2.2d** NEW
04-1-01-D17-1 MODIFIED ***BANK***
DIFF 1, M **Sect 3.4, 4.5, Att V** **NRC 4/00**
RO SRO ***BOTH*** **CFR 41.7/41.11**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 55

The plant was operating at 100% power with all electrical busses powered from their preferred power source.

A lockout of ESF Transformer 21 occurred along with a small break LOCA.

Division 3 Diesel Generator is running and carrying Bus 17AC.

The High Pressure Core Spray (HPCS) system auto initiated and is operating properly.

Plant conditions are as follows:

Reactor Level	+25 inches
Drywell Pressure	3.2 psig
Drywell Temperature	185°F

Which of the following would be the correct response of the Division 3 Diesel Generator and output breaker if an operator depressed the HPCS INIT RESET pushbutton and then a "Generator Loss of Excitation" condition occurred on Division 3 Diesel Generator?

A. The output breaker would TRIP and the engine would TRIP.

B. The output breaker would remain CLOSED and the engine would remain RUNNING.

C. The output breaker would TRIP and the engine would remain RUNNING.

D. The output breaker would remain CLOSED and the engine would TRIP.

QUESTION 55 **NRC RECORD # WRI 536**
ANSWER: A. **SYSTEM # P81** **K/A 264000** **A1.09: 3.0/3.1**
LP# GG-1-LP-OP-P8100
OBJ. 13&14 (A,B,C) **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-P81-1 sect 3.26 ***NEW***
E-1188-014, 015, 018 MODIFIED BANK
DIFF 3; CA **E-1183-023**
RO SRO ***BOTH*** **CFR 41.7/41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 56

The plant was operating at 100% power.

An ATWS has occurred along with a steam leak inside the Drywell.

All systems responded properly (except CRD)

Actions are being taken per EP 2A.

All Low Pressure ECCS pumps and injection valves have been OVERRIDDEN OFF/CLOSED with OVERRIDE annunciators sealed in for RHR A, RHR B, RHR C and LPCS pumps and injection valves.

Plant conditions are as follows:

Reactor level	-180 inches
Reactor pressure	900 psig
Drywell pressure	4 psig
Bypass valves available	
Feedwater available	

If power were lost to the 16AB bus and the Division 2 diesel generator restored power to the 16AB bus, which of the following would be correct concerning the response of RHR C, under current plant conditions and NO operator actions?

A. RHR C pump would start and RHR C injection valve would open.

B. RHR C pump would start and RHR C injection valve would remain closed.

C. RHR C pump would remain off and RHRC injection valve would remain closed.

D. RHR C pump would remain off and RHR C injection valve would open.

QUESTION 56 **NRC RECORD # WRI 537**
ANSWER: B. **SYSTEM # E12** **K/A 203000** **K6.01: 3.6/3.7**
LP# GG-1-LP-OP-E1200
OBJ. 9G **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: GG-1-FIG-OP-E1200.02 ***NEW***
04-1-01-E12-1 sect 3.3, 3.4 MODIFIED BANK
DIFF 3; CA
RO SRO ***BOTH*** **CFR 41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 57

The plant is in a refuel outage.

Bus 15AA is being tagged out for electrical maintenance.

Which of the following ECCS pumps will be affected by this tagout?

A. RHR B

B. RHR C

C. HPCS

D. LPCS

QUESTION 57 **NRC RECORD # WRI 538**
ANSWER: D. **SYSTEM # E21** **K/A 209001** **K2.01: 3.03.1**
LP# GG-1-LP-OP-E2100
OBJ. 7B **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: 04-1-01-E21-1 Att III ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.7/41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 58

The plant was operating at 80% power.

A small steam leak developed in the Drywell.

The Reactor has been scrammed and Standby Gas Treatment Systems (SBGTS) 'A' and 'B' have AUTO initiated.

All systems responded properly.

SBGT 'A' has been placed in STANDBY per the SOI.

Which of the following set of conditions would restart the SBGT 'A' system from STANDBY?

CONSIDER EACH ANSWER AS A SET OF PLANT CONDITIONS.

	Enclosure Building Recirc Fan 'B' Flow	Exhaust Filter Train 'B' Flow	Enclosure Building Pressure
A.	9,000 scfm	2500 scfm	-0.55 inches wc
B.	12,300 scfm	1650 scfm	-0.65 inches wc
C.	11, 250 scfm	2200 scfm	-0.05 inches wc
D.	10, 500 scfm	1375 scfm	-0.35 inches wc

QUESTION 58 **NRC RECORD # WRI 539**
ANSWER: C. **SYSTEM # T48** **K/A 261000** **A2.01: 2.9/3.1**
LP# GG-1-LP-OP-T4801
OBJ. 8G&H **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 1**
REFERENCE: **04-1-01-T48-1 sect 5.2.2c3** ***NEW***
04-1-02-1H13-P870-2A-D2 MODIFIED BANK
DIFF 2; CA **04-1-02-1H13-P870-2A-E3**
04-1-02-1H13-P870-2A-F3 RO SRO ***BOTH*** **CFR 41.7/41.10**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 59

Select the statement that describes the MOST probable cause of the following plant conditions:

Annunciator "**RECIRC PMP B SEAL STG FLO HI/LO**" alarms.

Annunciator "**RECIRC PMP B OUTR SEAL LEAK HI**" alarms.

Recirc pump 'B' # 1 seal cavity pressure: 1020 psig.

Recirc pump 'B' # 2 seal cavity pressure: 100 psig

A. Failure of the # 1 seal.

B. Failure of the # 2 seal.

C. Failure of the CRD seal purge regulator.

D. Plugging of the orifice between # 1 and # 2 seals.

QUESTION 59 **NRC RECORD # WRI 540**
ANSWER: B. **SYSTEM # B33** **K/A 202001 A2.10: 3.5/3.9**
LP# GG-1-LP-OP-B3300
OBJ. 29D **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: 04-1-02-1H13-P680-3A-A12 NEW
04-1-02-1H13-P680-3A-B11 MODIFIED ***BANK***
DIFF 2; CA **LOT 7/95**
RO SRO ***BOTH*** **CFR 41.3/41.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 60

An ATWS has occurred.

Standby Liquid Control Pump 'A' is tagged out.

The Control Room Operator starts Standby Liquid Control Pump 'B'.

Which one of the following describes the response of the Reactor Water Cleanup System?

A. RWCU will isolate the Filter Demineralizers and open G33-F044, RWCU F/D Byp to continue circulation of reactor water for level control and sampling purposes.

B. RWCU will isolate G33-F004, RWCU Pmp Suct Isol causing both RWCU pumps to trip and the Filter Demineralizers to lock in hold.

C. RWCU will isolate G33-F001, RWCU Pmp Suct Isol and G33-F251, RWCU Sply to RWCU Hxs causing both RWCU pumps to trip and the Filter Demineralizers to lock in hold.

D. RWCU will isolate G33-F004 and G33-F001, RWCU Pmp Suct Isol and G33-F251, RWCU Sply to RWCU Hxs causing both RWCU pumps to trip and the Filter Demineralizers to lock in hold.

QUESTION 60 **NRC RECORD # WRI 251**
ANSWER: C. **SYSTEM # G33; C41** **K/A 204000** **K6.07: 3.3/3.5**
LP# GG-1-LP-OP-G3336
OBJ. 8f, 9a **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: **04--1-01-C41-1** NEW
Sect 5.3.2b4 MODIFIED ***BANK***
DIFF 1; M **NRC 4/00**
RO SRO ***BOTH*** **CFR 41.6**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 61

The plant is in a refuel outage.

Reactor Water Clean-Up (RWCU) is operating.

Residual Heat Removal (RHR) B is in Shutdown Cooling.

E12-F048B RHR B Heat Exchanger Bypass valve is FULL OPEN.

E12-F003B RHR B Heat Exchanger Outlet valve is FULL CLOSED.

Which of the following would be a valid indication of Reactor Coolant Temperature under present plant conditions?
P & IDs M-1079 and M-1085A are provided.

A. RHR B heat exchanger B001B inlet temperature E12 TE-N004B

B. RHR B heat exchanger B002B inlet temperature E12 TE-N002B.

C. RHR B heat exchanger discharge temperature E12 TE-N027B.

D. RWCU Non-Regen heat exchanger inlet temperature G33 TE-N006.

QUESTION 61 **NRC RECORD # WRI 541**
ANSWER: C. **SYSTEM # E12** **K/A 205000** **K1.03: 3.4/3.5**
LP# GG-1-LP-OP-E1200
OBJ. 14 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: **04-1-01-E12-1** ***NEW***
sect 4.2.2.e.13 Caution MODIFIED BANK
DIFF 2; CA **P&ID M1085A**
M-1079 RO SRO ***BOTH*** **CFR 41.2/41.3/41.4**
REFERENCE MATERIAL REQUIRED: **M-1079 & M-1085A** **41.5**

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QUESTION 62

The plant was operating at full power steady state.

A Loss of Coolant Accident (LOCA) has occurred.

High Pressure Core Spray (HPCS) and Reactor Core Isolation Cooling (RCIC) are operating and maintaining Reactor Water Level.

All low pressure ECCS AUTO initiated properly.

The injection valves for all low pressure ECCS systems have OVERRIDDEN closed.

Residual Heat Removal (RHR) 'B' has been placed in Suppression Pool Cooling and annunciator RHR TEST RTN VLV F024B MAN OVERRD was received.

Which of the following is correct concerning operation of E12-F024B, RHR 'B' Test Return to Suppression Pool?

A. E12-F024B would AUTO close on a Division 2 Containment Spray initiation.

B. E12-F024B would AUTO close, if RHR 'B' injection valve E12-F042B is opened.

C. E12-F024B would remain open, if power were lost to the 16AB bus and then restored.

D. E12-F024B with a Manual Override signal sealed in has all AUTO signals removed.

QUESTION 62 **NRC RECORD # WRI 542**
ANSWER: A. **SYSTEM # E12** **K/A 219000** **A4.14: 3.7/3.5**
LP# GG-1-LP-OP-E1200
OBJ. 9G **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: **GG-1-FIG-OP-E1200** ***NEW***
04-1-01-E12-1 sect 3.3 MODIFIED BANK
DIFF 2; CA **04-1-02-1H13-P601-17A-B2**
RO SRO ***BOTH*** **CFR 41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 63

The plant was operating at rated conditions steady state.

A steam line rupture occurs in the Drywell at 3:00 A.M.

All low pressure ECCS AUTO Initiate and respond properly.

The SRO directs MANUAL initiation of Containment spray due to Containment temperature exceeding 185°F at 3:05 A.M.

Plant conditions are as follows:

Reactor level	-130 inches
Drywell pressure	6.2 psig

Containment Spray is initiated at 3:06 A.M.

Which of the following is correct concerning the E12-F048A RHR 'A' Heat Exchanger Bypass valve?

A. E12- F048A will remain open for 5 minutes then auto close.

B. E12-F048A will auto close for 5 minutes then auto open.

C. E12-F048A will cycle open and closed for 5 minutes then remain closed.

D. E12-F048A will cycle open and closed for 5 minutes then remain open.

QUESTION 63 **NRC RECORD # WRI 543**
ANSWER: C. **SYSTEM # E12** **K/A 226001** **A2.03: 3.1/3.1**
LP# GG-1-LP-OP-E1200
OBJ. 8G **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 2**
REFERENCE: GG-1-FIG-OP-E1200 ***NEW***
E-1181-27,68,69 MODIFIED BANK
DIFF 2; CA
RO SRO ***BOTH*** **CFR 41.7/41.8**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 64

The following are the current conditions of the RHR A circuit breaker 152-1509:

Racked in open
Control fuses installed
Closing springs charged
Charging motor off

Considering only the current conditions, which one of the following describes the operational status of the circuit breaker?

A. The circuit breaker will electrically close and open locally as many times as required.

B. The circuit breaker will close locally one time only. Once closed the circuit breaker will NOT open.

C. The circuit breaker will close remotely one time only. Once closed the circuit breaker CANNOT be opened remotely.

D. The circuit breaker will close remotely one time only. Once closed the circuit breaker can be opened remotely.

QUESTION 64 **NRC RECORD # WRI 335**
ANSWER: D. **SYSTEM # R21** **K/A 262001** **K4.03: 3.2/3.4**
2.1.30: 3.9/3.4
LP# GG-1-LP-OP-PROC
OBJ. 42o; 55b(2)
LP# GG-1-LP-OP-E1200
OBJ. 14
LP# OP-NOB-EL-LP-011
OBJ. 3
LP# GG-1-LP-OP-ELBKR
OBJ. 11, 22 **SRO TIER 2 GROUP 1 / RO TIER 2 GROUP 2**
REFERENCE: 04-1-01-E12-1 sect 3.2.7 NEW
04-S-04-2 sect 4.4 MODIFIED ***BANK***
DIFF 2; CA 02-S-01-2 Att III, III A **NRC 12/00**
RO SRO ***BOTH*** **CFR 41.4/41.7/41.10**
REFERENCE MATERIAL REQUIRED: None **43.5**

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QUESTION 65

Static inverter 1Y95 has automatically transferred to its alternate power source because of a fault on its normal power source.

Two hours later, the electricians have repaired the fault and the normal power source for 1Y95 is re-energized.

Which one of the following statements describes the restoration of the inverter to its NORMAL source?

A. The inverter static switch can be manually transferred back to the normal power source, only if the power sources are IN SYNC.

B. The inverter static switch will automatically transfer back to the normal power source, only if the power sources are IN SYNC.

C. The inverter static switch will automatically transfer back to the normal power source, regardless of whether the power sources are IN SYNC.

D. The inverter static switch can be manually transferred back to the normal power source, regardless of whether the power sources are IN SYNC.

QUESTION 65 **NRC RECORD # WRI 544**
ANSWER: A. **SYSTEM # L62** **K/A 262002** **A3.01: 2.8/3.1**
LP# GG-1-LP-OP-L6200
OBJ. 7b&8b **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: 04-1-01-L62-1 sect 3.2 & 3.5 NEW
MODIFIED ***BANK***
DIFF 1; M **LP L62 SQ #3**
RO SRO ***BOTH*** **CFR 41.7/41.10/43.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 66

The plant is operating at 85% power with the Offgas System in its normal SOI lineup.

The ADSORBER TRAIN BYPASS VALVE, N64-F045 is in TREAT.

The OFFGAS DISCHARGE VALVE, N64-F060 in AUTO.

In the Control Room, the Operator observes the closure of the following valves:

- N64-F060, OFFGAS DISCHARGE TO VENT
- N64-F054, PRE FILTER INLET DRAIN
- N64-F034A & B, COOLER CONDENSER DRAIN A & B
- N64-F441, HOLDUP LINE DRAIN

Which one of the following signals could cause all these valves to close almost simultaneously?

A. Main Steam Line radiation HI-HI (all channels)

B. Radwaste Ventilation Exhaust radiation HI-HI (all channels)

C. Offgas Post-Treatment radiation HI-HI-HI (all channels)

D. Offgas Pre-Treat radiation HI-HI (all channels)

QUESTION 66 **NRC RECORD # WRI 545**
ANSWER: C. **SYSTEM # N64; D17** **K/A 271000** **A3.01: 3.3/3.3**
LP# GG-1-LP-OP-N6465
OBJ. 10i&12 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: 05-1-02-II-2 sect 5.2 NEW
MODIFIED ***BANK***
DIFF 1; M **LP-N64-SQ-#1**
RO SRO ***BOTH*** **CFR 41.7/41.13**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 67

Drywell and Containment airborne activity has been going up over the past few days.

Annunciators "CTMT CLG EXH DIV 1, 4 RAD HI-HI" and "CTMT CLG EXH DIV 2, 3 RAD HI-HI" are received.

All other plant parameters are below their TRIP setpoints.

Which of the following identifies the correct valve configuration due to present plant conditions?

(Assume all valves were open initially)

A.	M41-F034 CTMT CLG EXH TO CTMT VENT	OPEN
	M41 F035 CTMT CLG EXH TO CTMT VENT	OPEN
	M41-F036 CTMT CLG VENT EXH AUX BLDG INBD ISOL	OPEN
	M41-F037 CTMT CLG VENT EXH AUX BLDG OTBD ISOL	OPEN
B.	M41-F034 CTMT CLG EXH TO CTMT VENT	CLOSED
	M41 F035 CTMT CLG EXH TO CTMT VENT	CLOSED
	M41-F036 CTMT CLG VENT EXH AUX BLDG INBD ISOL	CLOSED
	M41-F037 CTMT CLG VENT EXH AUX BLDG OTBD ISOL	CLOSED
C.	M41-F034 CTMT CLG EXH TO CTMT VENT	CLOSED
	M41 F035 CTMT CLG EXH TO CTMT VENT	CLOSED
	M41-F036 CTMT CLG VENT EXH AUX BLDG INBD ISOL	OPEN
	M41-F037 CTMT CLG VENT EXH AUX BLDG OTBD ISOL	OPEN
D.	M41-F034 CTMT CLG EXH TO CTMT VENT	OPEN
	M41 F035 CTMT CLG EXH TO CTMT VENT	OPEN
	M41-F036 CTMT CLG VENT EXH AUX BLDG INBD ISOL	CLOSED
	M41-F037 CTMT CLG VENT EXH AUX BLDG OTBD ISOL	CLOSED

QUESTION 67 **NRC RECORD # WRI 546**
ANSWER: C. **SYSTEM # D17/D21** **K/A 272000** **K4.02: 3.7/4.1**
LP# GG-1-LP-OP-D1721
OBJ. 8 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: **04-1-02-1H13-P601-18A-D5** ***NEW***
04-1-02-1H13-P601-18A-D6 MODIFIED BANK
DIFF 1; M **05-1-02-III-5 Group 7 &**
Aux Bldg Vent RO SRO ***BOTH*** **CFR 41.7/41.11/43.4**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 68

Concerning the Fire Protection CO2 storage tank;

Which of the following conditions would the CO2 storage tank meet the MINIMUM requirements to be considered **OPERABLE** per Technical specifications?

A. CO2 storage tank level 55% **and** pressure 275 psig

B. CO2 storage tank level 60% **and** pressure 275 psig

C. CO2 storage tank level 70% **and** pressure 270 psig

D. CO2 storage tank level 75% **and** pressure 290 psig

QUESTION 68 **NRC RECORD # WRI 547**
ANSWER: B. **SYSTEM # P64** **K/A 286000** **A1.06: 2.9/3.0**
LP# GG-1-LP-OP-N4400
OBJ. 10, 15
LP# GG-1-LP-OP-P6400
OBJ. 10 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: TECH. SPECS. 6.2.4 ***NEW***
04-1-01-N44-1 sect 3.8 MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.8/43.2**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 69

Concerning the operation of the Reactor Feed Pump (RFP) Turbines governor control in MANUAL and SPEED AUTO,

Which of the following correctly identifies the limitations imposed when in MANUAL **and** in SPEED AUTO if the raise pushbutton is depressed and held from 0 to 100%?

A. In MANUAL, the governor will stroke 0-100% in 15 seconds and
In SPEED AUTO, the speed setpoint will change at a rate of 10 rpm/sec for one second and 120 rpm/ second thereafter.

B. In MANUAL, the governor will stroke 0-100% in 10 seconds and
In SPEED AUTO, the speed setpoint will change at a rate of 15 rpm/sec for one second and 120 rpm/ second thereafter.

C. In MANUAL, the governor will stroke 0-100% in 15 seconds and
In SPEED AUTO, the speed setpoint will change at a rate of 10 rpm/sec for one second and 150 rpm/ second thereafter.

D. In MANUAL, the governor will stroke 0-100% in 10 seconds and
In SPEED AUTO, the speed setpoint will change at a rate of 15 rpm/sec for one second and 150 rpm/ second thereafter.

QUESTION 69 **NRC RECORD # WRI 548**
ANSWER: A. **SYSTEM # N21** **K/A 259001** **K5.03: 2.8/2.8**
LP# GG-1-LP-OP-N2100
OBJ. 19 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: 04-1-01-N21-1 sect 3.14 ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.5/41.10/43.5**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 70

Which of the following sets of conditions correctly identifies those required for Control Room HVAC to isolate and Control Room Fresh Air Units to start?

A. Reactor water level –150.3 inches **and** Drywell pressure + 1.39 psig **and** Control Room Vent Rad monitor reading 3.6 mR/hr.

B. Reactor water level –150.3 inches **or** Drywell pressure + 1.39 psig **or** Control Room Vent Rad monitor reading 3.6 mR/hr.

C. Reactor water level –41.6 inches **and** Drywell pressure + 1.23 psig **and** Control Room Vent Rad monitor reading 5 mR/hr.

D. Reactor water level –41.6 inches **or** Drywell pressure + 1.23 psig **or** Control Room Vent Rad monitor reading 5 mR/hr.

QUESTION 70 **NRC RECORD # WRI 549**
ANSWER: D. **SYSTEM # Z51** **K/A 290003** **A3.01: 3.3/3.5**
LP# GG-1-LP-OP-Z5100
OBJ. 11 **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: **04-S-01-Z51-1 sect 5.4.1** ***NEW***
05-1-02-III-5 Aux Bldg Vent MODIFIED BANK
DIFF 1; M **TECH. SPECS. 3.3.7.1**
RO SRO ***BOTH*** **CFR 41.7/41.11/43.4**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 71

The plant is operating at 100% power steady state.

Which of the following heat loads of Component Cooling Water (CCW) would be of most concern, under present conditions, if a Loss of CCW were to occur?

A. Reactor Water Clean-up

B. Fuel Pool Cooling and Clean-up

C. Reactor Recirculation pumps

D. Control Rod Drive pumps

QUESTION 71 **NRC RECORD # WRI 550**
ANSWER: C. **SYSTEM # P42** **K/A 400000** **K3.01: 2.9/3.3**
LP# GG-1-LP-OP-P4200
OBJ. 11A&12A&B **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 2**
REFERENCE: **04-1-01-P42-1 sect 3.7** ***NEW***
05-1-02-V-1 Note & MODIFIED BANK
DIFF 1; M **sect 2.1.2, 3.3**
RO SRO ***BOTH*** **CFR 41.7**
REFERENCE MATERIAL REQUIRED: **NONE**

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QUESTION 72

Which one of the following will cause a running Fuel Pool Cooling and Clean-up (FPCCU) pump to trip?

A. FPCCU pump discharge flow of 440 gpm for 32 seconds.

B. Fuel Pool drain tank level at 16%.

C. System differential flow of 92 gpm for 50 seconds.

D. Pump suction pressure at 8 psig for 5 seconds.

QUESTION 72 **NRC RECORD # WRI A024**
ANSWER: B. **SYSTEM # G41** **K/A 233000 A3.02: 2.6/2.6**
LP# GG-1-LP-OP-G4146
OBJ. 7b **SRO TIER 2 GROUP 3 / RO TIER 2 GROUP 3**
REFERENCE: 04-1-02-1H13-P680-4A2-C7 NEW
MODIFIED ***BANK***
DIFF 1; M **AUDIT 12/00**
RO SRO ***BOTH*** **CFR 41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 73

Which of the following methods is correct for verifying proper Fuel Bundle Orientation in a fuel cell?

A. The channel fastener of each assembly must be pointed toward the outside of the control cell.

B. All channel spacer buttons on each fuel assembly must face inwards in the cell.

C. The fuel orientation boss on the lifting bail must point toward the outside of the cell.

D. The serial number of the assemblies must be readable, right to left, from the outside of the cell looking inward.

QUESTION 73 **NRC RECORD # WRI 551**
ANSWER: B. **SYSTEM # J11** **K/A 234000** **K5.05: 3.0/3.7**
LP# GG-1-LP-OP-B1300
OBJ. 5i **SRO TIER 2 GROUP 2 / RO TIER 2 GROUP 3**
REFERENCE: 17-S-02-108sect 6.2.3 ***NEW***
MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.2/41.10/43.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 74

The plant is operating at rated conditions steady state.

"RCIC PIPE/EQUIP AMBIENT TEMP HI" annunciator is received.

The Alarm Response Instruction (ARI) directs to check area temperature on recorder E31-R608.

The Control Room Supervisor has ordered the Riley Temperature indicators NOT be used.

Which of the following indicate the location of recorder E31-R608?

A. 1H13-P601 in main control room.

B. 1H13-P632 in upper control room.

C. 1H13-P642 in main control room back panel area.

D. 1H22-P150 in remote shutdown panel area.

QUESTION 74 **NRC RECORD # WRI 552**
ANSWER: B. **SYSTEM # E31** **K/A 288000** **A4.02: 2.8/2.8**
LP# GG-1-QC-RO-CRO01
OBJ. Qual Card Rounds
LP# GG-1-LP-RO-E3100
OBJ. 6c **SRO TIER 2 GROUP 3 / RO TIER 2 GROUP 3**
REFERENCE: **GG-1-LP-OP-E5100.02** ***NEW***
04-1-02-1H13-P601-21A-H2 MODIFIED BANK
DIFF 1; M
RO SRO ***BOTH*** **CFR 41.7**
REFERENCE MATERIAL REQUIRED: NONE

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QUESTION 75

The plant is performing the Reactor Vessel In-Service Leak Test after 15 EFPY of operation at the end of RF11.
The following parameters existed during the test:

Time	Rx Pressure	Rx Metal Temp
1000	100 psig	160 °F
1030	200 psig	158 °F
1100	250 psig	158 °F
1130	500 psig	157 °F
1200	600 psig	150 °F
1230	800 psig	140 °F
1300	1025 psig	140 °F
1330	1025 psig	138 °F
1400	1025 psig	135 °F

Which one of the following statements is correct concerning the Reactor Coolant System? (Assume depressurization will straight drop within rate limits set in the IOI.)

Tech Specs are provided.

A. RPV pressure vs temperature limits are within specifications.

B. RPV pressure vs. temperature limits are satisfied, but the reactor requires heatup to complete the test.

C. RPV pressure vs. temperature limits have been violated and the reactor requires pressure reduction within 30 minutes.

D. RPV pressure vs. temperature limits have been violated and the reactor requires pressure reduction immediately.

QUESTION 75 **NRC RECORD # WRI 532**
ANSWER: A. **SYSTEM # B13** **K/A 290002** **K5.05: 3.1/3.3**
LP# GG-1-LP-OP-B1300 **2.1.25: 2.8/3.1**
OBJ. 16
LP# GG-1-LP-OP-IOI03
OBJ. 2c, d **SRO TIER 2 GROUP 3 / RO TIER 2 GROUP 3**
REFERENCE: **Figure 3.4.11-1 curve A** NEW
03-1-01-6 Caution ***MODIFIED*** BANK
DIFF 3, CA **03-1-01-3 sect 2.5, 2.6, 2.7** **NRC 4/00 WRI 261**
RO SRO ***BOTH*** **CFR 41.3/41.14/**
REFERENCE MATERIAL REQUIRED: **Tech Spec 3.4.11 & curves** **43.2**

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QUESTION 76

The Control Room has been evacuated due to a freon leak into the Control Room atmosphere, and plant control has been established at the Remote Shutdown Panels.

The plant was scrammed and level in the reactor is lowering. RCIC tripped on overspeed and the MSIVs have closed. The Control Room Supervisor has directed the use of RHR 'A' in the LPCI mode to maintain reactor water level.

During the lineup of RHR 'A' in LPCI mode, you notice two handswitches for the LPCI 'A' Injection Valve (E12-F042A) on the Remote Shutdown Panel 'A'.

What is the reason for two handswitches?

A. One handswitch is to swap to emergency, removing control from the control room, and the other handswitch operates the valve OPEN or CLOSED.

B. One handswitch is to remove the auto features of the E12-F042A and allow the other handswitch to have total control.

C. One handswitch enables the second handswitch to operate the valve in the open and closed positions.

D. One handswitch is used only when the Division I Lockouts have been transferred to insert the pressure interlocks. The second handswitch operates the valve in the open and closed positions.

QUESTION 76 SRO **NRC RECORD # WRI 29**
ANSWER: C. **SYSTEM # C61; E12** **K/A 295016** **AK2.01: 4.5**
LP# GG-1-LP-OP-C6100
OBJ 7b **SRO TIER 1 GROUP 1 / RO TIER GROUP**
REFERENCE: E-1181- 037 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 3/98**
RO ***SRO*** BOTH **CFR 41.7/41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 77

The plant is operating at rated conditions.

Safety Relief Valve B21-F051B has inadvertently opened and is stuck.

Suppression Pool temperature has risen to 1120F.

Which one of the following describes the actions to be taken and the basis for this action?

A. Place a loop of Residual Heat Removal in Suppression Pool Cooling and monitor Suppression Pool temperature at an elevated frequency of once per 30 minutes. This is done to prevent temperature from exceeding 1200F the maximum Suppression Pool Temperature for accident analysis.

B. Immediately emergency depressurize the reactor to less than 200 psig and place a loop of Residual Heat Removal in Suppression Pool Cooling. This action prevents any challenges to Containment integrity due to the ability of the Suppression Pool to absorb energy.

C. Immediately place the Reactor Mode Switch in Shutdown and place both loops of Residual Heat Removal in Suppression Pool Cooling with elevated monitoring frequency. Shutdown prevents challenge to Containment during a design basis accident.

D. Place both loops of Residual Heat Removal in Suppression Pool Cooling and take actions required to attempt to close the Safety Relief Valve. Operation may continue with Suppression Pool Cooling to a maximum of 1200F. This is to allow time to close the SRV.

QUESTION 77 SRO **NRC RECORD # WRI 477**
ANSWER: C. **SYSTEM # E30;** **K/A 295013** **AK3.02: 3.8**
Tech Specs, EOPs **2.2.12: 3.4**
LP# GG-1-LP-RO-TS001
OBJ. 36
LP# GG-1-LP-RO-EP03
OBJ. 3, 6 **SRO TIER 1 GROUP 1 / RO TIER GROUP**
REFERENCE: 05-S-01-EP-3 steps 13 & 14 ***NEW***
Tech Spec 3.6.2.1 & bases MODIFIED BANK
DIFF 2; CA
RO ***SRO*** BOTH **CFR 41.9/41.10/43.5**
REFERENCE MATERIAL REQUIRED: 05-S-01-EP-3

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QUESTION 78

Which one of the following work practices is NOT required to verify the proper grappling of an irradiated fuel assembly with the Fuel Handling Platform, prior to raising the hoist?

A. Attempt to rotate the mast.

B. Attempt to disengage the grapple.

C. Visually observe that the channel fastener is visible, if possible.

D. Obtain independent verification that the fuel assembly is correctly grappled.

QUESTION 78 SRO **NRC RECORD # WRI 187**
ANSWER: B. **SYSTEM # F11** **K/A 295023** **AA1.03: 3.6**
LP# GG-1-LP-RF-F1108
OBJ. 5c
LP# GG-1-LP-RF-F1107
OBJ. 1 **SRO TIER 1 GROUP 1 / RO TIER GROUP**
REFERENCE: 04-1-01-F11-1 NEW
Sect 4.5.2 Caution MODIFIED ***BANK***
DIFF 1; M **Operations Expectation 9** **EB 11 Fuel Handling Trng**
GE RICSIL 036 RO ***SRO*** BOTH **CFR 41.2/41.6/43.6**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 79

The plant is operating at rated conditions with all systems selected for automatic operation.

The variable leg of level instruments on Condensing Pot B21-D004C has ruptured in Containment resulting in a 0 psig signal being felt on level instruments from D004C.

Which one of the following describes the response of the Feedwater System and level instruments supplied from D004C?

	FEEDWATER FLOW	LEVEL INSTRUMENTS ON D004C FAIL
A.	Remain stable	UPSCALE
B.	Remain stable	DOWNSCALE
C.	Lower level	UPSCALE
D.	Raise level	DOWNSCALE

QUESTION 79 SRO **NRC RECORD # WRI 478**
ANSWER: B. **SYSTEM # B21; C34** **K/A 295009** **AK2.01: 4.0**
LP# GG-1-LP-OP-B2101 **AK2.02: 3.9**
OBJ. 8a, 22
LP# GG-1-LP-RO-C3401
OBJ. 1.1, 1.2, 1.3, 1.5 **SRO TIER 1 GROUP 1 / RO TIER GROUP**
REFERENCE: M-1077B ***NEW***
04-1-02-1H13-P680 2A-C9 MODIFIED BANK
DIFF 2; CA
RO ***SRO*** BOTH **CFR 41.9/41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 80

A Refueling Outage is in progress. Containment Ventilation is aligned for Extended Outage Containment and Drywell Ventilation.

A spent fuel bundle is accidentally bumped into the cattle chute. The portable Continuous Air Monitor on the 208 Ft. Refuel Floor is alarming.

The following are the indications on the Radiation Monitors:

Containment Vent Rad Monitor	Fuel Handling Area Exhaust Rad Monitor	Fuel Pool Sweep Rad Monitor
5.0 mR/hr	1.5 mR/hr	5.0 mR/hr

Which one of the following describes the response of the plant ventilation systems?

	CTMT VENT	AUX BLDG VENT	FUEL HANDLING AREA	FUEL POOL SWEEP	STANDBY GAS TREATMENT
A.	Operating	Operating	Operating	Operating	Standby
B.	Isolated	Isolated	Isolated	Isolated	Operating
C.	Isolated	Operating	Operating	Operating	Operating
D.	Isolated	Operating	Operating	Operating	Standby

QUESTION 80 SRO **NRC RECORD # WRI 479**
ANSWER: D. **SYSTEM # M41; T48; T42; T41; D17** **K/A 295023 AK2.06: 3.8 AK2.07: 3.9 AK2.03: 3.6 AK2.05: 3.7**
LP# GG-1-LP-OP-M4100
OBJ. 3g, 11a, b, 12a, b, 16
LP# GG-1-LP-OP-T4100
OBJ. 7a
LP# GG-1-LP-OP-T4200
OBJ. 7b, 11a, 22
LP# GG-1-LP-OP-T4800
OBJ. 8f, 18 **SRO TIER 1 GROUP 1 / RO TIER GROUP**
REFERENCE: **05-1-02-III-5 sect 2.1 & ck list** ***NEW***
04-1-01-M4101 sect 5.4 MODIFIED BANK
DIFF 2; CA **04-1-02-1H13-P601 18A-D5**
04-1-02-1H13-P870 2A-A3 RO ***SRO*** BOTH **CFR 41.7/41.11/43.4**
REFERENCE MATERIAL REQUIRED: None **43.7**

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QUESTION 81

The plant is in a LOCA with ECCS systems injecting to the reactor.

Suppression Pool level has lowered to 13.5 feet.

Which one of the following is a condition that exists due to this level?

A. The SRV tailpipe exhausts have been uncovered.

B. The RCIC Turbine Exhaust has been uncovered.

C. Suppression Pool temperature cannot be determined.

D. Containment Pressure cannot be determined

QUESTION 81 SRO **NRC RECORD # WRI 8**
ANSWER: C. **SYSTEM # E30** **K/A 295030** **EA2.02: 3.9**
LP# GG-1-LP-RO-EP03
OBJ. 3, 6 **SRO TIER 1 GROUP 1 / RO TIER GROUP**
REFERENCE: 05-S-01-EP-3 Caution 2 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 3/98**
RO ***SRO*** BOTH **CFR 41.9/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 82

A tagout has to be hung on valves in the RWCU Phase Separator Room 'A' to support tank clean out.

The general area dose rates where the work is to be performed have been measured to be 2.5 R/hr.

The operator will have to spend 10 minutes in the room positioning valves and hanging tags.

Once work is completed to remove tags an operator will take 5 minutes.

Which one of the following is the projected dose to be received by the operators for hanging and removing of the tags?

A. 167 mR

B. 250 mR

C. 417 mR

D. 625 mR

QUESTION 82 SRO **NRC RECORD # WRI 480**
ANSWER: D. **SYSTEM # Rad Con** **K/A 268000** **K5.01: 3.0**
LP# EOI-S-LP-GET-RWT01 **2.3.4: 3.1**
OBJ. RWT06 **SRO TIER 2 GROUP 3 / RO TIER GROUP**
REFERENCE: 01-S-08-2 sect 5.60 ***NEW***
MODIFIED BANK
DIFF 2; CA
RO ***SRO*** BOTH **CFR 41.12/43.4**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 83

The crew has had the shift for eight hours and a replacement Reactor Operator is arriving to relieve the Operator at the Controls.

Which one of the following is NOT required for the On-coming Reactor Operator to assume the duties?

A. Complete new Plant Status Checksheet

B. Log the relief in the Control Room Operator's Logbook

C. The plant should be a stable condition before beginning turnover.

D. Complete a walkdown of the Control Room and understand plant conditions

QUESTION 83 SRO **NRC RECORD # WRI 481**
ANSWER: A. **SYSTEM # Shift Turnover** **K/A Generic 2.1.3: 3.4**
LP# GG-1-LP-OP-PROC
OBJ. 45c & d **SRO TIER 3 GROUP / RO TIER GROUP**
REFERENCE: 02-S-01-4 sect 6.1 & 6.4.1 ***NEW***
MODIFIED BANK
DIFF 1; M
RO ***SRO*** BOTH **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 84

The plant is operating at full power.

The Operations Night Orders for the weekend leave orders to shift the Component Cooling Water Pumps.

Conditions in the plant have changed such that the shift of CCW is unable to be performed.

Which one of the following describes the action to be taken for this situation?

A. Delay the shift until Monday when the Night Orders are no longer in effect.

B. Contact the On-Call Operations Coordinator for concurrence with the deviation and document the change per telecon.

C. The Shift Manager may make the deviation with concurrence of the Shift Supervisor/STA and document the change in the Shift Manager's logbook.

D. Initiate a Condition Report and contact the Duty Manager prior to non-compliance with the Night Orders.

QUESTION 84 SRO **NRC RECORD # WRI 482**
ANSWER: B. **SYSTEM # Night Orders** **K/A Generic 2.1.15: 3.0**
LP# GG-1-LP-OP-PROC
OBJ. 50e **SRO TIER 3 GROUP / RO TIER GROUP**
REFERENCE: 02-S-01-12 sect 6.2.7 ***NEW***
MODIFIED BANK
DIFF 1; M
RO ***SRO*** BOTH **CFR 41.10/43.5/43.3**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 85

The plant is at 10 % power during a reactor startup.

All control rod withdrawals have been completed to place the Reactor Mode Switch in RUN.

Reactor Coolant pH has been sampled at 6.9.

Feedwater iron content has been analyzed at 4.5 ppb.

Which one of the following describes the chemistry allowances for continuing power ascension?
Attached is the Chemistry Report submitted in preparation for entering power operations.
Chemistry procedures and requirements are provided.

A. Transfer to Run is NOT allowed. Subsequent power ascension is prohibited by Tech Specs (TRM) requirements.

B. Transfer to Run is allowed. Consult with the Duty Manager prior to raising reactor power. Reactor chemistry must be within specifications prior to exceeding 15% power.

C. Transfer to Run is allowed. There are NO restrictions on power ascension provided actions are taken to return Chemistry to within specifications.

D. Transfer to Run is NOT allowed. Power ascension is prohibited by the EPRI Water Chemistry Guidelines and Off Normal Event Procedure requirements.

QUESTION 85 SRO **NRC RECORD # WRI 197**
ANSWER: B. **SYSTEM # Chemistry** **K/A Generics 2.1.34: 2.9**
LP#
OBJ. **SRO TIER 3 GROUP / RO TIER GROUP**
REFERENCE: **01-S-08-29 Att I** NEW
05-1-02-V-12 Tbl Mode 1 MODIFIED ***BANK***
DIFF 3, CA **TRM 6.4.1** **NRC 12/00**
03-1-01-1
sect 6.2.15a(5) & 6.2.15j RO ***SRO*** BOTH **CFR 41.10/43.2/43.5**
REFERENCE MATERIAL REQUIRED: **01-S-08-29 & completed Att VI;**
05-1-02-V-12; TRM 6.4.1; Tech Spec 3.0
03-1-01-1 sect 6.2.15

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QUESTION 86

The plant is at rated operating conditions.

Standby Liquid Control parameters are as follows:

SLC Suction Pipe Temperature	73 °F
SLC Tank Temperature	74 °F
SLC Tank Concentration	15.5 %
SLC Tank Level (Volume)	4300 gallons

Which one of the following is the LCO action to be taken for these conditions?
Tech Specs are provided.

A. Restore concentration of boron in solution to Normal Operation region within 72 hours AND perform SR 3.1.7.2 every 4 hours.

B. Restore concentration of boron in solution to Normal Operation region within 72 hours AND perform SR 3.1.7.2 every 4 hours OR restore at least one SLC subsystem to Operable within 8 hours OR be in Mode 3 within the following 12 hours.

C. Restore one SLC subsystem to Operable status within 8 hours OR be in Mode 3 within the following 12 hours.

D. Be in Mode 3 within 12 hours AND notify NRC within 1 hour.

QUESTION 86 SRO **NRC RECORD # WRI 185**
ANSWER: C. **SYSTEM # Conduct of Ops** **K/A Generics 2.1.12: 4.0**
2.1.10: 3.9
LP# GG-1-LP-LO-TS001
OBJ. 34
LP# GG-1-LP-OP-C4100
OBJ. 18 **SRO TIER 3 GROUP / RO TIER GROUP**
REFERENCE: **Tech Specs 3.1.7** NEW
Figures 3.1.7-1 & 3.1.7-2 MODIFIED ***BANK***
DIFF 2, CA **Conditions C & D** **NRC 12/00**
RO ***SRO*** BOTH **CFR 43.2**
REFERENCE MATERIAL REQUIRED: **Tech Spec 3.1.7**

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QUESTION 87

A LOCA has occurred.

The Control Room Supervisor during the execution of the Emergency Procedures has identified a step directing the use of the Severe Accident Procedures.

Which one of the following describes implementation of the Emergency and Severe Accident Procedures?

When conditions warrant entry,:

A. all Emergency Procedures are exited with the concurrence of the Emergency Director and Severe Accident Procedures are utilized to control all plant parameters to minimize Containment degradation.

B. the RPV Control Emergency Procedure is exited with the concurrence of the Emergency Director and Severe Accident Procedures are utilized to minimize further core degradation.

C. the Control Room Supervisor executes the Emergency Procedures and Severe Accident Procedures concurrently with the Severe Accident actions taking priority direction to control all plant parameters to minimize Containment degradation.

D. the Control Room Supervisor immediately exits all Emergency Procedures and informs the Emergency Director of transition to Severe Accident Procedures to minimize further core degradation.

QUESTION 87 SRO **NRC RECORD # WRI 579**
ANSWER: A. **SYSTEM # SAPs** **K/A Generics 2.4.6: 4.0**
LP# GG-1-LP-EP-EPT19 **2.1.6: 4.3**
OBJ. 1 **SRO TIER 3 GROUP / RO TIER GROUP**
REFERENCE: **SAP General Note and NOTE** ***NEW***
05-S-01-EP-2 step 74 MODIFIED BANK
DIFF 1; M **05-S-01-EP-2A steps 64 & 96**
05-S-01-EP-3 step 61 RO ***SRO*** BOTH **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 88

A Refueling outage is in progress.

The plant is in Mode 5.

Which one of the following is a restriction for transferring fuel between the Upper Containment Pool and Spent Fuel Pool?

A. Spent fuel bundles must have had a minimum of 48 hours decay time since removal from the core.

B. Spent fuel bundles must have been inspected for cladding damage prior to placement into the Horizontal Fuel Transfer Mechanism.

C. New and spent fuel bundles must be prevented from being in the Horizontal Fuel Transfer Mechanism at the same time.

D. New and spent fuel bundles must be channeled when being transferred using the Horizontal Fuel Transfer Mechanism.

QUESTION 88 SRO **NRC RECORD # WRI 494**
ANSWER: D. **SYSTEM # Refueling** **K/A Generic 2.2.27: 3.5**
LP# GG-1-LP-RF-F1102
OBJ. 9a **SRO TIER 3 GROUP** **/ RO TIER GROUP**
REFERENCE: 04-1-01-F11-2 sect 3.4 ***NEW***
MODIFIED BANK

DIFF 1; M

RO ***SRO*** BOTH **CFR 43.6/43.7**

REFERENCE MATERIAL REQUIRED: None

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QUESTION 89

Which one of the following Temporary Alterations would require a licensed operator to independently verify the installation?

A. Fire hoses are connected to the TBCW piping of the Instrument and Service Air Compressors to support installation of new air compressors.

B. I & C is lifting the leads on the Plant Service Water MUX unit at the Radial Well Switchgear house to prevent faulty signals tripping Radial Well Pumps.

C. Leads are lifted on the Fuel Handling Area Vent Radiation Monitors to prevent isolations during fuel handling operations.

D. The contacts for the annunciator relay for BOP Transformer 14 are papered to allow servicing of the transformer in preparation for the Augmented Cooling Unit.

QUESTION 89 SRO **NRC RECORD # WRI 493**
ANSWER: C. **SYSTEM # Temp Alts** **K/A Generic 2.2.11: 3.4**
LP# GG-1-LP-OP-PROC
OBJ. 12 c & d **SRO TIER 3 GROUP / RO TIER GROUP**
REFERENCE: 01-S-06-3 sect 5.5 ***NEW***
MODIFIED BANK
DIFF 1; M
RO ***SRO*** BOTH **CFR 41.10/43.5/43.3**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 90

Which one of the following conditions does NOT require the issuance of an approved Maintenance Action Item (MAI)?

A. Electrical Maintenance is to troubleshoot a motor operated valve on Plant Service Water by observing the valve stroke open and closed using the local handswitch to determine when the limit switch functions.

B. I & C is to troubleshoot a Control Room trip unit by lifting leads on the trip unit that allows the technician to modify the input signal and observe the functioning of the trip unit.

C. Mechanical Maintenance is required to inspect the pump impeller on a Condensate Transfer pump that when operating fails to develop sufficient discharge pressure to prevent operation of the standby pump.

D. I & C is to modify the instrument air supply to Primary Containment Isolation Valve G36-F106 to raise the stroke time to prevent slamming the valve into the closed seat.

QUESTION 90 SRO **NRC RECORD # WRI 492**
ANSWER: A. **SYSTEM # Control of Work** **K/A Generic 2.2.20: 3.3**
LP# GG-1-LP-OP-PROC
OBJ. 25c **SRO TIER 3 GROUP** **/ RO TIER GROUP**
REFERENCE: 07-S-01-205 sect 6.5 ***NEW***
MODIFIED BANK
DIFF 1; M
RO ***SRO*** BOTH **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: 07-S-01-205 & 01-S-07-1

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QUESTION 91

Under which one of the following conditions is new or spent fuel allowed to be stored in the Upper Containment Fuel Storage Pool?

A. The reactor is at 130 0F and only with the plant in Mode 5.

B. The reactor is at 180 0F with the plant subcritical and shutdown cooling operating.

C. The reactor is at 20% power with a plant startup in progress following RF12.

D. The reactor is at 20 % power with a plant shutdown in progress in preparation for RF12.

QUESTION 91 SRO **NRC RECORD # WRI 491**
ANSWER: B. **SYSTEM # Refueling** **K/A Generic 2.2.32: 3.3**
LP# GG-1-LP-RF-F1105
OBJ. 18 c & e **SRO TIER 3 GROUP / RO TIER GROUP**
REFERENCE: 17-S-02-100 ***NEW***
sect 6.1.1; 6.2.1; 6.3.8 MODIFIED BANK
DIFF 2; CA
RO ***SRO*** BOTH **CFR 43.6/43.7**
REFERENCE MATERIAL REQUIRED: 17-S-02-100

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QUESTION 92

The Control Room Operator has a tagout that requires verification.

Under which one of the following conditions can the Shift Manager waive Independent Verification?

A. lineup on the Instrument Air Header Auxiliary Building Automatic Bleed off valve 8 foot off the floor in area 10, 166 ft elevation.

B. a Red Tag to be hung on a Main Steam Drain Valve on the HP Main Steam Stop Valve at 100 % Power.

C. a Temporary Alteration on the Division III Diesel Air Start Header.

D. a procedure step for lineup restoration following the Load Shedding and Sequencing Monthly surveillance.

QUESTION 92 SRO **NRC RECORD # WRI 127**
ANSWER: B. **SYSTEM # ADMIN** **K/A Generic G2.3.2: 2.9**
Rad Con **G2.2.13: 3.8**
LP# GG-1-LP-OP-PROC
OBJ. 10s **SRO TIER 3 GROUP / RO TIER GROUP**
REFERENCE: 01-S-06-1 sect. 6.1.13 NEW
01-S-06-29 sect. 6.4.1 MODIFIED ***BANK***
DIFF 1; M **NRC 3/98**
RO ***SRO*** BOTH **CFR 41.12/43.4/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 93

A LOCA has occurred.

Offsite radioactive releases are projected to remain within the TRM limits.

Which one of the following groups of conditions would require venting and purging of Containment irregardless of offsite radioactive releases?

	SUPPRESSION POOL LEVEL	CONTAINMENT PRESSURE	CONTAINMENT HYDORGEN CONCENTRATION	DRYWELL HYDROGEN CONCENTRATION
A.	21.5 FT	5 PSIG	7.5 %	8.3 %
B.	21.5 FT	10 PSIG	8.3 %	7.5 %
C.	18.5 FT	5 PSIG	8.3 %	7.5 %
D.	18.5 FT	10 PSIG	7.5 %	8.3 %

QUESTION 93 SRO **NRC RECORD # WRI 490**
ANSWER: B. **SYSTEM # CTMT** **K/A Generic 2.3.9: 3.4**
Purge
LP# GG-1-LP-EP-EPT19
OBJ. 2c **SRO TIER 3 GROUP** **RO TIER GROUP**
REFERENCE: 05-S-01-EP-3 Step 61 ***NEW***
SAP steps 72 – 75 MODIFIED BANK
DIFF 2; CA Figure 5 HDOL
RO ***SRO*** BOTH **CFR41.10/43.4/43.5**
REFERENCE MATERIAL REQUIRED: 05-S-01-EP-3 & SAPs
larger graphs

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QUESTION 94

Plant conditions as follows:

Reactor level:	-30 inches Wide Range
Reactor pressure:	900 psig
Suppression Pool level:	18.5 ft.
All control rods are fully inserted.	

The Reactor Feed Pump Turbines tripped.

NO other problems exist in the plant.

Which one of the following describes the actions to be taken for present plant conditions and the basis?

A. Align RCIC or HPCS to inject to the vessel and maintain level between – 30 to + 30 inches because sufficient systems are available to restore level within a specified band.

B. Lower reactor pressure to allow use of Condensate Transfer or RHR Service Water Cross tie to restore level to between +11.4 to +53.5 inches because level must be raised within the primary level control band.

C. Inhibit ADS and prevent injection from ECCS systems not required for adequate core cooling to allow depressurizing the reactor at a rate not to exceed 100 0F/hr, this will prevent stress on the reactor vessel.

D. Depressurize the reactor using Safety Relief Valves using at least 8 SRVs and inject with all ECCS pumps to assure adequate core cooling since level is below 0 inches.

QUESTION 94 SRO **NRC RECORD # WRI 489**
ANSWER: A. **SYSTEM # EOPs** **K/A Generic 2.4.17: 3.8**
LP# GG-1-LP-RO-EP01
OBJ. 4d & e
LP# GG-1-LP-OP-PROC
OBJ. 55c **SRO TIER 3 GROUP** **RO TIER GROUP**
REFERENCE: **01-S-06-37 Att V** ***NEW***
02-S-01-27 sect 6.2.6 MODIFIED BANK
DIFF 2; CA **PSTG App B**
05-S-01-EP-2 Steps 20 – 22 RO ***SRO*** BOTH **CFR41.10/43.5**
REFERENCE MATERIAL REQUIRED: 05-S-01-EP-2

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QUESTION 95

The Severe Accident Procedures (SAPs) have been entered.

Plant conditions as follows:

Reactor level:	–280 inches
Reactor pressure:	0 psig
Suppression Pool level:	19.6 ft.
Injection flow:	180 gpm
Time after Shutdown:	200 min.
Containment pressure:	8.7 psig
Core breach?	No

Which SAP should you be in?

A. 3

B. 4

C. 5

D. 6

QUESTION 95 SRO **NRC RECORD # WRI 488**
ANSWER: A. **SYSTEM # Severe Accident Procedures** **K/A Generic 2.4.4: 4.3**
2.4.1: 4.6
2.4.5: 3.6
LP# GG-1-LP-EP-EPT19
OBJ. 2c **SRO TIER 3 GROUP** **RO TIER GROUP**
REFERENCE: SAP step 3 & 7 NEW
MODIFIED ***BANK***
DIFF 2; CA **EPTS 19 Test 2**
RO ***SRO*** BOTH **CFR41.10/43.5**
REFERENCE MATERIAL REQUIRED: SAPs

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QUESTION 96

Which one of the following is the MINIMUM event classification that requires the activation of the Emergency Operations Facility (EOF)?

A. Unusual Event

B. Alert

C. Site Area Emergency

D. General Emergency

QUESTION 96 SRO **NRC RECORD # WRI 487**
ANSWER: B. **SYSTEM # EAL** **K/A Generic 2.4.29: 4.0**
Facility Activation **2.4.42: 3.7**
LP# GG-1-LP-EP-EPTS6
OBJ. 7 **SRO TIER 3 GROUP** **RO TIER GROUP**
REFERENCE: 10-S-01-1 sect 6.1.4.i.2 ***NEW***
10-S-0133 sect 6.2.1 MODIFIED BANK
DIFF 1; M
RO ***SRO*** BOTH **CFR41.10/43.5**
REFERENCE MATERIAL REQUIRED: None

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QUESTION 97

An emergency condition has resulted in an Alert being declared.

The Emergency Response Organization is in route for manning.

What additional personnel are to report to the Control Room to support emergency operations at the discretion of the Control Room Supervisor/ Shift Manager?

01-S-10-6 Emergency Response Organization is provided.

A. Two Non-Licensed Operators are to perform the duties of communicators and one operator as the safe shutdown operator. One Electrician, one I&C Technician, and the On-Shift Chemist will report to the Control Room to assist the shift.

B. One Non-Licensed Operator is to perform the duties of safe shutdown operator, communications will be handled by the TSC when manned. An On-Shift I&C Technician and the On-Shift Chemist will report to the Control Room to assist the shift.

C. Two Non-Licensed Operators are to perform the duties of communicators. An On-Shift I&C Technician and the On-Shift Chemist will report to the Control Room to assist the shift.

D. Two Non-Licensed Operators are to perform the duties of communicators and two operators to perform equipment operations required outside the Control Room. An On-Shift I&C Technician and the On-Shift Chemist will report to the Control Room to assist the shift.

QUESTION 97 SRO **NRC RECORD # WRI 485**
ANSWER: D. **SYSTEM # E-Plan** **K/A Generics 2.4.12: 3.9**
LP# GG-1-LP-OP-PROC **2.4.35: 3.5**
OBJ. 11d **SRO TIER 3 GROUP / RO TIER GROUP**
REFERENCE: 01-S-10-6 Att II & III ***NEW***
01-S-06-2 sect 6.2.1d MODIFIED BANK
DIFF 1; M **Recent e-plan change 2/2001**
RO ***SRO*** BOTH **CFR 41.10/43.5**
REFERENCE MATERIAL REQUIRED: 01-S-10-6

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QUESTION 98

With GGNS operating at 100% power, Security notifies the Control Room that four armed adversaries have breached the security fence and entered the Protected Area.

Security officers have taken a defensive position to prevent entry into any power block buildings.

Which one of the following best describes the actions to be taken in this situation?

A. Manually scram the reactor. Send at least one RO and one SRO to the Remote Shutdown Panels. Send at least one NOB to the Auxiliary Building.

B. No immediate action is required. If notified by security that the adversaries have entered the power block, send at least one RO and one SRO to the Remote Shutdown Panels. Send at least one NOB to the Auxiliary Building.

C. Manually scram the reactor. Send at least one RO and one SRO to the Remote Shutdown Panels. Send at least one NOB to the Auxiliary Building. Isolate control of Division 1 Safe Shutdown equipment from the main Control Room. Stabilize and cooldown the plant using available Division 2 equipment.

D. Send at least one RO and one SRO to the Remote Shutdown Panels. Send at least one NOB to the Auxiliary Building.

QUESTION 98 SRO **NRC RECORD # WRI 416**
ANSWER: D. **SYSTEM # ADMIN** **K/A Generic 2.4.4 4.3**
Emergency 2.4.49 4.0
Procedures/Plan- 2.1.2 4.0
Security Threat 2.1.6 4.3
LP# GG-1-LP-OP-ONEP1
OBJ. 1 **SRO TIER 3 GROUP** **/ RO TIER GROUP**
REFERENCE: 05-1-02-VI-4 sect 2.1 NEW
MODIFIED ***BANK***
DIFF 1; M **NRC 12/00**
RO ***SRO*** BOTH **CFR41.10/43.5**
REFERENCE MATERIAL REQUIRED: none

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QUESTION 99

You have assumed the shift as Control Room Supervisor.

The Crew has the following compliment.

1 Shift Manager (SRO)	1 Control Room Supervisor (SRO)
1 Shift Supervisor (SRO/STA)	3 Reactor Operators (RO)
2 Radwaste Operators	5 Nuclear Operator 'B's (NOB)

All crew members are qualified fire brigade except the Shift Manager and the Reactor Operators.

An NOB becomes ill and is transported to the hospital by Health Physics personnel.

Which one of the following describes the status of shift manning for the Fire Brigade?

A. Fire Brigade requirements are unable to be met until another qualified fire brigade member arrives within two (2) hours.

B. Fire Brigade requirements are being met using a Health Physicist as a member of the fire brigade until another operator arrives.

C. Fire Brigade requirements are being met using the Shift Supervisor as a member of the fire brigade until another operator arrives.

D. Fire Brigade requirements are being met using the Roving Reactor Operator as Safe Shutdown and a Radwaste Operator as Fire Brigade Leader.

QUESTION 99 SRO **NRC RECORD # WRI 486**
ANSWER: D. **SYSTEM # Fire Brigade** **K/A Generic 2.4.26: 3.3**
2.1.4: 3.4
LP# GG-1-LP-OP-PROC
OBJ. 11x, y **SRO TIER 3 GROUP** **RO TIER GROUP**
REFERENCE: 01-S-06-2 sect 6.5 ***NEW***
01-S-10-6 Att II MODIFIED BANK
DIFF 2; CA
RO ***SRO*** BOTH **CFR41.10/43.1/43.2**
REFERENCE MATERIAL REQUIRED: None **43.5**