INITIAL SUBMITTAL

FARLEY INITIAL EXAM
50-348 & 50-364/2001-301

JULY 23 - 27, 2001

INITIAL SUBMITTAL
RO/SRO WRITTEN EXAMINATION

QUESTIONS REPORT
for Draft 2001-301BNK

1. 001A2.15 001//T2G1/3.6/4.2/C/A/NEW/FR01301/S (1)/SDR

Unit 2 is at 95% power, ramping down to 50% power with the rod control system in automatic. Annunciator FF5, "COMP ALARM ROD SEQ/DEV OR PRFLUX TILT," is received. The crew notes that control bank 'D' rod K10 reads 215 steps. It is also observed that the rest of control bank 'D' reads 202 steps.

Which ONE of the following actions should the SRO direct crew to take?

A. Stop the load change in progress. Immediately withdraw the affected bank 'D' rod to agree with the associated group DRPI indication.

B. Stop the load change in progress. Determine if the misaligned rod is movable.

C. Stop the load change in progress. Immediately adjust bank 'D' as close to the misaligned rod as possible.

D. Trip the reactor and go to FNP-1-EEP-0, "REACTOR TRIP OR SAFETY INJECTION."

Feedback

A - Incorrect, The ultimate action if the misaligned rod is movable.
B - Correct, Actions required by AOP-19.
C - Incorrect, Actions required if rod is determined to be unmovable.
D - Incorrect, Action for a dropped rod or rod motion independent of control.

Notes

Source: Summer 2000-301

Categories

RO Tier:		SRO Tier:	T2G1
K/A Value:	3.6/4.2	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	S (1)	Misc:	SDR

2. 001A3.08 001/T2G1/T2G1/3.9/4.0/C/A/NEW/FR01301/COM (44)/SDR

A reactor startup is in progress from a shutdown condition with all rods in. Shutdown rods are fully withdrawn.

While pulling the control banks to achieve criticality, the Reactor Operator fails to notice that rod speed is 30 steps/min rather than the normal 48 steps/min.

Which ONE of the following describes the effects of the slower rod speed on actual critical conditions verses the predicted critical conditions of the ECC?

A. Actual critical power level will be the same as predicted power level with actual critical rod height higher than predicted.

B. Actual critical rod height will be the same as predicted critical rod height with actual power level higher than predicted.

C. Actual critical rod height will be higher than predicted critical rod height with actual power level lower than predicted.

D. Actual critical rod height will be lower than predicted critical rod height with actual power level higher than predicted.

Feedback

B - Correct, Critical rod height will be the same, the rod height is independent of rod speed.

Notes

Source: Millstone 3 NRC Exam 1994

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	3.9/4.0	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (44)	Misc:	SDR

3. 001AK3.02 001/T1G2/T1G1/3.2/4.3/C/A/NEW/FR01301/COM (54)/SDR

The positive reactivity addition during a continuous rod withdrawal event at power is minimized by which ONE of the following:

A. Increasing the Rod Insertion Limit (RIL) as power increases.

B. Maintaining the control bank at the RIL to provide immediate negative reactivity.

C. Increasing the minimum required Shutdown Margin (SDM) as power increases.

D. Keeping rods well out of the core and above the RIL.

Feedback

A - Incorrect, This ensures adequate SDM.
B - Incorrect, Maintaing the rods at the RIL maximizes the reactivity that can be inserted during a rod withdrawal casualty.
C - Incorrect, This ensures adequate amount of negative reactivity is available to ensure the core can be shutdown, it does not limit the reactivity addition.
D - Correct, the higher the rods are out of the core the less reactivity that can be inserted during a rod withdrawal casualty.

Notes

Source: INEL Question Bank

Categories

RO Tier:	T1G2	SRO Tier:	T1G1
K/A Value:	3.2/4.3	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (54)	Misc:	SDR

4. 001K5.05 001/T2G1/T2G1/3.5/3.9/C/A/NEW/FR01301/COM (41)/SDR

Which ONE of the following will result in the largest reactivity change?
(References are provided.)

A. Inserting 10 steps with rods initially at 190 steps on Control Bank 'D' at 100% power at 50 MWD/MTU.

B. Inserting 10 steps with rods initially at 190 steps on Control Bank 'D' at 0% power at 11,500 MWD/MTU.

C. Withdrawing 10 steps with rods initially at 190 steps on Control Bank 'D' at 100% power at 50 MWD/MTU.

D. Withdrawing 10 steps with rods initially at 190 steps on Control Bank 'D' at 0% power at 11,500 MWD/MTU.

Feedback

D - Correct

Notes

Source: Byron 2000-301

Provide reference of Integral Rod Worth vs. Steps Withdrawn

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	3.5/3.9	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (41)	Misc:	SDR

5. 001K6.08 001/T2G1//2.9/3.2/C/A/NEW/FR01301/R (18)/SDR

Preparations are being made for starting up the reactor per UOP-1.2, "STARTUP OF UNIT FROM HOT STANDBY TO MINIMUM LOAD." The announcement has been made on the plant PA system that 'Reactor Startup is Commencing'. The SS directs you to withdrawal rods in manual to establish reactor criticality.

While pulling rods the following annuciator is received:

- FA1, "SR HI FLUX AT S/D"

Source Range (SR) indication for N-31 and N-32 are at 2000 cps.

Which ONE of the following describes the actions that must be taken?

A. Inform the SS that this is an expected alarm that will clear when the SR is deenergized and continue with the reactor startup.

B. Suspend all operations involving positive reactivity additions, then emergency borate the RCS in accordance with AOP-27, "EMERGENCY BORATION."

C. Suspend all operations involving positive reactivity additions, then immediately open the Reactor Trip breakers.

D. Suspend all operations involving positive reactivity additions, place the "High Flux At Shutdown" switches on N-31 and N-32 to BLOCK, and continue the reactor startup.

Feedback

A - Incorrect, The High Flux At Shutdown switches should have been taken to block prior to the announcement for startup.
B - Incorrect, This is the required action if the cause of the alarm is not known.
C - Incorrect, This is the action if the alarm indicated that both SR indications have failed.
D - Correct, The High Flux At Shutdown switches should have been taken to block prior to the announcement for startup, the cause of the alarm is known to be due to the rod pull for startup.

Notes

Source: New

Categories

RO Tier:	T2G1	SRO Tier:	
K/A Value:	2.9/3.2	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	R (18)	Misc:	SDR

6. 002K6.02 001/T2G2/T2G2/3.6/3.8/MEMORY/NEW/FR01301/COM (1)/SDR

While at 28% reactor power with a Unit 1 reactor startup in progress, Reactor Coolant Pump 'B' trips due to an overcurrent condition.

Assume no operator action and no rod motion has occurred.

Which ONE of the following describes the Reactor and Tavg initial response?

A. A reactor trip WILL occur and unaffected loop Tavg increases.

B. A reactor trip WILL occur and unaffected loop Tavg decreases.

C. A reactor trip will NOT occur and unaffected loop Tavg decreases.

D. A reactor trip will NOT occur and unaffected loop Tavg increases.

Feedback

A & B - Incorrect, A reactor trip will not occur at power levels below 35% when only one RCP bkr is open.
C - Correct
D - Incorrect, Without rod motion or operator action Tavg of the unaffected loops will decrease due to the fact that only 2 SG's will be supplying the steam that 3 SG's once were.

Notes

Source: Byron 2000-301

Categories

RO Tier:	T2G2	SRO Tier:	T2G2
K/A Value:	3.6/3.8	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	COM (1)	Misc:	SDR

7. 003AK2.05 001/T1G2/T1G1/2.5/2.8/C/A/BANK/FR01301/COM (69)/SDR

During a reactor startup, Control Bank 'D' rods are at 10 steps withdrawn when Control Bank 'D' rod 'P8' drops to the bottom.

Which ONE of the following describes the expected response of the "Rod at Bottom" alarm and the reason for that response?

A. Actuated since rod overlap has already occurred between Control Bank 'A' and Control Bank 'B'.

B. NOT actuated because Control Bank 'D' rods are below 12 steps.

C. Actuated because all Shutdown bank rods are above 211 steps.

D. NOT actuated because Control Bank 'C' rods are below 211 steps.

Feedback

A - Incorrect, Alarm will not actuate.
B - Correct, Alarm actuates only after the rods in the control bank have been pulled to above 12 steps.
C - Incorrect, This clears the alarm.
D - Incorrect, This 211 step setpoint is for the shutdown banks, it does not apply to the control banks.

Notes

Source: Farley NRC Exam 1993

Categories

RO Tier:	T1G2	SRO Tier:	T1G1
K/A Value:	2.5/2.8	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (69)	Misc:	SDR

8. 003K1.03 001/T2G1/T2G1/3.3/3.6/C/A/BANK/FR01301/COM (2)/SDR

Unit 2 is at 100% steady-state power. All systems are in automatic and functioning properly. The following annunciators are received:

- DC1, "RCP #1 SEAL LKOF FLOW LO"
- DA5, "2A RCP #2 SEAL LKOF FLOW HI"

The plant operator notes the following parameters:

RCP	2A	2B	2C
#1 seal injection flow (gpm)	8.4	8.3	8.4
#1 seal leakoff flow (gpm)	0.0	4.0	4.0
#1 seal D/P (psid)	>400	>400	>400
RCP radial brg. temp (F)	190	184	183

What is the most probable cause of these indications?

A. 2A RCP #1 seal failure.

B. Seal injection flow raised.

C✓ 2A RCP #2 seal failure.

D. A break in the 2A RCP #2 seal leakoff line.

Feedback

A - Incorrect, Flow into the #1 seal is satisfactory. D/P across the #1 seal is satisfactory. If the #1 seal failed flow through the seal would increase and annunciator DC2, RCP #1 SEAL LKOF FLOW HI, would alarm.
B - Incorrect, Seal injection flow is indicating normally, a rise in seal injection flow would result in #1 seal leakoff flow increasing.
C - Correct, Evidenced mostly be the #1 seal leakoff flow at 0.0 which shows that all the flow is going through the #2 seal indicating its failure. Annunciator DA5, 1A RCP #2 SEAL LKOF FLOW HI, confirms this failure, along with the slighty elevated RCP radial brg temp.
D - Incorrect, A break in the #2 seal leakoff line would not cause the #1 seal leakoff flow to indicate 0.0 gpm.

Notes

Source: Farley Bank Question #O52101D17003

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	3.3/3.6	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (2)	Misc:	SDR

9. 003K4.03 001/T2G1/T2G1/2.5/2.8/MEMORY/NEW/FR01301/COM (3)/SDR

Which ONE of the following best describes the lubriction for the Reactor Coolant Pump (RCP) upper radial bearing under NORMAL steady-state operation?

A. Receives lubrication from the seal injection water flowing up the RCP shaft.

B. Receives lubrication from the RCP oil lift system.

C. Receives lubrication from the Component Cooling Water system.

D. Receives lubrication from the internal thrust runner driven pump.

Feedback

A - Incorrect, This lubricates the lower radial bearing.
B - Incorrect, This provides initial lifting force during the RCP start and is secured after one minute of RCP operation.
C - Incorrect, The CCW system provide cooling to the RCO pump bearings.
D - Correct, The thrust runner acts as a oil pump to circulate the oil through the thrust bearings and upper radial bearings for cooling and lubrication.

Notes

Source: New

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	2.5/2.8	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	COM (3)	Misc:	SDR

10. 004G2.4.21 001/T2G1//3.7/4.3/C/A/NEW/FR01301/R (1)/SDR

Operators are monitoring grid instability and are in the process of placing a CVCS mixed bed demineralizer with new resin into service when the RO notes the following primary system parameters:

- Reactor power is 101.2% and increasing.
- Tavg is 577 degrees F and increasing.
- Gross megawatts increased by 2 MWe without operator action.
- Rod control is in manual.

Which ONE of the following describes the most probable cause of these plant conditions?

A. TCV-143, Temperature Divert Valve, is in the VCT position.

B. Only Cation resin was placed in the demineralizer.

C. The demineralizer was not sufficiently washed in prior to placing it in service.

D. Only Anion resin was placed in the demineralizer.

Feedback

A - Incorrect, This diverts flow around the demineralizers directly to the VCT.
B - Incorrect, This alone will not cause a reactivity change.
C - Correct, Reactivity change may be caused by the absorption of boron in the demineralizer bed
D - Incorrect, This alone will not cause a reactivity change.

Notes

Source: Turkey Point 2000-301 NRC Exam

Categories

RO Tier:	T2G1	SRO Tier:	
K/A Value:	3.7/4.3	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	R (1)	Misc:	SDR

11. 004K3.04 001/T2G1/T2G1/3.7/3.9/C/A/BANK/FR01301/COM (4)/SDR

Charging, letdown and the pressurizer level control systems are operating in automatic.
The selected pressurizer level channel (LT-459) has failed low.

Alarm DD1, "RCP SEAL INJ FLOW LO," annunciated a short time after LT-459 failed low.

Which ONE of the following describes the reason for the above events?

A. The isolation of letdown caused charging flow to decrease and the seal injection header flow diminished due to the increasing pressure on the charging header.

B. The loss of the pressurizer heaters caused charging flow to decrease and the seal injection header flow diminished due to the increasing pressure on the charging header.

C. As charging flow increased the D/P across the seal injection filter rose and the seal injection header flow diminished due to the increased resistance to flow.

D. As charging flow increased the seal injection header flow diminished due to the decreasing pressure on the charging header.

Feedback

A - Incorrect, Increased charging header pressure would cause the seal injection flow to increase.
B - Incorrect, Increased charging header pressure would cause the seal injection flow to increase.
C - Incorrect, Increased D/P across the seal injection filter under the stated conditions could only be caused by increased flow through the filter.
D - Correct, Increased charging flow robs the seal injection line of flow.

Notes

Source: Farley Bank Question # O52101D14044

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	3.7/3.9	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (4)	Misc:	SDR

12. 005AK1.05 001/T1G1/T1G1/3.3/4.1/MEMORY/NEW/FR01301/COM (32)/SDR

Unit 1 has experienced a reactor/turbine trip from full power.

While performing FNP-1-ESP-0.1, "REACTOR TRIP RESPONSE," it is observed that the 'Rod Bottom' light is NOT lit for control rod 'M6' in Control Bank 'B' and it's DRPI shows the rod at 228 steps.

Which ONE of the following actions must be performed in accordance with FNP-1-ESP-0.1, "REACTOR TRIP RESPONSE," in response to this condition?

A. No action is required.

B. ✓ An emergency boration of at least 2500 gallons is required.

C. An emergency boration of at least 5000 gallons is required.

D. Verify shutdown margin within the limits provide in the COLR.

Feedback

A - Incorrect, Even a single rod stuck in the core, post trip, requires an emergency boration.
B - Correct, ESP-0.1 Step 3 RNO Step 3.5 requires at least 2500 gal boration per rod not inserted.
C - Incorrect, This value would be for 2 rods not fully inserted.
D - Incorrect, This is the TS action for one or more rods untrippable.

Notes

Source: Summer NRC Exam 2000-301

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	3.3/4.1	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	COM (32)	Misc:	SDR

13. 005EG2.4.4 001/T1G1/T1G1/4.0/4.3/C/A/NEW/FR01301/COM (70)/SDR

Given the following conditions on Unit 1:

- Reactor power is at 73%.
- Turbine load is being slowly increased.
- Control bank 'D' rod 'B8' indicates 144 steps.
- Control bank 'D' rod 'K6' indicates 155 steps.
- Remaining Control bank 'D' rods indicate 168 steps.
- Control bank 'D' is being periodically moved for the load increase.
- Rod 'B8' and does NOT move when Control bank 'D' is moved 'out' or 'in'.
- Rod 'K6' does move when Control bank 'D' is moved 'out' or 'in'.

Which ONE of the following describes the action required to be taken within one hour?

A. Be in Mode 3, Hot Standby.

B. Reduce turbine load and drive Control bank 'D' in to 155 steps.

C. Trip the reactor immediately and go to EEP-0, "REACTOR TRIP OR SAFETY INJECTION."

D. Determine that the shutdown margin is within the limits provided in the COLR.

Feedback

A - Incorrect, Must be in Mode 3 in 6 hours.
B - Incorrect, This will place the stuck rod within the 12 step limit but will not correct the K6 rod.
C - Incorrect, This is correct action for unexplained rod motion or dropped rod.
D - Correct, Rod B8 could be considered to be untrippable therefore, TS 3.1.4 requires verification of adequate SDM. TS 3.1.4 also requires the verification of adequate SDM if more than one rod not within alignment limit.

Notes

Source: New

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	4.0/4.3	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (70)	Misc:	SDR

14. 005K1.13 001/T2G3/T2G3/3.3/3.5/MEMORY/BANK/FR01301/COM (5)/SDR

Given the following conditions on Unit 2:

- The injection phase of a LOCA is in progress.
- RHR pump flows indicate 1350 gpm on the discharge of each RHR pump.
- The operator inadvertantly takes the control switch for valve FCV-602A, "RHR Miniflow Valve," to the 'CLOSE' position and notes a green light for the valve position.

Which ONE of the following describes the response when FCV-602A switch is returned to the 'AUTO' positon and why?

A. FCV-602A will remain closed since pump 'A' discharge flow is greater than 1334 gpm.

B. FCV-602A will remain closed since pump 'A' discharge flow is greater than 750 gpm.

C. FCV-602A will reopen since pump 'A' discharge flow is less than 1399 gpm.

D. FCV-602A will reopen since pump 'A' discharge flow is less than 2199 gpm.

Feedback

A - Correct
B - Incorrect, This value pertains to Unit 1.
C - Incorrect, This value pertains to Unit 1.
D - Incorrect, Valve will only reopen if flow is <1334 gpm.

Notes

Source: Farley NRC Exam 1999

Categories

RO Tier:	T2G3	SRO Tier:	T2G3
K/A Value:	3.3/3.5	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (5)	Misc:	SDR

15. 005K4.10 001/T2G3//3.1/3.1/C/A/BANK/FR01301/R (2)/SDR

Given the following plant conditions:

- Unit 2 is shutdown and on Residual Heat Removal (RHR) cooling down per UOP-2.2, "SHUTDOWN OF UNIT FROM HOT STANDBY TO COLD SHUTDOWN."
- RHR Train 'A' is in service.
- A non-recoverable loss of instrument air occurs.

Which ONE of the following describes how the RCS temperature will respond and the reason for this change?

A. Decreases, because the RHR heat exchanger discharge valve, RHR-HCV-603A, fails full open.

B. Increases, because the RHR heat exchanger bypass valve, RHR-FCV-605A, fails closed.

C. Increases, because the RHR miniflow valve, RHR-FCV-602A, fails closed.

D. Decreases, because the CCW heat exchanger service water discharge flow control valve, SW-FCV-3009C, fails full open.

Feedback

A - Correct, Loss of IA will cause HCV-603A to fail open maximizing flow and cooldown through the heat exchanger decreasing RCS temperature.
B - Incorrect, Loss of IA will cause FCV-605A to fail closed increasing flow and cooldown through the heat exchanger decreasing RCS temperature.
C - Incorrect, Loss of IA will have no effect on FCV-602A because this valve is motor operated.
D - Incorrect, Loss of IA will cause FCV-3009C to fail to 35% open. The valve will remain open as long as there is air in their accumulators, when the valve eventually goes closed it will still allow flow by wavering in the flow stream.

Notes

Source: Farley NRC Exam 1997

Categories

RO Tier:	T2G3	SRO Tier:	
K/A Value:	3.1/3.1	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	R (2)	Misc:	SDR

16. 006K5.02 001/T2G2/T2G2/2.8/2.9/MEMORY/NEW/FR01301/COM (47)/SDR

Which ONE of the following describes an adverse consequence of exceeding the upper limit on accumulator nitrogen pressure?

A. Accumulator pressure and RCS pressure will equalize before sufficient water has injected.

B. Too little water volume would be available in the accumulator to refill the vessel.

C. Accumulators could inject during a steamline break.

D. Accumulator relief valve actuatuation and loss of accumulator integrity.

Feedback

A - Incorrect, Higher accumulator pressure will inject all the accumulator volume earlier in the LOCA event.
B - Incorrect, Water level is independent of accumulator pressure.
C - Incorrect, This would not be an adverse consequence.
D - Correct, The max cover pressure limit prevents relief valve actuation and ultimately preserves accumulator integrity.

Notes

Source: Summer NRC Exam 2000

Categories

RO Tier:	T2G2	SRO Tier:	T2G2
K/A Value:	2.8/2.9	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	COM (47)	Misc:	SDR

17. 007EK2.03 001/T1G2/T1G2/3.5/3.6/C/A/NEW/FR01301/COM (50)/SDR

Given the following plant conditions:

- The reactor tripped 45 seconds ago.
- Turbine stop valves are closed.
- Megawatt meter at zero output.
- Main generator output breakers are closed.

Which ONE of the following states the condition of the generator and the correct operator response?

A. Generator exciter has failed; place the MAIN TURB EMERG TRIP switch to trip for 5 seconds.

B. Generator is motoring; place the MAIN TURB EMERG TRIP switch to trip for 5 seconds.

C. Generator is motoring; verify REVERSE POWER handswitch in BYPASS then open the 230 KV breakers 810 and 914.

D. Generator exciter has failed; locally open the 230 KV breakers 810 and 914.

Feedback

A - Incorrect, The generator is motoring; MAIN TURB EMERG TRIP switch is used to isolate steam.
B - Incorrect, MAIN TURB EMERG TRIP switch is used to isolate steam.
C - Correct, Generator is motoring and these actions are per SOP 28.1 section 4.12.
D - Incorrect, The generator is motoring; 230 KV bkrs are located in the high voltage switch yard.

Notes

Source: New

Categories

RO Tier:	T1G2	SRO Tier:	T1G2
K/A Value:	3.5/3.6	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (50)	Misc:	SDR

18. 007G2.3.2 001/T2G3//2.5/2.9/MEMORY/BANK/FR01301/R (6)/SDR

Unit 1 experienced a load rejection that has resulted in a suspected fuel element failure. During the load rejection the Pressurizer PORV relieved to the PRT. The PRT pressure increased to approximately 100 psig and then decreased rapidly. Unit 1 power has been reduced to 15% reactor power to allow a Planned Special Exposure (PSE) containment entry for investigative purposes.

Which ONE of the following exposure limits shall NOT BE EXCEEDED for the PSE?

A. 25 rem total effective dose equivalent (TEDE) in any one calander year and 100 rem TEDE during the worker's lifetime.

B. 10 rem total effective dose equivalent (TEDE) in any one calander year and 50 rem TEDE during the worker's lifetime.

C. 5 rem total effective dose equivalent (TEDE) in any one calander year and 25 rem TEDE during the worker's lifetime.

D. 1 rem total effective dose equivalent (TEDE) in any one calander year and 5 rem TEDE during the worker's lifetime.

Feedback

A - Incorrect, 100 rem is a limit for emergency exposure for lifesaving operations.
B - Incorrect, 10 rem is a limit for emergency exposure to prevent a substantial loss of property.
C - Correct, PSE limits.
D - Incorrect, 1 rem is the Farley annual exposure guideline and 5 rem is the 10CFR20 annual limit.

Notes

Source: Farley NRC Exam 1998. The initial conditions in the stem have been modified.

Categories

RO Tier:	T2G3	SRO Tier:	
K/A Value:	2.5/2.9	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	R (6)	Misc:	SDR

19. 008AA2.12 001/T1G2/T1G2/3.4/3.7/C/A/NEW/FR01301/COM (59)/SDR

Given the following plant conditions:

- An overpressure situation cause the pressurizer PORV to lift and subsequently failed to reseat resulting in a small break Loss Of Coolant Accident (LOCA).
- Pressurizer pressure is stable at 1350 psig.
- The PRT rupture disc has ruptured and containment temperature is 185 degrees F.
- Actual pressurizer level is 50%.

Select the combination below that completes the following statement:

The low pressurizer pressure (1350 psig) tends to make the indicated pressurizer level on LI-460 read ___(X)___ than the actual pressurizer level; the high containment temperature (185 F) tends to make the indicated level on LI-460 read ___(Y)___ than the actual level.

A. (X) Higher; (Y) Higher.

B. (X) Lower; (Y) Higher.

C. (X) Higher; (Y) Lower.

D. (X) Lower; (Y) Lower.

Feedback

A - Correct

Notes

Source: INEL Question Bank

Categories

RO Tier:	T1G2	SRO Tier:	T1G2
K/A Value:	3.4/3.7	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (59)	Misc:	SDR

20. 008K4.09 001/T2G3/T2G3/2.7/2.9/C/A/BANK/FR01301/COM (26)/SDR

Unit 2 is at 100% power and 'B' Train is the on service train.

All Component Cooling Water (CCW) pump Local/Remote selector switches at the Hot Shutdown Panel (HSP) are in "REMOTE."

All CCW pump handswitches on the MCB are in "AUTO."

Which ONE of the following describes a condition that will automatically start the 2'B' standby CCW pump?

A. An 'S' signal occurs after CCW pump 2'A' has been secured from the MCB.

B. An 'S' signal occurs after CCW pump 2'C' breaker has been racked out.

C. An 'S' signal occurs after CCW pump 2'A' breaker has tripped on overload.

D. An 'S' signal occurs after CCW pump 2C Local/Remote selector switch at the HSP has been taken to "LOCAL."

Feedback

A - Incorrect, 2A breaker has to be tripped on overload or racked out for an 'S' signal to cause an auto start.
B - Incorrect, 2C is on the 'A' train and not applicable.
C - Correct.
D - Incorrect, 2C is on the 'A' train and not applicable.

Notes

Source: Farley NRC Exam 2000-301
LO: 052102G20

Categories

RO Tier:	T2G3	SRO Tier:	T2G3
K/A Value:	2.7/2.9	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (26)	Misc:	SDR

21. 009EA2.34 001//T1G2/3.6/4.2/C/A/NEW/FR01301/S (5)/SDR

Given the following plant conditions on Unit 1:

- Reactor trip and safety injection have occurred.
- MSIV's have just isolated due to Containment pressure.
- RCS pressure is 1700 psig and stable.
- Core Exit Thermocouples indicate 570 degrees F and subcooling is 52 degrees F.
- All S/G Narrow Range levels are 40% and total AFW flow is 450 gpm.
- Pressurizer level is 52%.

Based upon the above indications, which ONE of the following should you, as SRO, direct the operators to perform?

A. Verify all Reactor Coolant Pumps stopped.

B. Transition to ESP-1.1, "SI TERMINATION."

C. Transition to ES-0.0, "REDIAGNOSIS."

D. Transition to FRP-Z.1, "RESPONSE TO HIGH CONTAINMENT PRESSURE,"due to increasing containment pressure.

Feedback

A - Incorrect, This is the action if the subcooling was below 45 degrees F.
B - Correct, This is the required action per step 7 of EEP-1, LOSS OF REACTOR OR SECONDARY COOLANT.
C - Incorrect, This procedure is entered based on operator judgement. The SI termination criteria is met in the stated conditions.
D - Incorrect,

Notes

Source: Byron 2000-301

Categories

RO Tier:		SRO Tier:	T1G2
K/A Value:	3.6/4.2	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	S (5)	Misc:	SDR

22. 009EG2.4.48 001/T1G2/T1G2/3.5/3.8/C/A/BANK/FR01301/COM (29)/SDR

The following conditions exist on Unit 1:

- 100% power steady-state.
- Charging flow is 50 gpm in auto.
- VCT level is 32%, dropping slowly (3-4% per hour).
- Letdown flow is 65 gpm.
- Seal injection flow is 8 gpm/pump.
- Seal return flow is 3 gpm/pump.
- Pressurizer pressure and level are steady on program.
- Rad monitors R2, R7, R11 and R12 all trending upward.
- Rad monitors on plant vent stack trending upward until the minipurge was manually isolated, then they returned to normal values.

Which ONE of the following describes the required actions in accordance with AOP-1.0, "RCS LEAKAGE," for the existing plant conditions?

A. Manually trip the reactor and go to EEP-0, "REACTOR TRIP OR SAFETY INJECTION."

B. Manually SI and go to EEP-0, "REACTOR TRIP OR SAFETY INJECTION."

C. Start an additional charging pump and commence a ramp down in power to Mode 3, HOT STANDBY.

D. Maintain present power level and determine a leak rate using STP-9.0, "RCS LEAKAGE TEST."

Feedback

A,B - Incorrect, Unecessary/unwarrented plant transient.
C - Incorrect, Necessary to establish a leak rate in order to evaluate the required actions using TS
D - Correct, Action required by AP-1.0 step 3.

Notes

Source: Farley Exam Bank Question #O52520A11012

Categories

RO Tier:	T1G2	SRO Tier:	T1G2
K/A Value:	3.5/3.8	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (29)	Misc:	SDR

23. 010A3.02 001/T2G2/T2G2/3.6/3.5/MEMORY/BANK/FR01301/COM (6)/SDR

Unit 1 is operating at 100% steady-state power. All systems are in automatic and functioning properly.

Pressurizer pressure controlling channel PT-444 fails high.

Which One of the following represents the plant/system response if NO operator action is taken?

A. The Pressurizer heaters will deenergize and both PORVs fail open, thus reducing RCS pressure resulting in a low pressurizer pressure reactor trip and SI.

B. ✓ The Pressurizer heaters will deenergize, both spray valves will fail open, thus reducing RCS pressure resulting in a low Pressurizer pressure reactor trip and SI.

C. Both spray valve close and Pressurizer heaters energize thus raising RCS pressure resulting in a high pressurizer pressure reactor trip.

D. The reactor will not trip on high pressure due to Pressurizer safety valve actuation reducing RCS pressure.

Feedback

A - Incorrect, Only PORV-444B opens and then closes by P-11 at 2000 psig.
B - Correct, Spray valves go full open, the reactor trips at 1865 psig and SI actuates at 1850 psig.
C - Incorrect, The spray valves open and the heaters deenergize.
D - Incorrect, Pressurizer pressure will be decreasing due to the spray valves opening.

Notes

Source: Farley Bank Question #O52201H05010

Categories

RO Tier:	T2G2	SRO Tier:	T2G2
K/A Value:	3.6/3.5	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (6)	Misc:	SDR

24. 011A3.03 001/T2G2/T2G2/3.2/3.3/C/A/NEW/FR01301/COM (7)/SDR

Unit 2 is operating at 100% steady-state power.

The following MCB annunciator alarms and indications are received:

Annunciators: - HA1, "PRZR LVL HI RX TRIP ALERT"
- HA2, "PRZR LVL DEV HI B/U HTRS ON"
- EA2, "CHG HDR FLOW HI-LO"

Indications: - LT-459 indicates 100%
- LT-460 indicates 54%

All systems are in automatic and functioning properly. With the pressurizer level control selector switch in the I/II position, which ONE of the following will occur? Assume no operator action is taken.

A. A reactor trip will occur due to high pressurizer level.

B. A reactor trip will occur due to high pressurizer pressure.

C. A reactor trip will occur due to low pressurizer pressure.

D. Pressurizer level will decrease to and remain at 15%.

Feedback

A - Correct, Charging flow will decrease to minimum, PZR level will lower to 15% and isolate letdown and deenergize the PZR htrs, PZR level will then rise to 92% due to minimum charging flow with no letdown flow and the reactor will trip.
B - Incorrect, Pressurizer spray valves are functional and will prevent a high pressure trip.
C - Incorrect, letdown will be isolated at 15%, PZR level will then be increasing compressing the pressurizer bubble causing pressure to increase slightly.
D - Incorrect, Once letdown flow is isolated at 15% PZR level, PZR level will start to increase due to minimum charging flow.

Notes

Source: New

Categories

RO Tier:	T2G2	SRO Tier:	T2G2
K/A Value:	3.2/3.3	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (7)	Misc:	SDR

25. 011EA1.13 001/T1G2/T1G1/4.1/4.2/C/A/NEW/FR01301/COM (55)/SDR

Unit 1 has experienced a Large Break Loss Of Coolant Accident (LOCA) inside containment. The crew is currently in EEP-1, "LOSS OF REACTOR OR SECONDARY COOLANT," at step 16, "Check when to transfer to cold leg recirculation."

Step 16 of EEP-1 states:

Action/Expected Response	Response NOT Obtained
16.1 Check RWST level - LESS THAN 12.5 ft. RWST LVL [] LI 4075A [] LI 4075B	16.1 Return to step 14.

NOTE: Step 16.1 must be complete before continuing with this procedure.

16.2 Go to FNP-1-ESP-1.3, TRANSFER TO COLD LEG RECIRCULATION.

Which ONE of the following describes the basis for the above note?

A. To ensure the maximum amount of RWST water is used and still allow adequate suction transfer time.

B. To ensure most of the boric acid available in the RWST has been flushed through the core.

C. To ensure the operators have taken sufficient time to evaluate plant status per step 14 of EEP-1.

D. To ensure level in the containment sump is high enough to provide adequate suction head for the LHSI pumps.

Feedback

A - Correct, At 12.5 ft, there is adequate time to swap suction of the LHSI to the sump without draining the RWST and cuasing pump and RWST damage.
B - Incorrect, Adequate SDM is from the control rods, the boron in the RWST is not needed. The boron concentration in the sump will be approximately the same as that in the RWST.
C - Incorrect, Operator continue to monitor the plant status while waiting to meet the swap over criteria but this is not a reason for delaying swap over.
D - Incorrect, EEP-1 does not check containment sump level, containment sump level is checked for suction adequacy in ESP-1.3. If the RWST started out above the TS limit adequate and all break flow went to the sump suction level in the sump would be met long before the 12.5 ft mark in the RWST.

Notes

Source: New

Categories

RO Tier:	T1G2	SRO Tier:	T1G1
K/A Value:	4.1/4.2	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (55)	Misc:	SDR

26. 012A1.01 001/T2G2/T2G2/2.9/3.4/C/A/NEW/FR01301/COM (61)/SDR

Which ONE of the following will result in a DECREASE in the Over-Power-Delta-Temperature (OPDT) setpoint?

A. Pressurizer spray valve sticks open for 15 seconds (assuming the reactor does NOT trip).

B. A reactor boration is initiated at 50% power.

C. A power ascention from 75% to 100%.

D. Feed flow to a steam generator is increased.

Feedback

A - Incorrect, Affects pressure which is independent of OPDT.
B - Incorrect, Results in power/temp decrease which increases the setpoint.
C - Correct, Power/temp increases which decreases the trip setpoint.
D - Incorrect, Cooling effect which increases the setpoint.

Notes

Source: INEL Question Bank

Categories

RO Tier:	T2G2	SRO Tier:	T2G2
K/A Value:	2.9/3.4	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (61)	Misc:	SDR

27. 013A4.02 001/T2G1/T2G1/4.3/4.4/MEMORY/BANK/FR01301/COM (8)/SDR

Given the following plant conditions:

- Two minutes ago an MSIV inadvertantly closed causing secondary safeties to lift and a reactor trip and safety injection due to low pressurizer pressure signal to be generated.
- The reactor trip breakers failed to open.
- The operators tripped the reactor by opening the CRDM MG set supply breakers.
- It is now desired to reset SI and secure SI equipment.
- RCS pressure is now 1800 psig.

Which ONE of the following will prevent resetting SI from the Main Control Board under these conditions?

A. RCS pressure is less than SI setpoint.

B. Permissive P-4 has not actuated.

C. The SI timing relays.

D. RCS pressure is below the P-11 setpoint.

Feedback

A - Incorrect, Pressurizer pressure below the SI setpoint will initiate an SI signal but will not prevent resetting SI.
B - Correct, With the reactor trip breakers closed the required P-4 signal will not be generated and SI cannot be reset from the MCB.
C - Incorrect, SI will not reset if the 60 second timer is active, but the timer timed out one minute ago.
D - Incorrect, P-11 is the setpoint above which a blocked SI signal will auto unblock. Being below P-11 will not prevent resetting SI.

Notes

Source: Farley NRC Exam 1998

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	4.3/4.4	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (8)	Misc:	SDR

28. 014G2.1.7 001//T2G1/3.7/4.4/C/A/BANK/FR01301/S (2)/SDR

The plant is holding power at 35% for SG chemistry concerns, control bank 'D' rods are at 150 steps. A loss of power to DATA 'A' occurs and the "Rod Position Indication System Non-Urgent Failure" alarm is received.

Which ONE of the following describes the range of accuracy of DRPI indication for the control bank 'D' rod position.

A. 144 - 156 steps

B. 138 - 162 steps

C. 140 - 160 steps

D. 146 - 154 steps

Feedback

A - Incorrect, DRPI indicators are every 6 steps.
B - Incorrect, Rod out of line criteria is 12 steps.
C - Correct, Accuracy of the DRPI is concidered to be $\pm$ 10 steps with one card inoperable (Half Accuracy).
D - Incorrect, 4 steps is the Full Accuracy of the system if both data cards were operable.

Notes

Source: Farley Bank Question # O52201F09013

Categories

RO Tier:		SRO Tier:	T2G1
K/A Value:	3.7/4.4	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	S (2)	Misc:	SDR

29. 014K5.01 001/T2G2/T2G1/2.7/3.0/MEMORY/BANK/FR01301/COM (10)/SDR

While performing a reactor startup, as control bank 'D' rods are being pulled, the operator observes bank 'D' rod B8 indicates 54 steps on DRPI while the demand step counters for control bank 'D' indicates 100 steps.

Which ONE of the following describes reason and position of rod B8?

A. Because the step counters are the most accurate indication, rod B8 is at exactly 100 steps.

B. Because the step counters are the most reliable indication, rod B8 is approximately 100 steps.

C. Because DRPI is the most accurate indication, rod B8 is at exactly 54 steps.

D✓ Because DRPI is the most reliable indication, rod B8 is approximately 54 steps.

Feedback

A - Incorrect, step counters only show the demanded position not actual rod position.
B - Incorrect, step counters only show the demanded position not actual rod position.
C - Incorrect, due to the accuracy of DRPI (± 4), it can not be said that the rod is exactly at 54 steps.
D - Correct, DRPI is the most reliable indication for determining the actual position of the rod.

Notes

Source: Farley Bank Question # O52201F10020

Categories

RO Tier:	T2G2	SRO Tier:	T2G1
K/A Value:	2.7/3.0	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (10)	Misc:	SDR

30. 015/017AA1.22 001/T1G1/T1G1/4.0/4.2/MEMORY/MOD/FR01301/COM (24)/SDR

Which ONE of the following is the reason that a minimum primary loop pressure of 350 psig is required to be maintained in order to operate a Reactor Coolant Pump (RCP)?

A. Ensures sufficient flow of reactor coolant through the RCP number one seal to provide seal cooling in the event that seal injection flow is lost.

B. Ensures proper operation of the RCP number two seal by providing at least 200 psid across the seal.

C. Ensures the pressure drop across the RCP number one seal allows opening the RCP seal bypass valve (HV-8142) to ensure cooling for the lower radial bearing.

D. Ensures the pressure drop across the RCP number one seal is sufficient to prevent the seal runner from contacting the seal ring.

Feedback

D - Correct, 350 psig provides enough lifting force. This pressure takes into account pressure losses, instrument error and tolerances.

Notes

Source: Farley NRC Exam 2000-301
Learning Objective: 052101D13

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	4.0/4.2	Cog. Level:	MEMORY
Source:	MOD	Exam:	FR01301
Test:	COM (24)	Misc:	SDR

31. 015/017AA2.08 001//T1G1/3.4/3.5/C/A/NEW/FR01301/S (16)/SDR

Plant conditions are as follows:

- Unit 1 is at 8% power during a plant startup per UOP-1.2, "STARTUP OF UNIT FROM HOT STANDBY TO MINIMUM LOAD."
- 1'C' Reactor Coolant Pump (RCP) Lower Radial Bearing temperature is 230 degrees F on computer indication.
- The seal injection flow to the 1'C' RCP is 10 gpm.

Which ONE of the following actions is required?

A. Secure the 1'C' RCP and place the reactor in at least Mode 3, HOT STANDBY, within one hour.

B. Open the 1'C' RCP Number 1 seal bypass to cool the bearing and place the reactor in at least Mode 3, HOT STANDBY, within one hour.

C. Immediately trip the reactor and then secure the 1'C' RCP.

D. Immediately trip the reactor and then open the 1'C' RCP Number 1 seal bypass to cool the bearing.

Feedback

A - Correct, RCP is required to be secured immediately if Lower Radial Bearing temperature increases above 225F. In the currect condition of startup, the reactor will not trip upon securing the RCP and TS requires the unit to be in Mode 3 in ONE hour.
B - Incorrect, Number 1 seal bypass valve is opened to increase cooling to the bearing under low flow conditions but, only when RCS pressure is between 100 and 1000 psig.
C - Incorrect, A reactor trip is not required/warrented at this low power.
D - Incorrect, Combination of B & C.

Notes

Source: New
LO: O52520D01 & O52101D14

Categories

RO Tier:		SRO Tier:	T1G1
K/A Value:	3.4/3.5	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	S (16)	Misc:	SDR

32. 015A1.04 001/T2G1//3.5/3.7/C/A/BANK/FR01301/R (11)/SDR

A calculation of the Quadrant Power Tilt Ratio, QPTR, is being performed at 97% reactor power due to rod 'H14' in bank 'D' being misaligned. The following excore detector output readings were calculated after taking the drawer reading and dividing by the 100% currect values:

Instrument	N41	N42	N43	N44
Upper:	0.990	1.010	0.990	0.980
Lower:	0.960	1.070	0.950	0.940

Which ONE of the following describes the maximum allowed reactor power level if the QPTR CANNOT be restored within the required limits?

A. 94%.

B. 85%.

C. 79%.

D. 73%

Feedback

For every 1% above QPTR of 1.00, reduce power by 3%, when QPTR exceeds 1.02.

A - Incorrect, QPTR UPPER: 1.0176; 1.0176-1.00=1.76% (rounded to 2%); 100% RTP-(3%*2%)=94%.
B - Incorrect, 1.07-1.02=5%; 100%RTP-(3%*5%)=85%.
C - Incorrect, 1.07-1.00=7%; 100%RTP-(3%*7%)=79%.
D - Correct, QPTR LOWER: Average of lower excore detectors is 0.98. 1.07/0.98=1.0918; 1.0918-1.00=9%; 100%RTP-(3%*9%)=73%.

Notes

Source: Farley NRC Exam 2000-301

Categories

RO Tier:	T2G1	SRO Tier:	
K/A Value:	3.5/3.7	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	R (11)	Misc:	SDR

33. 015A2.01 001/T2G1//3.3/3.8/C/A/BANK/FR01301/R (17)/SDR

Given the following conditions:

- Reactor startup is in progress.
- All NI switches are in their normal lineup.
- Intermediate Range (IR) Channel N35 indicates 3E-10.
- IR Channel N36 indicates 9E-11.
- No manual blocks have been inserted.
- Source Range (SR) Channel N31 has failed high.
- SR channel N32 is functioning normally.

Which ONE of the following describes the plant response to the SR Channel N31 failing high?

A. A reactor trip signal is generated resulting in a reactor trip.

B. A reactor trip signal is generated but, no trip occurs since one IR channel is above P-6.

C. No reactor trip signal is generated since one IR channel is above P-6.

D. No reactor trip signal is generated but, the level trip switch must be taken to bypass as soon as N36 indicates above 1E-10.

Feedback

A - Correct, Since no blocks are in for the SR a reactor trip occurs.
B - Incorrect, The trip must be manually blocked when above P-6.
C - Incorrect, Although above P-6 the SR trip signals have not been blocked.
D - Incorrect, The trip must be manually blocked when above P-6.

Notes

Source: Farley NRC Exam 1993

Categories

RO Tier:	T2G1	SRO Tier:	
K/A Value:	3.3/3.8	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	R (17)	Misc:	SDR

34. 016A4.01 001/T2G2/T2G2/2.9/2.8/C/A/NEW/FR01301/COM (62)/SDR

Given the following conditions on Unit 1:

- Reactor at 95% power.
- Steam dump controller in Tavg mode.

Which ONE of the following describes the requirements for the steam dump valve postioning signal to be passed to the steam dump valve actuators for a loss-of-load?

A. A turbine trip has not occurred; 15% load decrease in 180 seconds; C-9 is present; P-12 is not present and the interlock selector switches are in 'ON' or 'BYP'.

B. A turbine trip has not occurred; 15% load decrease in 120 seconds; C-9 is present; P-12 is not present and the interlock selector switches are not in 'OFF/RESET'.

C. C-8 is not present; C-7 is present; C-9 is not present; P-12 is present and the interlock selector switches are not in 'OFF/RESET'.

D. C-8 is present; C-7 is present; C-9 is present; P-12 is not present and the interlock selector switches are in 'ON' or 'BYP'.

Feedback

A - Incorrect, Load rejection rate is not high enough must be at least 7.5%/min.
B - Correct
C - Incorrect, The P-12 blocks dump actuation.
D - Incorrect, C-8 is turbine trip signal and blocks the loss-of-load signal

Notes

Source: INEL Question Bank

Categories

RO Tier:	T2G2	SRO Tier:	T2G2
K/A Value:	2.9/2.8	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (62)	Misc:	SDR

35. 017G2.4.47 001/T2G1/T2G1/3.4/3.7/C/A/BANK/FR01301/COM (67)/SDR

You have entered ECP-0.0, "LOSS OF ALL AC POWER."

- The turbine driven AFW pump will not start and all S/G WR levels are <50%.
- Reactor power is < 10-8 amps on both intermediate range channels and trending down.
- The fifth highest Core Exit Thermocouple is 732 degrees F and increasing.
- Subcooling is indicating -28 degrees F.
- RVLIS is not functioning.

Which ONE of the following actions should be taken at this point?

A. Transition to FRP-C.2, "RESPONSE TO DEGRADED CORE COOLING."

B. Transition to FRP-H.1, "RESPONSE TO LOSS OF SECONDARY HEAT SINK."

C. Transition to ECP-0.2, "LOSS OF ALL AC POWER WITH SI REQUIRED."

D. Continue in ECP-0.0, "LOSS OF ALL AC POWER."

Feedback

A - Incorrect, Thermocouple value and trend indicates a transition is required based on ORANGE path.
B - Incorrect, S/G value indicates a transition is required based on RED path.
C - Incorrect, No indication that SI is required.
D - Correct, Loss of all AC take precidence over transitions to FRP's.

Notes

Source: Farley Question Bank, Question #O52532A
LO: O52532A04

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	3.4/3.7	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (67)	Misc:	SDR

36. 017K3.01 001/T2G1//3.5/3.7/C/A/NEW/FR01301/R (21)/SDR

Given the following plant conditions:

- A small break Loss Of Coolant Accident (LOCA) has occurred.
- ALL RCPs have been manually tripped.
- Natural Circulation is believed to be established.

Core Exit Termocouples (CETC) system readouts have failed.

- Pressurizer pressure channel 'A', PT-455, indicates 1685 psig.
- Pressurizer pressure channel 'B', PT-457, indicates 1735 psig.
- RCS pressure PT-402 indicates 1725 psig.
- RCS pressure PT-403 indicates 1690 psig.
- RTD temperatures (degrees F) as follows:

	Loop 1	Loop 2	Loop 3
Thot	540	550	560
Tcold	533	543	553

Which ONE of the following temperature values (in degrees F) will be displayed on the Subcooled Margin Monitor when selected to the "RTD" mode?

NOTE: Steam tables are provided as a reference.

A. 60.

B. 57.

C. 53.

D. 73.

Feedback

A - Incorrect, Subtracted the highest Tcold RTD (613-553=60F).
B - Incorrect, Used highest pressure (1735psig+15psi=1750psia and Tsat is 617F) for Tsat and subtracted highest RTD (617-560=57F).
C - Correct, Calculated using Tsat for the lowest pressure (1685 psig+15 psi=1700 psia and Tsat is 613 F) MINUS hottest temperature RCS RTD (613-560=53F).
D - Incorrect, Subtracted the lowest Thot RTD (613-540=73F).

Notes

Source: New

Categories

RO Tier:	T2G1	SRO Tier:	
K/A Value:	3.5/3.7	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	R (21)	Misc:	SDR

37. 022A1.02 001/T2G1/T2G1/3.6/3.8/MEMORY/NEW/FR01301/COM (18)/SDR

What is the MINIMUM cooling equipment necessary to maintain post accident containment pressure below the design value on a design basis LOCA?

A. Two Containment Cooling Fan units and two trains of Containment Spray.

B. Two Containment Cooling Fan units and one train of Containment Spray.

C. One Containment Cooling Fan unit and two trains of Containment Spray.

D. One Containment Cooling Fan unit and one train of Containment Spray.

Feedback

A - Incorrect, This is not the minimum. Lesson Plan OPS-52102C page 5, states in part that one train of containment spray heat removal capability equates to 3 containment cooling fans.
B - Incorrect, This is not the minimum. This distractor represents one train of spray and one train of fans.
C - Incorrect, This is not the minimum.
D - Correct, See Tech Spec Bases 3.6.6

Notes

Source: Vogtle NRC Exam 2001

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	3.6/3.8	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	COM (18)	Misc:	SDR

38. 022A3.01 001/T2G1//4.1/4.3/MEMORY/NEW/FR01301/R (8)/SDR

Which ONE of the following will result in the Containment Spray Pumps receiving an AUTO start signal?

A. Containment pressure of 28 psig during a Loss of Off Site Power.

B. ✓ Containment Pressure of 28 psig.

C. Loss of Off Site Power.

D. Safety Injection signal.

Feedback

A - Incorrect, With both signals present the spray pumps will not start.
B - Correct, Requires 27 psig on 2/4 detectors.
C - Incorrect, Must also have an SI signal present.
D - Incorrect, An SI signal alone will cause the Containment Fans Coolers to operate in slow speed but will not start a spray pump.

Notes

Source: New

Categories

RO Tier:	T2G1	SRO Tier:	
K/A Value:	4.1/4.3	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	R (8)	Misc:	SDR

39. 022AA1.08 001/T1G2/T1G2/3.4/3.3/C/A/NEW/FR01301/COM (51)/SDR

Given the following conditions on Unit 2:

- Reactor is at 100 % steady-state power.
- RCS boron concentration is 600 ppm.
- VCT level is currently 40% as indicated on level transmitter LT-112.
- Ealier in the shift VCT level transmitter LT-115 failed low and has been released to I&C for repair.
- The I&C person has just left the control room to electrically isolateLT-115.

Annuciator DF3, VCT LVL HI-LO, has just illuminated and the I&C person calls and reports he has deenergized the wrong level transmitter.

Which ONE of the following describes how the VCT level and reactor power would respond (assume no operator action)?

A. VCT level increases; reactor power remains the same.

B. VCT level decreases; reactor power increases.

C. VCT level increases; reactor power decreases.

D. VCT level decreases; reactor power decreases.

Feedback

A - Incorrect, RWST will be supplying the charging pump suction with water with 2000+ ppm boron, this will cause reactor power to decrease.
B - Incorrect, Reactor power will not increase due to boration from the RWST.
C - Correct, Letdown will still be going to the VCT causing level to increase; boration from the RWST will be causing power to decrease. Having both level transmitters low will open LCV-115B & D and shut LCV-115C & E this swaps charging pump suction from the VCT to the RWST.
D - Incorrect, VCT level will not decrease, there is not out let flow from the VCT due to LCV-115C and LCV-115E going shut and letdown still going to the VCT.

Notes

Source: Modified from Vogtle NRC Exam 2001

Categories

RO Tier:	T1G2	SRO Tier:	T1G2
K/A Value:	3.4/3.3	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (51)	Misc:	SDR

40. 022K2.01 001/T2G1//3.0/3.1/C/A/BANK/FR01301/R (7)/SDR

Plant conditions are as follows:

- Unit 1 was at 100% reactor power.
- Unit 2 was in Mode 5.
- A dual-unit loss of offsite power has occurred on Unit 1.
- All EDGs have started and tied onto the vital buses.
- Vital load sequencing has been completed.
- FNP-1-EEP-O, "REACTOR TRIP OR SAFETY INJECTION" has been entered on Unit 1.
- While the immediate actions are being completed, a Safety Injection (SI) signal is received on Unit 1.

Which ONE of the following describes the response of the Unit 1 Containment Fan Coolers from the time the SI signal is received?

A. All fan coolers load shed on the SI signal and sequence back onto the vital buses in slow speed.

B. All fan coolers load shed on the SI signal, and selected fan coolers sequence back onto the vital buses in slow speed.

C. Selected fan coolers do NOT load shed on the SI signal, and the nonselected fan coolers remain de-energized throughout the SI initiation.

D. Selected fan coolers do NOT load shed on the SI signal, and the nonselected fan coolers sequence back onto the vital buses in slow speed.

Feedback

A - Incorrect, The selected fan coolers do not load shed for the given conditions.
B - Incorrect, The selected fan coolers do not load shed for the given conditions.
C- Correct
D - Incorrect, The nonselected fans do not start on an SI with LOSP.

Notes

Source: Farley NRC Exam 1999

Categories

RO Tier:	T2G1	SRO Tier:	
K/A Value:	3.0/3.1	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	R (7)	Misc:	SDR

41. 024AK2.03 001/T1G1/T1G1/2.6/2.5/C/A/MOD/FR01301/COM (53)/SDR

Unit 1 is in Mode 4, Hot Shutdown.
4160V AC bus 1E has been tagged for bus bar repair.

An uncontrolled increase in the Source Range count rate has been observed, operators are entering AOP-27.0, "EMERGENCY BORATION."

Attempts to start the '1A' Boric Acid Transfer (BAT) pump have been unsuccessful.

Which ONE of the following describes the appropriate action(s) to be taken in accordance with AOP-27.0?

A. Start '1B' BAT pump and open MOV-8104, "Emerg Borate to Chg Pump Suct."

B. Start '1B' BAT pump and open FCV-113A, "Boric Acid to Blender," and FCV-185, "Man Emerg Boration."

C. Open LCV-115B, "RWST to Chg Pump," and close LCV-115C, "VCT Outlet Iso."

D. Initiate a manual safety injection.

Feedback

A - Incorrect, B BAT pump power source is 600V MCC B which is fed from 4160V 1E.
B - Incorrect, Same as A.
C - Correct, This is RNO action for not having BAT pump available.
D - Incorrect, Safety Injection is not warrented.

Notes

Source: Modified from TP NRC Exam 2000 & Farley Bank Question #O52521A04005
LO: O52521A04

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	2.6/2.5	Cog. Level:	C/A
Source:	MOD	Exam:	FR01301
Test:	COM (53)	Misc:	SDR

42. 025AK3.01 001/T1G2/T1G2/3.1/3.4/C/A/NEW/FR01301/COM (33)/SDR

Unit 1 is in Mode 5, COLD SHUTDOWN, with the following plant conditions:

- RCS temperature is 195 degrees F and stable.
- RCS is intact with pressure at 325 psig and stable.
- Train 'A' RHR is in service.
- Train 'B' RHR is inoperable for repairs.
- All systems aligned in their normal configuration for the present plant conditions.

A loss of RHR shutdown cooling has just occurred. RCS temperature is rising.

Which ONE of the following is the preferred method for heat removal in accordance with FNP-1-AOP-12.0, "RESIDUAL HEAT REMOVAL SYSTEM MALFUNCTION?"

A. RWST gravity feed to RCS, spill through the Pressurizer PORVs.

B. Charging Pump injecting flow through the normal charging line, spill through the Pressurizer PORVs.

C. Natural Circulation RCS flow while steaming intact S/Gs through the atmospheric relief valves.

D. Reflux cooling to any S/G with level maintained in the Narrow Range.

Feedback

A - Incorrect, This is an alternate method if S/G's are unavailable and charging pumps are unavailable per AOP-12.0 but, it is not the preferred.
B - Incorrect, This is an alternate method if S/G's are unavailable per AOP-12.0 but, it is not the preferred.
C - Correct, This is the preferred method per AOP-12 with a loss of both RHR pumps.
D - Incorrect

Notes

Source: Byron 2000-301

Categories

RO Tier:	T1G2	SRO Tier:	T1G2
K/A Value:	3.1/3.4	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (33)	Misc:	SDR

43. 026EG2.3.2 001/T1G1/T1G1/2.5/2.9/C/A/NEW/FR01301/COM (73)/LSM

The CCW normal makeup through MOV-3030A and B is not available. You must use the Alternate make-up source.

Which ONE of the following is a concern when using the alternative make up source?

A. Possible radioactive contamination of the CCW system.

B. Possible over pressurization of the CCW system.

C. Limited capacity of the alternative make up water system.

D. Possible dilution of the potassium chromate in the CCW system.

Feedback

A - Correct, Alternate makeup comes from the reactor makeup water system through valves MOV-3031A and B. Reactor makeup water should only be used as an emergency source of makeup water to the CCW surge tank due to possible radioactive contamination of the system.
B - Incorrect, System is designed with relief valves to prevent overpressurization.
C - Incorrect, Alternate makeup can supply adequate amount of water.
D - Incorrect, Alternate source will not dilute any more than the normal source which comes from the demineralized water system.

Notes

Source: New

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	2.5/2.9	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (73)	Misc:	LSM

44. 026G2.4.20 001/T2G2//3.3/4.0/MEMORY/NEW/FR01301/R (9)/SDR

FNP-1-FRP-Z.1, "RESPONSE TO HIGH CONTAINMENT PRESSURE," contains a CAUTION which states:

"IF FNP-1-ECP-1.1, LOSS OF EMERGENCY COOLANT RECIRCULATION, is in effect, THEN containment spray should be operated as directed in FNP-1-ECP-1.1."

FNP-1-ECP-1.1 determines the number of operating Containment Spray pumps based on which ONE of the following?

A. Containment pressure, number of operating Emergency Fan Coolers, and RWST level.

B. Containment pressure, containment temperature and sump level.

C. Containment temperature, number of operating Emergency Fan Coolers, and RWST level.

D. Containment pressure, number of operating Emergency Fan Coolers, and sump level.

Feedback

A - Correct, ECP-1.1 uses less restrictive criteria to conserve RWST water.
B - Incorrect, Containment temperature is considered in FRP-Z.1 and sump level is not considered in either procedure.
C - Incorrect, Containment temperature is considered in FRP-Z.1.
D - Incorrect, Sump level is not considered in either procedure.

Notes

Source: Byron 2000-301

Categories

RO Tier:	T2G2	SRO Tier:	
K/A Value:	3.3/4.0	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	R (9)	Misc:	SDR

45. 026K1.01 001/T2G2/T2G1/4.2/4.2/C/A/BANK/FR01301/COM (17)/SDR

The plant is responding to a large break LOCA. ESP-1.3, "TRANSFER TO COLD LEG RECIRCULATION" is in progress due to low level in the RWST.

The following occured in rapid succession:

- SI reset is completed.
- One train of Penetration Room Filtration was verified in operation.
- The STA announces that containment pressure has risen to 30 psig.
- At the procedure step to align CCW to RHR heat exchanger, you are unable to open CCW to RHR heat exchanger valve MOV-3185A, "CCW TO 'A' RHR HX."

Which ONE of the following should be performed FIRST based on the above conditions?

A. Immediately go to the response to high containment pressure procedure.

B. Immediately transfer to the loss of emergency coolant recirculation procedure since cold leg recirculation cannot be established with MOV-3185A closed.

C. Complete the alignment of at least one ECCS train for recirculation anf then go to the response to high containment pressure procedure.

D. Hold at the step in effect until emergency support organizations can determine if cold leg recirculation should be established.

Feedback

A - Incorrect,
B - Incorrect,
C - Incorrect,
D - Correct, ESP-1.3 CAUTION states that "No Function Restoration Procedure should be implemented until step 7 has been completed." The crew is presently at step 5 of ESP-1.3.

Notes

Source: Farley Bank Question #O52531G04

Categories

RO Tier:	T2G2	SRO Tier:	T2G1
K/A Value:	4.2/4.2	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (17)	Misc:	SDR

46. 027AA1.01 001/T1G1//4.0/3.9/C/A/NEW/FR01301/R (16)/SDR

Given the following conditions on Unit 1:

- Reactor is at 100% power.
- Pressurizer pressure is 2235 psig.
- Pressurizer pressure control is in AUTOMATIC.
- The PORV control switches are in 'AUTO'

Which ONE of the following describes the pressurizer PORVs response if pressurizer pressure channel PT-445 fails HIGH?

A. PORV-445A will not close if RCS pressure drops below 2000 psig.

B. PORV-445A and PORV-444B will not close until RCS pressure drops below 2000 psig.

C. PORV-445A and PORV-444B will open.

D. PORV-445A will open.

Feedback

A - Incorrect, This only requires 2/3 pressure channels to be < 2000psig
B - Incorrect, This only requires 2/3 pressure channels to be < 2000psig
C - Incorrect, Channel 444 controls this PORV.
D - Correct

Notes

Source: INEL Question Bank

Categories

RO Tier:	T1G1	SRO Tier:	
K/A Value:	4.0/3.9	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	R (16)	Misc:	SDR

47. 028A2.02 001//T2G2/3.5/3.9/C/A/BANK/FR01301/S (3)/SDR

Given the following plant conditions:

- A large break LOCA has occurred on Unit 2 thirty (30) minutes ago.
- Hydrogen concentration inside containment is 4.5%.

Which ONE of the following actions should be taken within the next 30 minutes to reduce hydrogen concentration?

A. Place only ONE electric hydrogen recombiner is service at a power setting of 100 kilowatts.

B. Place BOTH electric hydrogen recombiners in service at a power setting of 50 kilowatts.

C. Place the post accident containment venting system in service.

D. Place the post LOCA containment air mixing system in service.

Feedback

A - Incorrect, Recombiner operation should commence within 1 hour of the event, however, the max power setting is initially set at approximately 68 kilowatts and recombiners should not be put in service if hydrogen concentration is above 4%.
B - Incorrect, Recombiner operation should commence within 1 hour of the event, however, the recombiners should not be put in service if hydrogen concentration is above 4%.
C - Correct, The post accident containment venting system should be used when hydrogen concentratiuon is above 4%.
D - Incorrect, The post LOCA containment air mixing system is used to prevent the formation of hydrogen pockets and not to reduce the overall concentration.

Notes

Source: Farley NRC Exam 1998

Categories

RO Tier:		SRO Tier:	T2G2
K/A Value:	3.5/3.9	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	S (3)	Misc:	SDR

48. 028AK2.02 001/T1G3/T1G3/2.6/2.7/C/A/BANK/FR01301/COM (31)/SDR

Unit 1 is operating at 100% reactor power with all control systems functioning normally in automatic. The Pressurizer Level Control transfer switch is in position 'I/III'.

The sensing line to Pressurizer level transmitter LT-459A has just developed a reference leg leak where the reference leg connects to the level D/P cell.

Which ONE of the following describes the plant response from this leak?

A. LI-459 indication will rise.
LI-460 indication will fall.
LI-461 indication will fall.
Charging header flow will fall.
Backup heaters will energize.

B. LI-459 indication will fall.
LI-460 indication will rise.
LI-461 indication will rise.
Charging header flow will rise.
Letdown will isolate.
Backup heaters will de-energize.

C. LI-459 indication will rise.
LI-460 indication will rise.
LI-461 indication will fall.
Charging header flow will fall.
Letdown will isolate.

D. LI-459 indication will fall.
LI-460 indication will fall.
LI-461 indication will rise.
Charging header flow will rise.
Letdown will isolate.
Backup heaters will de-energize.

Feedback

A - Correct, LI-459 level will rise due to less D/P across detector. LI-459 being the controlling channel will cause charging flow to decrease resulting in actual PZR level decreasing. LI-459 will cause PZR heaters to energize at 5% deviation between indicated and program.
B - Incorrect, LI-459 indication will not decrease.
C - Incorrect, LI-460 indication will not increase.
D - Incorrect, LI-459 indication will not decrease.

Notes

Source: Farley Exam Bank Question #O52201H12021

Categories

RO Tier:	T1G3	SRO Tier:	T1G3
K/A Value:	2.6/2.7	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (31)	Misc:	SDR

49. 028K2.01 001/T2G3//2.5/2.8/MEMORY/BANK/FR01301/R (10)/SDR

Unit 1 has experience a large break LOCA.

The SRO has directed you to place the hydrogen recombiners into service per EEP-1, "LOSS OF REACTOR OR SECONDARY COOLANT," ATTACHMENT 3, "POST LOCA HYDROGEN RECOMBINER OPERATION."

The POWER AVAILABLE light has been verified lit.
The "PWR. ADJ." potentiometer is set at '050'.

Which ONE of the following must be done to prevent the possibility of tripping the supply breaker due to drawing excessive current?

A. Adjust the "PWR. ADJ." potentiometer to the zero (0) position, then turn the "PWR. OUT SW." switch to the ON position.

B. Adjust the "PWR. ADJ." potentiometer to the position corresponding to 1150 - 1400 degrees F band, then turn the "PWR. OUT SW." switch to the ON position.

C. Turn the "PWR. OUT SW." switch to the ON position, then adjust the "PWR. ADJ." potentiometer to the zero (0) position.

D. Turn the "PWR. OUT SW." switch to the ON position, then slowly adjust the "PWR. ADJ." potentiometer to the position corresponding to 1150 - 1400 degrees F band.

Feedback

A - Correct
B - Incorrect, The may cause the recombiner to draw excessive currect and trip the breaker.
C - Incorrect, This is not IAW procedure and could result in closing the breaker into an excessive current condition.
D - Incorrect, This is not IAW procedure and could result in closing the breaker into an excessive current condition.

Notes

Source: Farley Bank Question # O52102D10013 with the distractors modified for symmetry and increased descriminatory value.

Categories

RO Tier:	T2G3	SRO Tier:	
K/A Value:	2.5/2.8	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	R (10)	Misc:	SDR

50. 029A4.04 001/T2G2//3.5/3.6/MEMORY/BANK/FR01301/R (22)/SDR

During refueling operations, a valid high alarm is received on a containment area radiation monitor.

Which ONE of the following describes your required actions concerning announcements that must be made?

A. Do not have to announce an evacuation because the containment evacuation alarm will sound.

B. Should announce the affected area to ensure that non-essential personnel know to evacuate the area.

C. Do not have to announce an evacuation because HP coverage is already on the scene and only essential personnel will be in the area of fuel movement.

D. Should announce the affected area, but no evacuation is required since only essential personnel will be in the area of fuel movement.

Feedback

A - Incorrect, Must announce the affected area on the PA system and have personnel evacuate the affected area.
B - Correct
C - Incorrect, Personnel are not allowed to enter the affected area without approval of the HP department and it is not ensured that non-essential personnel will not be in the affected area.
D - Incorrect, Not ensured that non-essential personnel will not be in the affected area.

Notes

Source: Farley Question Bank, Question #O52106D15016
LO: O52106D15

Categories

RO Tier:	T2G2	SRO Tier:	
K/A Value:	3.5/3.6	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	R (22)	Misc:	SDR

51. 029G2.4.21 001//T2G2/3.7/4.3/MEMORY/BANK/FR01301/S (24)/SDR

The plant has been operating under steady-state conditions at 100% power for the past 76 days. The shift forman informs you that the monthly surveillance checks on the Containment Purge Exhaust Flow Gas monitors, R-24A and R-24B, have not been documented as being performed for the past 3 months.

Which ONE of the following should be performed by the control room Shift Supervisor?

A. Direct the performance of the required surveillance checks; station an operator to manually initiate a phase 'A' isolation if R-11, Containment Air Particulate Monitor, or R-12, Containment Radioactive Gas Monitor, should alarm.

B. Declare the R-24A and R-24B radiation monitors out of service; and prepare to shutdown the plant as per Technical Specification 3.03.

C. Order a manual containment phase 'A' isolation to ensure that the containment purge is isolated; and continue normal power operations.

D. Direct the performance of the required surveillance checks; verify that the containment purge and mini-purge valves are closed and remain closed; and continue operation.

Feedback

A - Incorrect, R-11 and R-12 radiation monitors containment atmosphere, they can be delayed by at least 20 minutes after a leak occurs when rapid isolation of the purge isolation valve is assumed in the safety analysis.
B - Incorrect, T.S. SR 3.0.4, allows 24 hrs to get the surveillance done after discovery before having to state that the LCO is not met.
C - Incorrect, T.S. 3.3.6 require the radiation monitor to be operational.
D - Correct, Isolate the containment purge path and perform the surveillance.

Notes

Source: Farley Question Bank, Question #O52302G04020
LO: O52302G04

Categories

RO Tier:		SRO Tier:	T2G2
K/A Value:	3.7/4.3	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	S (24)	Misc:	SDR

52. 032AA1.01 001/T1G2/T1G2/3.1/3.4/C/A/BANK/FR01301/COM (34)/SDR

Unit 1 is shutdown for refueling with fuel movement in progress. The audio count rate selector switch is selected to Source Range channel N-31 and the speaker selector switch is in NORMAL (amplifier 1 supplying the control room speaker and amplifier 2 supplying the containment speaker.) An instrument power fuse blows on N-31.

Which ONE of the following desribes the sequence of actions to be taken?

A. Continue the fuel movement in progress, monitor the remaining NI channels, select Source Range channel N-32 on the audio count rate selector.

B. Suspend all fuel movement, monitor the remaining NI channels, select Source Range channel N-32 on the audio count rate selector, repair N-31, and then continue fuel movement.

C. Continue the fuel movement in progress, monitor the remaining NI channels, select Source Range channel N-32 on the audio count rate drawer, then initiate repairs on N-31.

D. Suspend all fuel movement, monitor the remaining NI channels, select Source Range channel N-32 on the audio count rate selector, continue fuel movement, and then repair N-31.

Feedback

B - Correct, If one SR is lost all fuel movement must be suspended per TS 3.9.2. Must have two SR and one audible count rate operable.

Notes

Source: Farley Exam Bank Question #O52302M04007

Categories

RO Tier:	T1G2	SRO Tier:	T1G2
K/A Value:	3.1/3.4	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (34)	Misc:	SDR

53. 033EG2.1.12 001//T1G2/2.9/4.0/C/A/NEW/FR01301/S (4)/SDR

A Unit 1 reactor startup is in progress. One hour ago Intermediate Range, IR, channel N36 was taken out of service due to a power supply problem. The decision was made to continue with the reactor startup, power is currently at 8%.

It is estimated that N36 will be returned to service in the next 2 hours. The technician working on the N36 power supply performed an action that resulted in N35 failing low.

Which ONE of the following describes the action(s) that must be taken in order to comply with Technical Specification requirements?

A. Immediately suspend operations involving positive reactivity additions AND reduce thermal power to < P-6 within 2 hours.

B. Place IR N36 channel level trip switch in the 'BYPASS' position within 6 hours and be in Mode 3, Hot Standby, within 12 hours.

C. Do NOT change power level until at least one IR channel is restored to operable status.

D. Place the IR N35 channel level trip switch in the 'BYPASS' position and increase thermal power to > P-10 within TWO hours.

Feedback

A - Correct, Actions required by TS 3.3.1.G. with 2 IR channels lost.
B - Incorrect, Action required if two SR channels were lost.
C - Incorrect, Action if power level was below P-6.
D - Incorrect, Action that was in progress with just the one IR channel was out of service, TS 3.3.1.F.

Notes

Source: New

Categories

RO Tier:		SRO Tier:	T1G2
K/A Value:	2.9/4.0	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	S (4)	Misc:	SDR

54. 033K3.01 001/T2G2//2.6/3.1/MEMORY/BANK/FR01301/R (20)/SDR

Which ONE of the following describes the automatic actions that should occur as a DIRECT result of a high alarm on SFP HVAC monitor R-25A?

A. The fuel handling area supply and exhaust fans shift to recirculation mode.

B. The fuel handling area supply and exhaust fans trip, the fuel handling area supply and exhaust dampers close, and penetration room '1A' and '1B' filtration units start.

C. The fuel handling area supply and exhaust fans trip, the fuel handling area supply and exhaust dampers close, and containment purge supply and exhaust valves close.

D. The fuel handling area supply and exhaust fans trip, the fuel handling area supply and exhaust dampers close, penetration room '1A' filtration unit starts.

Feedback

A - Incorrect, Fans auto shift to recirculation mode on containment Phase 'B' signal not high radiation.
B - Incorrect, Both penetration room filtration units will not start, only 'A'.
C - Incorrect, Containment ventilation is unaffected.
D - Correct

Notes

Source: Farley Question Bank, Question #O52106D08006
LO: O52106D08

Categories

RO Tier:	T2G2	SRO Tier:	
K/A Value:	2.6/3.1	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	R (20)	Misc:	SDR

55. 034G2.1.11 001//T2G2/3.0/3.8/MEMORY/BANK/FR01301/S (10)/SDR

Unit 1 is refueling with the core unload in progress (fuel being transferred inside containment and over the spent fuel pool.) During the board walkdown turnover you, as SRO, notice HV-3585A and HV-3585B (Spent Fuel Pool Penetration Room dampers) are both closed and cannot be immediately opened.

Which ONE of the following describes the action(s), if any, that must be performed to satisfy Technical Specifications?

A. The Penetration Room Filtration system must have a train restored within the next 7 days or suspend all movement of irradiated fuel in the spent fuel pool room.

B. No action required, these dampers are not necessary for Penetration Room Filtration operability since the plant is in Mode 6, "REFUELING."

C. Immediately suspend all irradiated fuel movement in the spent fuel pool room until the dampers can be made operable.

D. No action required, Technical Specification LCO Sections 3.0.3 and 3.0.4 are not applicable.

Feedback

A - Incorrect, This is the action if only a single train of PRF was unavailable.
B - Incorrect, The TS 3.7.12 is applicalbe during irradiated fuel movement in the SFP room.
C - Correct, Required action of TS 3.7.12.D when both trains of PRF are inoperable.
D - Incorrect, Action is require per TS 3.7.12 although LCO 3.0.3 and 3.0.4 do not apply.

Notes

Source: Farley Exam Bank Question #O52302M17012

Categories

RO Tier:		SRO Tier:	T2G2
K/A Value:	3.0/3.8	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	S (10)	Misc:	SDR

56. 035A1.01 001/T2G2/T2G2/4.2/4.5/C/A/NEW/FR01301/COM (9)/SDR

Unit 1 is operating at 55% reactor power with all control systems in automatic functioning properly. FT-477, which is the controlling feedwater flow control channel for the 'A' Steam Generator (S/G), fails low.

With NO immediate operator action, which ONE of the following will occur?

A. Feed Regulating Valve, FCV-479, will open, Main Feedwater Pump speed will increase, and S/G 'A' level will increase causing P-14 to actuate closing only FCV-479 and it's bypass valve, FCV-478.

B. Feed Regulating Valve, FCV-479, will open, Main Feedwater Pump speed will increase, and S/G 'A' level will increase causing P-14 to actuate closing all Feed Regulating Valves and their bypass valves.

C. Feed Regulating Valve, FCV-479, will close, Main Feed Pump speed will decrease and all S/G levels will decrease causing a Reactor trip on LO-LO S/G level.

D. Feed Regulating Valve, FCV-479, will open, Main Feedwater Pump speed will decrease and all S/G levels will decrease causing a Reactor trip on LO-LO S/G level.

Feedback

A - Incorrect, P-14 actuation causes all 3 S/G FRV's and their bypasses to close.
B - Correct.
C - Incorrect, S/G 'A' FRV will open FT-477 failing low.
D - Incorrect, MFP speed will increase to maintain the feedwater to main steam D/P since the 'A' FRV opening will cause the D/P to decrease.

Notes

Source: Summer 2000-301

Categories

RO Tier:	T2G2	SRO Tier:	T2G2
K/A Value:	4.2/4.5	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (9)	Misc:	SDR

57. 035K5.01 001/T2G2/T2G2/3.4/3.9/MEMORY/BANK/FR01301/COM (11)/SDR

Unit 2 is operating at 90% steady-state reactor power with all control systems in automatic functioning properly.

Given the following plant conditions:

- Control bank 'D' rods are at 215 steps.
- Loop 'A' Tavg channel is 575 degrees F.
- Loop 'B' Tavg channel is 576 degrees F.
- Loop 'C' Tavg channel is 572 degrees F.

Which ONE of the following explains how the Rod Control System will initially respond if the selected P_{imp} pressure failed high?

A. Rods will step out at 72 steps/minute.

B. Rods will step out at 40 steps/minute.

C. Rods will not move.

D✓ Rods will step out at 8 steps/minute.

Feedback

A - Incorrect, Rods would move out at this speed if the Tref were not high limited.
B - Incorrect, Rods would move out at this speed if average value of Tavg was used instead of median value.
C - Incorrect, Rods would not move if the temperature mismatch channel output was frm 'B' loop Tavg instead of the median Tavg.
D - Correct, Rods will move out at this speed because the output of the rod-speed programmer is above 1.5 but not greater than 3 degrees F.

Notes

Source: Farley NRC Exam 1997

Categories

RO Tier:	T2G2	SRO Tier:	T2G2
K/A Value:	3.4/3.9	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (11)	Misc:	SDR

58. 036AA2.02 001//T1G3/3.4/4.1/MEMORY/NEW/FR01301/S (13)/SDR

Unit 1 is in Mode 6, Refueling.
Core reload is occurring in containment and fuel movement is in progress.
You are the Shift Supervisor (SS).

Annunciator EH2, "SPF LVL HI-LO," has just alarmed.
The Refueling Cavity watch reports that the refueling cavity level is lowering rapidly.
The SRO in charge of fuel handling reports to you that the fuel assembly has impacted the seal ring at hold down clamp.

Which ONE of the following describes the initial action in accordance with AOP-30.0, "REFUELING ACCIDENT"?

A. Direct the SRO in charge of fuel handling to evacuate all personnel from Containment and the Spent Fuel Pool room.

B. Direct the SRO in charge of fuel handling to place any fuel assemble in transit in a safe location.

C. Initiate action to place the Control Room Emergency Filtration/Pressurization System (CREFS) in service.

D. Restore the Reactor Internals to the reactor vessel.

Feedback

A - Incorrect, Only non-essential personnel need to be evacuated the refueling crew is needed to safely store the fuel assembly in transit.
B - Correct, Initial response is to secure the fuel assembly in transit, worst case the SRO has 164 minutes to safely store the fuel assembly. Makeup flow capacity from one train of RHR is sufficient to maintain refueling level above the level where uncovery of the fuel assembly would occur.
C - Incorrect, This is the ATTACHMENT 1 actions of AOP-30 which is done in parallel with the remainder of AOP-30 after the fuel assembly is directed to be secured.
D - Incorrect, This can not be done due to the fuel assembly being in transit.

Notes

Source: New

Categories

RO Tier:		SRO Tier:	T1G3
K/A Value:	3.4/4.1	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	S (13)	Misc:	SDR

59. 037AA2.06 001/T1G2/T1G2/4.3/4.5/C/A/NEW/FR01301/COM (28)/SDR

Unit 1 is at 100% power with the following plant conditions:

- All Pressurizer heaters are energized.
- Letdown flow is 75 gpm.
- Charging flow is 105 gpm.
- S/G levels are constant.
- Tavg/Tref are matched.

Which ONE of the following events is in progress?

A. The Pressurizer level control channel has failed high.

B. An atmospheric steam dump valve has opened.

C. A S/G tube leak has occurred.

D. Pressurizer spray bypass flow has increased.

Feedback

A - Incorrect, This would cause charging flow to go to minimum.
B - Incorrect, This would cause a Tavg/Tref mismatch.
C - Correct
D - Incorrect, this does not explain the charging/letdown flow mismatch.

Notes

Source: Byron 2000-301

Categories

RO Tier:	T1G2	SRO Tier:	T1G2
K/A Value:	4.3/4.5	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (28)	Misc:	SDR

60. 038EA2.01 001//T1G2/4.1/4.7/C/A/NEW/FR01301/S (14)/SDR

An accident has occurred on Unit 1.

The following plant conditions exist:
Containment pressure is 3 psig (slowly lowering).
S/G levels (Narrow range) A: 18% B: 28% C: 20% (All are slowly increasing)
HP has confirmed high radiation on 1'B' Main Steamline.

Which ONE of the following describes the actions required to be taken by the crew in accordance with EEP-3, "STEAM GENERATOR TUBE RUPTURE"?

A. Immediately isolate Auxiliary Feedwater flow to 1'B' S/G by CLOSING the 1'B' Auxiliary Feedwater Stop valve MOV-3350B.

B. Maintain feedwater flow to the 1'B' S/G until narrow range level is 32%, then isolate Auxiliary Feedwater to the 1'B' S/G.

C. Maintain feedwater flow until ALL S/G narrow range levels are 32%, then isolate Auxiliary Feedwater to the 1'B' S/G.

D. Maintain feedwater flow to the 1'B' S/G until narrow range level is 49%, then isolate Auxiliary Feedwater to the 1'B' S/G.

Feedback

A - Incorrect, Feed flow is mainatained to the SG with the tube rupture until level is above 31%.
B - Correct, Once level is above 31% AFW is isolated to the S/G.
C - Incorrect, Do not wait until all S/G above 31% until isolating AFW to the S/G with the tube rupture.
D - Incorrect, This is the level for adverse containment, containment pressure above 4 psig.

Notes

Source: Byron 2000-301

Categories

RO Tier:		SRO Tier:	T1G2
K/A Value:	4.1/4.7	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	S (14)	Misc:	SDR

61. 038EK3.06 001/T1G2/T1G2/4.2/4.5/C/A/BANK/FR01301/COM (25)/SDR

Given the following conditions on Unit 1:

- The plant was stable at 100% power when a large load rejection occurred, followed by an immediate steam generator tube rupture.
- The shift crew has implemented EEP-0, "REACTOR TRIP OR SAFETY INJECTION," and EEP-3, "STEAM GENERATOR TUBE RUPTURE."
- RCS average temperature is 550 degrees F and decreasing slowly.
- The crew is ready to commence an RCS cooldown to 485 degrees F.
- Both the C-7A and C-9 lights are illuminated on the Bypass and Permissive panel.

Which ONE of the following action(s), in any, should be taken with the steam dumps?

A. They should be opened fully to obtain the maximum cooldown rate possible.

B. They are NOT available as indicated by the C-7A and C-9 lights both being illuminated.

C. They should NOT be opened past 10% demand to prevent overshooting the required CETC temperatures.

D. They should be opened the maximum amount that can be controlled to prevent main steam isolation.

Feedback

A - Incorrect, Opening the steam dumps fully with RCS above P-12 could cause MS isolation.
B - Incorrect, C-9 must be lit for steam dump ops; C-7A being lit does not prevent steam dump ops.
C - Incorrect, Overshooting required CETC temp is not a concern.
D- Correct, Steam flow must be controlled to prevent exceeding 40% which will cause steam line isolation.

Notes

Source: Farley NRC Exam 2000-301
LO: 052530D03

Categories

RO Tier:	T1G2	SRO Tier:	T1G2
K/A Value:	4.2/4.5	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (25)	Misc:	SDR

62. 040AK3.06 001/T1G1/T1G1/3.4/3.9/MEMORY/BANK/FR01301/COM (23)/SDR

Given the following conditions on Unit 1:

- The plant was at 100% power when the 'C' S/G steam line ruptured inside containment.
- Plant trip, safety injection, and Phase A containment isolation have actuated per design.
- Applicable steps of EEP-0, "REACTOR TRIP OR SAFETY INJECTION," and EEP-2, "FAULTED STEAM GENERATOR ISOLATION," to isolate 'C' S/G have been performed.
- The crew is currently implementing EEP-1, "LOSS OF REACTOR OR SECONDARY COOLANT."
- Containment pressure spiked to 35 psig and is now continuing to decrease slowly.

Which ONE of the following meets or exceeds prerequisites for securing Containment Spray (CS) in accordance with EEP-1?

A. When CS has been aligned to the containment sump for 10 hours and containment pressure is 18 psig.

B. ✓ When CS has been aligned to the containment sump for 16 hours and containment pressure is 10 psig.

C. When CS has been in operation for 10 hours and containment pressure is 18 psig.

D. When CS has been in operation for 8 hours and containment pressure is 10 psig.

Feedback

A - Incorrect, Containment pressure is too high.
B - Correct, CS on recirculation for at least 8 hours and containment pressure < 16 psig.
C - Incorrect, Has to be aligned to containment sump and containment pressure is too high.
D - Incorrect, Has to be aligned to containment sump.

Notes

Source: Farley NRC Exam 2000-301

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	3.4/3.9	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (23)	Misc:	SDR

63. 041A3.02 001/T2G3/T2G3/3.3/3.4/C/A/BANK/FR01301/COM (12)/SDR

- The plant is in UOP-3.1, "POWER OPERATION," at 33% power and ramping up.
- All systems are in automatic and controlling properly.
- Steam dumps are in the Tavg mode and the control rods are at 72 steps on control bank 'D'.
- A malfunction of the DEH control system results in a turbine trip.
- The rod control system is placed in manual and used with the steam dumps to stabilize reactor power at 33%.
- Steam dump control is then inadvertantly transferred from the Tavg mode to the steam pressure mode.

For the conditions given, assuming no further operator action, what will be the response of the plant?

A. RCS temperature will decrease and pressurizer level will decrease.

B. ✓ RCS temperature will increase and pressurizer level will increase.

C. Steam dumps will modulate to bring steam header pressure to the steam dump controller setpoint.

D. No effect in steam pressure mode. The steam dumps will continue to control RCS temperature.

Feedback

A - Incorrect, this is the action if the steam dumps were to fly open.
B - Correct, the steam dumps immediately close when the switch is taken from Tavg mode to Steam pressure mode.
C - Incorrect, this is the action if steam dumps started controlling in the steam pressure mode.
D - Incorrect, this is the action if the steam dumps continued to operate in the Tavg mode.

Notes

Source: Farley exam bank: Question # O52520C06003

Categories

RO Tier:	T2G3	SRO Tier:	T2G3
K/A Value:	3.3/3.4	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (12)	Misc:	SDR

64. 054AA2.04 001//T1G2/4.2/4.3/MEMORY/BANK/FR01301/S (15)/SDR

A loss of Main Feedwater has occurred on Unit 2. The crew has transitioned to FRP-H.5, "RESPONSE TO STEAM GENERATOR LOW LEVEL." Auxiliary Feedwater (AFW) flow has been estabished to recover Steam Generator (S/G) level.

Which ONE of the following explains why AFW flow is procedurally restricted to 100 gpm when recovering S/G level if level has fallen below 12% on the wide range indication?

A. To minimize reactionary stresses due to water hammer in the S/G feed ring.

B. To prevent disruption of natural circulation flow in the Reactor Coolant System.

C. To minimize thermal stresses in S/G components due to cold feedwater.

D. To prevent establishing runout conditions of the AFW pumps.

Feedback

A - Incorrect, Water hammer is not a concern in restoring AFW flow to a S/G with low level.
B - Incorrect, Adding AFW to a S/G with a low level will enhance natural circulation flow.
C - Correct, Proper operation of the AFW system flow is required to minimize thermal stresses.
D - Incorrect, AFW pump runout is always a concern but the AFW system/components prevent AFW runout conditions from being established.

Notes

Source: Farley NRC Exam 1998
LO: O52102H24

Categories

RO Tier:		SRO Tier:	T1G2
K/A Value:	4.2/4.3	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	S (15)	Misc:	SDR

65. 054AK1.01 001/T1G2/T1G2/4.1/4.3/C/A/NEW/FR01301/COM (27)/SDR

Unit 1 experienced an event 2 minutes ago and the following conditions now exist on Unit 1:

- Reactor power is 100% and STABLE.
- RCS Tavg is 575 degrees F and STABLE.
- RCS pressure is 2235 psig and STABLE.
- Containment pressure is INCREASING.

The following conditions now exists on Unit 1 Steam Generators:

	'A'	'B'	'C'
Steam flow	STABLE	STABLE	STABLE
Feed flow	PEGGED HIGH	STABLE	STABLE
Pressure	STABLE	STABLE	STABLE
Level	DECREASING	STABLE	STABLE

Which ONE of the following events is in progress?

A. Main Feed line break INSIDE containment.

B. Main Steam line break INSIDE containment.

C. 'A' Main Feed Water Regulating valve has failed OPEN.

D. 'A' Feed Flow Indicator has failed high.

Feedback

A - Correct
B - Incorrect, Tavg is stable.
C - Incorrect, S/G level decreasing and containment pressure increasing.
D - Incorrect, Containment pressure increasing.

Notes

Source: Byron 2000-301

Categories

RO Tier:	T1G2	SRO Tier:	T1G2
K/A Value:	4.1/4.3	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (27)	Misc:	SDR

66. 055EA1.05 001/T1G1/T1G1/3.3/3.6/MEMORY/NEW/FR01301/COM (22)/SDR

Given the following conditions on Unit 1:

- A Loss of All AC Power has occurred.
- The crew has entered ECP-0.0, "LOSS OF ALL AC POWER."
- Power can not be immediately restored.
- Attempts are being made to restore power to the emergency buses.

According to ECP-0.0, which ONE of the following describes the LONGEST amount of time available to ensure enough DC capacity to start a Diesel Generator and sequence needed loads?

A. 30 minutes.

B. 60 minutes.

C. 90 minutes.

D. 120 minutes.

Feedback

A - Correct, IAW ECP 0.0 caution prior to step 5

Notes

Source: New

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	3.3/3.6	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	COM (22)	Misc:	SDR

67. 055K3.01 001/T2G2/T2G2/2.5/2.7/MEMORY/BANK/FR01301/COM (13)/SDR

Given the following plant conditions:

- Unit 2 has been holding at 33% reactor power.
- Condenser vacuum is slowly degrading.

Which ONE of the following alarms/indications will be the First to actuate?

A. GJ2, "LO VAC TURB TRIP."

B. KK2, "TURB COND VAC LO-LO."

C. CONDENSER AVAILABLE C-9 will extinguish.

D. KC3, "1A OR 1B SGFP TRIPPED."

Feedback

A - Incorrect, This alarm causes a Turbine Trip on decreasing vacuum at 4.41 PSIA.
B - Correct, This alarm actuates on decreasing vacuum at 2.7 PSIA, when greater than or equal to 30% power.
C - Incorrect, Will go out on decreasing vacuum at approximately 8 PSIA.
D - Incorrect, This alarm will actuate as a result of decreasing vacuum at 5.9 PSIA.

Notes

Source: Farley NRC Exam 1997

Categories

RO Tier:	T2G2	SRO Tier:	T2G2
K/A Value:	2.5/2.7	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (13)	Misc:	SDR

68. 056AK1.01 001/T1G3/T1G3/3.7/4.2/C/A/NEW/FR01301/COM (19)/SDR

The plant was operating at 10% Reactor power when a loss of off site power caused the RCP's to trip.

Identify ALL of the indications that would verify adequate natural circulation is occurring.

1 - Core exit thermocouples --- increasing
2 - Core exit thermocouples --- stable or decreasing
3 - RCS hot leg temperature --- stable or decreasing
4 - RCS hot leg temperature --- increasing
5 - S/G pressure --- stable or decreasing
6 - S/G pressure --- increasing
7 - RCS hot leg temperature --- at saturation for S/G pressure
8 - RCS cold leg temperature --- at saturation for S/G pressure

A. 1, 4, 5, and 7

B. 2, 4, 6, and 8

C. 1, 3, 6, and 7

D. 2, 3, 5, and 8

Feedback

C - Correct, Per ESP 0.2 Step 1.10 RNO

Notes

Source: Byron 2000-301

Categories

RO Tier:	T1G3	SRO Tier:	T1G3
K/A Value:	3.7/4.2	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (19)	Misc:	SDR

69. 056K1.03 001/T2G1//2.6/2.6/MEMORY/BANK/FR01301/R (3)/SDR

Which ONE of the following provides water to the shaft seal system for the 2 'B' steam generator feed pump (SGFP)?

A. Condensate pump discharge.

B. 2 'B' SGFP discharge.

C. Condensate storage tank.

D. Demineralized water system.

Feedback

A - Correct
B - Incorrect, Condensate pumps supply there own shaft seal, SGFP do not.
C - Incorrect, CST does not provide enough pressure for this function.
D - Incorrect , Alternate supply to the condensate pump shaft seal.

Notes

Source: Farley Exam bank Question #O52104C26024

Categories

RO Tier:	T2G1	SRO Tier:	
K/A Value:	2.6/2.6	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	R (3)	Misc:	SDR

70. 057AK3.01 001/T1G1/T1G1/4.1/4.4/C/A/NEW/FR01301/COM (58)/LSM

The crew has performed ECP-0.0, "LOSS OF ALL AC POWER," and transitioned to ECP-0.1, "LOSS OF ALL AC POWER RECOVERY WITHOUT SI REQUIRED." While performing ECP-0.1 step 3, "Reset PHASE A CTMT ISO." there is a simultaneous loss of a Vital Instrument bus and an SI actuation.

Which ONE of the following describes the crews required action(s)?

A. Return to ECP-0.0, restore the instrument bus; then transition to ECP-0.2, "LOSS OF ALL AC POWER RECOVERY WITH SI REQUIRED."

B. Reset the SI signal; then transition to ECP-0.2, "LOSS OF ALL AC POWER RECOVERY WITH SI REQUIRED."

C. Transition to EEP-0, "REACTOR TRIP OR SAFETY INJECTION,"; then transition to ECP-0.0, retore the instrument bus; then return to ECP-0.0.

D. Immediately transition to ECP-0.2, "LOSS OF ALL AC POWER RECOVERY WITH SI REQUIRED."

Feedback

B - Correct, Caution prior to step 1 in ECP-0.1 states that if SI occurs prior to step 9, then reset SI and Cation prior to step 9 in ECP-0.1 states to transition to ECP-0.2.

Notes

Source: New

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	4.1/4.4	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (58)	Misc:	LSM

71. 059K4.13 001/T2G1/T2G1/2.9/2.9/C/A/MOD/FR01301/COM (14)/SDR

Given the following plant conditions:

- Unit 1 reactor has tripped from full power.
- Safety injection has occurred.
- AFW flow cannot be established.
- All S/G narrow range levels are at approximately 15% and decreasing slowly.
- FNP-1-FRP-H.1, "RESPONSE TO LOSS OF SECONDARY HEAT SINK," has been entered.

The following indications are observed:

- Pressurizer pressure is 1900 psig.
- S/G wide range levels are 'A' 48%, 'B' 40% and 'C' 41%.
- All intact S/G pressures are 950 psig
- Containment pressure is 10 psig.
- Fifth hottest core exit temperature is 705 degrees F.

Which ONE of the following actions should be performed as quickly as possible in accordance with FNP-1-FRP-H.1, "RESPONSE TO LOSS OF SECONDARY HEAT SINK?"

A. Stop all RCP's and initiate bleed and feed.

B. Stop all RCP's and establish main feedwater flow to an intact S/G with one SGFP.

C. Stop all RCP's and establish condensate flow to an intact S/G.

D. Cooldown the RCS and place RHR in service.

Feedback

A - Incorrect, Bleed and feed criteria is not met for adverse containment numbers until S/G wide range is <31%.
B - Correct, With S/G pressure >500 psig feeding with a SGFP is the only option without AFW.
C - Incorrect, S/G pressure is too high for the condensate pumps to establish flow.
D - Incorrect, Placing RHR in service is one of the first steps in FRP-H.1 if hot leg temperatures are less than 350 degrees F.

Notes

Source: Modified, was a Farley NRC Exam question from 1997 with the old S/G's when bleed and feed criteria was S/G wide range <45%. Stem altered and answer changed (was A now is B.)

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	2.9/2.9	Cog. Level:	C/A
Source:	MOD	Exam:	FR01301
Test:	COM (14)	Misc:	SDR

QUESTIONS REPORT
for Draft 2001-301BNK

72. 060AA2.05 001/T1G2/T1G2/3.7/4.2/MEMORY/BANK/FR01301/COM (75)/SDR

Given the following plant conditions:

- Unit 1 is operating at 100% power.
- A high alarm signal has just been received from the Plant Vent Gas Monitor (R-14)

Which ONE of the following radiation monitors, if it goes into alarm condition and remains in alarm, will cause an automatic initiation of the emergency dose calculations on the Analytical Data Management System (ADMS)?

A. Containment Radioactive Gas Monitor (R-12).

B. Condenser Air Ejector Gas Monitor (R-15A).

C. Plant Vent Gas Sample Monitor (R-22).

D. Plant Vent Stack Monitoring System (R-29B).

Feedback

A - Incorrect, For primary release, auto-ADMS initiation requires alarms from R-29B and another plant stack rad monitor.
B - Incorrect, For secondary release, auto-ADMS initiation requires two secondary release rad monitor alarms.
C - Incorrect, For primary release, auto-ADMS initiation requires alarms from R-29B and another plant stack rad monitor.
D - Correct

Notes

Source: Farley NRC Exam 1999
LO: O52106D08

Categories

RO Tier:	T1G2	SRO Tier:	T1G2
K/A Value:	3.7/4.2	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (75)	Misc:	SDR

73. 061K2.02 001/T2G1/T2G1/3.7/3.7/C/A/NEW/FR01301/COM (15)/SDR

Unit 1 is operating at 100% steady-state reactor power all systems are in automatic and functioning properly.

- A reactor trip and SI has just occurred.
- A problem in the high voltage switchyard deenergizes the 1B S/U transformer.
- D/G 1B cannot be started.
- S/G narrow range levels are 'A' 26%, 'B' 45% and 'C' 45%.

Which Unit 1 AFW pump(s) are running?

A. A MDAFW and TDAFW.

B. A and B MDAFW.

C. B MDAFW.

D. A MDAFW.

Feedback

A - Incorrect, The TDAFW pump will not start until 2/3 S/G's are less than 28%.
B & C - Incorrect, The B MDAFW pump does not have a power source.
D - Correct.

Notes

Source: New

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	3.7/3.7	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (15)	Misc:	SDR

74. 061K4.02 001/T2G1//4.5/4.6/MEMORY/BANK/FR01301/R (5)/SDR

Unit 1 has been holding at 33% power for the last 24 hours.

Which ONE of the following signals would result in an AUTO start of the Turbine Driven AFW pump?

A. Trip of both main feedwater pumps.

B. Safety Injection signal.

C. Steam Generators levels at 27%.

D. AMSAC signal.

Feedback

A - Incorrect, Trip of both MFPs will auto start the MDAFW pumps.
B - Incorrect, SI signal will auto start the MDAFW pumps.
C - Correct
D - Incorrect, The AMSAC signal is not active due to being less than 40% reactor power.

Notes

Source: Farley NRC Exam 1997

Categories

RO Tier:	T2G1	SRO Tier:	
K/A Value:	4.5/4.6	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	R (5)	Misc:	SDR

75. 061K6.01 001/T2G1/T2G1/2.5/2.8/C/A/BANK/FR01301/COM (16)/SDR

With the plant at 100% power, the TDAFW pump steam supply valve from 1B SG, HV-3235A, has been locally isolated in the main steam valve room, and air to the valve has been tagged out.

If an auto start signal is received, how will the operation of the TDAFW pump be affected?

A. The TDAFW pump will not start, since the steam supply valve from 1B SG, HV-3235A, will not open, the permissive for opening the TDAFW pump steam admission valve, HV-3226, on an auto start signal cannot be obtained.

B. The TDAFW pump will start, but not enough steam will be supplied to the turbine to operate it at normal speed while supplying full water flow.

C. The TDAFW pump will start and operate at rated speed while supplying full water flow to the Steam Generators.

D. The TDAFW pump will start. Isolated air to the TDAFW pump steam supply valve, HV-3235A, also isolates air to the TDAFW steam admission valve, HV-3226, which fails open and will allow steam from 1C Steam Generator to supply the turbine.

Feedback

A - Incorrect, The TDAFW pump will start. HV-3226 opens automatically on an auto start signal independent of the position of HV-3235A.
B - Incorrect, One valve will supply enough steam to allow full operation of the pump.
C - Correct
D - Incorrect, HV-3226 does fail open although, air supply comes from a seperate path.

Notes

Source: Farley Exam Bank Question # O52102H13026

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	2.5/2.8	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (16)	Misc:	SDR

76. 062AA1.01 001/T1G1/T1G1/3.1/3.1/MEMORY/BANK/FR01301/COM (72)/SDR

Which ONE of the following could be an effect on plant operation if the 'A' Train of the Service Water system were lost?

A. Steam Generator Blowdown could isolate due to high heat exchanger outlet temperature.

B. Containment air temperature could rise due to loss of cooling water to RCP motor air coolers.

C. Service Water cooling to the 'A' CCW heat exchanger, which is supplying the miscellaneous header, could be lost resulting in higher letdown temperature.

D. Spent Fuel Pool could overheat as a result of the loss of Service Water cooling to the 'A' Spent Fuel Pool heat exchanger.

Feedback

A - Correct, Supplied from the 'A' Train side low flow will cause temperature rise on SW side of HX and cause blowdown to isolate.
B - Incorrect, RCP motor coolers are supplied from the 'B' Train of SW.
C - Incorrect, 'A' CCW heat exchanger is supplied from the 'B' Train of SW.
D - Incorrect, Cooling supplied by CCW.

Notes

Source: Farley Question Bank, Question # O52102F14011
LO: O52102F14

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	3.1/3.1	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (72)	Misc:	SDR

77. 062AA2.02 001/T1G1/T1G1/2.6/2.9/C/A/NEW/FR01301/COM (57)/SDR

Given the following plant conditions:

- Service water pumps 'A', 'B' and 'D' are running.
- Service water pump 'C' Pump Spare Selector switch is in the "D" position.
- Service water pump 'E' selector switch is in "LOCAL".

A safety injection with a loss of off site power occurs.

Assuming the ESF sequencers operate properly, which ONE of the following describes the operating status of the service water pumps following the ESF sequencer operation?

	Pump 'C'	Pump 'D'	Pump 'E'
A.	ON	ON	ON
B.	ON	OFF	OFF
C.	OFF	ON	OFF
D.	ON	OFF	ON

Feedback

A - Incorrect, 'D' pump will not start due to the position of the Pump Spare Selector switch, 'C' pump will start in its place.
B - Incorrect, 'E' pump starts on the loss of offsite power regardless of the selector switch position.
C - Incorrect, 'E' pump starts on the loss of offsite power regardless of the selector switch position.
D - Correct, 'C' is ON and 'D' is OFF due to the position of the Pump Spare Selector switch. 'E' pump starts since the position of the selector switch does not block the auto start function.

Notes

Source: INEL Question Bank

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	2.6/2.9	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (57)	Misc:	SDR

78. 062K2.01 001/T2G2/T2G2/3.3/3.4/MEMORY/BANK/FR01301/COM (37)/SDR

Which ONE of the following describes the NORMAL, EMERGENCY, and BACKUP power supplies to Emergency 4160V AC Bus 1F?

	NORMAL	EMERGENCY	BACKUP
A.	S/U 1B	1-2A DG	S/U 1A
B. ✓	S/U 1A	1-2A DG	S/U 1B
C.	S/U 1A	1B DG	S/U 1B
D.	S/U 1B	1B DG	S/U 1A

Feedback

A - Incorrect, The normal and backup supplies are reversed.
B - Correct
C - Incorrect, The normal and backup are correct, but the emergency is incorrect.
D - Incorrect, This is correct if it was thought that 1F was B Train.

Notes

Source: Farley NRC Exam 1998
LO: O52520E01

Categories

RO Tier:	T2G2	SRO Tier:	T2G2
K/A Value:	3.3/3.4	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (37)	Misc:	SDR

79. 063A2.01 001/T2G2/T2G1/2.5/3.2/C/A/MOD/FR01301/COM (68)/SDR

Annuciator BK5, "ANNUN SYS DC GND" alarmed approximately 20 minutes ago on Unit 1. Appropriate personnel were notified to locate and correct the ground. You are informed that the ground is on the 125V DC Bus 'A'.

Which ONE of the following will result if the ground caused the loss of the 125V DC Bus 'A'?

A. DGs 1-2A and 1C will auto start.

B. TDAFW pump will become inoperable.

C. S/G atmospheric reliefs will become inoperable.

D. Power for 'A' Train 4160V AC breaker position indication will auto shift to Unit 2 'A' Train DC.

Feedback

A - Incorrect, This requires DC power to be present
B - Incorrect, Alternate DC power source is available.
C - Correct.
D - Incorrect, This does not occur for loss of Bus 'A'.

Notes

Source: Farley NRC Exam 1994, Modified to fit K/A.

Categories

RO Tier:	T2G2	SRO Tier:	T2G1
K/A Value:	2.5/3.2	Cog. Level:	C/A
Source:	MOD	Exam:	FR01301
Test:	COM (68)	Misc:	SDR

80. 064K2.02 001/T2G2//2.8/3.1/MEMORY/NEW/FR01301/R (12)/SDR

Annunciator WB2, "1-2A DG DAY TANK FO LVL HI-LO" has just alarmed.
You receive a call from the diesel building systems operator who reports the 1-2A DG fuel oil transfer pump had initiated an auto makeup and will not shutoff. The operator reports that the local control switch is not operating and he will need to deenergize the fuel oil transfer pump.

Which ONE of the following motor control centers provides power to the malfunctioning fuel oil transfer pump?

A. MCC 1T 208V section.

B. MCC 1S 208V section.

C. MCC 1P 208V section.

D. MCC 1N 208V section.

Feedback

A - Incorrect, This section provides power to the 1-2A DG manual fuel oil transfer pump and to the 1B DG auto fuel transfer pump..
B - Correct, This is the section that provides power to the 1-2A DG auto fuel transfer pump.
C - Incorrect, This section provides power to the 2C DG auto fuel transfer pump and to the 1C DG manual fuel oil transfer pump.
D - Incorrect, This section provides power to the 1C DG auto fuel transfer pump and to the 1B and 2B DG manual fuel oil transfer pumps.

Notes

Source: New

Categories

RO Tier:	T2G2	SRO Tier:	
K/A Value:	2.8/3.1	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	R (12)	Misc:	SDR

81. 065EG2.4.11 001/T1G3/T1G2/3.4/3.6/C/A/BANK/FR01301/COM (36)/SDR

The Instrument Air (IA) line has ruptured. IA is no longer being supplied to FCV-3009A, FCV-3009B, and FCV-3009C, (Component Cooling Water (CCW) Heat Exchanger Service Water (SW) Discharge Flow Control Valves.)

Which ONE of the following actions must be taken in accordance with AOP-6.0, "LOSS OF INSTRUMENT AIR," to ensure maximum heat removal capability of the on-service 'C' CCW heat exchanger?

A. Isolate SW supply to the standby CCW heat exchanger by closing MOV-3130B (SW Supply to CCW Heat Exchangers.)

B. Jack open FCV-3009C to restore SW to the CCW on-service heat exchanger.

C. Start the 'B' train CCW pump.

D. Start the standby SW pump.

Feedback

A - Correct, Step 10 of AOP-6.0
B - Incorrect, FCV-3009's fail to 35% open which is close to full flow therfore, jacking the valve open would insignificantly increase heat removal capacity. This action is not IAW AOP-6.0.
C - Incorrect, This would not increase the heat removal capability of the HX and is not IAW AOP-6.0.
D - Incorrect, This may increase SW flow slightly which would increase heat removal but, is not IAW AOP-6.0.

Notes

Source: Farley Exam Bank Question #O52520F07018
Learning Objective: O52520F07

Categories

RO Tier:	T1G3	SRO Tier:	T1G2
K/A Value:	3.4/3.6	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (36)	Misc:	SDR

82. 067AK3.04 001/T1G1/T1G1/3.3/4.1/MEMORY/BANK/FR01301/COM (38)/SDR

The control room has been evacuated due to a fire in the cable spreading room.

Which ONE of the following conditions will require the use of reactor head vents to assist in plant recovery when operating from the Hot Shutdown Panels?

A. Loss of Reactor Coolant Pumps.

B. ✓ Pressurizer level decreasing below 15% level.

C. Steam Generator levels decreasing below 25% level.

D. High Head Safety Injection flow of 225 gpm with RCS pressure at 2235 psig.

Feedback

A - Incorrect, Natural circulation can be used following a loss of RCP's.
B - Correct, Pressurizer level decreasing below 15% will result in letdown isolation with the inability to reopen LCV-459 and LCV-460, requiring the use of the head vents for removing massfrom the RCS.
C - Incorrect, Control of S/G levels is available at the HSP's therefore, control of RCS cooldown is unavailable.
D - Incorrect, PORV available at this time if desired to lower pressure.

Notes

Source: Farley NRC Exam 1998
LO: O52521C04

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	3.3/4.1	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (38)	Misc:	SDR

83. 068A2.04 001/T2G1/T2G1/3.3/3.3/C/A/NEW/FR01301/COM (52)/SDR

A radioactive liquid release is in progress from the #2 Waste Monitor Tank (WMT) to the river per a liquid waste permit and SOP-50.1, "LIQUID WASTE PROCESSING SYSTEM LIQUID WASTE RELEASE FROM WASTE MONITOR TANK."

Annunciator FH2, RMS CH FAILURE, has just alarmed.
Channel R-18 indicates a failure on the Radiation Monitoring system console.

Which ONE of the following describes the actions required in accordance with SOP-50.1?

A. Immediately shut RCV-18, Waste Monitoring Tank Discharge, and inform the Shift Support Supervisor.

B. Notify Chemistry and Health Physics to implement sampling the release.

C. Secure the Waste Monitor Tank pump and inform Chemistry and Health Physics. Immediately shut RCV-18, Waste Monitoring Tank Discharge, and inform the Shift Support Supervisor.

D. Verify the last reading on R-18 was below the setpoint and inform the Shift Support Supervisor.

Feedback

A - Correct, SOP-50.1 states that if the discharge is in progress and R-18 becomes inoperable the discharge is to be immediately stopped and the Shift Support Supervisor notified. Shutting RCV-18 immediately stops the discharge (R-18 automatic action for hi radiation).
B - Incorrect, This is the provision for discharging with R-18 unavailable. (NEED TO ENSURE THIS ANSWER IS CORRECT BY REVIEWING FNP-0-M-011, CHAPTER 2).
C - Incorrect, Securring the pump will stop the discharge although not immediately due to pump coast down and possible syphoning effects on the discharge line. Notifying Chemistry and Health Physics may be prudent by notifying the Shift Support Supervisor is required.
D - Incorrect, The discharge in progress must be securred.

Notes

Source: New

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	3.3/3.3	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (52)	Misc:	SDR

84. 068AA2.09 001//T1G1/4.1/4.3/C/A/NEW/FR01301/S (19)/SDR

Unit 1 has tripped from 100% power due to Loss of Coolant Accident (LOCA). Subsequent to the LOCA the Control Room had to be evacuated due to heavy smoke. The Hot Shutdown Panels (HSP) are manned.

The following indications are available:

- Pressurizer pressure is 450 psig.
- Thot is 430 degrees F.
- Tcold is 405 degrees F.

Which ONE of the following is the approximate RCS Subcooling Margin? (NOTE: Steam tables provided as a reference.)

A. 55 degrees F.

B. 45 degrees F.

C. 30 degrees F.

D. 25 degrees F.

Feedback

A - Incorrect, Mistakenly use Tcold and converts to Psia.
B - Incorrect, Mistakenly use Tavg and converts to Psia.
C - Correct, Use Thot and Pressurizer pressure after converting to Psia.
D - Incorrect, Mistakenly do not convert to Psia and uses Thot.

NOTE: Provide steam tables as a reference.

Notes

Source: New

Categories

RO Tier:		SRO Tier:	T1G1
K/A Value:	4.1/4.3	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	S (19)	Misc:	SDR

85. 069EG2.2.24 001//T1G1/2.6/3.8/MEMORY/NEW/FR01301/S (22)/SDR

Which ONE of the following conditions represents a loss of primary containment integrity per Technical Specifications 3.6.1, "Containment"?

A. While at 100% power, during an inspection of an equipment hatch, it is determined that the equipment hatch was not sealed properly.

B. While at 100% power, an electrician opens the outer containment airlock door to perform maintenance activities without prior approval.

C. While peforming an operability test of two normally open redundant containment isolation valves at 100% power, one of the valves fails to close.

D. While performing the Overall Integrated Containment Leakage Rate Test during Mode 5, Cold Shutdown, containment leakage exceeds the maximum allowable Technical Specification leakage rates.

Feedback

A - Correct, Maintaining the containment operable requires compliance with the visual examinations.
B - Incorrect, Section 3.6.2 covers airlocks.
C - Incorrect, Section 3.6.3 covers isolation valves.
D - Incorrect, Section 3.6.1 is N/A for Mode 5.

Notes

Source: INEL Question Bank.

Categories

RO Tier:		SRO Tier:	T1G1
K/A Value:	2.6/3.8	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	S (22)	Misc:	SDR

86. 071A3.02 001/T2G1/T2G1/2.8/2.8/MEMORY/NEW/FR01301/COM (74)/RCT&SDR

Which ONE of the following describes the overpressurization protection used for Waste Gas Decay Tanks (WGDT) #1 through #6?

A. Individual 150 psig relief valve to WGDT #8 which relieves to the plant vent stack via a 100 psig relief valve.

B. Individual 100 psig relief valve directly to the plant vent stack.

C. Individual 150 psig relief valve to WGDT #7 which relieves to the plant vent stack via a 100 psig relief valve.

D. Individual 150 psig relief valve directly to the plant vent stack.

Feedback

A - Correct, WGDTs 1-6 relief to WDGT 8 then WGDT 8 relieves to the stack.
B - Incorrect, WGDTs 1-6 relief valve lifts at 150 psig and does not go directly to the stack.
C - Incorrect, WGDT #7 is incorrect.
D - Incorrect, WGDTs 1-6 relief does not go directly to the stack.

Notes

Source: New

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	2.8/2.8	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	COM (74)	Misc:	RCT&SDR

87. 071A4.13 001/T2G1/T2G1/3.0/3.1/MEMORY/BANK/FR01301/COM (60)/SDR

You are the unit operator and a waste gas decay tank release is in progress. You receive a radiation alarm and note that it is R-14, "Plant Vent Stack Monitor."

Which ONE of the following methods would you use to confirm that the automatic actions associated with R-14 had occurred?

A. The red alarm light on the monitor is confirmation.

B. The SI component monitor light box would confirm the automatic actions.

C. If the automatic action does not occur, an alarm on the MCB will actuate.

D. Call an operator and have the operator check the waste gas panel indication.

Feedback

A - Incorrect, The alarm light does not confirm auto actions.
B - Incorrect, Does not indicate the position of RCV-14.
C - Incorrect, Alarm on MCB is for the RMS R-14 being above its setpoint.
D - Correct, There is no indication on the MCB for the position of RCV-14 which is the valve that auto closes on an R-14 alarm.

Notes

Source: Farley Exam Bank Question #O52106B02010
LO: O52106B02

Categories

RO Tier:	T2G1	SRO Tier:	T2G1
K/A Value:	3.0/3.1	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (60)	Misc:	SDR

88. 073K4.01 001/T2G2/T2G2/4.0/4.3/MEMORY/MOD/FR01301/COM (20)/SDR
Annunciator FH5, "SFP AREA RE25 A OR B HI RAD" is in alarm.

It has been determined that Spent Fuel Pool Exhaust Flow Gas monitors R-25A and R-25B indicate high activity.

Which ONE of the following describes the automatic action(s) that occur as a result of this alarm?

A. The fuel building supply and exhaust fans shift to the recirculation mode.

B. The fuel building supply and exhaust fans trip, the SFP HVAC supply and exhaust dampers close, and ONLY penetration room filtration unit 1'A' starts.

C. The fuel building supply and exhaust fans trip, the SFP HVAC supply and exhaust dampers close, and the containment purge supply and exhaust dampers close.

D. The fuel building supply and exhaust fans trip, the SFP HVAC supply and exhaust dampers close, and BOTH penetration room filtration units 1'A' and 1'B' start.

Feedback

A - Incorrect, These fans trip and not just shift to recirc.
B - Incorrect, With both alarms R-25 A & B in alarm, both filtration units will start.
C - Incorrect, This is the action if the R-24 A & B are in alarm.
D - Correct

Notes

Source: Farley Exam Bank Question # O52106D08006 was modifies as follows:
Original question had only R-25A in alarm so the correct answer was 'B'.

Categories

RO Tier:	T2G2	SRO Tier:	T2G2
K/A Value:	4.0/4.3	Cog. Level:	MEMORY
Source:	MOD	Exam:	FR01301
Test:	COM (20)	Misc:	SDR

89. 074EA1.06 001/T1G1/T1G1/3.6/3.9/MEMORY/BANK/FR01301/COM (46)/SDR

Which ONE of the following conditions allows a RCP to be started even though high containment pressure has caused a Phase 'B' isolation, and all support systems normally needed to start a RCP are NOT available?

A. When responding to a small-break LOCA in accordance with EEP-1, "LOSS OF REACTOR OR SECONDARY COOLANT."

B. When responding to an inadequate core cooling event in accordance with FRP-C.1, "INADEQUATE CORE COOLING."

C. When responding to a loss of secondary heat sink in accordance with FRP-H.1, "LOSS OF SECONDARY HEAT SINK."

D. When responding to a Natural Circulation Cooldown with allowance for Reactor Vessel Head Steam Voiding per ESP-0.3, "NATURAL CIRCULATION COOLDOWN WITH ALLOWANCE FOR REACTOR VESSEL HEAD STEAM VOIDING (WITH RVLIS)."

Feedback

A - Incorrect, A SBLOCA requires RCP support conditions.
B - Correct, Only FRP-C.1 allows starting RCP w/o normal support conditions.
C - Incorrect, FRP-H.1 directs securing RCP.
D - Incorrect, ESP-0.3 requires RCP support conditions.

Notes

Source: Farley NRC Exam 1999

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	3.6/3.9	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (46)	Misc:	SDR

90. 075K1.01 001/T2G2/T2G2/2.5/2.5/MEMORY/NEW/FR01301/COM (30)/SDR

Unit 1 is making preparations for a reactor startup. The Circulating Water (CW) system was running for 20 minutes after an extended down time, when an operator noticed debris in the stationary screen. The CW pump was secured to clean debris from the stationary screen.

You are currently performing SOP-26.0, "CIRCULATING WATER SYSTEM." An operator has been dispatched to the Wet Pit to clean the screen and ensure proper Circulating Water pump start and operation.

The operator provides the following information to you:

The stationary screen has been cleaned.
Circulating Water pump discharge valve is closed.
The wet pit level is at 150 feet.
The cooling tower inlet valves are closed and the fans are secured.
The Circulating water pump motor is still warm from being run 30 minutes ago.

Which ONE of the following must be done prior to starting the Circulating Water pump?

A. The Circulating Water pump associated discharge valve must be opened.

B. Must wait an additional 30 minutes for the motor to cool.

C. Manually open LCV-560, Service Water to Circulating Water Canal Level Control valve and raise wet pit level.

D. Cooling tower inlet valves must be opened and fans running.

Feedback

A - Incorrect, The discharge valve must be closed to allow pump start.
B - Incorrect, Although frequent starts may damage the pump, the procedure allows two sucessive starts from ambient and one start from rated temperature (procedural limits).
C - Correct, Wet pit level must be 151 feet to start the CW pump (procedural limit).
D - Incorrect, Procedure states 'If possible, Then ensure cooling tower fans are in operation prior to initiating CW flow trhough a tower' valves are not required to be open and fans are not required to be running.

Notes

Source: New

Categories

RO Tier:	T2G2	SRO Tier:	T2G2
K/A Value:	2.5/2.5	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	COM (30)	Misc:	SDR

91. 076A2.02 001/T2G3//2.6/2.6/C/A/NEW/FR01301/R (4)/SDR

Unit 1 is operating at 100% reactor power when the "A" train Turbine Building Service Water D/P cell developes a leak on the low pressure side.

The following annunciator is in alarm:

- AF5, "SW TO TURB BLDG FLOW A OR B TRN HI"

Which ONE of the following describes the condition of the Service Water System and the appropriate procedure to execute?

A. MOV-514 and MOV-516 are shut, MOV-515 and MOV-517 are open; go to FNP-1-AOP-7.0, "LOSS OF TURBINE BUILDING SERVICE WATER."

B. MOV-515 and MOV-517 are shut, MOV-514 and MOV-516 are open; go to FNP-1-AOP-7.0, "LOSS OF TURBINE BUILDING SERVICE WATER."

C. MOV-514 and MOV-516 are shut, MOV-515 and MOV-517 are open; trip the reactor and go to FNP-1-EEP-0, "REACTOR TRIP OR SAFETY INJECTION."

D. MOV-515 and MOV-517 are shut, MOV-514 and MOV-516 are open; trip the reactor and go to FNP-1-EEP-0, "REACTOR TRIP OR SAFETY INJECTION."

Feedback

A - Correct, Train 'A' D/P cell causes PDS-566 and 569 to actuate at 11 psig to close MOV-514 and MOV-516, respectively. Closing of these two MOV's requires entry into AOP-7.
B - Incorrect, This is the action if Train 'B' D/P cell was faulty.
C&D - Incorrect, Tripping the reactor would be correct if the MOV's could not be immediately reopened. Tripping the reactor is the AOP-7 RNO for loss of turbine building SW flow.

Notes

Source: New question

Categories

RO Tier:	T2G3	SRO Tier:	
K/A Value:	2.6/2.6	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	R (4)	Misc:	SDR

92. 076AA2.02 001//T1G1/2.8/3.4/C/A/BANK/FR01301/S (8)/SDR

Unit 2 has been operating at power for the last 6 months. Earlier in the shift, a Steam Generator Feed pump tripped. Reactor power was rapidly reduced to 50% and is being maintained at that level. Three hours after the load reduction an RCS ativity sample was taken.

The RCS activity sample results are as follows:
- Gross (beta-gamma) specific activity is 96 uCi/gm.
- Dose-equivalent I-131 specific activity is 140 uCi/gm.

Which ONE of the following describes the restrictions that are place on the Unit's continued power operation?

A. Additional samples must be taken at 65%, 80 %, and 90% power levels and every 6 hours thereafter for the next 72 hours.

B. There is no restriction for the continued power operation of Unit 2.

C. Power must be maintained less than or equal to 50% of rated thermal power, and the high flux trip setpoint must be reduced to less than 55% within 6 hours.

D. The unit must be shutdown to at least Mode 3, HOT STANDBY, with Tavg less than 500 degrees F within 6 hours.

Feedback

D - Correct, The Dose-Equivalent I-131 is outside the acceptable range of TS figure 3.4.16-1 for Unit 2 at 50% power therefore, LCO 3.4.16.B applies.

Notes

Source: Farley Exam Bank Question #O52302H08023

Categories

RO Tier:		SRO Tier:	T1G1
K/A Value:	2.8/3.4	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	S (8)	Misc:	SDR

93. 076AK2.01 001/T1G1/T1G1/2.6/3.0/MEMORY/NEW/FR01301/COM (48)/SDR

Which ONE of the following describes the function of the Gross Failed Fuel Detector (GFFD) system?

A. Has no automatic interlocks; provides indication of failed fuel only after shutdown due to N-16 and N-17 masking.

B. Automatically closes Reactor Coolant Isolation Valves (3101 and 3102) on hi radiation; provides indication of failed fuel only after shutdown due to N-16 and N-17 masking.

C. Automatically closes Reactor Coolant Isolation Valves (3101 and 3102) on hi radiation; provides indication of failed fuel at power.

D. Has no automatic interlocks; provides indication of failed fuel at power.

Feedback

A - Incorrect, Sample time is delayed to allow decay of N-16 and N-17 activity to prevent masking.
B - Incorrect, 3101 and 3102 auto close on high penetration room D/P.
C - Incorrect, 3101 and 3102 auto close on high penetration room D/P.
D - Correct, GFFD provides only indication and alarm to give indication of cladding failure at power & shutdown.

Notes

Source: Summer NRC Exam 2000.
LO: O52106E05

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	2.6/3.0	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	COM (48)	Misc:	SDR

94. 078A4.01 001/T2G3/T2G3/3.1/3.1/MEMORY/BANK/FR01301/COM (21)/SDR

A rupture occurred in the service air header. Air pressure decreased and resulted in the isolation of service air. After the isolation, instrument air header pressure returned to normal.

Which ONE of the following describes what the air pressure indicators on the Main Control Board, PI-4004A and PI-4004B, should indicate?

A. 0 psig on both PI-4004A and PI-4004B.

B. 0 psig on PI-4004A and 90 - 100 psig on PI-4004B.

C. 90 - 100 psig on PI-4004A and 0 psig on PI-4004B.

D. 90 - 100 psig on both PI-4004A and PI-4004B.

Feedback

A - Incorrect, Once the break is isolated, by automatic closure of V901, in the service air header the pressure in the instrument air header will return to normal so PI-4004B will indicate normal instrument air pressure.
B - Correct, Since V901 does not automatically reopen PI-4004B will indicate normal air pressure and due to the break in the service air header this line will depressurize so PI-4004A will indicate 0 psig.
C - Incorrect, This is the opposite of what is true.
D - Incorrect, PI-4004A can not indicate pressure due to the rupture in the service air header.

Notes

Source: Farley Bank Question #O52108A03014

Categories

RO Tier:	T2G3	SRO Tier:	T2G3
K/A Value:	3.1/3.1	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (21)	Misc:	SDR

95. 086K4.01 001/T2G2/T2G2/3.1/3.7/MEMORY/BANK/FR01301/COM (71)/SDR

Well water pump #1 is selected to the 'AUTO' position locally.

Which ONE of the following signals would cause the pump to autostart?

A. Fire protection tank level switch LS-510 or LS-511 actuation.

B. Either fire protection tank makeup AOV opens fully and "#1 PUMP LEAD" is selected at the fire pump house.

C. Sanitary water pump pressure control valve remains at least 90% open for 10 seconds.

D. Actuation of sanitary water tank level switch on extreme low level.

Feedback

A - Correct,

THIS QUESTION NEEDS VALIDATION. LICENSEE DID NOT SEND INFORMATION ON THE FIRE PROTECTION SYSTEM LESSON PLAN # O52108E.

Notes

Source: Farley Question Bank, Question # O52108E05009
LO: O52108E05

Categories

RO Tier:	T2G2	SRO Tier:	T2G2
K/A Value:	3.1/3.7	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (71)	Misc:	SDR

96. 103A2.03 001//T2G2/3.5/3.8/C/A/BANK/FR01301/S (12)/SDR

During Surveillance Testing, the 'A' Train Solid-State Protection System (SSPS) was found to be inoperable. While troubleshooting is in progress, I&C has tagged the output relay Mode Selector Switch in the 'TEST' position.

Which ONE of the following is the correct mitigation strategy in accordance with EEP-0, "REACTOR TRIP OR SAFETY INJECTION," if the unit had a reactor trip and safety injection at this time?

A. Both Trains of Phase 'A' components would actuate, no other action are required.

B. Only 'B' Train Phase 'A' components would actuate, the operator would have to initiate 'A' Train components with the Phase 'A' handswitch.

C. Neither Train Phase 'A' components would actuate, the operator would have to initiate both Tain components with the Phase 'A' handswitch.

D. Only 'A' Train Phase 'A' components would actuate, the operator would have to align 'A' Train components manually.

Feedback

A - Incorrect, B Train will actuate.
B - Incorrect, The handswitch will not work.
C - Incorrect, B Train will actuate and the handswitch will not work.
D - Correct, B train will actuate, the handswitch will not work and the operator will have to manually align components.

Notes

Source: Farley NRC Exam 2000-301
LO: O52101I32

Categories

RO Tier:		SRO Tier:	T2G2
K/A Value:	3.5/3.8	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	S (12)	Misc:	SDR

97. G2.1.03 001/T3//3.0/3.4/C/A/NEW/FR01301/R (13)/SDR

Both Units are operating at 100% power. You are the Operator-At-The-Controls (OATC) for Unit 1, and the end of your shift is approaching. Unit 2 has just experienced a reactor trip and the operators are entering EEP-0, "REACTOR TRIP OR SAFTEY INJECTION." Your shift relief has just arrived at the control room and requests permission to enter the at-the-controls area in order to walk down the Unit 1 control board.

Who can authorize access to the at-the-controls area of Unit 1 under the above conditions?

A. Only the Shift Supervisor or Unit 1 OATC.

B. Only the Shift Supervisor, Unit 1 OATC or Unit 1 Unit Operator (UO).

C. Only the Shift Supervisor.

D. Only the Unit 1 OATC.

Feedback

A - Incorrect, The UO for the unit can also grant permission.
B - Correct, The two Units are considered seperately for entrance into the at-the-controls area.
C - Incorrect, This would be correct if the emergency was on Unit 1.
D - Incorrect, The Shift Supervisor and UO can also grant permission.

Notes

Source: New

Categories

RO Tier:	T3	SRO Tier:	
K/A Value:	3.0/3.4	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	R (13)	Misc:	SDR

98. G2.1.07 001//T3/3.7/4.4/C/A/NEW/FR01301/S (23)/GTH

Unit 1 has been shutdown for 40 hours and is in Mode 5, Cold Shutdown, conditions as follows:

- Preparations are being made to begin fuel movement.
- A work order was completed for R-25A, Spent Fuel Pool Exhaust Flow Gas Monitor.
- The I&C technician is restoring R-25A to service.
- Shortly after the technician energizes the detector, Annunciator FH5, "SFP AREA RE25 A OR B HI RAD," alarms.

The technician reports the following indications:

POWER ON	ILLUMINATED
ALERT	ILLUMINATED
HIGH	ILLUMINATED
FAIL/RESET	ILLUMINATED
Meter Reading	60 x 10^4 cpm and steady

Which ONE of the following is the correct action to take?

A. Enter AOP-30, "REFUELING ACCIDENT."

B. Evacuate all non-essential personnel from the Spent Fuel building.

C. Ensure the R-25A monitor is correctly aligned per SOP-45.0, RADIATION MONITORING SYSTEM."

D. Ensure the Containment purge ventilation has secured and the Penetration Room Filtration units have started.

Feedback

A - Incorrect, Must also have a fuel handling accident which causes damage to a fuel assembly, fuel movement has not started yet.
B - Incorrect, This is step 6 of AOP-30.
C - Correct, Technician placed switch to calibrate position vice operate position.
D - Incorrect, R-25A does not isolate containment ventilation, it isolated fuel handling area ventilation.

Notes

Source: New

MUST ENSURE THAT THE ALARM SETPOINT IS BELOW THE CALIBRATION SETTING OF 60 x 10^4 cpm.

Categories

RO Tier:		SRO Tier:	T3
K/A Value:	3.7/4.4	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	S (23)	Misc:	GTH

99. G2.1.10 001//T3/2.7/3.9/MEMORY/NEW/FR01301/S (9)/SDR

The limits on RCS activity provided in Technical Specifications are based on the dose that would be received at the site boundary in a SGTR accident that begins with a steady-state primary-to-secondary leakage of:

- Unit 1: 1 gpm total for three S/G's
- Unit 2: 150 gpd per S/G

Maintaining these RCS activity limits ensures that the 2-hour dose at the site boundary during a SGTR will not exceed which ONE of the following?

A. 10 CFR 20 "STANDARDS FOR PROTECTION AGAINST RADIATION" limits.

B. 10 CFR 100 "REACTOR SITE CRITERIA" limits.

C. EPA Protective Action Guideline thresholds.

D. 5 Rem TEDE for the general public.

Feedback

B - Correct

Notes

Source: Byron 2000-301

Categories

RO Tier:		SRO Tier:	T3
K/A Value:	2.7/3.9	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	S (9)	Misc:	SDR

100. G2.1.12 001//T3/2.9/4.0/C/A/NEW/FR01301/S (6)/SDR

Unit 2 is at 100% reactor power. A leak rate surveillance has been performed and the results are as follows:

- Total RCS leakage rate is 9.0 gpm.
- Leakage to the PRT is 6.0 gpm.
- Leakage to the reactor coolant drain tank is 2.1 gpm.
- Leakage into the secondary from the primary as follows:
  - 'A' S/G is 0.07 gpm
  - 'B' S/G is 0.08 gpm
  - 'C' S/G is 0.09 gpm

Which ONE of the following describes the condition of the RCS Opeational LEAKAGE?

A. No leakage limits have been exceeded.

B. Unidentified leakage limit has been exceeded.

C. Total Primary to Secondary leakage limit has been exceeded.

D. Secondary leakage limit through one S/G has been exceeded.

Feedback

A - Correct
B - Incorrect, Total leakage accounted for is 8.34; 9-8.34=0.66 gpm which is less than the limit of 1 gpm allowed by TS 3.4.13..
C - Incorrect, Total leakage to the S/G's is 0.24gal/min*60min/hr*24hr/day=345.6 gpd which is less than the limit of 450 gpd allowed by TS 3.4.13.
D - Incorrect, Total leakage to a single S/G is 0.09gal/min*60min/hr*24hr/day=129.6 gpd which is less than the limit of 150 gpd allowed by TS 3.4.13.

Notes

Source: Byron 2000-301

Categories

RO Tier:		SRO Tier:	T3
K/A Value:	2.9/4.0	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	S (6)	Misc:	SDR

101. G2.1.20 001/T3/T3/4.3/4.2/MEMORY/NEW/FR01301/COM (49)/SDR

Which ONE of the following represents the proper use of a REFERENCE USE procedure?

A. The procedure may be performed from memory provided the user review the procedure after its completion to validate completion of required action.

B. Provided the procedure is readily available for reference, the procedure may be performed completely from memory and the user is responsible for results.

C. ✓ The procedure must be reviewed prior to task performance and periodically referred to during the procedures performance.

D. The procedure must be readily available and each step of the procedure must be reviewed prior to performance of that step.

Feedback

A - Incorrect, This is INFORMATION USE criteria.
B - Incorrect, REFERENCE USE procedures can not be performed from memory.
C - Correct
D - Incorrect, REFERENCE USE procedures do not require each step to be reviewed prior to its performance. This is CONTINUOUS USE criteria.

Notes

Source: Watts Bar NRC Exam 1998

Categories

RO Tier:	T3	SRO Tier:	T3
K/A Value:	4.3/4.2	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	COM (49)	Misc:	SDR

102. G2.1.32 001/T3/T3/3.4/3.8/C/A/BANK/FR01301/COM (66)/SDR

In EEP-2, "FAULTED STEAM GENERATOR ISOLATION," the operator is cautioned that any faulted steam generator should remain isolated during subsequent recovery actions unless needed as a heat sink for RCS cooldown.

Which ONE of the following is the reason for this caution?

A. AFW pumps could reach run-out flow and cavitate causing damage to the pumps and possibly rendering them inoperable.

B. Additional steaming from the S/G will increase the likelihood of damaging other equipment, power supplies, or instrumentation in the vicinity of the break.

C. Un-isolating a faulted steam generator could result in an RCS cooldown causing a severe transient that challenges the primary-secondary barrier.

D. Re-establishing feed flow to the faulted S/G would cause SI to re-actuate on high steam flow and interfere with the RCS cooldown to Mode 5, Cold Shutdown.

Feedback

A - Incorrect, The AFW system is designed to prevent the conditions of run-out. Procedures limit AFW flow to specific value designed to ensure run-out conditions are not created.
B - Incorrect, This is true but is not the reason for maintaining the S/G isolated.
C - Correct
D - Incorrect, This could occur but is not the reason for maintaining the S/G isolated.

Notes

Source: Farley NRC Exam 1995
LO: OPS52530C03

Categories

RO Tier:	T3	SRO Tier:	T3
K/A Value:	3.4/3.8	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	COM (66)	Misc:	SDR

103. G2.2.03 001/T3//3.1/3.3/MEMORY/NEW/FR01301/R (25)/LRM

Which ONE of the following illustrates the UNIT DIFFERENCES for the Reactor Water level indication LI-2965 (A and B)?

A. Unit 1 is direct readout indicating 120 to 160 feet and Unit 2 is dual digital readout indicating 0 to 120 and 120 to 160 feet.

B. Unit 2 is direct readout indicating 120 to 160 feet and Unit 1 is dual digital readout indicating 0 to 120 and 120 to 160 feet.

C. Unit 1 is direct readout indicating 120 to 160 feet and Unit 2 is dual digital readout indicating 0 to 300 and 300 to 612 inches.

D. Unit 2 is direct readout indicating 120 to 160 feet and Unit 1 is dual digital readout indicating 0 to 300 and 300 to 612 inches.

Feedback

A. Incorrect - Unit 2 is direct readout indicating in feet while Unit 1 is dual digital readout indicating in inches.
B. Incorrect - Unit 1 is dual digital readout indicating in inches.
C. Incorrect - Unit 2 is direct readout indicating in feet while Unit 1 is dual digital readout indicating in inches.
D. Correct - Unit 2 is direct readout indicating in feet while Unit 1 is dual digital readout indicating in inches.

Notes

Source: New

Categories

RO Tier:	T3	SRO Tier:	
K/A Value:	3.1/3.3	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	R (25)	Misc:	LRM

104. G2.2.11 001/T3/T3/2.5/3.4/MEMORY/NEW/FR01301/COM (63)/SDR

A journeyman has lifted leads to support corrective maintenance. The journeyman calls the control room at the end of his shift, states that he has explained the job to his relief, and that his relief will be late. The journeyman states that he needs to leave in order to meet his car pool ride home.

Which ONE of the following states the condition that the lifted leads must be left in, in order for the journeyman to leave?

A. Instruct the journeyman to attach a temporary identification tag to each lead lifted.

B. Instruct the journeyman to attach a Personalized Hold tag to each lead lifted.

C. Instruct the journeyman to attach a Hold tag to each lead lifted.

D. Instruct the journeyman to attach a Caution tag to each lead lifted.

Feedback

A - Correct, When lifting leads for corrective/preventive maintenance or troubleshooting purposes, the leads shall be identified as shown on the electrical drawing. If the leads are to remain lifted while not attended by the journeyman or if the job is to be turned over to another crew, then a temporary identification tag shall be placed on each lead lifted. (AP-13)
B - Incorrect, Each designated operator or a contractor approved by the Electrical Maintenance Superintendent Manager may be permitted to use the personal hold tag system. Hold tags used in this manner will be the same type as used during the normal tagging process. (AP-14)
C - Incorrect, Hold Tags are placed on control points or devices to ensure personnel safety and equipment protection. Tags may be placed on mechanical devices, such as a valve to prohibit the operation of the valve or placed on electrical control points, such as circuit breakers, switches, 600 Volt load center and 4160 Volt breaker cubicle doors, etc., to prohibit the energizing of electrical circuits or the operation of other components. (AP-14)
D - Incorrect, Caution Tags are placed on control points or devices to alert personnel of an abnormal condition or restriction which should be understood prior to manipulation of the associated control point or device. (AP-14)

Notes

Source: New

Categories

RO Tier:	T3	SRO Tier:	T3
K/A Value:	2.5/3.4	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	COM (63)	Misc:	SDR

105. G2.2.12 001/T3/T3/3.0/3.4/MEMORY/NEW/FR01301/COM (42)/SDR

Unit 2 is currently in Mode 4, Hot Shutdown. At 0900 today, it is discovered that a routine 24-hour surveillance involving Shutdown Margin was last performed at 0600 on the previous day.

Which ONE of the following describes the response to the failure to perform the surveillance?

A. The Technical Specification LCO 3.0.3 is applied.

B. The LCO is immediately declared not met and the ACTION statement is immediately initiated.

C. The surveillance may be delayed for up to 24 hours from the time of discovery per Technical Specification 4.0.3.

D. The surveillance requirements are satisfied if the surveillance is completed by 1200 today.

Feedback

D - Correct, Per SR 3.0.2 there is a 1.25 times the interval to allow the SR to be performed.

Notes

Source: Byron 2000-301

Categories

RO Tier:	T3	SRO Tier:	T3
K/A Value:	3.0/3.4	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	COM (42)	Misc:	SDR

106. G2.2.13 001/T3/T3/3.6/3.8/MEMORY/BANK/FR01301/COM (35)/SDR

An individual has requested a Restricted Removal (RR) tag order to allow performance of a maintenance task that he has been assigned.

Which ONE of the following positions, at a minimum, must the individual hold in order to mark the RR block on the Tag Order Acceptance section of the cover sheet for a maintenance task?

A. A designated operator.

B. A tagging official.

C. An apprentice.

D. A journeyman.

Feedback

D - Correct, See FNP-0-AP-14, section 4.2

Notes

Source: Farley Exam Bank Question #O52303G02003

Categories

RO Tier:	T3	SRO Tier:	T3
K/A Value:	3.6/3.8	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (35)	Misc:	SDR

107. G2.2.22 001//T3/3.4/4.1/MEMORY/BANK/FR01301/S (7)/SDR

Unit 1 is in Mode 3, HOT STANDBY, with preparations underway for a reactor startup. The control room operators are performing a dilution to the desired critical boron concentration. When the Pressurizer backup heater control switches are placed in the 'ON' position, the 'A' group of heaters does not energize.

Which ONE of the following describes the Technical Specifications action(s) required?

A. Must remain in Mode 3, HOT STANDBY, and reactor startup cannot proceed.

B. Must verify there is two Pressurizer heater groups each with a capacity of at least 125 kW before continuing the reactor startup.

C. May continue the reactor startup and take the reactor critical while waiting on repairs.

D. Must be in at least Mode 4, HOT SHUTDOWN, within the next 78 hours.

Feedback

Group 'A' and 'B' are the only two groups of PZR heaters that are capable of being supplied by an emergency power supply, both must be available to satisfy TS 3.4.9.
A - Incorrect, Per TS 3.4.9 the heaters must be fixed within 72 hours, if unable to accomplish then ultimately in Mode 4.
B - Incorrect, This is only part of the TS applicability the two groups of heaters must also be capable of being powered from an emergency power supply.
C - Incorrect, Upward Mode changes are not allowed without required equipment available.
D - Correct, This is correct action per TS 3.4.9.B and C.

Notes

Source: Farley Exam Bank Question #O52302H03011

Categories

RO Tier:		SRO Tier:	T3
K/A Value:	3.4/4.1	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	S (7)	Misc:	SDR

108. G2.2.28 001//T3/2.6/3.5/C/A/MOD/FR01301/S (18)/SDR

Given the following:

- A reactor core re-load is in progress with ten assemblies loaded in the core.
- As the on-coming Shift Supervisor you have been given the following information during turnover:

  - Both Source Range detectors ARE indicating counts.
  - High Flux at Shutdown alarms are BLOCKED.
  - Source Range counts are audible in containment.
  - Containment Normal Purge is in service.
  - Scaffolding is being passed through the equipment hatch.
  - One Reactor Operator is in the Control Room.
  - The RHR system has been secured for 10 minutes to support surveillances that expect to take 40 minutes to complete.

After reviewing the above information your direction to the refueling SRO is to suspend Core Alterations because of which ONE of the following?

A. The RHR system requirements are not met.

B. The High Flux at Shutdown alarm should be in service.

C. There should be at least two licensed Reactor Operators in the Control Room.

D. The equipment hatch is not secured.

Feedback

A - Incorrect, TS 3.9.4 allows the system to be removed from operation for < 1 hour per 8 hour period, provided no operations are permitted that would cause reduction of the RCS boron concentration.
B - Incorrect, Not required to be in service at this time.
C - Incorrect, Only One RO required to be in the Control Room.
D - Correct, Violation of TS 3.9.3, equipment hatch must be in place with four bolts.RHR

Notes

Source: Farley NRC Exam 2000; Modified stem, distractor, and changed the correct answer.

Categories

RO Tier:		SRO Tier:	T3
K/A Value:	2.6/3.5	Cog. Level:	C/A
Source:	MOD	Exam:	FR01301
Test:	S (18)	Misc:	SDR

109. G2.3.01 001/T3/T3/2.6/3.0/MEMORY/BANK/FR01301/COM (65)/SDR

With the plant in Mode 5, Cold Shutdown, a small accessible area in containment has a general area dose rate of 1150 mrem/hr. The top of this area cannot be enclosed for the purpose of locking the area.

Which ONE of the following desribes the minimum additional measures (other than appropriate posting) that must be executed for this area?

A. Must be barricaded off and a flashing light must be activated.

B. Must be roped off and the entrance to the containment must be kept locked.

C. Must be barricaded off and a guard posted at the entrance to the this area.

D. A flashing light must be activated and the entrance to containment must be kept locked.

Feedback

A - Correct, Per TS 5.7 High Radiation Area section 5.7.3.
B - Incorrect, This is correct if the entire containment was affected by radiation level in excess of 1000 mrem/hr, this would be too restrictive.
C - Incorrect, This would result in unnecessary exposure to the guard.
D - Incorrect, This is correct if the entire containment was affected by radiation level in excess of 1000 mrem/hr, this would be too restrictive.

Notes

Source: Farley NRC Exam 1993

Categories

RO Tier:	T3	SRO Tier:	T3
K/A Value:	2.6/3.0	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	COM (65)	Misc:	SDR

110. G2.3.01 002/T3//2.6/3.0/MEMORY/BANK/FR01301/R (14)/SDR

An operator must make an entry into a High Radiation area. The operator's radiation exposure history is as follows:

- Age: 51 years
- Lifetime TEDE: 39 Rem
- TEDE for the year: 0.2 Rem
- TODE for the year: 3.0 Rem
- No dose extentions have been approved.

Which ONE of the following states the additional TEDE (Total Effective Dose Equivalent) and TODE (Total Organ Dose Equivalent) that the operator is limited to for the year per FNP-0-M-001, "HEALTH PHYSICS MANUAL," Administrative Guidelines?

	Additional Annual TEDE Allowed	Additional Annual TODE Allowed
A.	1.8 Rem	17 Rem
B.	1.8 Rem	1.5 Rem
C.	0.25 Rem	17 Rem
D.	0.25 Rem	1.5 Rem

Feedback

A - Correct, 10CFR20 limits are 5 Rem/yr for TEDE and 50 Rem/yr for TODE. Farley admin limit TEDE is 2 Rem and TODE is 20 Rem.
B, C, D - Incorrect, Distractors TEDE 0.25 Rem and TODE 1.5 Rem based on concurrently badged worker limits, TEDE of 0.45 Rem and TODE of 4.5 Rem.

Notes

Source: Farley NRC Exam 2000-301
LO: G40102A-03

Categories

RO Tier:	T3	SRO Tier:	
K/A Value:	2.6/3.0	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	R (14)	Misc:	SDR

111. G2.3.04 001//T3/2.5/3.1/C/A/BANK/FR01301/S (11)/SDR

A member of the search and rescue team, who has voluntarily agreed to receive an emergency dose, has spent 10 minutes in an area with a general area radiation level of 75 Rem/Hr gamma while searching for a missing person known to be injured in a tank explosion.

Which ONE of the following is the maximum additional whole body exposure that this individual may voluntarily obtain during continuation of this search per FNP-0-EIP-14, "Personnel Movement, Relocation, Re-Entry and Site Evacuation"?

A. 100 Rem.

B. ✓ 85 Rem.

C. 35 Rem.

D. 10 Rem.

Feedback

A - Incorrect, Maximum allowed for volunteers on lifesaving missions is less than 100 Rem.
B - Correct, Max Dose Remaining = 87.5R = 100-(10min/60min*75R/h*1) where 1 is the QF for gamma.
C - Incorrect, Answer based on 50 Rem which is extremities limit per 10CFR20.
D - Incorrect, Answer based on 25 Rem which is non-voluntary emergency limit per FNP-0-EIP-14.

Notes

Source: Farley NRC Exam 1999-301

Categories

RO Tier:		SRO Tier:	T3
K/A Value:	2.5/3.1	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	S (11)	Misc:	SDR

112. G2.3.06 001//T3/2.1/3.1/MEMORY/NEW/FR01301/S (17)/SDR

Unit 1 is at 100% steady-state reactor power with the following plant conditions:

- Steam Generator '1A' has confirmed 20 gpd tube leakage.
- Steam Generator '1B' has confirmed 5 gpd tube leakage.
- The Turbine Building water sump is full and needs to be discharged.

Which ONE of the following describes the release permit(s) that you would expect to review (be in affect) to authorize the release?

A. A batch release permit.

B. A continuous release permit.

C. Both a batch and continuous release permit.

D. No permit is required.

Feedback

A - Correct, Batch release permit is required if there is evidence of a SGTL creating the possibility that the sump contents may be contaminated.
B - Incorrect, Continuous release permit is required if there is no evidence of a SGTL.
C - Incorrect, Both types of release permits would not be in effect with the evidence of a SGTL it is inappropriate yto have a continuous release permit.
D - Incorrect, A release permit is required.

Notes

Source: New

Categories

RO Tier:		SRO Tier:	T3
K/A Value:	2.1/3.1	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	S (17)	Misc:	SDR

113. G2.3.09 001//T3/2.5/3.4/MEMORY/NEW/FR01301/S (25)/SDR

You are the Unit 2 Supervisor. After a refueling outage, Unit 2 is being made ready to support power operations. The Unit is currently in Mode 5, Cold Shutdown. The crew is performing FNP-2-UOP-1.1, "STARTUP OF UNIT FROM COLD SHUTDOWN TO HOT STANDBY," RCS temperature is 195 degrees F.

A junior operator, who is at the controls performing his first startup, turns and asks you why the Containment Main Purge system must be secured prior to raising the RCS temperature above 200 degrees F.

Which ONE of the following describes the main reason and hence your response to the operators question?

A. The minipurge duct work is much smaller providing less flow to the plant vent stack therefore, if a release were to occur and a single isolation valve fails to close, its environmental affects would be minimized.

B. The minipurge isolation butterfly valves are designed to close within 5 seconds of receiving a isolation signal, the main purge isolation butterfly valves do not receive an isolation signal since they are already shut.

C. The minipurge duct work has much smaller isolation butterfly valves then the main purge duct work and are much more likely to shut and provide positive isolation of containment.

D. The minipurge ducts are small enough to be equiped with PAC filter assemblies which remove airborne activity, the main purge exhaust ducts are too large to be equiped with a PAC filter assembly.

Feedback

A - Incorrect, Plant safety analysis assumes that all containment isolation valves close or are closed at the time an event occurs. This can not be stated as fact since it has not been analyzed.
B - Incorrect, The containment isolation signal is sent to all butterfly valves in the containment ventilation system and all valves are designed to be quick closing.
C - Correct
D - Incorrect, All containment exhaust is sent through the PAC filtration unit, wether its from the main purge or minipurge.

Notes

Source: New

Categories

RO Tier:		SRO Tier:	T3
K/A Value:	2.5/3.4	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	S (25)	Misc:	SDR

114. G2.4.01 001//T3/4.3/4.6/MEMORY/NEW/FR01301/S (21)/SDR

Which ONE of the following Emergency Operating Procudures (EOP) can be entered directly based on operator evaluation without reference from other procedures?

A. EEP-0, "REACTOR TRIP OR SAFETY INJECTION", only.

B. EEP-0 and FRP-S.1, "RESPONSE TO NUCLEAR POWER GENERATION/ATWT" only.

C. ✓ EEP-0 and ECP-0.0, "LOSS OF ALL AC POWER" only.

D. EEP-0, ECP-0.0, and FRP-S.1.

Feedback

A - Incorrect, ECP-0.0 can also be entered directly off of operator determination.
B - Incorrect, FRP-S.1 is entered off of EEP-0 step 1 or fold out page.
C - Correct
D - Incorrect

Notes

Source: New

Categories

RO Tier:		SRO Tier:	T3
K/A Value:	4.3/4.6	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	S (21)	Misc:	SDR

115. G2.4.06 001/T3/T3/3.1/4.0/MEMORY/NEW/FR01301/COM (39)/SDR

Which ONE of the following describes the primary basis for depressurizing all intact Steam Generators (S/G) to atmospheric pressure in FRP-C.1, "RESPONSE TO INADEQUATE CORE COOLING"?

A. Ensure CETC temperatures are reduced to less than 700 degrees F.

B. Reduce S/G pressure to increase feedwater flow.

C. Reduce RCS pressure for establishing low-head safety injection.

D. Enhance natural circulation cooling of the reactor core.

Feedback

A - Incorrect, Core cooling will result from the establishing LHSI flow, but this is not the reason for reducing S/G pressure.
B - Incorrect, S/G pressure does not have to be reduced to atm to ensure adequate feedwater flow.
C - Correct, With continued S/G depressurization, RCS pressure should follow secondary pressure until the shutoff head of the LHSI pumps is reached. Then the LHSI should begin to refill the RCS. (excerpt from OPS-52533C)
D - Incorrect, If natural circulation was established then there would be no reason to be in C.1.

Notes

Source: Btron 2000-301
LO: O52533C12

Categories

RO Tier:	T3	SRO Tier:	T3
K/A Value:	3.1/4.0	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	COM (39)	Misc:	SDR

116. G2.4.07 001/T3//3.1/3.8/MEMORY/BANK/FR01301/R (19)/SDR

Which ONE of the following describes when Critical Safety Function Status Tree monitoring must begin after a reactor trip?

A. Completion of the immediate action steps of EEP-0, "REACTOR TRIP OR SAFETY INJECTION."

B. Transition is made from EEP-0 to ESP-0.1, "REACTOR TRIP RESPONSE," at step 4 of EEP-0.

C. Identification of symptoms of a challenge to a fission product barrier, whenever the challege occurs.

D. Entry is made to the Emergency Response Procedures (ERPs), beginning with step 1 of EEP-0 or ECP-0.0, "LOSS OF ALL AC POWER."

Feedback

A - Incorrect, Do not start monitoring until after the transition is made to ESP-0.1.
B - Correct, Start monitoring CSF when transition is made to another procedure from EEP-0.
C - Incorrect
D - Incorrect

Notes

Source: Farley NRC exam 1993.

Categories

RO Tier:	T3	SRO Tier:	
K/A Value:	3.1/3.8	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	R (19)	Misc:	SDR

117. G2.4.11 001/T3//3.4/3.6/C/A/BANK/FR01301/R (23)/SDR

Given the following plant conditions:

- AOP-27, "EMERGENCY BORATION," has been entered.
- Initial RCS boron concentration was 1100 ppm.
- RCS Tavg is 521 degrees F following an uncontrolled cooldown.
- Normal emergency boration has been in progress for 2 minutes.
- FI-110, "Boric Acid Emerg Borate," flow indicates 40 gpm.
- Charging flow is 60 gpm.

Which ONE of the following is the MINIMUM amount of time emergency boration must continue?

NOTE: Step 8.3 of FNP-1-AOP-27.0 provided as a reference.

A. Minimum time has already been met.

B. Two more minutes.

C. Four more minutes.

D. Six more minutes.

Feedback

Incorrect, This would be correct if the charging and boration flows were added to get 100 gpm with 240 gals of borated water needed. Also if step 8.3 was used to determine that only 60 gals of boron were needed for being below 525 F vice 60 gals/F.
B - Incorrect, This is the answer if 60 gpm charging flow is used instead of the 40 gpm boration flow.
C - Correct, This is correct using 1200 ppm initial RCS concentration. 1200 ppm requires 60 gals for each degree below 525 F. 525-521=4; 4x60=240; divide this by the boration flow rate 240/40=6; 6 minutes total boration needed, 2 minutes already in so 4 more minutes needed.
D - Incorrect, This is the total borration time needed.

Notes

Source: Farley NRC Exam 1998; Changed one distractor.
LO: OPS52521A04

Categories

RO Tier:	T3	SRO Tier:	
K/A Value:	3.4/3.6	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	R (23)	Misc:	SDR

118. G2.4.12 001/T3//3.4/3.9/MEMORY/BANK/FR01301/R (24)/SDR

Which ONE of the following describes how immediate operator actions will be performed and who in the crew will perform them, if the shift crew is executing Emergency procedure:

EEP-0, "REACTOR TRIP OR SAFETY INJECTION,"
FRP-S.1, RESPONSE TO NUCLEAR POWER GENERATION/ATWT," or
ECP-0.0, "LOSS OF ALL AC POWER"?

A. Perform steps in sequential order; steps performed by the OATC and Shift Supervisor.

B. Perform steps in any order; steps performed by the OATC and Shift Supervisor.

C. Perform steps in sequential order; steps performed by the OATC and Unit Operator.

D. Perform steps in any order; steps performed by the OATC and Unit Operator.

Feedback

A - Incorrect, In accordance with AP-16 Immediate operator actions of the above procedures should be performed by both the OATC and Unit Operator. SOP-8 states the IA of OATC & UO and in order.
B - Incorrect,SS and in any order is incorrect.
C - Correct
D - Incorrect, Must be performed in order.

Notes

Source: Farley NRC Exam 2000
LO: O52303H06

Categories

RO Tier:	T3	SRO Tier:	
K/A Value:	3.4/3.9	Cog. Level:	MEMORY
Source:	BANK	Exam:	FR01301
Test:	R (24)	Misc:	SDR

119. G2.4.21 001//T3/3.7/4.3/C/A/BANK/FR01301/S (20)/SDR

Given the following conditions on Unit 1:

- A reactor trip WITHOUT SI occurred about 12 minutes ago.
- The crew is carrying out 1-ESP-0.1, "REACTOR TRIP RESPONSE."
- Loss of offsite power has just occurred on Unit 1.
- Unit 1 diesel generators will NOT start.
- Unit 1 4160V ESF buses 'F', 'G', 'K', and 'L' are deenergized.
- The STA reports the status of the Critical Safety Functions has just changed to the following:

Heat Sink	RED
Subcriticality	GREEN
Containment	GREEN
Inventory	YELLOW
Core Cooling	RED
Integrity	GREEN

Which ONE of the following procedures should be used in response to these conditions?

A. 1-FRP-C.1, "RESPONSE TO INADEQUATE CORE COOLING."

B. 1-ESP-0.2, "NATURAL CIRCULATION COOLDOWN TO PREVENT REACTOR VESSEL HEAD STEAM VOIDING."

C. 1-FRP-H.1, "RESPONSE TO LOSS OF SECONDARY HEAT SINK."

D. 1-ECP-0.0, "LOSS OF ALL AC POWER."

Feedback

A - Incorrect, ECP-0.0 takes precidence over any FRP's.
B - Incorrect, This procedure is not entered from the CSF status. This procedure under these conditions would be entered from ECP-0.1 step 22.
C - Incorrect, ECP-0.0 takes precidence over any FRP's.
D - Correct, This procedure is entered off of the deenergized bus criteria.

Notes

Source: Farley NRC Exam 1993

Categories

RO Tier:		SRO Tier:	T3
K/A Value:	3.7/4.3	Cog. Level:	C/A
Source:	BANK	Exam:	FR01301
Test:	S (20)	Misc:	SDR

120. W/E02EK1.3 001/T1G2/T1G1/3.5/3.8/C/A/NEW/FR01301/COM (56)/SDR

Which ONE of the following describes the reason for rechecking RCS and S/G pressure at some point after failing to meet the safety injection termination criteria when performing actions in response to EEP-1, "LOSS OF REACTOR OR SECONDARY COOLANT"?

A. To determine if the criterion for stopping RCPs has been met.

B. To determine if the break has been isolated.

C. In case there is a faulted S/G which was not fully depressurized at the time the SI termination criteria was checked.

D. In case the requirement for pumping power has decreased sufficiently to allow securing of some selected heavy loads and the EDGs.

Feedback

A - Incorrect, RCP stopping criteria is a continuing action step therefore, looping back through the procedure would not be needed.
B - Incorrect, If the break were isolated SI termination criteria would be met and looping back through the procedure would not be required.
C - Correct, Blow down of a S/G through a fault could mask SI termination criteria.
D - Incorrect, Securing of loads is performed after the loop back step therefore, looping back would not accomplish this.

Notes

Source: INEL Question Bank

Categories

RO Tier:	T1G2	SRO Tier:	T1G1
K/A Value:	3.5/3.8	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (56)	Misc:	SDR

121. W/E03EK2.1 001/T1G2/T1G2/3.6/4.0/C/A/NEW/FR01301/COM (45)/SDR

Unit 1 has experienced a Loss Of Coolant Accident (LOCA). The crew is currently in ESP-1.2, "POST LOCA COOLDOWN AND DEPRESSURIZATION." RCS cooldown to cold shutdown is in progress and the crew has just started to reduce RCS pressure to refill the pressurizer.

Which ONE of the following would indicate to the crew that voiding in the RCS is occuring?

A. Rapidly decreasing Safety injection flow.

B. Rapidly increasing RCS pressure.

C. Rapidly decreasing core exit thermal couple temperature.

D. Rapidly increasing pressurizer level.

Feedback

A - Incorrect, Decreasing SI flow would be indicative of a pressure increase which is inconsistent with voiding in the RCS.
B - Incorrect, Increasing RCS pressure would suppress voiding in the RCS.
C - Incorrect, This is indicative of increased flow through the core.
D - Correct, Voiding causes water to be displaced in the RCS which shows up as an increase in pressurizer level.

Notes

Source: New (modified from Comanche Peak 1 NRC Exam 1994).

Categories

RO Tier:	T1G2	SRO Tier:	T1G2
K/A Value:	3.6/4.0	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (45)	Misc:	SDR

122. W/E04EK1.2 001/T1G2/T1G1/3.5/4.2/C/A/NEW/FR01301/COM (43)/SDR

A small break LOCA has occurred outside containment.

Actions of ECP-1.2, "LOCA OUTSIDE CONTAINMENT," have been completed and RCS pressure continued to decrease. A transition was made to ECP-1.1, LOSS OF EMERGENCY COOLANT RECIRCULATION."

Which ONE of the following describes the reason a transition was made to ECP-1.1?

A. To recover after the break was isolated.

B. To terminate offsite release.

C. To reverify that all automatic actions have been completed.

D. To take compensatory actions for lack of inventory in the containment sump.

Feedback

Notes

Source: Byron 2000-301

Categories

RO Tier:	T1G2	SRO Tier:	T1G1
K/A Value:	3.5/4.2	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (43)	Misc:	SDR

123. W/E05EK2.1 001/T1G2//3.7/3.9/MEMORY/NEW/FR01301/R (15)/SDR

Which ONE of the following is the primary basis for stopping all Reactor Coolant Pumps (RCP) in FRP-H.1, "RESPONSE TO LOSS OF SECONDARY HEAT SINK"?

A. It establishes natural circulation to enhance the bleed and feed capability of safety injection.

B. ✓ It extends the time available to restore feed flow before bleed and feed criteria is met.

C. It anticipates a pressure decrease caused by spray valves opening when air is restored to containment.

D. It anticipates the low RCS pressure caused by opening Pressurizer PORVs during bleed and feed.

Feedback

B - Correct, Elimination of the RCPs as a heat source extends the time available before bleed and feed criteria is met by as much as 9 minutes.

Notes

Source: Wolf Creek NRC Exam 1995.

Categories

RO Tier:	T1G2	SRO Tier:	
K/A Value:	3.7/3.9	Cog. Level:	MEMORY
Source:	NEW	Exam:	FR01301
Test:	R (15)	Misc:	SDR

124. W/E08EK1.3 001/T1G1/T1G1/3.5/4.0/C/A/NEW/FR01301/COM (64)/SDR

The following plant conditions exist.

- At 0900 hrs the RCS is at 430 degrees F.
- RCS pressure is stable at 2235 psig.

Which ONE of the following causes the greatest pressurized thermal shock conditions?

A. At 0930, RCS temperature is 500 degrees F.

B. ✓ At 0930, RCS temperature is 360 degrees F.

C. At 1000, RCS temperature is 530 degrees F.

D. At 1000, RCS temperature is 330 degrees F.

Feedback

A - Incorrect, Heatup is not as limiting as cooldown.
B - Correct, Largest cooldown temperature gradient (2.3F/min).
C - Incorrect, Heat up is not as limiting as cooldown.
D - Incorrect, Large cooldown gradient but not as large as B (1.6F/min).

Notes

Source: INEL Question Bank.

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	3.5/4.0	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (64)	Misc:	SDR

125. W/E09EK2.2 001/T1G1/T1G1/3.6/3.9/C/A/NEW/FR01301/COM (40)/SDR

During a small break Loss Of Coolant Accident (LOCA) on a cold leg, when there is not a large amount of injection flow from the ECCS through the core and out the break, a phase is reached where the vessel level continues to decrease below the hot leg penetrations and boiling in the core is the means of transporting the core heat to the bubble. A fixed differential pressure exists between the core and the break and is maintained by the loop seal.

Which ONE of the following describes the primary mechanism for heat removal during this phase?

A. Condensation of vapor from the bubble at the hot leg side of the S/G U-tubes, which is cooled by S/G water, and then drains back down to the core via the hot legs.

B. Condensation of vapor in the head, which is cooled by fans in containment, and then drains back down to the core.

C. Slug flow via the cold legs through the loop seal and flashing across the cold leg break.

D. Partial natural circulation flow characterized by liquid pulses flowing from the cold leg over the U-tubes and into the hot legs.

Feedback

A - Correct, This describes REFLUX cooling which is almost as efficient as two phase natural circulation.
B - Incorrect, The cooling provided hear is basically losses to ambient and is not very effective.
C - Incorrect, Not likely to occur on a small break LOCA.
D - Incorrect, Natural circulation can not occur when level in the core has decreased below the hot leg penetrations.

Notes

Source: Byron 2000-301

Categories

RO Tier:	T1G1	SRO Tier:	T1G1
K/A Value:	3.6/3.9	Cog. Level:	C/A
Source:	NEW	Exam:	FR01301
Test:	COM (40)	Misc:	SDR