

\*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

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 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 deg 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

WHICH ONE (1) of the following conditions prevents the start of a second Main Feedwater pump?

- a. Lube oil pressure is 10 psig.
- b. Suction pressure is 200 psig.
- c. Recirculation valve is FULL open.
- d. 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 C. Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 011000K202  
\*QUESTION

Which of the following buses is the power supply to Pressurizer Heater Control Group 1C?

- a. Bus 1-33
- b. Bus 1-43
- c. Bus 1-52
- d. Bus 1-62

\*ANSWER

A

\*REFERENCES

E-240 Rev. AQ

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

10 CFR 55.41.7

Bank

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.
- Compressor G is selected at the local panel.

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 Standby High capacity air compressor 1F starts.
- b. Standby High capacity air compressor 1F starts AND Automatic control valve SA-400 is fully closed.
- c. Automatic control valves SA-200 AND SA-400 start to close.
- d. Small capacity compressor 1C starts and isolates from station air header AND Automatic control valve SA-200 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

Given the following conditions:

- The unit is at 100% power.
- Compressor F is tagged out for preventive maintenance.
- Instrument air pressure was at 115 psig when compressor G tripped.

Instrument air pressure will:

- 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-2 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):

	Tavg	PZR Press
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 2250 psia.

The Pressurizer Pressure Master Controller malfunctions and its SETPOINT drifts to 2100 psia over a 10 minute period. Which of the following describes the INITIAL automatic response of control elements 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. PORVs PR-2A and PR-2B open, Spray valves throttle open, and variable heaters go to minimum current.
- d. Spray valves throttle closed, variable heaters 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. The RWST supply valve to an RHR pump must be closed before the associated Containment Sump B isolation valve to an RHR pump can be opened.
- b. A recirculation isolation valve for the SI pumps must be closed before opening the associated Containment Sump B isolation valve to an RHR pump.
- c. A recirculation isolation valve for the SI pumps must be closed before opening the associated RHR heat exchanger outlet valve to an SI pump.
- d. The Containment Sump B isolation valve to an RHR pump must be open before opening the associated 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?

- |    | Pump A                  | Pump B       |
|----|-------------------------|--------------|
| 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 tap to RCS flow instrument FT-411 on Loop A fails

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 55% power
- S/G level channel LT-473 is removed from service per A-MI-87

If S/G 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 (located downstream of the low pressure letdown 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
- 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?

	AFW A	AFW B	TDAFW
a.	Running	Running	Running
c.	Running	Running	Off
c.	Off	Off	Running
d.	Off	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

While performing SP-54-086, "Turbine Stop and Governor Valve Operability Test," when the control room operator depresses the CLOSE SV-1 pushbutton, the following indications should be seen in the sequence listed below:

- a. SV-1 close position light illuminates, ONLY CV-1 position indicator indicates "0".
- b. ONLY CV-1 position indicator indicates "0", SV-1 close position light illuminates.
- c. SV-1 close position light illuminates, CV-1 AND CV-3 position indicator indicates "0".
- d. CV-1 AND CV-3 position indicators indicate "0", SV-1 close position light illuminates.

\*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.
- "A" Accumulator water volume was just found to be 1270 cubic ft (48%).
- "B" Accumulator water volume was found to be 1220 cubic ft (20%) at the same time.

Based on applicable Technical Specifications, what action is required due to these conditions, if any?

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

\*ANSWER

C

\*REFERENCE

TS 3.2.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:

- 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.

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

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

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. Rod Drive MG Set 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 C Zoia  
 \*QVAL 1.00  
 \*SEC  
 \*SUBSORT  
 \*KA W/E11EK32  
 \*QUESTION

A small-break LOCA has occurred with ECCS recirculation capability not available. ECA-1.1, "Loss of Emergency Coolant Recirculation" has been entered. Both Reactor Coolant Pumps (RCPs) are running. An ORANGE path subsequently develops on the "CORE COOLING" CSF Status Tree with ECA-1.1 in progress.

What actions would be taken with respect to RCPs while in ECA-1.1 AND which procedure has priority after the ORANGE path develops?

_____RCP ACTIONS_____		_____Appropriate Procedure_____
a.	Stop both RCPs to minimize heat input to the RCS.	FR-C.2, "Response to Degraded Core Cooling" has priority.
b.	Stop both RCPs to minimize heat input to the RCS.	ECA-1.1, "Loss of Emergency Coolant Recirculation" has priority.
d.	Stop one RCP to maintain PZR spray capability.	FR-C.2, "Response to Degraded Core Cooling" has priority.
d.	Stop one RCP to maintain PZR spray capability.	ECA-1.1, "Loss of Emergency Coolant Recirculation" has priority.

\*ANSWER

C

\*REFERENCE

FR-C.2, "Response to Degraded Core Cooling" and Background Document  
 New  
 Higher

\*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:

- Stationary Gripper Energizes at Low Voltage
- Stationary Gripper Energizes at High Voltage
- Movable Gripper Energizes
- 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

New

Higher

\*QNUM 027  
\*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 001000K611  
\*QUESTION

The unit is starting up when a ROD BOTTOM ROD DROP annunciator is received. While it is known that a single Control Bank B (CBB) rod has dropped, it is also noted that there is a problem with the annunciator. Which of the following confirms this problem?

- a. The Rod Bottom Bistable is set at 20 steps.
- b. The red light under the CBB individual RPI is lit on the control board.
- c. CBB's individual P-A Converter indicates less than 35 steps.
- d. The rod bottom light is lit in the electronic racks.

\*ANSWER

C

\*REFERENCE

Lesson Plan RO2-05-049, Rod Control & RPI  
Alarm Response Book - "ROD BOTTOM, ROD DROP"  
New  
Higher

\*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 4,000,000 lb/hr AND an "S" signal.
- c. Steamline flow of 5,000,000 lb/hr AND Tavg of 530 deg F.
- d. Steamline flow of 800,000 lb/hr, Tavg of 530 deg F, AND an "S" 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 following conditions exist:

- The unit is at 100% power
- RXCP labyrinth delta-P valve CVC-7 fails open
- Charging pump A is operating

Which of the following describes the changes in charging pump A's speed during this event?

- a. No change in charging pump A's speed will occur during this event
- b. Charging pump A's speed at first decreases, and then returns to its initial speed
- c. Charging pump A's speed at first increases, and remains above its initial speed
- d. Charging pump A's speed at first decreases, and 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 017000A101  
\*QUESTION

While taking readings on the Incore Thermocouple Control panel, the operator selects a thermocouple that is receiving a signal equal to 2550 deg F. What indication would be seen on the Honeywell display?

- a. The display would be BLANK.
- b. Four E's (EEEE).
- c. A reading of approximately 2550 deg F.
- d. A question mark (?).

\*ANSWER

D

\*REFERENCE

System Description

NRC Exam Bank - Prairie Island 4/30/90

Bank

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 is currently 3.5 psig and 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.
- Train A relays (Engineered Safeguard Features Actuation System) have failed to operate ONLY the Service Water System valves.
- Train B relays (Engineered Safeguard Features Actuation System) have operated properly.

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. Flow will be at a set constant value lower than its post-accident expected value.
- c. Flow through the CCW heat exchanger will be at its post-accident expected value.
- d. 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 standby.
- The "B" Main FW pump is running with two condensate pumps.
- Annunciator 47062-A, "S/G A Program Level Deviation" is LIT.
- S/G A level is 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?

- |    | RXCP A | RXCP B |
|----|--------|--------|
| 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

Given the following conditions:

- 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.
- Steam Generator narrow range levels are:
  - A - 2%
  - B - 8%
- Each steam generator is being fed at 100 gpm
- RCS cooldown rate is 120 deg F /HR

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-005New  
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/E09/10 2.4.4  
\*QUESTION

Given the following plant conditions:

- Reactor trip occurred with subsequent loss of RCPs.
- 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%

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 90% power
- Control Bank D rod K7 indicates 220 steps
- All other Control Bank "D" rods are at 200 steps
- Tavg = 570 deg F

Which ONE (1) of the following explains the effect on shutdown margin calculations?

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

\*ANSWER

B

\*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 loop hot leg temperature.
- c. RCS T-average indication.
- d. RCS loop 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 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 standby
- Condensate pump B is running

If condenser hot well level subsequently decreases to 7.5 inches (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 "A" 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?

	AR-302	AR-305	AR-100	AR-2A
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. Which of the following monitor(s) should be checked by the operator in order to determine the cause of the Gas Decay Tanks to Plant Vent, WG-36/CV-31215, closing and terminating the discharge?

- 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 CL 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 channel 449 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

Memory

\*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. SI will not be able to be reset.
- c. Automatic SI reactuation will be blocked.
- d. Feedwater isolation due to SI actuation will be blocked.

\*ANSWER

B

\*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 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 32 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

\*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 reaches 25 psig.

What is the sequence of actuation for containment spray?

- (1) - Spray Additive Eductor Inlet Valves OPEN
- (2) - ICS Pump Discharge Valves OPEN
- (3) - ICS Pumps START

- a. (1), (2), (3)
- b. (2), (1), (3)
- c. (2), (3), (1)
- d. (3), (2), (1)

\*ANSWER

C

\*REFERENCE

FR-Z.1, Response to High Containment Pressure

New

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. ALL 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 CS pumps based on which of the following?

- a. Containment pressure, containment temperature, and sump level.
- b. Containment pressure, operating RCFCs, and sump level.
- c. Containment temperature, operating RCFCs, and RWST level.
- d. Containment pressure, operating RCFCs, 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 following conditions exist:

- SPENT FUEL POOL ABNORMAL Annunciator is received.
- The plant is at 100% power.
- The SFP level is decreasing.

The CRS instructs you to initiate makeup to the SFP using the makeup source with the HIGHEST possible flow capacity. Per procedure A-SFP-21, Abnormal SFP Cooling and Cleanup System Operation, you would use. . .

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

\*ANSWER

C

\*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

The following conditions exist:

- A reactor trip/turbine trip occurs.
- A lockout of the RAT occurs.
- Both S/Gs reach a low of 19% narrow range level during the event.

Given the choices below, what action should be taken by the operator to address feedwater concerns?

- a. Verify that BOTH Motor Driven AFW AND the Turbine Driven AFW pumps start.
- b. Verify that ONLY the Motor Driven AFW pumps start.
- c. Verify that ONLY the Turbine Driven AFW pump starts.
- d. Manually start the AFW pump(s) as necessary, since no AFW pumps will start automatically.

\*ANSWER

A

\*REFERENCE

KNPP System Description 05B, Auxiliary Feedwater System (AFW)

New

Memory

\*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
- R-19 S/G Blowdown Liquid monitor detector has failed (readout low)
- The NCO positions R-19 keyswitch to the OFF position

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

- a. Blowdown flowpath switches to the Primary Sampling System.
- b. Condenser Air Ejector discharge is routed to the Aux. Building vent stack.
- c. Blowdown flowpath switches to Mode I alignment.
- d. Condenser Air Ejector discharge is routed to the Turbine Building.

\*ANSWER

B

\*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 SGBT 1A monitoring tank, Waste Disposal Panel 53072-41 "LIQUID WASTE MONITOR R-18 HIGH RADIATION" alarms. Monitor R-18 is verified to be at a high level, but automatic action(s) do not occur. What operator actions are now required?

- a. Manually close WD-18 and stop SGBT Monitor Tank Discharge Pump 1A.
- b. Manually close WD-19 and place SGBT Monitor Tank Discharge Pump 1A in recirculation.
- c. Manually close WD-18 and place SGBT Monitor Tank Discharge Pump 1A in recirculation.
- d. Manually close WD-19 and stop SGBT Monitor Tank Discharge Pump 1A.

\*ANSWER

D

\*REFERENCE

A-RM-45, Abnormal Radiation Monitoring System

KNPP Local Alarm Response Sheet 53072-41

Modified

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 upon RHR pump start AND component cooling flows through the \_\_ (2) \_\_ side of the RHR heat exchanger.

- |    | (1)           | (2)   |
|----|---------------|-------|
| 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

\*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) does 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

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 078000K402  
\*QUESTION

The Station/Instrument Air Systems are aligned as follows:

- 1F Station Air Compressor operating
- 1G Station Air Compressor in Standby
- A, B & C Air Compressors are in Standby
- Instrument Air and Station Air systems in normal alignment
- Instrument Air pressure at 120 psig.

A leak develops in the Station Air system. Which of the following statements describes the sequence of events occurring in the air systems as system pressure slowly drops?

1. 1G Station Air Compressor starts AND loads
  2. SA Header Control valves close
  3. C, B & A Instrument Air Compressors start AND load
- a. 1, 2, 3
  - b. 3, 1, 2
  - c. 1, 3, 2
  - d. 3, 2, 1

\*ANSWER

C

\*REFERENCE

OP A-AS-1, "Abnormal Station and Instrument Air System Operation"  
RO2-02-LP-001, Station and Instrument Air Lesson Plan, Pg 10 of 40  
New  
Higher

\*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 action is required to go to at least HOT STANDBY within the next 6 hours.
- c. Technical Specifications requirements are NOT met, and action is required to go to at least HOT SHUTDOWN within the next 6 hours.
- d. Technical Specifications requirements are NOT met, and 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. Circuit Breaker Control
- b. 7.5 KVA Inverter BRA-111
- c. Reactor Protection Power
- d. Non-interruptible Bus BRD-115

\*ANSWER

A

\*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 C Zoia  
\*QVAL 1.00  
\*SEC  
\*SUBSORT  
\*KA 064000K202  
\*QUESTION

Which ONE (1) of the following correctly identifies the power supply for the Diesel Generator 1B fuel priming pump?

- a. BRB-104
- b. BRB-105
- c. MCC 1-62B
- d. Lighting Panel LRPB-2 1-46B

\*ANSWER

A

\*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 of R-19, S/G Blowdown Liquid Monitor during a release?

- (1) Air Ejector Discharge Vent. positions to DUCT
- (2) S/G Blowdown Isolations CLOSE
- (3) S/G Sample Isolations CLOSE
- (4) Humidification Steam Inlet CV 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?

	Letdown Flow Indication	"Pressurizer Level Low" Annunciator
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) identifies the stuck open PORV?

- (I) PR-2A(B) red-green light indication on the Mechanical Console C
  - (II) Acoustic monitor red-green light indication 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	

Given the following plant conditions:

- 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 & Temperature is 1500 psig / 480 deg F.
- 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) - Open Reactor Trip Breakers
  - (II) - De-energize Rod Drive MG Sets
  - (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.

What actions should be taken by the operator? Address the leak from the . . .

- 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 \_\_\_\_ (2) \_\_\_\_ the detector voltage beyond calibration limits would put the detector in the \_\_\_\_ (3) \_\_\_\_ region, resulting in \_\_\_\_ (4) \_\_\_\_ ions being counted as neutrons at the center electrode.

- a. (1) Ionization, (2) decreasing, (3) Proportional, (4) less
- b. (1) Proportional, (2) increasing, (3) Ionization, (4) more
- c. (1) Ionization, (2) increasing, (3) Proportional, (4) more
- d. (1) Proportional, (2) decreasing, (3) Ionization, (4) less

\*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 LOW.
- Source Range counts have just reached  $10^6$  CPS

What indication would the operator expect to see on the N36 Intermediate Range (IR) channel at this time?

- 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

Given the following:

- The plant is at 100% power.
- An ALERT alarm comes in on R-19, S/G Blowdown Liquid Monitor.

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

- a. IF the radiation level on R-19, S/G Blowdown Liquid Monitor increases to HIGH alarm, THEN transition to E-0-14, "Steam Generator Tube Leak".
- b. Transition to E-0-14, "Steam Generator Tube Leak" and perform Operator immediate actions.
- c. Transition 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. Transition to A-RM-45, "Abnormal Radiation Monitoring System" and determine primary-to-secondary leak rate per "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 RCS 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 since 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

The following plant conditions exist:

- The plant is initially at 100% power, operating normally.
- Power is lost to Bus BRA-102.
- The plant responds as expected.

Which of the following describes the Technical Specification LCOs and Safety Limits that are currently applicable, if any?

- (1) Safety Limit 2.1 - Reactor Core.
  - (2) T/S 3.7.a.6 - Both Station batteries and DC systems are OPERABLE.
  - (3) T/S 3.7.b.3 - One battery may be inoperable for up to 24 hours if the other battery and 2 chargers remain OPERABLE with one charger carrying the DC supply system.
- a. (1), (2), AND (3)
  - b. ONLY (1), AND (2)
  - c. ONLY (3)
  - d. None of the Technical Specification LCOs and Safety Limits listed are applicable.

\*ANSWER

D

\*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

Higher



\*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 000061K201  
 \*QUESTION

The following condition exists:

A high radiation alarm signal is being generated at the RHR Pump Pit. Complete the following statement:

This alarm is associated with the \_\_\_\_ (1) \_\_\_\_ Area Radiation Monitors subsystem which has a local readout at its \_\_\_\_ (2) \_\_\_\_ .

- |    | (1)       | (2)                           |
|----|-----------|-------------------------------|
| a. | Secondary | Data Acquisition Module (DAM) |
| b. | Secondary | Detector location             |
| c. | Auxiliary | Data Acquisition Module (DAM) |
| d. | Auxiliary | Detector location             |

\*ANSWER  
C

\*REFERENCE

Kewaunee System Description 45, "Radiation Monitoring System"

Lesson Plan RO2-01-LP045, "Radiation Monitoring"

New

Higher

\*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

Given the following:

- The plant is initially at 100% power, operating normally.
- 00:00 on 12/01/03 - One of two containment penetration flow path isolation valves was found to be inoperable.
- 00:15 on 12/01/03 - Preparations to restore valve operability began.
- 01:00 on 12/01/03 - The second containment penetration flow path isolation valve was found to be inoperable.

WHICH action below is required by WHAT TIME to avoid initiating action to place the unit in HOT STANDBY per Technical Specifications?

- a. Return ONE of the isolation valves to OPERABLE status by 02:00 on 12/01/03
- b. Return ONE of the isolation valves to OPERABLE status by 07:00 on 12/01/03.
- c. Return BOTH isolation valves to OPERABLE status by 00:00 on 12/02/03.
- d. Return BOTH isolation valves to OPERABLE status by 01:00 on 12/02/03.

\*ANSWER

A

\*REFERENCE

Technical Specification 3.6 - Containment System

Technical Specification 3.0.c - Standard Shutdown Sequence

New

Higher

\*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.

What flows 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". Where is this valve located?

- a. Aux. Building 584'-0"
- b. Aux. Building 586'-0"
- c. Aux. Building 596'-6"
- d. Aux. Building 605'-6"

\*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?

- Notify NRC prior to opening 36" RBV valves.
  - Obtain a Gaseous Waste Discharge Permit.
  - 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?

	CORE BURNUP (MWD/MTU)	RCS Tavg
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:

- A reactor startup is in progress per N-CRD-49B, "Reactor Startup".
- The Eight-fold Critical Rod Position occurs when Control Bank C is 65 steps.

What action must be taken by the operator NEXT?

- 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"
- It is now being determined if rods can be placed back in auto per Tech Spec 3.10.e limits, "Rod Misalignment Limitations"

Which of the following gives 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

Given the following:

- Rod F-6 dropped to 0 steps four hours ago with the plant at 95% power. Efforts to recover it are ongoing.
- Reactor Engineering just informed you that FQN(Z) exceeds COLR limits by 5% and FΔHN exceeds COLR limits in the vicinity of the dropped rod.

What action is required FIRST to address the Technical Specifications power distribution limits?

- a. Order power reduced to below 90% within 15 minutes.
- b. Order power reduced to below 50% within 1 hour.
- c. Order power reduced to below 90% within 1 hour.
- d. Order power reduced to below 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.
- RCS pressure is 140 psig.
- RHR 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?

	___Appropriate Procedure___	_____Reason_____
a.	Stay in E-1, Loss of Reactor or Sec. Coolant	RCS press. is too low to go to ES-1.2.
b.	Stay in E-1, Loss of Reactor or Sec. Coolant	RHR flow will be established in E-1.
c.	Go to ES-1.2, Post LOCA Cooldown & Depress.	RHR flow has not been verified in E-1.
d.	Go to ES-1.2, Post LOCA Cooldown & Depress.	RCS press. is too high 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

The final step in ECA-1.1, "Loss of Emergency Coolant Recirculation" has the crew "Consult With Emergency Director". Per the IPEOP Bases, which of the following are the reasons for this action?

- (I) Any subsequent actions are event-specific.
  - (II) To make decisions about long term plant operation.
  - (III) To make decisions about repairs necessary for plant restart.
  - (IV) To evaluate if sodium hydroxide addition is required
- a. ONLY (I) AND (II)
  - b. ONLY (III) AND (IV)
  - c. ONLY (I), (II) AND (III)
  - d. (I), (II), (III) AND (IV)

\*ANSWER

D

\*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	

Given the following:

- The reactor is at 100% power and normal operating temperature.
- Both Pressurizer PORVs are inoperable due to 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
- b. ONE Safety Valve and ONE PORV
- c. TWO Safety Valves
- d. TWO Safety Valves and ONE PORV

\*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 in Containment and the Fuel Building.
- 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. Lower the irradiated fuel assembly in the Manipulator Crane Mast into transfer system sump and unlatch.
- c. Lower the irradiated fuel assembly in the Manipulator Crane Mast 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.
- Waste Gas discharge line has isolated, terminating a WG decay tank release that was in progress.
- 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

Given the following:

- The plant is at 25% power.
- Annunciator 47051-N, "Forebay Level Low" is LIT.
- Forebay Level is 40% and decreasing per LI-41551.
- Service Water Pump amps are fluctuating.

What actions must be taken and per which procedure based on the conditions above?

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

\*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	

Given the following:

- Reactor Power is initially 3% power during a plant startup with the main turbine at 1200 RPM increasing towards 1800 RPM.
- Instrument Air Header pressure subsequently decreases to 50 psig.
- The "B" Main Steam Header Isolation Valve position indication is observed to be out in the Control Room.

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 and both MD AFW pumps are running
- Both steam generator Narrow Range (S/G NR) levels are at 6%

Which one of the following is the required AFW flow rate that the Reactor Operator must establish?

- a. As needed to maintain S/G NR level greater than 4%
- b. A minimum of 240 gpm
- c. Greater than 400 gpm total flow
- d. Greater than 200 gpm total flow

\*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, R-12 and R-33.

What is the correct procedure to be in per 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".
- Radiation Monitor R-2 is reading 9 R/hr.
- During RCS depressurization, a PZR PORV stuck open and its block valve could not be closed.
- 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.
- "A" Accumulator pressure was just found to be 680 psig.
- "B" Accumulator boron concentration was just found to be 1850 ppm.

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

- a. No action is needed due to these conditions.
- b. "A" Accumulator pressure must be restored to limits within 1 hour.
- c. "B" Accumulator 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:

- 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.

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, INTENT Temporary Changes and \_\_\_\_ (2) \_\_\_\_ safety related, NON-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?

- |    | _____ Shift MANAGER _____         | Radiation Protection Manager      |
|----|-----------------------------------|-----------------------------------|
| 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 out of 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?

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