

\*QNUM 01  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000062K303  
\*QUESTION

All AC power has been lost and equipment is being placed in PULLOUT per ECA-0.0, LOSS OF ALL AC POWER. Which pump will be kept available, and why?

- a. One RHR pump, to provide RCS inventory makeup.
- b. One SI pump, to provide RCS inventory makeup.
- c. One service water pump, to provide Diesel Generator cooling.
- d. One charging pump, to provide RCP seal cooling.

\*ANSWER

C

\*REFERENCE

ECA-0.0, CAUTION prior to step 6  
INPO Exam Bank, BYRON1 10/29/2001 Exam  
Bank  
Higher

\*QNUM 02  
\*HNUM  
\*ANUM  
\*QCHANGED FALSE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 059000K408  
\*QUESTION

The controller output which automatically positions the Main Feedwater Regulating Valves (FW-7A & B) to maintain programmed level uses steam generator narrow range water level AND which of the following?

- a. The setpoint established by the operator on the control station
- b. Steam flow and feedwater flow
- c. Steam flow, feedwater flow and Turbine impulse pressure
- d. Turbine impulse pressure

\*ANSWER

B

\*REFERENCES

LESSON PLAN RO2-02-LP05A, MAIN FEEDWATER  
SYSTEM DESCRIPTION 05A, FEEDWATER

New

Higher

\*QNUM 03  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 022000K302  
\*QUESTION

Containment temperature has increased from 100 degrees F to 160 degrees F due to a containment cooling malfunction. If the plant is stable at 100% power and there are negligible RCS or containment pressure changes, which one of the following describes the effect of the increase in containment temperature on the pressurizer level indicated by the pressurizer level control channels?

- a. Indicated level will be HIGHER than actual level because the reference leg fluid density decreases.
- b. Indicated level will be LOWER than actual level because the reference leg fluid density decreases.
- c. Indicated level will be HIGHER than actual level because the elevated containment temperature causes increased flashing in the reference leg.
- d. Indicated level will be LOWER than actual level because of the elevated containment temperature causes increased flashing in the reference leg.

\*ANSWER

A

\*REFERENCE

NRC Exam Bank, Kewaunee 02/21/1994 Exam

ADV-SYS-LP-36D, p. 11

ADV-SYS-LP-36D, EO-RO4.a

Bank

Higher

\*QNUM 04  
\*HNUM  
\*ANUM  
\*QCHANGED FALSE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 056000K103  
\*QUESTION

Both Main Feedwater pumps are running when the "A" Main Feedwater pump trips. WHICH ONE (1) of the following conditions prevents the start AND continued operation of the "A" Main Feedwater pump?

- a. Lube oil pressure is 10 psig.
- b. Suction pressure is 210 psig.
- c. Recirculation valve is FULL open.
- d. Only one Condensate pump is running.

\*ANSWER

D

\*REFERENCE

NRC Exam Bank, Prairie Island 1 & 2 05/09/1994 Exam

Modified

Memory

\*QNUM 05  
\*HNUM  
\*ANUM  
\*QCHANGED FALSE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR K. Walton  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 011000K202  
\*QUESTION

With power to 480 volt Bus 1-43 deenergized, which pressurizer heaters would be affected?

- A. Backup group 1B ONLY
- B. Backup groups 1D AND 1E ONLY
- C. Backup Group 1A ONLY with transfer switch in Normal
- D. Backup group 1A with transfer switch in Alternate AND control group 1C ONLY

\*ANSWER

B

\*REFERENCES

E-240 Rev. AQ

Adv System LP Objective R02-05-LP36D.003 ('N/A')

New

Memory

\*QNUM 06  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 079000K101  
\*QUESTION

Given the following:

- Station and Instrument Air System is in a normal/automatic system lineup.
- The station air compressor preferred selector switch is aligned to Compressor G.

Which of the following automatically occur when the Station and Instrument Air System air header pressure is decreasing and reaches 95 psig?

- a. Air dryers are bypassed AND Station air compressor F starts.
- b. Station air compressor F starts AND SA-400, (SA Header B Supply Valve) is fully closed.
- c. SA-200, (SA Header A Supply Valve) AND SA-400, (SA Header B Supply Valve) start to close.
- d. Instrument air compressor C starts and isolates from station air header AND SA-200, (SA Header A Supply Valve) is fully closed.

\*ANSWER

C

\*REFERENCE

KNPP SD 1, Rev 1, p 6; LP O-RO-LP-2.11.1, EO 3

NRC Exam Bank, Kewaunee 1993 Exam

Modified

Higher

\*QNUM 07  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 015000K101  
\*QUESTION

With the plant initially at 100% power, steady-state, which one of the following describes an effect of power range channel N-42 upper detector failing HIGH?

- a. Reactor trips on high flux.
- b. Main feed regulating valves fully open.
- c. Control rods step out to high bank rod stop.
- d. Over-temperature DT setpoint for one channel decreases.

\*ANSWER

D

\*REFERENCE

NRC Exam Bank, V. C. Summer 1 1992/05/18 Exam

Bank

Higher

\*QNUM 08  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000065K304  
\*QUESTION

The unit is at 100% power with Instrument air pressure at 115 psig. Station Air Compressor F is tagged out for preventive maintenance. What will instrument air pressure do when Station Air Compressor G is tripped.

- a. decrease, then increase to a value above its previous pressure.
- b. remain unaffected.
- c. slowly decrease to a point where the unit will have to be tripped.
- d. decrease, then increase to a value below its previous pressure.

\*ANSWER

D

\*REFERENCE

NRC Exam Bank, North Anna 1 01/26/1996 Exam

Bank

Higher



\*QNUM 09  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL R  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 000003K103  
 \*QUESTION

The following plant conditions exist:

- Reactor is Critical at 10E-3 percent power
- RCS Tavg is 547 deg F and steady
- Pressurizer pressure is 2235 psig and steady
- Control Bank D position is 100 steps
- ONE Control Bank D rod drops

Describe the INITIAL response of Tavg and Pressurizer pressure (PZR Press):

	<u>Tavg</u>	<u>PZR Press</u>
a.	Remain the same	Remain the same
b.	Increase	Remain the same
c.	Remain the same	Increase
d.	Decrease	Decrease

\*ANSWER

A

\*REFERENCE

NRC Exam Bank, Prairie Island 1 & 2 09/28/1992 Exam  
 Bank  
 Higher

\*QNUM 010  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000027K203  
\*QUESTION

The following conditions exist:

- 90% Reactor power.
- Pressurizer Pressure control is in automatic
- Backup heaters are in "AUTO".
- Actual Pressurizer Pressure is 2235 psig.

The Pressurizer Pressure Master Controller malfunctions and its SETPOINT drifts to 2100 psig over a 10 minute period. Which of the following describes the INITIAL automatic response of the Pressurizer Pressure Control System as this failure occurs?

- a. Spray valves throttle closed and variable heaters go to maximum current.
- b. Spray valves throttle open and variable heaters go to minimum current.
- c. Pressurizer PORVs PR-2A and PR-2B open, Spray valves throttle open, and Group 'C' heaters go to minimum current.
- d. Spray valves throttle closed, pressurizer backup heater groups go to maximum current, and backup heaters come "ON".

\*ANSWER

B

\*REFERENCE

INPO Exam Bank, BYRON1 10/29/2001 Exam

Modified

Higher

\*QNUM 011  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 006000 2.3.11  
\*QUESTION

Which of the following electrical interlocks prevents release of radioactive water to the RWST during transfer to Containment Sump Recirculation during a LOCA?

- a. Close SI-300A/B, RWST Supply Valve to an RHR pump, before opening SI-350A/B, Containment Sump B Isolation Valve to an RHR pump.
- b. Close SI-208 or SI-209 SI Recirculation Isolation Valves before opening SI-350A/B and 351A/B, Containment Sump B Isolation Valves to an RHR pump.
- c. Close SI-208 or SI-209 SI Recirculation Isolation Valves before opening RHR-299A/B RHR Heat Exchanger Outlet Valve to an SI pump.
- d. Open SI-350A/B and 351A/B, Containment Sump B Isolation Valves before opening RHR-299A/B RHR Heat Exchanger Outlet Valve to an SI pump.

\*ANSWER

B

\*REFERENCES

ES-1.3, Transfer to Containment Sump Recirculation  
System Description 33, Safety Injection System  
New  
Memory

\*QNUM 012  
 \*HNUM  
 \*ANUM  
 \*QCHANGED FALSE  
 \*ACHANGED FALSE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL R  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 008000A308  
 \*QUESTION

Given the following conditions:

- Component Cooling Pump "A" is running
- Component Cooling Pump "B" is in standby
- D/G "B" is out of service for maintenance

A safety Injection signal is generated. Which one of the following describes the response of the Component Cooling Water Pumps?

	<u>Pump A</u>	<u>Pump B</u>
a.	Runs continuously	Sequences on
b.	Stops then sequences on	Remains off
c.	Runs continuously	Remains off
d.	Stops then sequences on	Sequences on

\*ANSWER

A

\*REFERENCE

Kewaunee Exam Bank Question  
 Lesson Plan Objective RO2-01-LP31.004  
 CCW System Description 31  
 Bank  
 Higher

\*QNUM 013  
\*HNUM  
\*ANUM  
\*QCHANGED FALSE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 003000A304  
\*QUESTION

Given the following conditions:

- The plant is operating at 18% power
- The high pressure piping to RCS flow instrument FT-411 on Loop A breaks

What is the status of Loop A RCS flow indicators and what is the resulting plant condition (assume NO operator action is taken)?

- a. All Loop A flow indicators will read low, and the reactor will trip on RCS loop low flow.
- b. All Loop A flow indicators will read low, and the reactor will trip on low PRZR pressure.
- c. Only FI-411 RCS flow indication will read low, and no reactor trip is generated.
- d. Only FI-411 RCS flow indication will read low, and the reactor will trip on low PRZR pressure.

\*ANSWER

A

\*REFERENCE

LESSON PLAN RO2-02-LP362,  
SYSTEM DESCRIPTION 36, RCS  
Kewaunee 12/2000 Exam  
Bank  
Higher

\*QNUM 014  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 061000K101  
\*QUESTION

Given the following conditions:

- The plant is at 15% power
- S/G 'B' level channel LT-473 is removed from service per A-MI-87

If S/G 'B' level channel LT-471 fails high, what would be the status of feed for the S/Gs?

- a. Both S/Gs are being fed from the motor-driven AFW Pumps only.
- b. Both S/Gs are being fed from the turbine-driven AFW Pump only.
- c. S/G A is being fed from the motor-driven AFW Pump. S/G B has no feed flow.
- d. Feed to S/G A remains normal. Feed to S/G B lowers due to throttling close of FW-7B, S/G B Main Feed valve.

\*ANSWER

A

\*REFERENCE

System description 05A, Feedwater System

System description 05B, Auxiliary Feedwater System

Kewaunee Exam Bank

Bank

Higher

\*QNUM 015  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 004000A405  
\*QUESTION

Which one of the following describes the operation of LD-13, Letdown Line Pressure Relief Valve?

- a. Relieves at 200 psig to the VCT
- b. Relieves at 150 psig to the PRT
- c. Relieves at 150 psig to the VCT
- d. Relieves at 200 psig to the PRT.

\*ANSWER

A

\*REFERENCE

INPO Exam Bank - Kewaunee Exam 12/18/1997

System Description 35, CVCS

Bank

Memory

\*QNUM 016  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL R  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 061000A101  
 \*QUESTION

The plant is in Hot shutdown, with the following conditions:

- Tave = 547 deg F with both RXCPs operating
- A Main Feedwater Pump is running
- Steam Generator A Narrow Range Level = 20%
- Steam Generator B Narrow Range Level = 15%
- Condensate Pump A is Hold Carded in Pullout.
- Condensate Pump B is running
- All three Auxiliary Feedwater Pumps are in Off and in Pullout
- All the support conditions for the Auxiliary Feedwater Pumps are met

At the direction of the CRS, the BOP places all three Auxiliary Feedwater Pump control switches into the AUTO position.

Without further operator actions, what is the status of the Auxiliary Feedwater Pumps?

	<u>MDAFW Pumps</u>	<u>TDAFW</u>
a.	Running	Running
b.	Running	Off
c.	Off	Running
d.	Off	Off

\*ANSWER

B

\*REFERENCE

Lesson Plan RO2-05-LP05B, Aux Feedwater

Kewaunee Exam Bank

Bank

Higher



\*QNUM 017  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR K Walton  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 045A401

\*QUESTION

SP-54-086, "Turbine Stop and Governor Valve Operability," directs depressing the CLOSE SV-1 pushbutton. Which of the following statements identifies an expected response of the turbine control valves (CV-1 through CV-4) and turbine stop valve (SV-1) to this action?

- a. SV-1 closes, then CV-1 and CV-3 close.
- b. SV-1 closes, then CV-1 and CV-2 close.
- c. CV-1 and CV-2 close, then SV-1 closes.
- d. CV-1 and CV-3 close, then SV-1 closes.

\*ANSWER

D

\*REFERENCE

SP-54-086, "Turbine Stop and Governor Valve Operability Test," Pg 3 of 17.

New

Memory

\*QNUM 018  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.1.25  
\*QUESTION

The following conditions exist:

- A LOCA has occurred.
- The crew is trying to reduce ECCS flow.
- All equipment is operating properly.
- Wide Range RCS pressure is 800 psig.
- 65 deg F of subcooling is required to stop one of the ECCS pumps.

What is the MAXIMUM Core Exit Thermocouple temperature at which the pump is stopped?

- a. 430 deg F.
- b. 455 deg F.
- c. 480 deg F.
- d. 505 deg F.

\*ANSWER

B

\*REFERENCE

INPO Exam Bank, Byron - 10/29/2001 Exam

Bank

Higher

\*QNUM 019  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.1.11  
\*QUESTION

Given the following:

- The reactor is critical at 1% power.
- SI Accumulator "A" water volume was just found to be 1270 cubic ft (48%).
- SI Accumulator "B" water volume was found to be 1220 cubic ft (20%) at the same time.

What action is required due to these conditions, if any?

- a. No action is needed due to these conditions.
- b. SI Accumulator "A" water volume must be restored to limits.
- c. SI Accumulator "B" water volume must be restored to limits.
- d. Action must be initiated within 1 hour to go to HOT SHUTDOWN.

\*ANSWER

C

\*REFERENCE

Lesson Plan R02-05-LP-033

TS 3.3.a. Accumulators

New

Higher

\*QNUM 020  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.2.27  
\*QUESTION

Given the following conditions:

- Reactor Vessel Head AND Upper Internals have been removed.
- Residual Heat Removal boron concentration is 2458 ppm.
- The reactor has been shutdown for 7 days.
- Spent Fuel Pool Pump "A" is operating per N-SFP-21, Spent Fuel Pool Cooling and Cleanup System. Spent Fuel Pool Pump "B" is inoperable.
- Residual Heat Removal Pump "A" is operating. Residual Heat Removal Pump "B" is inoperable.
- Refueling Cavity level is greater than 23 feet above the vessel flange.

Based on the plant status given, determine what condition must be resolved to meet requirements for a fuel shuffle within the reactor that is NOT a full core offload.

- a. Residual Heat Removal boron concentration is too low.
- b. Spent Fuel Pool Cooling Pump "B" is required to be operable.
- c. The reactor has not been shutdown long enough.
- d. Residual Heat Removal Pump "B" is required to be operable.

\*ANSWER

A

\*REFERENCE

Lesson Plan R02-05-LP-053

N-FH-53-CLC, Pre-Refueling Checklist

RF-01.00, KNPP Refueling Procedure

New

Higher

\*QNUM 021  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.2.26  
\*QUESTION

Which of the following is the purpose of NAD-02.07, Kewaunee Refueling Operations?

- a. Provides step-by-step instructions to be used by fuel handlers during core offload.
- b. Provides administrative instructions for reactor engineers to follow when developing the fuel shuffle sequence to prevent inadvertent criticality during core reload.
- c. Describes the organization and responsibilities for reactor vessel disassembly, reassembly, and fuel handling operations.
- d. Provides step-by-step instructions on completing a Fuel Assembly Handling Deviation Report.

\*ANSWER

C

\*REFERENCE

Lesson Plan R02-05-LP-053

NAD-02.07, Kewaunee Refueling Operations

New

Memory

\*QNUM 022  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.3.2  
\*QUESTION

A point source in containment is reading 300 mRem/hr at a distance of two (2) feet. Two options are available to complete a mandatory work assignment near this radiation source:

Option 1 - ONE operator can perform the assignment in fifty (50) minutes working at a distance of three (3) feet from the source.

Option 2 - THREE operators, using special extension tooling, can perform the assignment in sixty (60) minutes at a distance of six (6) feet from the source

Which is the preferred option based on ALARA and the corresponding total exposure?

- a. Option 1, with a total exposure of 0.100 Person-REM
- b. Option 1, with a total exposure of 0.111 Person-REM
- c. Option 2, with a total exposure of 0.100 Person-REM
- d. Option 2, with a total exposure of 0.111 Person-REM

\*ANSWER

C

\*REFERENCE

INPO EXAM BANK, 12/11/2000 Kewaunee Exam

Modified

Higher

\*QNUM 023  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL R  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 2.4.1  
 \*QUESTION

Which of the following is listed in E-0, "Reactor Trip or Safety Injection", step 1 CONTINGENCY ACTIONS but is NOT in FR-S.1, "Response to a Nuclear Power Generation/ATWS", step 1 CONTINGENCY ACTIONS?

- a. Source range counts
- b. Intermediate range power
- c. Reactor Trip Breakers
- d. Bypass Breakers

\*ANSWER

B

\*REFERENCE

FR-S.1, "Response to a Nuclear Power Generation/ATWS"

E-0, "Reactor Trip or Safety Injection"

New

Higher

\*QNUM 024  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.4.7  
\*QUESTION

Which of the following is the basis for maintaining SG Narrow Range levels between 4% and 50% during procedure ECA-0.0, "LOSS OF ALL AC POWER"?

- a. Ensures the capability to cooldown the reactor only after AC power is restored.
- b. Ensures heat transfer capability exists to remove heat from the RCS.
- c. Narrow Range level is the only reliable indication of SG inventory available after a loss of all AC power.
- d. Provides capability to monitor the SGs for a Steam Generator Tube Rupture.

\*ANSWER

B

\*REFERENCE

INPO Exam Bank - Byron Exam 10/20/2000

ECA-0.0, "LOSS OF ALL AC POWER" and Background Document

New

Higher



\*QNUM 025  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL R  
\*EXMNR K Walton  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA W/E11EK32  
\*QUESTION

Which ONE of the following describes the mitigating strategies contained in ECA-1.1, "Loss of Emergency Coolant Recirculation?"

- A. Minimizing the depletion of the RWST, Maximizing Subcooling, determination of minimum containment spray requirements.
- B. Maximizing Subcooling, minimizing the depletion of the RWST, and depressurization of the RCS to minimize break flow.
- C. Minimizing the depletion of the RWST, determination of minimum containment spray requirements, and depressurization of the RCS to minimize break flow.
- D. Maximizing subcooling, determination of minimum containment spray, and depressurization of the RCS to minimize break flow.

\*ANSWER

C

\*REFERENCE

FR-C.2, "Response to Degraded Core Cooling" and Background Document  
Bank  
Memory

\*QNUM 026  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL B  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 001000K103  
 \*QUESTION

Given the following CRDM coil rod motion sequence:

- 1. Stationary Gripper Energized at Low Voltage
- 2. Stationary Gripper Energizes at High Voltage
- 3. Movable Gripper Energizes
- 4. Stationary Gripper De-energizes

The next step in the sequence is \_\_\_\_\_ and the rod is being moved \_\_\_\_\_

- a. Lift Coil De-energizes, Inward
- b. Lift Coil Energizes, Outward
- c. Stationary Gripper Energizes at Low Voltage, Inward
- d. Stationary Gripper Energizes at High Voltage, Outward

\*ANSWER

B

\*REFERENCE

Lesson Plan RO2-05-LP049, Rod Control and RPI

SD-49, Section 3.3.2

New

Higher

\*QNUM 027  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR K. Walton  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 001000K611  
\*QUESTION

With the plant in the operating mode, the reactor operator receives ROD CONTROL SYSTEM ABNORMAL annunciator and SER point 1692, "Rod Control System Non-Urgent Failure." Instrument and Control technicians narrow the problem to the Rod Control Logic Cabinet. What may have caused this condition to occur?

- a. Slave cyclor cycles without a GO pulse
- b. A redundant power supply has been lost
- c. Oscillator fails to generate signals when called for
- d. There is a loose printed circuit card in the logic circuitry

\*ANSWER

B

\*REFERENCE

RO2-05-LP049 Lesson Plan, Rod Control and RPI, pg 43 & 44 of 59.

Annunciator 47043-R, Rod Control System Abnormal

New

Memory

\*QNUM 028  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 013000K403  
\*QUESTION

Which of the following conditions results in a Main Steam Isolation?

- a. Containment pressure of 15 psig.
- b. Steamline flow of 4E6 lb/hr AND an "SI" signal.
- c. Steamline flow of 5E6 lb/hr AND Tavg of 530 deg F.
- d. Steamline flow of 0.8E6 lb/hr, Tavg of 530 deg F, AND an "SI" signal.

\*ANSWER

D

\*REFERENCE

KNPP System Description 55, Engineered Safety Features

Bank

Memory

\*QNUM 029  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 004000K305  
\*QUESTION

The unit is at 100% power with Charging pump A operating in automatic. Charging Line Flow Control valve, CVC-7, is throttled to 70%. CVC-7 then fails open. Charging pump A's speed will ....

- a. NOT change during this event
- b. decrease at first, then returns to its initial speed
- c. increases at first, then remains above its initial speed
- d. decreases at first, then remains below its initial speed

\*ANSWER

A

\*REFERENCE

Lesson Plan RO2-05-035, CVCS

System Description 35, CVCS

New

Higher

\*QNUM 030  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 015000K603  
\*QUESTION

A plant startup is in progress with power at 8 percent. Intermediate Range drawer N-36 Level Trip switch is in the BYPASS position. What is the plant response to removal of N-36 control power fuses and the reason for the plant response?

- a. A trip will occur because the Level Trip Switch bypass function will be removed.
- b. A trip will not occur because the Level Trip Switch is in the bypass position and the bypass function is not affected at any power level.
- c. A trip will not occur because the Level Trip Switch is in the bypass position and power is less than P-10.
- d. A trip will occur because the Level Trip Switch bypass function is operable only above P-10.

\*ANSWER

A

\*REFERENCE

Lesson Plan RO2-05-048, NIS

System Description 48, NIS

NRC EXAM 11/13/1990 Millstone 3

Bank

Higher

*QNUM	031
*HNUM	
*ANUM	
*QCHANGED	FALSE
*ACHANGED	FALSE
*QDATE	2004/02/02
*FAC	305
*RTYP	PWR-WEC2
*EXLEVEL	B
*EXMNR	C. Zoia
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	017000A401
*QUESTION	

While operating at 100% power, Graphics Display 4 on PPCS shows the B7 CET temperature to be 592°F.

Which of the following sequence of actions identifies how the operator would display the B7 CET temperature value (Channel 20 on Train B) at the ICCMS panels?

**Depress the CET ID/CET TEMP pushbutton to illuminate the...**

- A. CET TEMP lamp, then depress the AVG/HOT pushbutton to display the B7 CET temperature.
- B. CET TEMP lamp, then depress the REF1/REF2 pushbutton to display the B7 CET temperature.
- C. CET ID lamp, then depress the REF1/REF2 pushbutton until "B7" is displayed, then depress the CET ID/CET TEMP again to display the B7 CET temperature.
- D. CET ID lamp, then depress the AVG/HOT pushbutton until "20" is displayed, then depress the CET ID/CET TEMP again to display the B7 CET temperature.

\*ANSWER  
D

\*REFERENCE  
System Description 50, Incore Instrumentation & Inadequate Core Cooling Monitor  
Sections 1.4, CET Operation and 3.4.3, CET Instrumentation  
New  
Memory

\*QNUM 032  
\*HNUM  
\*ANUM  
\*QCHANGED FALSE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 022000A301  
\*QUESTION

Given the following conditions:

- Four CFCUs were running prior to the event
- A Safety Injection signal was just received
- Containment Pressure has increased to 3.5 psig and is currently stable

What condition would you expect the CFCUs to be in at this time?

- a. All CFCUs would be running with SW return isolation valves throttled to maintain temperature
- b. All CFCUs would be running with CFCU Emergency Discharge dampers open and SW return isolation valves throttled to maintain temperature
- c. All CFCUs would be running with SW return isolation valves fully open
- d. All CFCUs would be running with CFCU Emergency Discharge dampers and SW return isolation valves fully open

\*ANSWER

C

\*REFERENCE

System Description 18, Reactor Building Ventilation (RBV) & Hydrogen Control

Lesson Plan RO2-04-LP 18, Reactor Building Ventilation System

New

Higher



\*QNUM 033  
\*HNUM  
\*ANUM  
\*QCHANGED FALSE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 076000K307  
\*QUESTION

Given the following conditions:

- The plant has tripped and a Safety Injection signal has been generated.
- Engineered Safeguard Features Actuation System Train A relays have failed to operate ONLY the Service Water System valves.
- Train B relays have operated properly.

At the completion of the SI sequence, what is the status of Service Water flow to Component Cooling Water (CCW) Heat Exchanger 'A', if NO operator action is taken?

- a. There will be NO Service Water flow through the CCW heat exchanger.
- b. SW flow will be at a set constant value lower than its post-accident expected value.
- c. SW flow through the CCW heat exchanger will be at its post-accident expected value.
- d. SW flow will be lower than its post-accident expected value and controlled by the CCW outlet header temperature.

\*ANSWER

D

\*REFERENCE

System Description 2, Service Water  
Kewaunee Exam Bank  
Bank  
Higher

\*QNUM 034  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 059000 2.2.2  
\*QUESTION

Given the following conditions:

- The plant is at 55% power and steady.
- The "A" Main FW pump is in pullout.
- The "B" Main FW pump is running with two condensate pumps.
- Annunciator 47062-A, "S/G A Program Level Deviation" is LIT.
- All 3 S/G A level indicators are 38% and steady.

Which of the following describes actions to be taken by the operator based on these conditions?

- a. START "A" Main FW pump per N-FW-05B, Feedwater System Normal Operation AND MONITOR "A" S/G level automatic control for proper operation.
- b. REDUCE load to < 50% AND MONITOR "A" S/G level automatic control for proper operation.
- c. Place Feedwater Flow Control Valve FW-7A to MANUAL AND GO to A-MI-87, Bistable Tripping for Failed Reactor Protection or Safeguards Instrumentation.
- d. GO to A-FW-05A, Abnormal Feedwater System Operation, AND DETERMINE if manual feedwater control is required.

\*ANSWER

D

\*REFERENCE

A-FW-05A, Abnormal Feedwater System Operation, step 4.4

New

Higher

\*QNUM 035  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED FALSE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL B  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 003000K201  
 \*QUESTION

Given the following plant conditions:

- The reactor is at 100% power
- All systems are in a normal lineup

Based on these conditions, which one of the following correctly states the power supply to the Reactor Coolant Pumps?

	<u>RXCP A</u>	<u>RXCP B</u>
a.	MAT	MAT
b.	RAT	MAT
c.	MAT	RAT
d.	RAT	RAT

\*ANSWER

A

\*REFERENCES

KNPP SD 39, 4160 V System

KNPP SD 36, RCS

New

Memory

\*QNUM 036  
\*HNUM  
\*ANUM  
\*QCHANGED FALSE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA W/E08EA202  
\*QUESTION

In procedure FR-P.1, Response to Imminent Pressurized Thermal Shock Condition, the step to check if SI can be terminated is based on which of the following parameter(s):

- a. RCS Subcooling ONLY.
- b. RCS Subcooling and RCS Cold Leg Temperatures.
- c. RCS Pressure ONLY.
- d. RCS Pressure and RCS Cold Leg Temperatures.

\*ANSWER

A

\*REFERENCE

IPEOP Background Document for FR-P.1

Lesson Plan RO4-04-LP-016, Response to Imminent Pressurized Thermal Shock Condition

New

Memory

\*QNUM 037  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA W/E12EA13  
\*QUESTION

ECA-2.1, Uncontrolled Depressurization of Both Steam Generators, has been entered from E-2, Faulted Steam Generator Isolation. Containment pressure is 1.0 psig. Each steam generator is being fed at 100 gpm producing an RCS cooldown rate of 120 degrees F/hr. Steam generator water levels are as follows:

Steam Generator A narrow range levels - 2%  
Steam Generator B narrow range levels - 8%

Based on the conditions above, what is the appropriate initial operator action?

- a. Decrease feed flow to each steam generator to 60 gpm.
- b. Decrease feed flow to "A" steam generator ONLY to 60 gpm.
- c. Increase feed flow as required to maintain "A" steam generator narrow range level greater than or equal to 4%.
- d. Control feed flow as required to maintain RCS hot leg temperatures stable or decreasing.

\*ANSWER

A

\*REFERENCE

ECA-2.1, Uncontrolled Depressurization of Both Steam Generators

New

Higher

\*QNUM 038  
\*HNUM  
\*ANUM  
\*QCHANGED FALSE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000026K303  
\*QUESTION

The following plant conditions exist:

- A safety injection has actuated
- A transition has been made to ES-1.1, SI Termination
- No charging pump is running
- CC flow to the RXCP thermal barrier HX has been lost since the SI actuation

What action is initially taken associated with RXCP seal cooling and what is the reason for the action?

- a. RXCP seal injection is isolated before starting a charging pump, to avoid taking time to reestablish seal cooling since RXCP seals are already heated up.
- b. A charging pump is started and then CC flow is established to the RXCP thermal barriers, to prevent steam binding of the CC system.
- c. CC flow is established to the RXCP thermal barriers and then a charging pump is started, to prevent RXCP shaft warping.
- d. CC flow is established to the RXCP thermal barriers, to prevent thermal shock to the RXCP seals.

\*ANSWER

A

\*REFERENCE

ES-1.1, SI Termination and Background Document

Lesson Plan RO4-04-LP-005

New

Memory

\*QNUM 039  
\*HNUM  
\*ANUM  
\*QCHANGED FALSE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA W/E10 2.4.4  
\*QUESTION

Given the following plant conditions:

- Reactor trip occurred with subsequent loss of RXCPs.
- RCS Pressure is 800 psig
- Operators have implemented ES-0.2, "Natural Circulation Cooldown" to go to Cold Shutdown.
- A cooldown rate of 25 deg F/hour has been established.
- RCS depressurization has been initiated
- PZR level - Unexpected large variations are occurring
- RVLIS RXCPs OFF Indication - 90%

The Shift Manager has determined that cooldown and depressurization shall proceed as quickly as possible. Which ONE of the following describes the appropriate actions?

- a. Pressurize the RCS to collapse the voids, continue the cooldown and remain in ES-0.2, Natural Circulation Cooldown.
- b. Raise the cooldown rate to collapse the voids and remain in ES-0.2, Natural Circulation Cooldown.
- c. Pressurize the RCS to collapse the voids, continue the cooldown and transition to ES-0.3, "Natural Circulation Cooldown With Steam Voids in Vessel".
- d. Raise the cooldown rate to collapse the voids and transition to ES-0.3, "Natural Circulation Cooldown With Steam Voids in Vessel."

\*ANSWER

C

\*REFERENCE

Modified

Higher

\*QNUM 040  
\*HNUM  
\*ANUM  
\*QCHANGED FALSE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000005K105  
\*QUESTION

Given the following plant conditions:

- The unit is at 80% power.
- Control Bank D rod K7 is stuck at 220 steps (not the most reactive rod).
- All other Control Bank "D" rods are at 220 steps.
- Tavg = 567°F.

How would the shutdown margin calculation performed prior to the condition discovered above be affected?

- a. No effect on shutdown margin.
- b. Shutdown margin would be more conservative.
- c. Shutdown margin would be less conservative.
- d. The effect on shutdown margin can not be determined.

\*ANSWER

C

\*REFERENCE

System Description 49 - Rod Control and RPI

Technical Specifications

New

Higher



\*QNUM 041  
\*HNUM  
\*ANUM  
\*QCHANGED FALSE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C. Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000015A109  
\*QUESTION

Which of the following indications will be inaccurate during the performance of ES-0.2, "Natural Circulation Cooldown", with RXCPs secured?

- a. RCS core exit TCs.
- b. RCS wide range hot leg temperature.
- c. RCS T-average indication.
- d. RCS wide range cold leg temperature.

\*ANSWER

C

\*REFERENCE

ES-0.2, Rev 0, Caution before step 1, p 2.

NRC Exam Bank - Point Beach 1 & 2 04/29/1991

Bank

Memory

\*QNUM 042  
\*HNUM  
\*ANUM  
\*QCHANGED FALSE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000024K102  
\*QUESTION

The following plant conditions exist:

- Reactor power is 80%
- Rod Control is in MANUAL
- All other controls are in AUTO

An inadvertent Emergency Boration was performed for two minutes.

Considering steady-state to steady-state conditions, which of the following parameters will **NOT** change?

- a. Reactor Power
- b. RCS Tavg
- c. Przr Level
- d. S/G Pressure

\*ANSWER

A

\*REFERENCE

PWR Fundamentals

INPO Exam Bank - Braidwood 4/1/1996 Exam

Bank

Memory

\*QNUM 043  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 056000A204  
\*QUESTION

Given the following conditions:

- The plant is at 50% power
- Condensate pump A is in pullout
- Condensate pump B is running

If condenser hot well level subsequently decreases to 10%, which one of the actions below is now required?

- a. Startup condensate pump A per N-CD-03, Condensate System.
- b. Address abnormal condensate conditions per A-CD-03, Condensate System Abnormal Operation.
- c. OPEN MU-3B, Condenser Emergency Make-up valve per N-CD-03, Condensate System.
- d. Respond to the reactor trip per E-0, Reactor Trip or Safety Injection

\*ANSWER

D

\*REFERENCE

Lesson Plan RO2-02-LP-003, Condensate and Air Removal System

New

Higher

\*QNUM 044  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL B  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 000051 2.1.30  
 \*QUESTION

Due to decreasing condenser vacuum, the operator performs the actions of E-AR-09, Loss of Condenser Vacuum. At one point, condenser pressure increases to 5 inches Hg absolute, and the operator must locally place the hogging jet in service.

In addition to opening MS-400, Steam Supply to Hogging Jet, and throttling MS-401, Steam to Hogging Jet, to maintain between 105-115 psig on PI-11323, four additional valves, listed below, must be aligned to place the hogging jet in service:

- AR-302, Gland Steam Cdsr Exhaust to Outside
- AR-305, Gland Steam Cdsr Exhaust to Vent
- AR-100, Hogging Jet Air Inlet
- AR-2A, First Stage Ejector Inlet

Which of the following is the correct valve alignment?

	<u>AR-302</u>	<u>AR-305</u>	<u>AR-100</u>	<u>AR-2A</u>
a.	CLOSED	OPEN	CLOSED	OPEN
b.	OPEN	CLOSED	OPEN	CLOSED
c.	CLOSED	OPEN	OPEN	CLOSED
d.	OPEN	CLOSED	CLOSED	OPEN

\*ANSWER

B

\*REFERENCE

KNPP Lesson Plans RO2-02-LP-003.004 and O-AOP-LP-D8

E-AR-09, Loss of Condenser Vacuum

New

Higher

\*QNUM 045  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 071000A302  
\*QUESTION

The Gaseous Radioactive Waste System (WG) vent header pressure has just increased to 2 psig. Per A-GWP-32B, the AUTOMATIC ACTIONS the operator must now verify are:

- a. The start of the Waste Gas Compressors.
- b. The closure of Gas Decay Tank inlet isolation valves for the tank selected for fill.
- c. The closure of Gas Decay Tanks to Holdup Tanks valve.
- d. The opening of Gas Decay Tank inlet isolation valve for the tank selected for standby.

\*ANSWER

A

\*REFERENCE

KNPP System Description 32B, Gaseous Radioactive Waste Disposal (GWP)

New

Memory

\*QNUM 046  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 071000A409  
\*QUESTION

The contents of a Gas Decay Tank is being released in accordance with the appropriate administrative controls when Gas Decay Tanks to Plant Vent, WG-36/CV-31215, closed. Which of the following monitors could have caused this to occur?

- a. BOTH R-13 and R-14 (Aux Building Vent Monitors)
- b. BOTH Aux. Area Monitors 03-06 and 03-08 (Beta Air Monitors Aux. Building)
- c. ONLY R-13 (Aux Building Vent Monitor)
- d. ONLY R-14 (Aux Building Vent Monitor)

\*ANSWER

A

\*REFERENCE

KNPP System Description 32B, Gaseous Radioactive Waste Disposal (GWP)

KNPP System Description 45, Radiation Monitoring (RM)

New

Memory

\*QNUM 047  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 072000K501  
\*QUESTION

Which of the following describes the detector types used in Area Radiation Monitors at Kewaunee?

- a. ONLY GM tubes and ion chambers
- b. ONLY ion chambers
- c. ONLY GM tubes
- d. Ion chambers, GM tubes AND scintillation detectors

\*ANSWER

A

\*REFERENCE

KNPP System Description 45, Radiation Monitoring (RM)

RO2-01-LP045, Radiation Monitoring

New

Memory

\*QNUM 048  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 072000 2.3.10  
\*QUESTION

Procedure A-RM-45, Abnormal Radiation Monitoring, requires the operator to determine if Post Accident Recirc must be started due to a failure of R-23, Control Room Vent Monitor, by monitoring specific process and area monitors for increasing radiation levels.

Besides R-1, Control Room Area Monitor, what additional AREA Radiation monitor(s), if any, must be monitored and Post Accident Recirc manually started on increasing levels of radiation?

- a. BOTH R-10, New Fuel Pit Area Monitor AND R-5, Fuel Handling Area Monitor.
- b. NO additional Area Radiation Monitors.
- c. ONLY R-10, New Fuel Pit Area Monitor.
- d. ONLY R-5, Fuel Handling Area Monitor.

\*ANSWER

D

\*REFERENCE

KNPP System Description 45, Radiation Monitoring (RM)

A-RM-45, Abnormal Radiation Monitoring

New

Memory



\*QNUM 049  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 002000A203  
\*QUESTION

ES-0.2, Natural Circulation Cooldown, is being implemented. The following conditions exist:

- RCS cold leg Temp is at 380 deg F.
- RCS Pressure is at 1450 psig.
- All CRDM fans are off and CANNOT be started.
- 18 hour waiting period has begun.

What is the basis for the 18 hour waiting period?

- a. Prevent damage to the CRDM coils due to overheating.
- b. Ensure heat is being removed from the Steam Generator to prevent void formation in the U-tubes.
- c. Minimize void formations in the Reactor Vessel head during subsequent RCS depressurization to place RHR in service.
- d. Allow sufficient flow to the upper head region to make the upper head fluid temperature equal to the cold leg fluid temperature.

\*ANSWER

C

\*REFERENCE

ES-0.2, Natural Circulation Cooldown

ES-0.2 Background Document

Bank

Memory

\*QNUM 050  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 010000K103  
\*QUESTION

The following plant conditions exist:

- PZR pressure control channel selector switch is in the 4-3 position
- PZR pressure yellow channel (PT-449 IV) has just failed low

What is the effect of these conditions on the RCS?

- a. All PZR heaters will come ON; PZR PORVs PR-2A and PR-2B would not be available to open on a subsequent high RCS pressure condition.
- b. PZR heaters are unaffected; ONLY PZR PORV PR-2A would not be available to open on a subsequent high RCS pressure condition.
- c. All PZR heaters will come ON; PZR PORV PR-2A would not be available to open on a subsequent high RCS pressure condition.
- d. PZR heaters are unaffected; PZR PORVs PR-2A and PR-2B would not be available to open on a subsequent high RCS pressure condition.

\*ANSWER

D

\*REFERENCE

RO2-05-LP-36C, Pressurizer Pressure Control

New

Higher

\*QNUM 051  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 012000K304  
\*QUESTION

Following an ATWS and an SI actuation from 100% power, the Reactor Trip Breakers remain closed. What effect will this have on the plant?

- a. Automatic Turbine Trip will not occur.
- b. Automatic steam line isolation will be blocked.
- c. Automatic SI reactuation CANNOT be blocked.
- d. Feedwater isolation due to SI actuation will be blocked.

\*ANSWER

C

\*REFERENCE

RO2-05-LP472, Reactor Protection - Day 2

New

Higher

\*QNUM 052  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000055K101  
\*QUESTION

Which of the following parameters is monitored to determine the need to minimize DC loads while performing ECA-0.0, LOSS OF ALL AC POWER?

- a. Battery amps
- b. Battery amp-hours
- c. Battery volts
- d. Battery specific gravity

\*ANSWER

C

\*REFERENCE

KNPP Lesson Plan RO4-04-LP040, Loss of all AC Power

Comanche Peak NRC Exam 11/26/1990

ECA-0.0, Loss of all AC Power

Bank

Memory

\*QNUM 053  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000057A102  
\*QUESTION

Given the following:

- The unit is stable at 15% power.
- A failure of Instrument Bus I, BRA-113, occurs.
- All systems and control loops are in their NORMAL position.

Which of the following action(s) are required, if any, to restore pressurizer (PRZR) pressure and level conditions resulting from this failure?

- a. Place PRZR spray valves in MANUAL,  
Position PRZR Pressure Control Switch to another position, AND  
Then place PRZR spray valves back in AUTO.
- b. Place Charging Pump Speed control to MANUAL,  
Position PRZR Level Control Switch to another position, AND  
Then place Charging Pump Speed control back to AUTO.
- c. Position PRZR Level Control Switch to another position, AND  
Then restore normal letdown and PRZR heaters.
- d. No actions are required to restore PRZR pressure and level.

\*ANSWER

D

\*REFERENCE

Kewaunee Lesson Plan RO2-05-36C, "Pressurizer Pressure Control"

Kewaunee System Description 36, "Reactor Coolant System"

A-MI-87, Bistable Tripping for Failed Reactor Protection or Safeguards Inst.

New

Higher

\*QNUM 054  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 014000K502  
\*QUESTION

Which one of the following would cause annunciator 47041-P, ROD BOTTOM ROD DROP, to alarm?

- a. Control Bank B demand is 38 and a Control Bank B IRPI reads 18.
- b. Control Bank A demand is 18 and a Control Bank A IRPI reads 32.
- c. Shutdown Bank B demand is 32 and a Shutdown Bank B IRPI reads 18.
- d. Shutdown Bank A demand is 18 and a Shutdown Bank A IRPI reads 32.

\*ANSWER

C

\*REFERENCE

KNPP System Description 49, Rod Control and RPI

Kewaunee Exam Bank RO2-05-LP049.004 010

KNPP Lesson Plan RO2-05-LP049, Rod Control and RPI

Bank

Higher

This Question was dropped from the exam after it was administered because all four choices are correct.

\*QNUM 055  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL B  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 016000K401  
 \*QUESTION

Given the following:

- There has been a fire necessitating the evacuation of the control room.
- E-0-06, Fire in Alternate Fire Zone has been entered from E-FP-08, Emergency Operating Procedure - Fire.

Which of the following indications is available at the Dedicated Shutdown Panel?

- a. S/G 1A Narrow Range Level
- b. Charging Flow
- c. RWST Level
- d. Reactor Coolant Loop B Hot Leg Temp

\*ANSWER

C

\*REFERENCE

KNPP Fire Protection Program Plan, Appendix D

E-0-06, Fire in Alternate Fire Zone

E-FP-08, Emergency Operating Procedure - Fire.

New

Memory

\*QNUM 056  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL B  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 026000A301  
 \*QUESTION

Given the following conditions:

- A large break LOCA occurs.
- Containment pressure is observed to be 25 psig.
- Containment Spray has NOT initiated.
- Manual actuation of Containment Spray has been unsuccessful.
- All other ESF actuations and components have functioned normally.

What actions need to be taken to manually initiate Containment Spray for Train A?

Manual start of ICS Pump A and ...

- (1) ICS-5A/MV-32066 and ICS-6A/MV32067, Ctmt Spray Pump A Discharge Isolation valves
- (2) ICS-201/CV-31272 and ICS-202/CV31273, ICS Recirculation RWST valves
- (3) CI-1001A/CV31393 and CI-1001B/CV-31394, Caustic Additive to Ctmt Spray valves

- a. (1) check auto open (2) check closed (3) check auto open
- b. (1) manual open (2) check closed (3) check auto open
- c. (1) manual open (2) check closed (3) manual open
- d. (1) manual open (2) manual close (3) manual open

\*ANSWER

C

\*REFERENCE

FR-Z.1, Response to High Containment Pressure, Step 3, pages 3-4

CS Integrated Logic Diagram E-1604, Rev. U

System Integrated Logic Diagram ICS E-2012, Rev. K

Bank

Memory



*QNUM	057
*HNUM	
*ANUM	
*QCHANGED	TRUE
*ACHANGED	TRUE
*QDATE	2004/02/02
*FAC	305
*RTYP	PWR-WEC2
*EXLEVEL	B
*EXMNR	C Zoia
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	029000A102
*QUESTION	

Given the following conditions:

- Radiation Monitor R-11, Containment Atmosphere, is in HIGH alarm.
- All other plant conditions are normal

Which of the following lists valves in the Reactor Building Ventilation System to be verified automatically CLOSED by the operator?

- a. ONLY the following valves:
  - TAV-12, Cntmt Purge/Vent Supply
  - RBV-2, Cntmt Purge/Vent Supply B
  - RBV-5, Cntmt Purge/Vent Exhaust
  - RBV-3, Cntmt Purge/Vent Exhaust B
  - SA-7003B, Hydrogen Dilution to Cnmt
  - LOCA-2B, Post LOCA H2 Cntmt Vent Isol B.
- b. ONLY the following valves:
  - TAV-12, Cntmt Purge/Vent Supply
  - RBV-5, Cntmt Purge/Vent Exhaust
  - SA-7003B, Hydrogen Dilution to Cnmt
  - LOCA-2B, Post LOCA H2 Cntmt Vent Isol B.
- c. ONLY the following valves:
  - TAV-12, Cntmt Purge/Vent Supply
  - RBV-2, Cntmt Purge/Vent Supply B
  - RBV-5, Cntmt Purge/Vent Exhaust
  - RBV-3, Cntmt Purge/Vent Exhaust B.
- d. ONLY the following valves
  - RBV-2, Cntmt Purge/Vent Supply B
  - RBV-3, Cntmt Purge/Vent Exhaust B
  - SA-7003B, Hydrogen Dilution to Cnmt
  - LOCA-2B, Post LOCA H2 Cntmt Vent Isol B.

\*ANSWER

A

\*REFERENCE

A-RM-45, Abnormal Radiation Monitoring System

New

Memory

\*QNUM 058  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 103000A101  
\*QUESTION

ECA-1.1, Loss of Emergency Coolant Recirculation, determines the required number of operating ICS pumps based on which of the following?

- a. Containment pressure, containment temperature, and sump level.
- b. Containment pressure, operating CFCUs, and sump level.
- c. Containment temperature, operating CFCUs, and RWST level.
- d. Containment pressure, operating CFCUs, and RWST level.

\*ANSWER

D

\*REFERENCE

INPO Exam Bank - Byron Exam 06/29/2000

Bank

Memory

\*QNUM 059  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 033000A203  
\*QUESTION

The plant is at 100% power when control room operators receive SPENT FUEL POOL ABNORMAL Annunciator. The SFP level is decreasing AND is lower than the SFP canal level. The CRS instructs you to initiate makeup to the SFP. Per procedure A-SFP-21, Abnormal SFP Cooling and Cleanup System Operation, you would use. . .

- a. the RWST
- b. Service Water
- c. the Reactor Makeup Control System
- d. Reactor Makeup Water through manual makeup valve

ANSWER

B

\*REFERENCE

INPO Exam Bank - Kewaunee Exam 02/24/1997

Modified

Memory

\*QNUM 060  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 035000A301  
\*QUESTION

The Unit is at 40% power in a power ascension to full power. All systems are aligned in their normal lineups for the current power level except Turbine EHC control is in MANUAL-IMP OUT. The operator depresses the CV raise pushbutton for 2 seconds to continue the load ascension. Which of the following is the response of the main feedwater regulating valves to this action?

The Main Feedwater Regulating Valves will initially throttle...

- a. CLOSED due to swell, and then throttle OPEN when level drops below 44%.
- b. OPEN due to the steam flow/feed flow mismatch, and then regulate to control level at 44%
- c. CLOSED due to the steam flow/feed flow mismatch, and then throttle OPEN when level drops below 44%.
- d. OPEN due to shrink, and then regulate to control level at 44%.

\*ANSWER

B

\*REFERENCE

INPO Exam Bank - Beaver Valley 2 Exam 03/17/1997

Modified

Higher

\*QNUM 061  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 039000A404  
\*QUESTION

SP-05B-284, "Turbine Driven AFW Pump Full Flow Test - IST," was in progress. The turbine driven auxiliary feedwater pump (TDAFP) was started and had been running for 2 minutes.

Alarm window 47062-N, "T/D AFW Pump Abnormal" then annunciates and the NAO reports the TDAFP auxiliary lube oil pump is continuously stopping and starting with lube oil pressure fluctuating between 8 and 17 psig.

Which ONE of the following correctly explains the above conditions?

- a. Conditions are normal, no operator action is required, the test should continue.
- b. Conditions are normal, the NAO should be directed to locally shutdown the auxiliary lube oil pump, the test should continue.
- c. The shaft driven pump has malfunctioned, the test should be terminated.
- d. The Auxiliary Lube Oil Pump has malfunctioned, the test should be terminated.

\*ANSWER

C

\*REFERENCE

KNPP System Description 05B, Auxiliary Feedwater System; ARP 47062-N  
Bank  
Higher

\*QNUM 062  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 055000K106  
\*QUESTION

Given the following conditions:

- The plant is at 100% power
- S/G blowdown is in service in Mode II
- Condenser air removal is aligned for normal operation
- The NCO positions the R-19 keyswitch to the OFF position

Which of the following describes the effect of the operator actions?

- a. Blowdown flowpath switches to Mode I alignment.
- b. Blowdown flowpath switches to the Primary Sampling System.
- c. Condenser Air Ejector discharge AR-6 (CV-31168) remains in the duct position.
- d. Condenser Air Ejector discharge AR-6 (CV-31168) switches to its ATM position.

\*ANSWER

C

\*REFERENCE

INPO Exam Bank - Kewaunee 12/11/2000 NRC Exam  
KNPP System Description 09, Air Removal System (AR)  
Bank  
Higher

*QNUM	063
*HNUM	
*ANUM	
*QCHANGED	TRUE
*ACHANGED	TRUE
*QDATE	2004/02/02
*FAC	305
*RTYP	PWR-WEC2
*EXLEVEL	B
*EXMNR	C. Zoia
*QVAL	1.00
*SEC	
*SUBSORT	
*KA	068000A204
*QUESTION	

During a liquid radwaste discharge from the Waste Condensate Tanks to the Auxiliary building standpipe, control room operators receive a Waste Disposal Panel Trouble Alarm and dispatch an operator. The operator reports from the Waste Disposal Panel (53702) that "LIQUID WASTE MONITOR R-18 HIGH RADIATION" has alarmed. Radiation Monitor R-18 is verified to be alarming, but automatic action(s) do NOT occur. What automatic operation of A-RM-45, Abnormal Radiation Monitoring System must now be performed manually?

- a. Manually close WD-19, Waste Liquid Discharge Isolation Valve .
- b. Manually close WD-17, Waste Condensate Pumps Discharge Valve.
- c. Manually close WD-22, Waste Condensate Pumps to Auxiliary Building Standpipe.
- d. Stop Waste Condensate Pump 1A.

\*ANSWER

A

\*REFERENCE

A-RM-45, Abnormal Radiation Monitoring System

Lesson Plan Objective RO2-01-LP045.004

Dwg XK-100-131, Flow Diagram Waste Disposal System

New

Memory

\*QNUM 064  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL B  
 \*EXMNR K Walton  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 005000K101  
 \*QUESTION

When the RHR system is placed in the shutdown cooling mode of operation, component cooling is \_\_ (1) \_\_ aligned to the associated RHR heat exchanger prior to RHR pump start AND component cooling flows through the \_\_ (2) \_\_ side of the RHR heat exchanger.

- |    | <u>(1)</u>    | <u>(2)</u> |
|----|---------------|------------|
| a. | Automatically | Tube       |
| b. | Manually      | Tube       |
| c. | Automatically | Shell      |
| d. | Manually      | Shell      |

\*ANSWER

D

\*REFERENCE

System Description, RHR pg 16  
 Drawings OPERXK-100-18 & 19  
 New  
 Memory



\*QNUM 065  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR K Walton  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 028000K502  
\*QUESTION

A LOCA has occurred. Post-LOCA containment hydrogen concentration is 7%. What method is available to address hydrogen control in the containment?

- a. dilute the containment atmosphere.
- b. place the Hydrogen Recombiner in service.
- c. vent containment through the Shield Building Ventilation System.
- d. spray containment using the containment spray pumps.

\*ANSWER

A

\*REFERENCE

N-RBV-18C, "POST-LOCA Hydrogen Control"

New

Memory

This question was dropped from the exam after it was administered because all four choices are incorrect.

\*QNUM 066  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR K Walton  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 034000A201  
\*QUESTION

During refueling operations, an irradiated fuel assembly is dropped in the reactor vessel. A fuel handler reports to the control room that gas bubbles are emanating from the dropped assembly. Shortly afterwards, R-11 alarms on high radiation. The control room operator enters E-FH-53A, "Dropped or Damaged Fuel Assembly" procedure and \_\_\_\_ (1) \_\_\_\_\_. Controls for the R11 alarm \_\_\_\_ (2) \_\_\_\_\_.

- a. (1) verifies that the Auxiliary Building Special Vent system starts  
(2) automatically stops upward movement of the manipulator hoist
- b. (1) verifies that the Containment Vent Isolation occurred  
(2) do NOT affect the fuel handling system
- c. (1) actuates the containment evacuation alarm  
(2) automatically stops movement of the manipulator trolley and bridge
- d. (1) orders the affected area evacuated  
(2) automatically stops upward movement of the manipulator hoist

\*ANSWER

B

\*REFERENCE

E-RH-53A, "Dropped or Damaged Fuel Assembly," 8/17/2001

System Description - Radiation Monitoring, pgs 12, & 13.

System Description - Fuel Handling, pgs 13, 16 & 28.

New

Higher

\*QNUM 067  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.1.10  
\*QUESTION

In the event that access to an area with radiation levels in excess of 1000 mrem/hour CANNOT be prevented using a locked door, Technical Specification 6.13 requires the area to be roped off and conspicuously posted.

Which one of the following lists the additional measure that fulfills the requirements of Technical Specifications for the entrance to this area?

- a. Install an audible alarm.
- b. Setup a control point.
- c. Install a flashing light.
- d. Setup a dose rate indicating device.

\*ANSWER

C

\*REFERENCE

Learning Objective R01-01-LPTS4.010

Technical Specification 6.1

Kewaunee Exam Bank Question

Bank

Memory

\*QNUM 068  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR K Walton  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 078000K403  
\*QUESTION

Air Compressor A is operating when cooling water to the compressor is inadvertently isolated. The air compressor will trip...

- a. due to low jacket water pressure.
- b. when the limit for oil temperature is exceeded.
- c. when the limit for air outlet temperature is exceeded.
- d. due to seal leakage resulting in low air discharge pressure.

\*ANSWER

C

\*REFERENCE

OP A-AS-1, "Abnormal Station and Instrument Air System Operation"

System Description #1, Station and Instrument Air, Pg 9 of 23.

Bank

Memory

\*QNUM 069  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 062000 2.1.12  
\*QUESTION

Given the following:

- RCS Average Temperature = 547 deg F.
- The reactor is critical at approximately 3% power.
- The "B" Diesel Generator is inoperable.
- The NORMAL power supply for pressurizer heater control group "A" was taken out of service to repair a breaker fault.

Which of the following describes the Technical Specification operability and required actions for the pressurizer heaters, if any?

- a. Technical Specifications requirements are MET and no action is required.
- b. Technical Specifications requirements are NOT met, and within 1 hour action is required to go to at least HOT STANDBY within the next 6 hours.
- c. Technical Specifications requirements are NOT met, and within 1 hour action is required to go to at least HOT SHUTDOWN within the next 6 hours.
- d. Technical Specifications requirements are NOT met, and within 1 hour action is required to go to at least COLD SHUTDOWN within the next 36 hours.

\*ANSWER

B

\*REFERENCE

Kewaunee Lesson Plan RO2-01-LP-36B, PZR and PRT

Tech Spec 3.1.a.6 and its basis

Kewaunee System Description 38, DC & Emergency AC Power

New

Higher

\*QNUM 070  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 063000K201  
\*QUESTION

Which of the following uses Safeguard 125 VDC power as the NORMAL power supply?

- a. Bus 4 Circuit Breaker Control
- b. 7.5 KVA Inverter BRA-111
- c. Reactor Trip Breaker shunt trip coil
- d. Non-interruptible Bus BRD-115

\*ANSWER

C

\*REFERENCE

System Description 38, DC & Emergency AC Electrical Distribution

New

Memory

\*QNUM 071  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR K. Walton  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 064000K202  
\*QUESTION

Power is lost to BRB-104. Which component(s) associated with the 1B EDG will be affected by this condition?

- A. Field flash circuit AND jacket water pumps ONLY
- B. Field flash circuit AND fuel oil priming pump ONLY
- C. Jacket water pumps AND immersion heaters ONLY
- D. Fuel oil priming pump AND starting air compressors ONLY

\*ANSWER

B

\*REFERENCE

Kewaunee System Description 38, DC & Emergency AC Power

Kewaunee LP RO2-03-LP-042A, D/Gs

New

Memory

\*QNUM 072  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 073000K301  
\*QUESTION

Which of the following correctly describes the effect of a failure (HIGH) of R-15, Air Ejector Exhaust Monitor during a release?

- (1) Air Ejector Discharge Vent. AR-6/CV-31168 positions to DUCT
- (2) S/G Blowdown Isolation valves CLOSE
- (3) S/G Sample Isolation valves CLOSE
- (4) Humidification Steam Inlet CV HS-17-1/CV31770 CLOSES

- a. ONLY (1), (2) AND (3) occur
- b. ONLY (2) AND (3) occur
- c. (1), (2), (3) AND (4) occur
- d. ONLY (2), (3) AND (4) occur

\*ANSWER

C

\*REFERENCE

Kewaunee System Description 45, Radiation Monitors

A-RM-45, Abnormal Radiation Monitoring System

E-3748, PRM Integrated Logic Diagram

New

Memory



\*QNUM 073  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 075000K401  
\*QUESTION

Which of the following describes the CW condition(s) that would provide an interlock to PREVENT starting a CW pump?

- (I) Seal Water Flow < 2 gpm
- (II) "Forebay Level Low Low" (566' or 42%)
- (III) Thrust Bearing Cooler Flow < 4 gpm

- a. ONLY (II)
- b. ONLY (I) and (III)
- c. ONLY (II) and (III)
- d. (I), (II) and (III)

\*ANSWER

C

\*REFERENCE

Kewaunee System Description 4, CW System  
Annunciator 47051-N, "Forebay Level Low"  
Lesson Plan RO2-02-LP-004, CW System  
New  
Memory

\*QNUM 074  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 086000K604  
\*QUESTION

A malfunction of ONE of the "A" Diesel Generator Room CO2 temperature switches occurs, causing it to fail HIGH. Which of the following describes the response of the CO2 system to the "A" Diesel Generator Room?

- a. The CO<sub>2</sub> actuation sequence will not begin until a second switch actuation occurs.
- b. The CO2 actuation sequence will sound a local horn, but will not discharge.
- c. The CO2 actuation sequence will sound a local horn and then discharge.
- d. The CO2 actuation sequence will start a local, flashing red light, sound a local horn and then discharge.

\*ANSWER

C

\*REFERENCE

Kewaunee System Description 8, Fire Protection System

RO2-02-LP-008, Fire Protection System

New

Memory

\*QNUM 075  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL B  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 000028A206  
 \*QUESTION

Given the following conditions:

- The plant is at 100% power.
- All lineups/switch positions are in their NORMAL position.
- Pressurizer Level Channel LT-426 (Channel I) fails LOW

What is the status of the following BEFORE any operator actions are taken?

	<u>Letdown Flow Indication</u>	<u>"Pressurizer Level Low" Annunciator</u>
a.	Normal	LIT
b.	Normal	Not LIT
c.	Zero	LIT
d.	Zero	Not Lit

\*ANSWER

A

\*REFERENCE

Kewaunee System Description 36, Reactor Coolant System

Alarm Response 47043-F, PRZR Level Low

A-MI-87, Bistable Tripping for Failed RP or Safeguards Inst.

New

Memory

\*QNUM 076  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA WE13EK11  
\*QUESTION

Given the following conditions:

- Steam Generator NR Levels are 88%
- MSIVs are CLOSED

Per Procedure FR-H.2, "Response to Steam Generator Overpressure", which of the methods given below has PRIORITY for decreasing S/G pressure?

- a. Dump steam using SG PORVs
- b. Isolate AFW to the S/Gs
- c. Dump steam using Steam Supply to Turbine-Driven AFW Pump
- d. Dump steam using Main Steam Isolation Bypass Valves

\*ANSWER

A

\*REFERENCE

Kewaunee Lesson Plan RO4-04-LP-036

FR-H.2, "Response to S/G Overpressure" and IPEOP Background Document

New

Memory

\*QNUM 077  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL B  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 000008A203  
 \*QUESTION

In addressing a PRZR relief valve (PORV) that is stuck open, the associated block valve must be closed. Which of the following indication(s) can be used to identify which PORV is stuck open?

- (I) PR-2A(B) indicating lights on the Mechanical Console C
  - (II) Acoustic monitor indicating lights on the Mechanical Console C
  - (III) Outlet temperatures for each PORV
- a. ONLY (I)
  - b. ONLY (I) OR (III)
  - c. ONLY (II) OR (III)
  - d. (I), (II) OR (III)

\*ANSWER

A

\*REFERENCE

Kewaunee Lesson Plan RO4-04-LP-36B

Annunciator 47042-A, "Pressurizer PORV Open"

Annunciator 47042-B, "Pressurizer PORV Discharge Temperature High"

New

Higher

\*QNUM 078  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000009 2.4.45  
\*QUESTION

A LOCA has occurred and a controlled RCS cooldown and depressurization per ES-1.2, "Post LOCA Cooldown and Depressurization" is in progress. ALL ECCS equipment is OPERABLE. RCS Pressure and Temperature is 1500 psig / 480 degrees F. After SI pump A is secured as part of the RCS cooldown and depressurization, the following alarms occur:

- 47022-D, "CONTAINMENT HIGH PRESSURE SI"
- 47024-A, "ACCUMULATOR A PRESSURE HIGH/LOW"
- 47024-B, "ACCUMULATOR A LEVEL HIGH/LOW"

What action(s) must be taken, if any, based on these conditions:

- a. Trip both RCPs.
- b. Restart SI pump A.
- c. Trip both RCPs AND Restart SI pump A.
- d. No action required.

\*ANSWER

B

\*REFERENCE

ES-1.2, "Post LOCA Cooldown and Depressurization", Step 16a (Contingency Actions).

New

Higher

\*QNUM 079  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA WE04EK22  
\*QUESTION

Which of the following systems is considered to be the most likely location for a rupture or break outside containment, and therefore is the system of primary concern during ECA-1.2, "LOCA Outside Containment"?

- a. Safety Injection
- b. Residual Heat Removal
- c. Component Cooling
- d. Chemical and Volume Control

\*ANSWER

B

\*REFERENCE

ECA-1.2, LOCA Outside Containment

IPEOP Background Document for ECA-1.2, LOCA Outside Containment

INPO Exam Bank - Prairie Island 05/15/2000 Exam

Kewaunee Lesson Plan RO4-04-LP-020, LOCA Outside Containment

Modified

Memory

\*QNUM 080  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000029 2.4.49  
\*QUESTION

Given the following conditions:

- A loss of normal feedwater flow has occurred.
- The actions of FR-S.1 "Response to Nuclear Power Generation/ATWS" must be performed due to a failure of the plant to trip

Which of the following describes the proper sequence of steps to be taken with a failure of the reactor to trip, AFTER beginning to manually insert the Control Rods?

- (I) - Locally Open Reactor Trip Breakers
  - (II) - Open Bus 33 and Bus 43 supply breakers
  - (III) - TRIP Rod Drive MG Set Motor & Generator Circuit Breaker Control Switches
- a. (I), (II), and THEN (III).
- b. (II), (I), and THEN (III).
- c. (II), (III), and THEN (I).
- d. (III), (II), and THEN (I).

\*ANSWER

B

\*REFERENCE

FR-S.1 "Response to Nuclear Power Generation/ATWS"

IPEOP Background Document for FR-S.1 "Response to Nuclear Power Generation/ATWS"

New

Memory



\*QNUM 081  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000022A108  
\*QUESTION

Given the following conditions:

- Reactor power is 100%
- VCT level transmitter LT-112 (24015) fails high (100%)

Which of the following describes what occurs if NO operator action is taken?

VCT level decreases \_\_\_\_\_.

- a. because auto makeup capacity is not able to maintain VCT level with letdown diverted
- b. with NO auto makeup capability causing charging suction to shift to the RWST
- c. until charging pumps lose suction and start to cavitate
- d. until auto makeup starts and maintains VCT level

\*ANSWER

C

\*REFERENCE

Kewaunee NRC Exam - 10/24/2000

Alarm Response 47043-L, "VCT Level High/Low"

Kewaunee Lesson System Description 35, CVCS

Bank

Memory

\*QNUM 082  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000025A202  
\*QUESTION

Given the following conditions:

- The plant is at 255 deg F, cooling down to Cold Shutdown with RHR Train A.
- RHR Train B is out of service for testing.
- Annunciator 47024-H, CC SURGE TANK LEVEL HIGH/LOW is LIT.
- CC Surge Tank Level is 53% and INCREASING.
- R-17, Component Cooling Liquid Rad Monitor, is in HIGH ALARM.
- VCT level is DECREASING.
- All other indications are NORMAL.

Which of the following is the location of the leak?

- a. RHR system.
- b. SFP heat exchanger.
- c. Seal Water heat exchanger.
- d. SW system.

\*ANSWER

A

\*REFERENCE

A-CC-31, Abnormal CCW Operations

Alarm Response 47024-H, CC Surge Tank Level High/Low

A-RHR-34, Abnormal RHR Operations

A-RM-45, Abnormal Rad Monitoring

New

Higher

\*QNUM 083  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000032K101  
\*QUESTION

Complete the following statement:

Source Range neutron detectors operate in the \_\_\_\_ (1) \_\_\_\_ region, so decreasing the detector voltage beyond calibration limits would result in a \_\_\_\_ (2) \_\_\_\_ indicated power level.

- a. (1) Ionization, (2) higher
- b. (1) Proportional, (2) higher
- c. (1) Ionization, (2) lower
- d. (1) Proportional, (2) lower

\*ANSWER

C

\*REFERENCE

Kewaunee Lesson Plan RO2-05-LP048, "Excore Nuclear Instrumentation System"

Kewaunee System Description 48, "Excore Nuclear Instrumentation"

New

Memory

\*QNUM 084  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000033A201  
\*QUESTION

The following conditions exist:

- A reactor startup has been completed per N-CRD-49B, "Reactor Startup".
- The Source Range trip is blocked.
- The N35 Intermediate Range channel is failed LOW with the level trip bypassed.
- The N36 Intermediate Range channel is reading ERRATICALLY.
- Source Range counts have just reached  $10^6$  CPS

What is the expected indication on the intermediate range nuclear instruments for this condition?

- a.  $10E-3$  % Power (IR)
- b.  $10E-2$  % Power (IR)
- c.  $10E-1$  % Power (IR)
- d.  $10E0$  or 1% Power (IR)

\*ANSWER

A

\*REFERENCE

Kewaunee Lesson Plan RO2-05-LP048, "Excore Nuclear Instrumentation System"

Kewaunee System Description 48, "Excore Nuclear Instrumentation"

New

Memory

\*QNUM 085  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000037A113  
\*QUESTION

The plant is at 100% power. TLA-15, RMS ABOVE NORMAL is in alarm due to increasing radiation level on R-19, S/G Blowdown Liquid Monitor. What action(s) must be taken based on these conditions?

- a. IF the radiation level on R-19, S/G Blowdown Liquid Monitor increases to HIGH alarm, THEN go to E-0-14, "Steam Generator Tube Leak".
- b. Go to E-0-14, "Steam Generator Tube Leak" and perform Operator immediate actions.
- c. Go to A-RM-45, "Abnormal Radiation Monitoring System" and verify the automatic actions occur as listed for R-19, S/G Blowdown Liquid Monitor.
- d. Per A-RM-45, "Abnormal Radiation Monitoring System" determine primary-to-secondary leak rate using "R-19 to Leakage Rate Conversion Graph".

\*ANSWER

B

\*REFERENCE

A-RM-45, "Abnormal Radiation Monitoring System"

E-0-14, "Steam Generator Tube Leak"

New

Memory

\*QNUM 086  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000038K308  
\*QUESTION

Which of the following describes the reason for tripping both RXCPs, if required, per step 1 of E-3, "Steam Generator Tube Rupture"?

- a. To minimize the potential for RCP damage when an RCS depressurization is initiated.
- b. To minimize the heat input when a controlled RCS cooldown is initiated.
- c. To prevent the automatic opening of a pressurizer PORV.
- d. To prevent unnecessary RCS water depletion.

\*ANSWER

D

\*REFERENCE

BKG E-3, "Steam Generator Tube Rupture" IPEOP Background Document  
Procedure E-3, "Steam Generator Tube Rupture"

New

Memory

\*QNUM 087  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA WE05EK22  
\*QUESTION

The following plant conditions exist:

- FR-H.1, Response to Loss of Secondary Heat Sink is in progress.
- The CST is unavailable.
- Yarway wide range S/G levels are at 20%.
- RCS pressure is at 2200 psig.
- Containment pressure is 1 psig.

Which of the following heat removal methods is available, if any, before RCS bleed and feed is required AND what is the preferred sequence for establishing flow to at least one S/G?

- (1) Depressurize SG and establish Condensate flow
- (2) Establish AFW flow using Service Water
- (3) Establish Main Feedwater flow

- a. (2), (3), (1)
- b. (3), (2), (1)
- c. (3), (1), (2)
- d. No S/G heat removal method is available; RCS bleed and feed is required immediately.

\*ANSWER

C

\*REFERENCE

A-FW-05B, Abnormal AFW System Operation

FR-H.1, Response to Loss of Secondary Heat Sink

BKG FR-H.1, Loss of Secondary Heat Sink IPEOP Background Document

New

Higher

\*QNUM 088  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000058 2.2.22  
\*QUESTION

Which of the following places the plant in a 1 hour Limiting Condition of Operation per Technical Specifications?

- a. BRA-101, Station Battery A, fuse blows.
- b. BRA-108, Battery Charger A, damaged due to fire.
- c. BRA-102, DC DIstribution Train A, damaged bus bar.
- d. BRA-111, Instrument Bus 1 Inverter, damaged rectifier.

\*ANSWER

C

\*REFERENCES :

Technical Specifications and Bases

A-EDC-38, Abnormal DC Supply and Distribution System

Kewaunee System Description 38, "DC & Emergency AC Distribution

Lesson Plan RO2-03-LP 038, DC & Emergency AC Distribution

New

Memory



\*QNUM 089  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000060K102  
\*QUESTION

The following plant conditions exist:

- An accidental gaseous release has occurred.
- The derived air concentration (DAC) of this release is 4 DAC.

Which of the following is the expected exposure to the whole body of a worker breathing air in this area for 30 minutes?

- a. 2 mrem
- b. 5 mrem
- c. 8 mrem
- d. 10 mrem

\*ANSWER

B

\*REFERENCE

10CFR20, definitions and part 1204

Kewaunee System Description 32B, "Gaseous Radioactive Waste Disposal"

New

Higher

\*QNUM 090  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C. Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000061AK302  
\*QUESTION

The plant is operating at 100% power.

Annunciator 47033-35, TLA-15, RMS ABOVE NORMAL, alarms due to rising count rate on R-42, S/G A N16 Monitor.

Plant conditions:

- Pressurizer level: 47%, stable.
- Pressurizer pressure: 2235 psig.

Which of the following describes the action or actions required for this situation?

- A. Enter E-0-14, Steam Generator Tube Leak.
- B. Manually trip the reactor and enter E-0, Reactor Trip or Safety Injection.
- C. Contact Health Physics to assist in identifying the radiation source.
- D. Evacuate the reactor building.

\*ANSWER

A

\*REFERENCE

Annunciator 47033-35, TLA-15, RMS ABOVE NORMAL

New  
Memory

\*QNUM 091  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL B  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA W/E16EK33  
 \*QUESTION

Given the following conditions:

- A LOCA has occurred
- The crew is performing a cooldown per ES-1.2 " Post LOCA Cooldown and Depressurization"
- Two Containment Cooling Fan Coil Units are running
- Containment pressure is stable at 2.2 psig
- A transition to FR-Z.3 "Response to High Containment Radiation Level" is made on a YELLOW path condition

Why does FR-Z.3 start idle Containment Cooling Fan Coil Units?

- a. To remove radioactive particulates during condensation of water vapor.
- b. To remove radioactive gases during condensation of water vapor.
- c. To support Containment Purge and Vent Subsystem Exhaust filtration.
- d. To support Containment Purge and Vent Subsystem Purge filtration.

\*ANSWER

A

\*REFERENCE

FR-Z.3 "Response to High Containment Radiation Level"

BKG FR-Z.3 "Response to High Containment Radiation Level" IPEOP Background Document

INPO Exam Bank - Kewaunee NRC Exam 12/11/2000

Modified

Higher

\*QNUM 092  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL B  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 000067A217  
 \*QUESTION

Given the following conditions:

- A fire has occurred on site.
- E-0-06, "Fire in Alternate Fire Zone" is being implemented.

Complete the following statement:

During implementation of E-0-06, only \_\_\_\_ (1) \_\_\_\_ equipment is being controlled from the Dedicated Shutdown Panel and offsite power is considered to be \_\_\_\_ (2) \_\_\_\_.

\_\_\_\_ (1) \_\_\_\_      \_\_\_\_ (2) \_\_\_\_

- |    |         |               |
|----|---------|---------------|
| a. | Train A | available     |
| b. | Train A | NOT available |
| c. | Train B | available     |
| d. | Train B | NOT available |

\*ANSWER

B

\*REFERENCE

E-0-06, "Fire in Alternate Fire Zone"

INPO Exam Bank - Byron NRC Exam 06/29/2000

New

Higher

\*QNUM 093  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000069 2.2.23  
\*QUESTION

The plant was operating at 100% power when the following events occurred:

- 0100: RC-413, Pressurizer Liquid Sampling Isolation valve is determined to be INOPERABLE.
- 0200: RC-412, Pressurizer Liquid Sampling Isolation valve is determined to be INOPERABLE.

What log entry or entries need to be made to track these inoperable valves?

- a. An entry for each valve in the Shift Manager's Log AND in the Shift Manager's LCO Tracking Log at the time they became INOPERABLE.
- b. An entry for each valve in the Control Room Log AND in the Shift Manager's LCO Tracking Log at the time the valves were discovered to be INOPERABLE.
- c. An entry in the Shift Manager's Log AND the Control Room Log for each valve at the time they became INOPERABLE, AND an entry in the Control Room Shift Turnover Checklist at shift turnover.
- d. One log entry for both valves in the Control Room Shift Turnover Checklist at shift turnover AND an entry for each valve in the Periodic Daily Log at the time each valve became INOPERABLE.

\*ANSWER

C

\*REFERENCE

Learning Objective R02-04-LP056.007

Technical Specification 3.6.b.3.B, Containment System

New

Memory

\*QNUM 094  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA W/E07EK13  
\*QUESTION

Given the following:

- A LOCA has occurred.
- Containment Pressure is 6 psig.
- Core Exit Thermocouples are at 600 deg F.
- RCS pressure is 200 psig.
- RHR is in its AT-POWER lineup.
- FR-C.3, Response to Saturated Core Cooling, is being implemented.

What flows to the RCS must be verified per FR-C.3, Response to Saturated Core Cooling?

- a. Charging pump flow ONLY.
- b. RHR and SI pump flows ONLY.
- c. SI pump flow ONLY.
- d. Charging and SI pump flows ONLY.

\*ANSWER

C

\*REFERENCE

FR-C.3, Response to Saturated Core Cooling

New

Higher

\*QNUM 095  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000076K305  
\*QUESTION

The following conditions exist:

- A runback from 80% to 60% power occurred 2 hours ago.
- Chemistry samples of the RCS indicate high dose-equivalent I-131.

Why is it desirable to increase letdown flow through the CVC mixed bed demineralizers to 80 gpm under these conditions?

- a. To reduce RCS activity.
- b. To control RCS pH.
- c. To reduce RCS corrosion products.
- d. To control RCS boron concentration.

\*ANSWER

A

\*REFERENCE

A-RC-36A, High Reactor Coolant Activity

INPO Exam Bank - Kewaunee NRC Exam 12/18/1997

Bank

Higher

\*QNUM 096  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 026000 2.4.34  
\*QUESTION

While performing ECA-1.1, Loss of Emergency Coolant Recirculation, the “RHR Pump A Supply to ICS Pump A”, valve RHR-400A could not be operated from the control room. The step’s contingency action states “Locally open valve”. On which elevation of the auxiliary building is this valve located?

- a. 572'
- b. 586'
- c. 606'
- d. 626'

\*ANSWER

B

\*REFERENCES :

Kewaunee System Description 23, ICS System  
Drawings A-204, A-210, OPERXK-100-18 and OPERM-217  
New  
Memory



\*QNUM 097  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 029000 2.3.9  
\*QUESTION

In order to establish a Containment Purge in HOT SHUTDOWN, which of the following is required?

1. Notify NRC prior to opening 36" RBV valves.
  2. Obtain a Gaseous Waste Discharge Permit.
  3. Verify Annunciator 47051-B, "Containment Vent High Radiation Disabled" is CLEAR.
- 
- a. ONLY 1 and 2.
  - b. ONLY 1 and 3.
  - c. ONLY 2 and 3.
  - d. 1, 2 and 3.

\*ANSWER

C

\*REFERENCE

Kewaunee System Description 18, Reactor Building Ventilation System  
Annunciator 47051-B, Containment Vent High Radiation Disabled  
N-RBV-18B, Reactor Bldg Vent System Cold Operation and Making Releases  
New  
Higher

\*QNUM 098  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL B  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 000040 2.2.34  
 \*QUESTION

For a Steam Line Break of a given size and location, which of the following initial conditions results in the smallest reactivity rate of change immediately after the break?

	<u>CORE BURNUP (MWD/MTU)</u>	<u>RCS Tavg</u>
a.	9000	450 deg F
b.	9000	547 deg F
c.	5000	450 deg F
d.	5000	547 deg F

\*ANSWER

C

\*REFERENCE

INPO EXAM Bank Kewaunee Exam 12/18/97

Reactor Data Manual

Bank

Higher

\*QNUM 099  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.2.1  
\*QUESTION

Given the following:

- Reactor power is stabilized at the eight-fold power level.
- The Eight-Fold Critical Rod Position is determined to be 65 steps on Control Bank C.

Which action is required in this situation?

- a. Emergency Borate 300 gallons.
- b. SHUT DOWN the reactor per N-CRD-49C, "Reactor Shutdown"
- c. Get permission from Station Nuclear Engineer to continue with the startup.
- d. Verify the Eight-fold Critical Rod Position is within +400pcm of ECP

\*ANSWER

B

\*REFERENCE

N-CRD-49B, "Reactor Startup"

N-CRD-49C, "Reactor Shutdown"

New

Higher

\*QNUM 100  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL B  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.1.32  
\*QUESTION

Given the following:

- The plant is in normal 100% power operations.
- Containment Fan Coil Units Emergency Discharge Dampers RBV-150 A and B both fail OPEN.

What is the major concern at this time?

- a. Damage to the Nuclear Instrumentation.
- b. Damage to the Reactor Vessel Gap.
- c. RXCP A motor stator overheating.
- d. RXCP B motor stator overheating.

\*ANSWER

D

\*REFERENCES

INPO Exam Bank - Kewaunee Exam 12/11/2000

Kewaunee System Description 18, Reactor Building Ventilation System.

Bank

Higher

\*QNUM 101  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000001K302  
\*QUESTION

Given the following:

- Reactor Power is 80%.
- An unexplained rod withdrawal occurred.
- Rods were placed in manual per A-CRD-49, "Abnormal Rod Control Operations"
- Tech Spec 3.10.e, Rod Misalignment Limitations, evaluation is being performed

Which of the following identifies the alignment limit and what is the reason for the limit?

- a. +12 steps from bank demand to limit core peaking factors.
- b. +12 steps from bank demand to assure symmetric power distribution.
- c. +24 steps from bank demand to limit the effects of a rod ejection accident.
- d. +24 steps from bank demand to assure adequate shutdown margin.

\*ANSWER

D

\*REFERENCE

Technical Specification 3.10.e and basis

A-CRD-49, "Abnormal Rod Control Operations"

New

Higher

\*QNUM 102  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000001A203  
\*QUESTION

Given the following:

- Reactor Power is 90%.
- An unexpected rod motion is being addressed per A-CRD-49, "Abnormal Rod Control Operations".

Which of the following properly describes the initial actions to be taken in the sequence listed?

- (1) Check for turbine runback.
  - (2) Check for dropped rod.
  - (3) Position Bank Selector to MANUAL.
  - (4) Dispatch Auxiliary Operator to CRD Equipment Room.
- 
- a. (2), (1), (3)
  - b. (1), (3), (2)
  - c. (3), (1), (2), (4)
  - d. (4), (2), (1), (3)

\*ANSWER

A

\*REFERENCE

A-CRD-49, "Abnormal Rod Control Operations"

New

Higher

\*QNUM 103  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL S  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 000003 2.1.6  
 \*QUESTION

The plant is operating at 95% power due to rod G7 in control bank C dropping (ratcheting) inwards to position 170 steps. Reactor Engineering just informed you that:

- FQN(Z) exceeds COLR limits by 5%
- FΔHN exceeds COLR limits in the vicinity of the dropped rod.
- Axial Flux remains within the limits of COLR Figure 7, Axial Flux Difference.

In order to comply with the most stringent Technical Specifications power distribution limits, you order power reduced to below ....?

- a. 90% within 15 minutes.
- b. 50% within 1 hour.
- c. 90% within 1 hour.
- d. 50% within 4 hours.

\*ANSWER

A

\*REFERENCE

Technical Specifications 3.10

New

Higher

\*QNUM 104  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000011K312  
\*QUESTION

Given the following:

- A LOCA has occurred from full power operations.
- Reactor Coolant System pressure is 140 psig.
- Residual Heat Removal injection flow is 0 gpm.
- E-1, Loss of Reactor or Secondary Coolant, is in progress at step 18, "Check If RCS Cooldown and Depressurization is Required".

Which procedure is appropriate for this plant condition and what is the reason?

- a. Stay in E-1, Loss of Reactor or Secondary Coolant,  
Reactor Coolant System pressure is too low to go to ES-1.2.
- b. Stay in E-1, Loss of Reactor or Secondary Coolant,  
Residual Heat Removal flow will be established in E-1.
- c. Go to ES-1.2, Post LOCA Cooldown & Depressurize,  
Residual Heat Removal flow has NOT been verified in E-1.
- d. Go to ES-1.2, Post LOCA Cooldown & Depressurize  
Reactor Coolant System pressure is too high to cooldown to stay in E-1.

\*ANSWER

C

\*REFERENCE

E-1, Loss of Reactor or Secondary Coolant and IPEOP Background Document

ES-1.2, Post LOCA Cooldown and Depressurization

New

Higher



\*QNUM 105  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA WE11EK34  
\*QUESTION

A LOCA occurred and ECA-1.1, "Loss of Emergency Coolant Recirculation" has been entered. Containment pressure peaked at 20 psig. The final step in ECA-1.1 directs the operator to consult with the Emergency Director (ED). Which of the following shall be addressed by the ED at this time?

- a. the adjustment of containment sump pH
- b. locating the source of the break
- c. minimizing the loss of RCS inventory
- d. verifying the break is isolated

\*ANSWER

A

\*REFERENCE

ECA-1.1, "Loss of Emergency Coolant Recirculation"

IPEOP Background Document for ECA-1.1, "Loss of Emergency Coolant Recirculation"

Kewaunee Lesson Plan RO4-04-LP-020, LOCA Outside Containment

New

Memory

\*QNUM 106  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000027 2.2.25  
\*QUESTION

The reactor has just tripped from 100% power. Both Pressurizer PORVs have excessive seat leakage. Both PORV block valves are closed and remain energized. ONE block valve then becomes inoperable.

Which of the following provides the minimum capacity for adequate protection against RCS over pressurization assuming residual heat is not removed by any other means?

- a. ONE Safety Valve only
- b. ONE Safety Valve and ONE PORV only
- c. TWO Safety Valves only
- d. TWO Safety Valves and ONE PORV only

\*ANSWER

A

\*REFERENCE

Technical Specification 3.1.a.3 and Basis

New

Higher

\*QNUM 107  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000036 2.3.3  
\*QUESTION

Given the following:

- Refueling operations are in progress
- Irradiated fuel is being moved in the Manipulator Crane from the core to the reactor building upender for transfer to the spent fuel pool.
- Decreasing Spent Fuel Pool water level has been reported.
- Operator immediate actions of E-FH-53B, "Loss of Reactor Cavity Inventory During Fuel Movement," have been performed.

Identify the responsibility of the SRO in containment assigned to the fuel shuffle during this event.

- a. Locate the Manipulator Crane to the south end of the Reactor Cavity.
- b. Store the irradiated fuel assembly in the Manipulator Crane Mast by lowering the assembly into the transfer system sump and unlatch.
- c. Store the irradiated fuel assembly in the Manipulator Crane Mast by lowering the assembly to any available lower core support plate location and unlatch.
- d. Ensure at least one door in each personnel air lock is closed.

\*ANSWER

D

\*REFERENCE

NAD-02.07, Kewaunee Refueling Operations  
E-FH-53B, Loss of Reactor Cavity Inventory During Fuel Movement  
EPIP-AD-02, Emergency Class Determination  
New  
Higher

\*QNUM 108  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 000059K202  
\*QUESTION

The following conditions are observed after a liquid radwaste spill in the Aux. Building:

- Aux. Building normal vent & supply exhaust fans have automatically shut down.
- Train B Zone SV Exhaust Fan and Train B Safeguards Fan Coil Units have started.
- SFP Ventilation has repositioned to charcoal filtration mode.
- R-11 and R-12 Sample Valves remain aligned to Aux. Building Vent.

Based on the above, which of the following radiation monitors have gone into high alarm?

- a. Aux. Building Vent. Monitor R-13
- b. Aux. Building Vent. Monitor R-14
- c. Fan Coil Unit Monitor R-16
- d. Waste Disposal System Effluent Monitor R-18

\*ANSWER

B

\*REFERENCE

Kewaunee System Description 45, Radiation Monitoring System.

A-RM-45, Abnormal Radiation Monitoring System

New

Higher

\*QNUM 109  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL S  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 000062A102  
 \*QUESTION

The plant is at 25% power with Service Water pumps A1, A2, and B1 in service. Then:

- Annunciator 47051-N, "Forebay Level Low" is LIT.
- Forebay Level is 40% and decreasing per LI-41551.
- Service Water Pump amps are fluctuating.
- Circulating Water Pump A is running.

Based on the conditions above, what actions must be taken and which procedure requires these actions?

- a. Stop Service Water pumps in alternating trains ONLY until cavitation stops per A-SW-02, "Abnormal Service Water System Operation."
- b. Trip the reactor, THEN immediately trip ALL Circulating Water Pumps per E-CW-04, "Loss Of Circulating Water."
- c. Trip the reactor, THEN stop Service Water pumps in alternating trains ONLY until cavitation stops per A-SW-02, "Abnormal Service Water System Operation."
- d. Immediately trip ALL Circulating Water Pumps, THEN Trip the reactor, per E-CW-04, "Loss Of Circulating Water."

\*ANSWER

D

\*REFERENCE

Annunciator 47051-N, "Forebay Level Low"

E-CW-04, Loss of Circulating Water

A-SW-02, Abnormal Service Water System Operation

New

Higher

\*QNUM 110  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL S  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 000065A105  
 \*QUESTION

A plant startup is in progress at 6% power. The main turbine is being rolled to 1800 rpm. Then:

- Instrument Air Header pressure subsequently decreases to 50 psig.
- The green and red lamps for MS-1B, Main Steam Isolation Valve, are lit.

What action is required to be performed FIRST?

- a. Start air compressors as required and go to E-AS-01, Loss of Instrument Air.
- b. Trip the main turbine and go to A-MS-06, Abnormal Main Steam and Steam Dump System Operation.
- c. Start the AFW pump(s) and trip the running main FW pump per N-0-2, Plant Startup from Hot Shutdown to 35% Power.
- d. Trip the reactor and go to E-0, Reactor Trip or Safety Injection.

\*ANSWER

D

\*REFERENCE

E-AS-01, Loss of Instrument Air

A-MS-06, Abnormal Main Steam and Steam Dump System Operation

E-0, Reactor Trip or Safety Injection

New

Higher

\*QNUM 111  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED FALSE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 061000A101  
\*QUESTION

Given the following:

- The reactor is at 10% power
- Containment pressure is 6 psig.
- E-0, Reactor Trip or Safety Injection, Step 1 Operator AND Contingency Actions were unsuccessful.
- An operator has been dispatched to open reactor trip breakers.
- The Turbine has been tripped.
- AFW pumps A and B are running.
- SG narrow range levels: both 6%.

What actions should be taken with respect to AFW in this situation?

- a. Place TD AFW pump to pullout and control AFW flow rate to maintain greater than 4% narrow range SG level.
- b. Manually start the TD AFW pump and maintain AFW flow rate greater than 200 gpm.
- c. Manually start the TD AFW pump and maintain AFW flow rate greater than 400 gpm.
- d. Place the TD AFW pump to pullout and maintain AFW flow rate greater than 200 gpm.

\*ANSWER

C.

\*REFERENCE

New

Higher

\*QNUM 112  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL S  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 008000A401  
 \*QUESTION

Given the following conditions:

- Reactor Power is initially 1%, with a reactor startup in progress.
- Annunciator 47021-I, "RXCP CC Flow Low" is LIT.
- A-CC-31, Abnormal Component Cooling System Operation, step 5, "Check CC Flow to RXCPs Motor Bearing Oil Coolers" is in progress.

Complete the following statement:

If component cooling is lost to any RXCP for \_\_\_\_ (1) \_\_\_\_, immediately  
 \_\_\_\_ (2) \_\_\_\_.

- |    | ____ (1) ____ | ____ (2) ____   |
|----|---------------|---|
| a. | >2 Minutes    | stop the affected RXCP and then shutdown the reactor per N-0-4, 35% power to Hot Shutdown     |
| b. | >2 Minutes    | trip the reactor, go to E-0, Reactor Trip or Safety Injection and then stop the affected RXCP |
| c. | >5 Minutes    | stop the affected RXCP and then shutdown the reactor per N-0-4, 35% power to Hot Shutdown     |
| d. | >5 Minutes    | trip the reactor, go to E-0, Reactor Trip or Safety Injection and then stop the affected RXCP |

\*ANSWER

B

\*REFERENCE

A-CC-31, Abnormal Component Cooling System Operation  
 Kewaunee System Description 31, Component Cooling Water System  
 Annunciator 47021-I, "RXCP CC Flow Low"  
 New  
 Higher



\*QNUM 113  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL S  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA W/E01EA11  
 \*QUESTION

Given the following:

- A Safety Injection has occurred on high containment pressure.
- Containment pressure is 10 psig and stable.
- RCS pressure is 500 psig and stable.
- "A" Steam Generator narrow range level is 40% and stable.
- "B" Steam Generator narrow range level is 60% and stable.
- Both Steam Generator pressures are 500 psig and stable.
- Numerous radiation monitors are in high alarm including:
  - R-2, Containment Air Monitor,
  - R-12, Containment Gas Monitor,
  - R-33, SG 'B' Steam Line Radiation Monitor.

What is the correct procedure to transition to from ES-0.0, Rediagnosis.

- a. E-3 or ECA-3 Series Procedure
- b. ECA-2.1
- c. E-2
- d. E-1 or ECA-1 Series Procedure

\*ANSWER

A

\*REFERENCE

A-RM-45, Abnormal Radiation Monitoring System

ES-0.0, Rediagnosis

New

Higher

\*QNUM 114  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL S  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA W/E02EA21  
 \*QUESTION

Given the following:

- A Safety Injection has occurred.
- The crew is in E-0, "Reactor Trip or Safety Injection," at step 24, "Check if SI Should Be Terminated".

Which of the following would prevent transition to ES-1.1, "SI Termination"?

- a. Total feedwater flow at 195 gallons AND S/G narrow range levels at 5%.
- b. RCS subcooling based on core exit thermocouples at 33°F.
- c. Pressurizer level at 7%.
- d. RCS pressure at 2100 psig and stable.

\*ANSWER

D

\*REFERENCE

INPO Exam Bank, Indian Point 2 - 10/28/1996 Exam

E-0, "Reactor Trip or Safety Injection,"

Bank

Higher

\*QNUM 115  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.1.4  
\*QUESTION

Given the following conditions:

- The plant is at HOT SHUTDOWN
- A cooldown to COLD SHUTDOWN has been initiated.

What change(s) in staffing requirements occur(s) for the minimum on-duty shift complement per NAD-03.17, "Conduct of Operations" when COLD SHUTDOWN is achieved?

- a. Only ONE Licensed Operator is required AND the STA is NOT required.
- b. The fire response team can be reduced to TWO fire brigade members and ONE assistant fire brigade member.
- c. The Control Room Supervisor AND the STA are NOT required.
- d. Only ONE Nuclear Auxiliary Operator is required.

\*ANSWER

C

\*REFERENCE

INPO Exam Bank, Kewaunee - 12/11/2000 Exam

NAD-03.17, "Conduct of Operations"

Bank

Higher

\*QNUM 116  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.1.25  
\*QUESTION

The following conditions exist:

- A loss of off-site power occurred; EDGs started and energized buses 5 and 6.
- Procedure E-3, Steam Generator Tube Rupture, is in effect for S/G "A".
- During RCS depressurization, a PZR PORV stuck open and its block valve could not be closed.
- Radiation Monitor R-2 is reading 9 R/hr.
- While controlling RCS temperature, a safety valve on S/G "B" failed open

What is the emergency classification based on these conditions per EPIP-AD-02, Emergency Class Determination (ATTACHED)?

- a. UNUSUAL EVENT
- b. ALERT
- c. SITE EMERGENCY
- d. GENERAL EMERGENCY

\*ANSWER

C

\*REFERENCE

EPIP-AD-02, Emergency Class Determination

New

Higher

\*QNUM 117  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.1.11  
\*QUESTION

Given the following:

- The reactor is critical at 1% power.
- SI Accumulator pressure "A" was just found to be 680 psig.
- SI Accumulator "B" boron concentration was just found to be 1850 ppm.

What is the action required by Technical Specifications due to these conditions, if any?

- a. No action is needed due to these conditions.
- b. SI Accumulator "A" pressure must be restored to limits within 72 hours.
- c. SI Accumulator "B" boron concentration must be restored to limits within 72 hours.
- d. Action must be initiated within 1 hour to go to HOT SHUTDOWN.

\*ANSWER

D

\*REFERENCE

TS 3.2.a. Accumulators

New

Higher

\*QNUM 118  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.2.27  
\*QUESTION

Given the following conditions:

- Reactor Vessel Head AND Upper Internals have been removed.
- BOTH doors of the containment personnel airlocks are OPEN.
- Residual Heat Removal Pump "A" is OPERABLE.
- Residual Heat Removal Pump "B" is inoperable.
- The reactor has been shutdown for 7 days.
- Spent Fuel Pool Pump "A" is operating per N-SFP-21, Spent Fuel Pool Cooling and Cleanup System. Spent Fuel Pool Pump "B" is inoperable.
- Refueling Cavity level is greater than 23 feet above the vessel flange.

Based on the plant status given, determine what condition(s) must be resolved to meet requirements for a full core offload.

- a. Containment integrity must be established.
- b. Residual Heat Removal Pump "B" is required.
- c. The reactor has not been shutdown long enough.
- d. Spent Fuel Pool Cooling Pump "B" is required.

\*ANSWER

D

\*REFERENCE

N-FH-53-CLC, Pre-Refueling Checklist

RF-01.00, KNPP Refueling Procedure

New

Higher

\*QNUM 119  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.2.26  
\*QUESTION

Which of the following refueling activities must be performed by a licensed Senior Reactor Operator (SRO)?

- (I) Directing flushing of the Reactor Cavity with DI water.
  - (II) Directing fuel movement from the Control Room.
  - (III) Preparing Temporary Changes to the refueling procedure.
- a. ONLY I.
  - b. ONLY I and II.
  - c. ONLY II and III.
  - d. I, II and III.

\*ANSWER

A

\*REFERENCE

NAD-02.07, Kewaunee Refueling Operations

RF-01.00, KNPP Refueling Procedure

New

Higher

\*QNUM 120  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL S  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 2.2.6  
 \*QUESTION

Complete the following regarding current procedure change requirements:

An active SRO is responsible for \_\_\_\_ (1) \_\_\_\_ safety related, Change of Intent Temporary Changes and \_\_\_\_ (2) \_\_\_\_ safety related, NON-Change of Intent Temporary Changes to KNPP Procedures.

- |    | ____ (1) ____ | ____ (2) ____ |
|----|---------------|---------------|
| a. | approving     | approving     |
| b. | approving     | reviewing     |
| c. | reviewing     | approving     |
| d. | reviewing     | reviewing     |

\*ANSWER

C

\*REFERENCE

NAD-03.01, Directive, Implementing Document and Procedure Control

GNP-03.01.01, Directive, Implementing Document and Procedure Admin. Control

GNP-03.01.03, Procedure Use and Adherence

New

Higher



\*QNUM 121  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL S  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 2.3.2  
 \*QUESTION

Complete the following regarding ALARA reviews:

ALARA Plans are required to be reviewed by the Radiological Performance Committee for \_\_\_\_\_(1)\_\_\_\_\_ and a Pre-job Planning Checklist shall be prepared for \_\_\_\_\_(2)\_\_\_\_\_.

- |    | _____ (1) _____     | _____ (2) _____     |
|----|---------------------|---------------------|
| a. | all jobs            | all jobs            |
| b. | jobs > 1 Person-rem | all jobs            |
| c. | jobs > 3 Person-rem | jobs > 1 Person-rem |
| d. | jobs > 5 Person-rem | jobs > 1 Person-rem |

\*ANSWER

D

\*REFERENCE

NAD-01.01, ALARA Program

HP-04.001, ALARA Plan

New

Higher

\*QNUM 122  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL S  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 2.3.8  
 \*QUESTION

Which of the following describes the PRIMARY responsibilities of both the Shift Manager and the Radiation Protection Manager for radiological gaseous waste discharges?

	<u>Shift Manager</u>	<u>Radiation Protection Manager</u>
a.	Maintaining releases ALARA	Performing discharge calculations
b.	Ensuring no unplanned release	Maintaining releases ALARA
c.	Logging the discharge data	Ensuring no unplanned release
d.	Performing discharge calculations	Logging the discharge data

\*ANSWER

B

\*REFERENCE

NAD-01.12, Radiological Gaseous Waste Discharge

New

Memory

\*QNUM 123  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.4.1  
\*QUESTION

While at the diagnostic steps of E-0, Reactor Trip or Safety Injection, the following plant conditions exist:

- Steam Generator A has been identified as ruptured.
- Steam Generator B has been identified as faulted.
- A LOCA has been identified outside containment.

Which procedure would the crew transition to when exiting E-0?

- a. E-1, Loss of Reactor or Secondary Coolant
- b. ECA-1.2, LOCA Outside Containment
- c. E-2, Faulted Steam Generator Isolation
- d. E-3, Steam Generator Tube Rupture

\*ANSWER

C

\*REFERENCE

E-0, Reactor Trip or Safety Injection

New

Higher

\*QNUM 124  
\*HNUM  
\*ANUM  
\*QCHANGED TRUE  
\*ACHANGED TRUE  
\*QDATE 2004/02/02  
\*FAC 305  
\*RTYP PWR-WEC2  
\*EXLEVEL S  
\*EXMNR C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 2.4.40  
\*QUESTION

A Priority Entry is being planned for an emergency search and rescue operation that will likely involve emergency worker doses of 20 rem TEDE. Which of the following states the dose requirements for this entry?

- a. Exposures to this level can ONLY be made with volunteers fully aware of the risks because emergency rescue exposure limits would be exceeded.
- b. Exposures to this level can ONLY be made with volunteers fully aware of the risks because 10CFR20 limits would be exceeded.
- c. Exposures to this level can ONLY be made with Emergency Director approval because emergency rescue exposure limits would be exceeded.
- d. Exposures to this level can ONLY be made with Emergency Director approval because 10CFR20 limits would be exceeded.

\*ANSWER

D

\*REFERENCE

EPIP-AD-11, "Emergency Radiation Controls"

EPIP-RET-02D, "Emergency Radiation Entry Controls and Implementation"

New

Higher

\*QNUM 125  
 \*HNUM  
 \*ANUM  
 \*QCHANGED TRUE  
 \*ACHANGED TRUE  
 \*QDATE 2004/02/02  
 \*FAC 305  
 \*RTYP PWR-WEC2  
 \*EXLEVEL S  
 \*EXMNR C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA 2.4.7  
 \*QUESTION

Given the following conditions:

- A cooldown and depressurization of the RCS is in progress as directed by ES-0.3, "Natural Circulation Cooldown with Steam Void in Vessel"
- A Yellow path is noted for Inventory that directs the crew to FR-I.3, "Response to Voids in Reactor Vessel"
- The decision is made to continue with the actions of ES-0.3 and NOT transition to FR-I.3, "Response to Voids in Reactor Vessel"

Why would a transition to FR-I.3 NOT be made?

- a. FR-I.3 addresses voids resulting from non-condensable gas evolution, NOT from steam void formation.
- b. Upper head steam voiding is expected in these conditions and accounted for in ES-0.3.
- c. FR-I.3 would only be entered prior to performing a cooldown and depressurization.
- d. The Status Trees are monitored "for information only" in these conditions.

\*ANSWER

B

\*REFERENCE

INPO Exam Bank - Kewaunee Exam 12/11/2000

ES-0.3, "Natural Circulation Cooldown with Steam Void in Vessel"

FR-I.3, "Response to Voids in Reactor Vessel"

Bank

Higher