

Waterford 3 Examination Question Examination Bank

Examination Question Number 1

QUESTION ID: 5873 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Knowledge of Interrelationship Between Continuous CEA Withdrawal and CEA Position Counters

AUTHOR: avest **REVISION** 0 **REVISION DATE** 11/07/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/07/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: CED **CATEGORY:**

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

SD-CED 04

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

4.2-A1-AK2.01 2.9 3.2 W-3-LP-OPS-CED00 04

QUESTION

CEA Regulating Group 6 is inserted to 130" for ASI Control when a continuous rod withdrawal event occurs. What would be the first interlock to stop outward CEA motion of Regulating Group 6. Assume CEA group deviation remains at 0.0" throughout the event.

- A. Upper Electrical Limit
- B. Upper Group Stop
- C. Upper Control Limit
- D. Upper Pulse Counter Limit

ANSWER

B

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			1-1	New
Question History				

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Examination Question Number 2

QUESTION ID: 4453 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Power reduction due to dropped CEA

AUTHOR: avest **REVISION** 2 **REVISION DATE** 01/14/2002

APPROVAL: rfletch2 **APPROVAL DATE:** 01/14/2002

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 01/14/2002

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** **OPEN REFERENCE** X

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: PPO **CATEGORY:** PROCEDURE
SRO LEVEL

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-901-102 03 02 08/07/2001

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
4.2-A3-AK3.04 3.8* 4.1* W-3-LP-OPS-PPO10 3

QUESTION

The plant is operating at 75 % Power when CEA 20 drops from 125 inches to 0 inches during performance of ASI Control. Which of the following is the maximum reactor power allowed 45 minutes after CEA 20 dropped?

- A. 55%
- B. 60%
- C. 65%
- D. 70%

ANSWER

B

COMMENTS

Supply examinee a copy of COLR Figure 3

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	Modified
Question History				

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Examination Question Number 3

QUESTION ID: 5934 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: EOP Entry Conditions in OP-901-102

AUTHOR: avest **REVISION** 0 **REVISION DATE** 12/07/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/07/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: CED **CATEGORY:** PROCEDURE
PPO SRO LEVEL

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-901-102 03 02 08/07/2001

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-4-2 3.9 4.1 W-3-LP-OPS-PPO10 2

QUESTION

The following plant conditions exist:

- 3% power
- Power ascension was in progress withdrawing Reg Group 6 CEAs when CEAs 20 slips to 108”
- CEAs 21, 22, and 23 remain at 130”

What is the appropriate course of action by the CRS?

- A. Manually trip the reactor and enter OP-902-000, Standard Post Trip Actions.
- B. Continue the power ascension to a maximum of 5% until CEA 20 is realigned.
- C. Stop all reactor power changes while I&C performs troubleshooting and repair.
- D. Attempt to realign CEA 20 to within 7” of the other CEAs in Group 6 within 1 hr.

ANSWER

A

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 4
QUESTION ID: 5852 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Conditions indicating a stuck CEA.
AUTHOR: rglaze **REVISION** 0 **REVISION DATE** 09/26/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: rglaze **VERIFICATION DATE:** 09/26/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: CED **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
SD-CED 04
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-4-4 4 4.3 WLP-OPS-CED00 12

QUESTION

Current plant conditions are:

- 100% power, steady-state operations
- No major equipment out of service
- The plant is currently experiencing a CEA or CEDMCS Malfunction for a single CEA and the operators have entered OP-901-102, Section E-2, Immovable CEA.

Taken separately, which of the following conditions would be the first indication requiring entry into OP-901-102, Section E-2, Immovable CEA?

- A. CEA GROUP MINOR DEVIATION ALARM.
- B. CEA GROUP MAJOR DEVIATION ALARM.
- C. CEA WITHDRAWAL PROHIBIT ALARM.
- D. CEDM COILS BUS 1 POWER LOST ALARM.

ANSWER

A

COMMENTS

A. is correct because even though a Stuck CEA may cause the alarms listed in B. and C., the setpoint for A. is 4" of deviation and is therefore most likely to be the first available indication of those listed.

B. and C. are incorrect as they alarm at CEA deviations of 7" and 5.5" respectively, thereby actuating after the Minor Deviation alarm listed in A.

D. is incorrect as the CEDMCS RELAY POWER is provided through redundant auctioneered circuits which are not likely to fail at the same time.

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 5

QUESTION ID: 15 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: LPSI flow requirements following LB-LOCA

AUTHOR: avest **REVISION** 2 **REVISION DATE** 11/27/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/27/2001

TYPE: MULTIPLE CHOICE **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** **OPEN REFERENCE** X

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: PPE **CATEGORY:**

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

OP-902-009 01

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

4.1-E11-EK2.02 2.6* 2.7* ZPPE-703 00

QUESTION

Following a Large Break LOCA, Reactor Coolant System pressure is 125 psia, and temperature is 345°F. SELECT the minimum flow required to meet acceptable Low Pressure Safety Injection (LPSI) System performance?

- A. LPSI flow is 1500 gpm from Train A or B
- B. LPSI flow is 2000 gpm from Train A or B
- C. LPSI flow is 2500 gpm from Train A or B
- D. LPSI flow is 4000 gpm from Train A or B

ANSWER

C

COMMENTS

Provide Att.2-C of OP-902-009

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 6
QUESTION ID: 5936 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Consequences of an RCP Failure
AUTHOR: avest **REVISION** 0 **REVISION DATE** 01/07/2002
APPROVAL: rfletch **APPROVAL DATE:** 01/07/2002
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 01/07/2002
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** **OPEN REFERENCE** X
SPECIAL REFERENCES: X **SIMULATOR SETUP**
PLANT SYSTEM: PPO **CATEGORY:** PROCEDURE
RCP SRO LEVEL
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
TS 3.4.1
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
4.2-A15/17-AK1.02 3.7 4.1 W-3-LP-OPS-RCP00 8

QUESTION

- The plant is in Mode 3 with RCPs 1A, 1B, and 2B in operation.
- RCS temperature is 505°F and a heatup is in progress.
- The 1B bus feeder from SUT B trips for an unknown reason.
- RC loop operability requirements were met and no equipment was out of service prior to the breaker trip.

Which of the following is correct concerning compliance with RCS loop operability Tech Spec LCOs and/or LCO action statements?

- A. The Tech Spec LCO for RCS loop operability is met without reliance on LCO action statements.
- B. The applicable LCO action statement requires cooldown and entry into Mode 4 in the next 12 hours.
- C. The applicable LCO action statement requires restoration of RCP 2B operability within 72 hrs.
- D. The applicable LCO action statement requires securing all operations that could dilute the RCS.

ANSWER

A

COMMENTS

Supply examinee with copy of Tech Specs 3.4.1.1 and 2

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 7

QUESTION ID: 5853 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Interrelation between RCP malfunction and CCW
AUTHOR: avest **REVISION** 0 **REVISION DATE** 11/28/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/28/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: CCW **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-901-130 02 02 01/25/2001
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 4.2-A15/17-AK2.08 2.6 2.6 W-3-LP-OPS-CC00 7

QUESTION

Which of the following would cause closure of all RCP seal cooler isolation valves and subsequent loss of all RCPs?

- A. Loss of 1A bus
- B. Loss of the TGB Battery
- C. Isolation of CCW AB Header
- D. Loss of two Containment Fan Coolers

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			1-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 8

QUESTION ID: 1704 - **STATUS:** Approved **LAST USED**

A

DESCRIPTION: Reason for reclosing 32 bus feeders

AUTHOR: avest **REVISION** 1 **REVISION DATE** 12/03/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/03/2001

TYPE: Multiple Choice **TIME:** 1 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: CED **CATEGORY:** PROCEDURE

PPE

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

TG-OP-902-000

09

NRC KA NUMBER:

RO

SRO

TRAINING MATERIAL:

OBJECTIVE

4.4-A13-AA1.1

3.3

3.6

W-3-LP-OPS-PPE01

11

QUESTION

OP-902-000, Step 1 Contingency Action directs the operator to open the feeder breakers to 480 VAC busses 3A32 and 3B32 for 5 seconds and then reclose them. The purpose of reclosing the feeder breakers is to restore power to the:

- A. Instrument Air compressors to maintain air operated valve operability.
- B. Dry Cooling Tower fans to maintain Ultimate Heat Sink operability.
- C. CEDM cooling fans to protect CEDM coils from overheating.
- D. PZR heaters to maintain RCS pressure control, enhancing natural circulation.

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 9

QUESTION ID: 5906 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Ability to Determine Proper Single Phase Natural Circulation
AUTHOR: avest **REVISION** 0 **REVISION DATE** 11/21/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/21/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPE **CATEGORY:** PROCEDURE
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 Op-902-003 04
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 4.4-AA13-AA2.1 2.7 3.7 W-3-LP-OPS-PPE07 8

QUESTION

The plant experienced a SGTR with a Loss of Offsite Power. Which of the following sets of data indicates acceptable natural circulation flow is present.

<u>RCS Pressure</u>	<u>Tc</u>	<u>Th</u>	<u>CET Temp</u>
A. 1000 psia	450°F, ↔	500°F, ↔	515°F
B. 900 psia	435°F, ↓	500°F, ↓	504°F
C. 800 psia	440°F, ↔	480°F, ↔	482°F
D. 450 psia	400°F, ↑	430°F, ↑	432°F

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 10

QUESTION ID: 1438 **-B** **STATUS:** Approved **LAST USED**
DESCRIPTION: SIAS response of valves
AUTHOR: avest **REVISION** 1 **REVISION DATE** 12/03/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/03/2001
TYPE: Multiple Choice **TIME:** 1 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: CVC **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-902-009 01
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 4.2-A24-AK2.03 2.6 2.5 W-3-LP-OPS-CVC00 4

QUESTION

Given the following:

- The plant has been tripped from 100% power due to a leak in the RCS greater than the capacity of the Charging System
- RCS pressure is 1600 psia and dropping
- RCS temperature is 545° F and slowly dropping

Given these conditions, which of the following is the correct position of the valves in the CVC System:

- A. VCT M/U Isol, CVC-510, Open
- B. Emergency Boration Valve , BAM-133, Closed
- C. VCT Outlet, CVC-183, Closed
- D. BAMT A Gravity Feed Valve, BAM-113A, Closed

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 11

QUESTION ID: 5927 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: CCW MAKEUP PUMP A RUNNING / POWER LOST annunciator
AUTHOR: avest **REVISION** 1 **REVISION DATE** 11/28/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/28/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: cc **CATEGORY:** PROCEDURE
PPO SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
SD-CC 6
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-4-10 3 3.1 W-3-LP-OPS-CC00 3

QUESTION

The Component Cooling Water Makeup Pump 'A' has started and secured automatically. Subsequently, the CCW Surge Tank level is noted to be 22% and steady. Additional runs of the CCW Makeup Pump 'A':

- A. Should be followed by a half-hour cooldown period.
- B. Should be avoided since the makeup valve has closed.
- C. Will occur automatically.
- D. Are initiated by a manual start.

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 12

QUESTION ID: 5891 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Assessing Reactivity Control in OP-902-008

AUTHOR: kkirupa **REVISION** 1 **REVISION DATE** 11/14/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: kkirupa **VERIFICATION DATE:** 11/14/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** **OPEN REFERENCE** X

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: PPE **CATEGORY:** PROCEDURE

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-902-008 12 00 04/12/2001

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-4-14 3 3.9 W-3-LP-OPS-PPE08 6

QUESTION

The operating crew is assessing Reactivity Control using the Safety Function Tracking Sheet of OP-902-008, Functional Recovery procedure. Reactivity Control conditions are as follows:

- CEA 22 is stuck fully withdrawn
- CEA 70 is inserted to approximately 75 inches from the bottom of the core
- Reactor power is 4.0×10^{-4} % power and stable
- A Safety Injection Actuation Signal has actuated with all equipment operating as designed
- Pressurizer pressure is 1600 psia and stable

Determine the appropriate Success Path for Reactivity Control and whether or not the chosen Success Path's Safety Function Status Check is met.

Success Path	SFSC
In Use _____	Met _____

- | | | |
|----|------|-----|
| A. | RC-1 | Yes |
| B. | RC-1 | No |
| C. | RC-2 | Yes |
| D. | RC-2 | No |

ANSWER

D

COMMENTS

Provide a copy of Resource Assessment Tree A, Reactivity Control, from OP-902-008.

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 13

QUESTION ID: 1942 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Design feature which prevents reverse steam flow following steam line break.
AUTHOR: PJO **REVISION** 0 **REVISION DATE** 07/27/1991
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/03/2001
TYPE: Multiple Choice **TIME:** 3 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE** X
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: MS **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-902-009 01
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 4.2-A40-AK3.03 3.2* 3.5* W-3-LP-OPS-MS00 5

QUESTION

What design or operating feature prevents both Steam Generators from blowing down to Containment following a Main Steam Line Break inside Containment?

- A. Reverse Current Check Valves
- B. MSIS closes both Main Steam Isolation Valves
- C. Normally independent and split Main Steam Headers
- D. Main Steam Cross Connect Isolation Valve

ANSWER

B

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			1-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 14

QUESTION ID: 1196 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Press/temp limits following ESD.

AUTHOR: WJV **REVISION** 0 **REVISION DATE** 03/26/1991

APPROVAL: trown **APPROVAL DATE:** 06/18/1996

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/03/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** **OPEN REFERENCE** X

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: PPE **CATEGORY:** PROCEDURE
SYSTEM

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

OP-902-009 01

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

4.4-A11-AK3.4 3.1 3.3 W-3-LP-OPS-PPE04 2

QUESTION

During recovery from an Excess Steam Demand event, Reactor Coolant System pressure and temperature are stabilized when the faulted steam generator empties. If temperature is stabilized at 450°F and pressure is stabilized at 1350 psia the plant:

- A. has experienced pressurized thermal shock.
- B. is within the pressure temperature limits.
- C. is less than 28°F sub cooled margin.
- D. is exceeding allowable S/G tube Delta-P.

ANSWER

B

COMMENTS

Provide Att.2A of OP-902-009 to the examinee

Provide Steam tables to examinee

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 15

QUESTION ID: 4269 - b **STATUS:** Approved **LAST USED**

DESCRIPTION: Turbine Trip setpoint on Low Condenser Vacuum.

AUTHOR: avest **REVISION** 1 **REVISION DATE** 11/26/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/26/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: PPO **CATEGORY:** PROCEDURE
TUR SYSTEM

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

OP-500-005 07

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

4.2-A51-AA2.02 3.9 4.1 W-3-LP-OPS-PPO20 4

QUESTION

Which of the following automatic actions would occur at the given setpoint:

- A. Condenser Vacuum Pumps shift to hogging mode at 22 INHG
- B. Main Turbine trips at 20 INHG
- C. Main Feedwater Pump turbine trips at 18 INHG
- D. Steam Bypass Control Valves fail Closed at 16 INHG

ANSWER

B

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			1-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 16
QUESTION ID: 5604 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: Determining proper subcooling margin during a Station Blackout cooldown
AUTHOR: avest **REVISION** 2 **REVISION DATE** 12/03/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/03/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPE **CATEGORY:** PROCEDURE
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-902-005 11 00 04/12/2001
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 4.1-E55-EK1.02 4.1 4.4 W-3-LP-OPS-PPE05 1

QUESTION

The plant has experienced a Station Blackout condition and all attempts to restore power have failed. The PNPO has been directed to maintain RCS subcooling in accordance with the procedure by performing a natural circulation cooldown. Given the following conditions:

- RCS pressure = 505 psia

Which of the following indications/values would the operator use to be in compliance with OP-902-005, Station Blackout Recovery Procedure?

- A. 440°F by Representative CET temperature
- B. 440°F by highest Hot Leg temperature
- C. 458°F by highest Cold Leg temperature
- D. 458°F by highest UHJTC temperature

ANSWER

A

COMMENTS

Based on saturation pressure for representative CET at 440°F plus 28°F degrees required subcooled margin.

Provide Steam Tables

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 17

QUESTION ID: 5893 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Restoring power to Vital Instrument Bus MB

AUTHOR: kkirupa **REVISION** 0 **REVISION DATE** 11/15/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: kkirupa **VERIFICATION DATE:** 11/15/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: ID **CATEGORY:** PROCEDURE
PPO

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-006-005 11 01 10/20/2001

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
4.2-A57-AA1.01 3.7* 3.7 W-3-LP-OPS-ID00 7

QUESTION

Following a failure of SUPS MB inverter, power has been restored to Vital Instrument Bus MB by manually bypassing the inverter. Prior to restoring power to CP-49, Train B Power and Annunciators, the operator prevents the B Auxiliary Component Cooling Water Pump from starting automatically on a:

- A. low CCW temperature signal by opening the pump DC Control Power Knife Switch.
- B. low CCW temperature signal by placing the pump Control Power Fuses to OFF.
- C. high CCW temperature signal by opening the pump DC Control Power Knife Switch.
- D. high CCW temperature signal by placing the pump Control Power Fuses to OFF.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			1-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 18

QUESTION ID: 5892 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Determine if planned equipment saving rad dose is within allowable limit.
AUTHOR: rglaze **REVISION** 0 **REVISION DATE** 11/15/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: rglaze **VERIFICATION DATE:** 11/15/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: **CATEGORY:** PROCEDURE
 SRO LEVEL

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 EP-002-030 08
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 4.2-A59-AK1.02 2.6 3.2*

QUESTION

An accident with core damage has occurred. An operator is being dispatched to isolate a leak that is spraying on the only available HPSI pump motor. The dose for this task has been estimated at 6 rem TEDE. Which of the following is correct?

- A. The entry can be allowed with Emergency Coordinator authorization.
- B. The entry can be allowed as a Planned Special Exposure with approval from the RP Superintendent, GMPO, and VP Operations.
- C. The entry CAN NOT be allowed since it would result in exceeding Federal Annual Exposure Limits.
- D. The entry CAN NOT be allowed since the estimated exposure exceeds the limits for protecting safety-related equipment.

ANSWER

A

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 19

QUESTION ID: 5878 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Determine the Location of Leak in ACC

AUTHOR: avest **REVISION** 0 **REVISION DATE** 11/15/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/15/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: ACC **CATEGORY:** SYSTEM
PPO

REFERENCE: **REVISION:** **CHANGE:** **DATE:** CCWP P&ID
G-160 sht 2 of 6

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
4.2-A62-AA2.01 2.9 3.5

QUESTION

- Wet Cooling Tower (WCT) A Level is noted to be lowering rapidly.
- Jockey Pump A is running
- ACC Pump A is in Standby

Determine the location of the leak.

- A. Between Wet Cooling Tower A and suction of ACC pump A.
- B. Between ACC-110, ACC Pump A Disch Isol, and CC Hx A.
- C. Between CC Hx A and ACC-126A, ACC A Temp Cntrl Vlv.
- D. Between ACC-126A, ACC A Temp Cntrl Vlv, and WCT A.

ANSWER

A

COMMENTS

Provide examinee with a copy of G-160 Sheet 2

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 20

QUESTION ID: 83 **-B** **STATUS:** Approved **LAST USED**

DESCRIPTION: Evacuation of CR and Subsequent Plant Shutdown

AUTHOR: avest **REVISION** 1 **REVISION DATE** 12/03/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/03/2001

TYPE: MULTIPLE CHOICE **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: PPO **CATEGORY:** Procedure

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

OP-901-502 06 02 01/03/2001

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

4.2-A67-AK3.04 3.3 4.1 W-3-LP-OPS-PPO51 17

QUESTION

The Control Room Supervisor has entered OP-901-502 Section E2, Control Room Evacuation with Fire. The equipment that must remain available during the use of this procedure are:

- A. EDG A to provide power to the reliable train and BAM Pump A for reactivity control.
- B. EDG B to provide power to the reliable train and BAM Pump B for reactivity control.
- C. EDG A to provide power to the reliable train and CCW Pump A to support operation of the EDG.
- D. EDG B to provide power to the reliable train and CCW Pump B to support operation of the EDG.

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			1-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 22

QUESTION ID: 5841 - **STATUS:** Approved **LAST USED**

A

DESCRIPTION: Affect of reducing Containment Pressure on offsite dose

AUTHOR: avest **REVISION** 1 **REVISION DATE** 11/07/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/07/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: CB **CATEGORY:** ADMIN

PPO

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

SD-CS 05

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

4.2-A69-AK1.01 2.6 3.1 W-3-LP-OPS-CS00 5

QUESTION

Which of the following is a post accident function of the Containment Spray System?

- A. Reduction of offsite dose by reducing the differential pressure between the containment and the external atmosphere.
- B. Reduction of offsite dose by scrubbing of noble gases from the containment atmosphere following a MSLB.
- C. Provide cooling of the safety injection sump water post-LOCA prior to a Recirculation Actuation Signal (RAS).
- D. Limits corrosion of containment components in a post-LOCA environment by use of chemical injection pumps.

ANSWER

A

COMMENTS

Reference: Containment Spray System Description (CS)

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			1-1	Bank
Question History	NRC 2000 SRO			

Waterford 3 Examination Question Examination Bank

Examination Question Number 23

QUESTION ID: 1189 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Indications of voiding in the RCS during LOOP

AUTHOR: avest **REVISION** 2 **REVISION DATE** 11/07/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/07/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: PPE **CATEGORY:** PROCEDURE

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

LP-OPS-PPE05

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

4.1-E74-EA2.06 4 4.6 W-3-LP-OPS-PPE05 4

QUESTION

You are in OP-902-003, Loss of Offsite Power/Loss of Forced Circulation

During a Natural Circulation cool down the PNPO is directed to monitor for RCS voiding. Which of the following would indicate the presence of voids in the RCS?

- A. Pressurizer pressure lowering when lowering Pressurizer level
- B. Pressurizer pressure rising when lowering Pressurizer level
- C. Pressurizer level rising when raising RCS pressure
- D. Pressurizer level rising when lowering RCS pressure

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 24
QUESTION ID: 4253 - b **STATUS:** Approved **LAST USED**
DESCRIPTION: Describe the recommended method of reducing RCS Activity.
AUTHOR: avest **REVISION** 1 **REVISION DATE** 11/19/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/19/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** **OPEN REFERENCE** X
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPO **CATEGORY:** PROCEDURE
 RCS SRO LEVEL
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-901-410 02 00 02/08/2001
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 4.2-A76-AA2.02 2.8 3.4 W-3-LP-OPS-PPO40 3

QUESTION

The following plant conditions exist:

- Mode 1, 100% power
- Purification IX A is in service
- Purification IX B is available for use
- Charging Pump A is running, with Pumps B & AB available
- Letdown flow is 38 gpm
- RCS specific activity: 1.5 microcurie/gram DEQ I-131(yesterday's sample was 0.5 microcurie/gram) and less than 100/E microcuries/gram
- Purification IX A Decontamination Factor (DF) = 25

WHICH of the following methods of reducing RCS activity is recommended by OP-901-410, High Activity in Reactor Coolant System?

- A. Align Ion Exchanger B to replace the Ion Exchanger A.
- B. Start all available Charging Pumps to maximize letdown flow.
- C. Place all available Ion Exchangers in series operation.
- D. Place all available Ion Exchangers in parallel operation.

ANSWER

B
COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-1	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 25
QUESTION ID: 3476 - **STATUS:** Approved **LAST USED**
DESCRIPTION: DRTS ACTIVATION ON HIGH PRESSURE
AUTHOR: avest **REVISION** 1 **REVISION DATE** 07/11/2000
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 07/11/2000
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE** X
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: ATS **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
SD-ATS
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
007-E02-EK2.02 2.8 W-3-LP-OPS-ATS00 3

QUESTION

The following plant conditions exist:

- The plant is at 100% power.
- RCS pressure is 2405 psia and rising.
- No Reactor Protection System (RPS) or Diverse Reactor Trip System (DRTS) actuations have been generated
- All RPS and DRTS setpoints have been calibrated to plant design specifications

WHICH of the following results from RCS pressure continuing to rise to 2450 psia?

- A. RPS HIGH PZR pressure trip is reached; Reactor Trip Breakers open to de-energize the CEA coils.
- B. CPC HIGH PZR pressure Aux Trip is reached; MG set 480 VAC feeder breakers open to de-energize the CEA coils.
- C. DRTS HIGH PZR pressure setpoint is reached; CEDM MG set load contactors open to de-energize the CEA coils.
- D. DRTS HIGH PZR pressure setpoint is reached; Reactor Trip Breakers open to de-energize the CEA coils.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-2	Bank
Question History	NRC 2000 SRO			

Waterford 3 Examination Question Examination Bank

Examination Question Number 26

QUESTION ID: 5876 - **STATUS:** Approved **LAST USED**

A

DESCRIPTION: Verification of HPSI Throttle Criteria with Pzr Safety Lifting
AUTHOR: avest **REVISION** 0 **REVISION DATE** 11/12/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/12/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPE **CATEGORY:** PROCEDURE
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-902-002 09 00 04/12/2001
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 4.2-A8-AA1.06 3.6 3.6 W-3-LP-OPS-PPE02 11

QUESTION

A pressurizer safety has lifted. Pressurizer level indicates 100%. Which of the following conditions would allow throttling of HPSI to prevent RCS solid conditions? Assume conditions not given in each selection are met.

- A. RVLMS Plenum Level is 100%, CET Temperature 470°F and slowly lowering , Pzr pressure is 700 psia and steady.
- B. RVLMS Plenum Lvl is 60% and steady, CET Temperature is 525°F and slowly rising, Pzr pressure is 1000 psia and steady.
- C. S/G levels are 62% WR and rising, EFW is in Auto, RVLMS Plenum Lvl is 80% and steady.
- D. RVLMS Plenum Lvl is 100%, S/G levels are 67% WR and slowly lowering, EFW and MFV are unavailable.

ANSWER

A

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 27

QUESTION ID: 5931 - **STATUS:** Approved **LAST USED**

A

DESCRIPTION: Small Break Loca, two phase natural circ and reflux boiling
AUTHOR: avest **REVISION** 0 **REVISION DATE** 12/04/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/04/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPE **CATEGORY:**
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-902-002 09 00 04/12/2001
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 4.1-E9-EK1.01 4.2 4.7 W-3-LP-OPS-PPE02 11

QUESTION

A small break LOCA is in progress and the following conditions are noted:

- PZR pressure is 900 psia and steady
- RVLMS indicates 40% plenum level and 0% head lead level
- RCS Representative CET temperature is 530° F and slowly lowering
- S/G 1 level is 45% NR and dropping slowly
- S/G 2 level is 48% NR and steady
- EFW pumps are running, EFW Flow Controllers are in manual
- HPSI Flow is currently 150 GPM per Cold Leg

To ensure adequate RCS cooling by break heat removal and reflux boiling which of the following is true?

- A. Level in at least one S/G must be raised.
- B. Reactor Vessel level must be raised.
- C. HPSI flow must be raised.
- D. CET temperature must be lowered.

ANSWER

A

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 28
QUESTION ID: 5877 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Relationship between Loss of Charging and Minimum Pzr Level for Operation
AUTHOR: avest **REVISION** 0 **REVISION DATE** 11/12/2001
APPROVAL: rfletch **APPROVAL DATE:** 01/07/2002
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/12/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: CVC **CATEGORY:** PROCEDURE
RCS
PPO SRO LEVEL
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-901-112 02 03 10/18/2001
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
4.2-A22-AK1.03 3 3.4 W-3-LP-OPS-PPO10 03

QUESTION

- All charging pumps are gas bound, OP-901-112, Letdown and Charging Malfunction has been entered
- Tcold is 545°F, That is 575°F
- PZR Level is 20%

Which of the following should be done at this time.

- A. Isolate Letdown and RCP Controlled Bleedoff and remain in OP-901-112.
- B. Perform a controlled shutdown per OP-010-005, Plant Shutdown.
- C. Trip the reactor and go to OP-902-000, Standard Post Trip Actions.
- D. Trip the reactor and go to OP-902-008, Functional Recovery Procedure.

ANSWER

C

COMMENTS

Supply Attachment 1 of OP-901-112 to examinee.

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 29
QUESTION ID: 4130 - **STATUS:** Approved **LAST USED**
O
DESCRIPTION: Time to reach 200 degrees after SDC Malfunction
AUTHOR: avest **REVISION** 0 **REVISION DATE**
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/17/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** **OPEN REFERENCE** X
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPO **CATEGORY:** PROCEDURE
SDC
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-901-131 01 07 10/20/2000
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
4.2-A25-AA1.23 2.8 2.9 W-3-LP-OPS-REQ21 03

QUESTION

The plant is shutdown and drained to mid-loop for replacing Reactor Cooling Pump seals. The time of shutdown was 12/31/01 0300. At 0300 on 1/4/02 SDC Train A is secured due to loss of cooling flow to SDCHX A. LPSI Pump B is started and trips. Estimate the time before MODE 4 conditions exist if initial RCS temperature was 110°F.

- A. 10 Minutes
- B. 15 Minutes
- C. 20 Minutes
- D. 25 Minutes

ANSWER

B

COMMENTS

Provide attachment 2 from OP-901-131

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-2	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 31

QUESTION ID: 5883 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Maximum Log Channel Disagreement

AUTHOR: avest **REVISION** 0 **REVISION DATE** 11/15/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/15/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: ENI **CATEGORY:**
TS

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-903-001 22 23 09/13/2001

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
4.2-A32-AA2.07 2.8 3.4* W-3-LP-OPS-ENI00 11

QUESTION

The plant is in MODE 5. The PNPO is performing a channel check of Logarithmic Channel ENIs. What is the maximum channel disagreement allowed per OP-903-001?

- A. ½ of one decade
- B. ½ the linear distance between decades
- C. one scale increment
- D. ¼ the linear distance between decades

ANSWER

B

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			1-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 32
QUESTION ID: 5885 - **STATUS:** Approved **LAST USED**
DESCRIPTION: LCO requirements for Loss of Log Power Channel
AUTHOR: avest **REVISION** 0 **REVISION DATE** 11/15/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/15/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: ENI **CATEGORY:** PROCEDURE
 TS SRO LEVEL
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 TS 3.3.1 46
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 2-2-22 3.4 4.1 W-3-LP-OPS-ENI00 11

QUESTION

- The plant is in Mode 2
- The reactor is critical at the POAH
- ENI Safety Channel B middle detector fails lo

The CRS determines that bypassing PPS Channel B Log Power Hi trip bistable is not required. What condition allows this decision to be made?

- A. The minimum required number of channels are OPERABLE.
- B. The number of OPERABLE channels is one less than minimum.
- C. The reactor is at the POAH.
- D. The reactor has achieved criticality.

ANSWER

C

COMMENTS

Supply examinee with T.S. 3.3.1 and associated tables

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 33
QUESTION ID: 5673 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Estimation of S/G tube leakage using charging and letdown mismatch
AUTHOR: avest **REVISION** 0 **REVISION DATE** 06/17/1999
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/04/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE** X
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: CVC **CATEGORY:** PROCEDURE
RCS SYSTEM
PPO
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-901-202 03 00 04/11/2001
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
4.2-A37-AA2.04 3.4 3.7 W-3-LP-OPS-PPO20 3

QUESTION

A tube leak is in progress in S/G 1. The following conditions are noted:

- RCS Pressure is 2225 psia and rising
- PZR level is 55% and steady
- VCT level is 49% and lowering
- Letdown Flow = 30 GPM
- Charging Pumps A and AB are running
- RCP1A CBO = 1.5 GPM
- RCP1B CBO = 1.7 GPM
- RCP2A CBO = 1.5 GPM
- RCP2B CBO = 1.3 GPM

Assuming no additional leakage from the RCS to other sources, determine the leak rate into S/G 1.

- A. 8 GPM
- B. 14 GPM
- C. 52 GPM
- D. 58 GPM

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-2	Bank
Question History	NRC 1999 RO			

Waterford 3 Examination Question Examination Bank

Examination Question Number 34

QUESTION ID: 5888 -B **STATUS:** Approved **LAST USED**

DESCRIPTION: HPSI throttle criteria during SGTR

AUTHOR: rglaze **REVISION** 0 **REVISION DATE**

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: rglaze **VERIFICATION DATE:** 11/14/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: SG **CATEGORY:** SYSTEM

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

STEAM TABLE

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

4.1-E38-EK3.09 4.1 4.5

QUESTION

Which of the following conditions during a Steam Generator Tube Rupture event would allow HPSI flow to be throttled? Assume all other HPSI throttle criteria met.

- A. RCS pressure at 900 psia with CET temperature at 506° F.
- B. RCS pressure at 950 psia with CET temperature at 512° F.
- C. RCS pressure at 1000 psia with CET temperature at 515° F.
- D. RCS pressure at 1050 psia with CET temperature at 524° F.

ANSWER

C

COMMENTS

Provide steam tables

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 35
QUESTION ID: 1186 **-B** **STATUS:** Approved **LAST USED**
DESCRIPTION: Restoring SG inventory with Loss of all feedwater
AUTHOR: avest **REVISION** 1 **REVISION DATE** 12/03/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/03/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE** X
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPE **CATEGORY:** PROCEDURE
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OI-038-000 01
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 4.2-A54-AK1.02 3.6 4.2 W-3-LP-OPS-PPE08 1

QUESTION

The following has occurred:

REACTOR TRIP occurred due to a loss of main feedwater.

All Emergency Feedwater was lost

Which of the following would be the method for restoring Steam Generator inventory per OP-902-008?

- A. Depressurize one steam generator to less than 500 psia and align condensate pumps to feed the steam generator.
- B. Depressurize one steam generator to less than 600 psia and align condensate pumps to feed the steam generator.
- C. Depressurize one steam generator to less than 700 psia and align the AFW pump to feed the steam generator.
- D. Depressurize one steam generator to less than 800 psia and align the AFW pump to feed the steam generator.

ANSWER

A

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			1-2	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 36

QUESTION ID: 5886 - **STATUS:** Approved **LAST USED**

A

DESCRIPTION: Effect of loss of DC control power on running EDG.

AUTHOR: rglaze **REVISION** 0 **REVISION DATE** 11/14/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: rglaze **VERIFICATION DATE:** 11/14/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: DC **CATEGORY:** SYSTEM

EDG

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

SD-EDG 04

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

4.2-A58-AK3.01 3.4* 3.7

QUESTION

Emergency Diesel Generator 'A' is running loaded. A loss of DC control power occurs. Which of the following describes the effect of the loss of DC control power on the EDG and its auxiliaries?

- A. The EDG fuel racks will trip and the EDG must be declared inoperable.
- B. The lube oil cooler thermostatic valve will fail to the full cooling position.
- C. Fuel oil transfer pump starts and must be secured to prevent overfilling the feed tank.
- D. Jacket cooling water valves fail open and the jacket water heater loses power.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			1-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 37

QUESTION ID: 5887 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Determine the possible source of radioactive leak in the RAB

AUTHOR: rglaze **REVISION** 0 **REVISION DATE** 11/14/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: rglaze **VERIFICATION DATE:** 11/14/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: **CATEGORY:**

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

OP-901-402

02

NRC KA NUMBER:

RO

SRO

TRAINING MATERIAL:

OBJECTIVE

4.2-A60-AA2.02

4.0

QUESTION

The plant stack radiation monitors are in alarm. HVAC Duct PIG 'A' is in alarm. The PNPO has recently vented the VCT. Using Attachment 1 from OP-901-402 "High Airborne Activity in the Reactor Auxiliary Building," determine the likely source of airborne activity:

- A. Radio Chemistry Lab
- B. Gas Surge Tank Room
- C. Charging Pump A Room
- D. Equipment Drain Tank Room

ANSWER

B

COMMENTS

Provide Attachment 1 from OP-901-402 "High Airborne Activity in the Reactor Auxiliary Building."

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 38

QUESTION ID: 5884 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Response to high area and high airborne rad alarms in RAB
AUTHOR: rglaze **REVISION** 0 **REVISION DATE** 11/14/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: rglaze **VERIFICATION DATE:** 11/14/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: ARM **CATEGORY:**
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-901-402 02 00 08/18/2000
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 2-4-10 3 3.1

QUESTION

During normal plant operation at 100% power the main control room receives several RAB radiation monitor alarms indicating high general area and high airborne activity. Required response to this condition includes:

- A. Direct Security department to verify all RAB external doors closed and start either CVAS train.
- B. Secure RAB normal ventilation and order all personnel to evacuate the building.
- C. Secure both Waste Gas compressors and isolate all Waste Gas decay tanks.
- D. Request I&C department to verify proper operation of the Radiation Monitoring system.

ANSWER

A

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			1-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 40
QUESTION ID: 5832 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: Functional Recovery Procedure True Statement
AUTHOR: dcassid **REVISION** 0 **REVISION DATE** 07/24/2000
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/04/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPE **CATEGORY:** PROCEDURE
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-100-017 00
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 4.4-E9-EK3.4 3.7 W-3-LP-OPS-PPE08 9

QUESTION

Which of the following statements is true concerning OP-902-008, Functional Recovery Procedure (FRP)?

- A. If multiple events are clearly identified, direct entry may be made into the FRP if the plant was initially in Mode 2.
- B. Safety Functions not meeting Success Path 1 criteria have the highest priority.
- C. More than one safety function may be pursued concurrently if conditions warrant.
- D. The FRP procedure may only be exited if conditions are satisfied to enter OP-010-005, Plant Shutdown.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			1-2	Bank
Question History	NRC 2000 SRO			

Waterford 3 Examination Question Examination Bank

Examination Question Number 41
QUESTION ID: 5938 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: Actions in OP-901-110
AUTHOR: avest **REVISION** 1 **REVISION DATE** 01/14/2002
APPROVAL: rfletch2 **APPROVAL DATE:** 01/14/2002
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 01/14/2002
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPO **CATEGORY:** PROCEDURE
 SRO LEVEL
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-901-110 03 01 09/02/1998
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 4.2-A28-AK3.05 3.7 4.1 W-3-LP-OPS-PPO10 3

QUESTION

- A fault has occurred which failed the PZR level and Letdown Flow controllers to 0% output.
- OP-901-110, Pressurizer Level Control Malfunction is being implemented.
- Attempts to adjust Letdown Flow controller output in manual were unsuccessful.
- PZR level is 63% and rising at a rate consistent with flow from one charging pump.
- Tavg = 574°F

Determine the proper course of action per OP-901-110.

- A. Secure Charging and Letdown; cycle Chg pumps to maintain PZR level > 45%.
- B. Manually trip the reactor; GO TO OP-902-002, Standard Post Trip Actions.
- C. Transfer to the non-faulted level control channel; verify level returns to setpoint.
- D. Transfer setpoint control from RRS to RTGB; adjust PZR level setpoint to 56%.

ANSWER

A

COMMENTS

Supply examinee with copy of Att. 1 of OP-901-110.

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 42
QUESTION ID: 4645 **-B** **STATUS:** Approved **LAST USED**
DESCRIPTION: Response of Containment Purge System to hi radiation alarms due to dropped fuel
AUTHOR: avest **REVISION** 1 **REVISION DATE** 12/03/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/03/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE** X
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: CAP **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 SD-RMS 07
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 4.2-A36-AA2.02 3.4 4.1 W-3-LP-OPS-HVR00 3

QUESTION

Given the following:

- The plant is in Mode 6 with a fuel shuffle in progress in the FHB and Containment
- Containment purge is in progress.
- A fuel bundle is dropped from the Refueling Machine Fuel Hoist.

WHICH **ONE** of the following rad monitors can detect the event and terminate the radioactive gas release?

- A. Fuel Handling Building Isolation Monitor, ARM-IRE-0300.1S
- B. Refueling Machine Area Radiation Monitor, ARM-IRE-5013
- C. Containment Purge Area Radiation Monitor, ARM-IRE-5024S
- D. Containment Atmosphere PIG Radiation Monitor, PRM-IRE-0100Y

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-3	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 43
QUESTION ID: 5755 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Requirement to trip reactor for excessive RCS leakage
AUTHOR: avest **REVISION** 0 **REVISION DATE** 07/07/1999
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/04/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPO **CATEGORY:** PROCEDURE
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-901-111 01 05 06/14/2001
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 2-4-16 4.0 W-3-LP-OPS-PPO10 3

QUESTION

Given the following conditions:

- OP-901-111, RCS Leak has been entered due to excessive RCS leakage
- RCS Tavg is 573 °F and steady
- AB charging pump is OOS
- Charging pumps A and B are running
- Letdown secured to determine location of RCS leak
- Current RCS Leakage = 90 gpm

Which of the following is the appropriate action to be performed in accordance with OP-901-111?

- A. Maintain RCS conditions stable to prevent loss of PZR level, while attempting to locate the leak.
- B. Commence a normal shutdown in accordance with OP-010-005, Plant Shutdown, and be in Mode 3 within 6 hours.
- C. Commence a rapid plant shutdown in accordance with OP-901-212, Rapid Plant Power Reduction and be in Mode 3 within 1 hour.
- D. Perform a manual reactor trip, manually initiate SIAS and CIAS, and go to OP-902-000, Standard Post Trip Actions.

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			1-3	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 44

QUESTION ID: 5929 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: ASI Control and Xe Oscillations

AUTHOR: avest **REVISION** 0 **REVISION DATE** 12/03/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/03/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: PPN **CATEGORY:** PROCEDURE
THEORY

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

LP-TYR10

OP-010-004 00

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

3.1-001-K5.33 3.2 3.5 W-3-LP-OPS-TYR10 25

QUESTION

Which of the following describes the length of time for one complete cycle of a Xenon oscillation and the ASI deviation that requires ASI control to be initiated during steady state operations?

- A. 12-14 hours; +/- 0.005 of ESI
- B. 12-14 hours; +/- 0.05 of ESI
- C. 24-28 hours; +/- 0.005 of ESI
- D. 24-28 hours; +/- 0.05 of ESI

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 45
QUESTION ID: 5861 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: Start Requirements following loss of RCPs
AUTHOR: avest **REVISION** 0 **REVISION DATE** 10/23/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 10/23/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPE **CATEGORY:** PROCEDURE
RCP
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-902-002 09 00 04/12/2001
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.4-003-K6.14 2.6 2.9 W-3-LP-OPS-PPE02 11

QUESTION

One Pressurizer Safety Valve inadvertently lifted and then reseated. All ESFAS and RPS actuations occurred automatically as required and no actuations have been reset. All Reactor Coolant Pumps were subsequently secured following the reactor trip. Which of the following conditions prevents a restart of Reactor Coolant Pumps at this time?

- A. PZR Level is 80% and steady
- B. PZR pressure is 1400 psia, Tcold is 520°F
- C. Contmt Pressure peaked at 17.3 psia and is slowly lowering
- D. Single phase natural circulation was established 45 minutes ago

ANSWER

A

COMMENTS

Supply Appendix 2A of OP-902-009

A is the correct answer. OP-902-002 requires PZR level to be between 33 and 60%

B is not correct because Appendix 2A allows operation of RCPs at these conditions.

C is not correct because containment pressure did not reach the CSAS setpoint -- which would isolate CCW cooling to the RCPs.

D is not correct because the conditions meet the requirements of OP-902-002.

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 46
QUESTION ID: 5864 - **A** **STATUS:** Approved **LAST USED**
DESCRIPTION: Knowledge of Power Supplies of Charging Pumps
AUTHOR: avest **REVISION** 0 **REVISION DATE** 10/24/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 10/24/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: CVC **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 SD-CCS 05
 1564-B-424 E1140
 1564-B-424 2347S
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 3.2-004-K2.03 3.3 3.5 W-3-LP-OPS-CVC00 05

QUESTION

Given the following conditions:

- The AB busses are powered from the B side
- Troubleshooting is currently in progress to determine the cause of a trip of CEDM Fan C which resulted in no alarms
- The Electricians performing the troubleshooting inadvertently actuate the Containment Penetration Secondary Protection feature associated with CEDM Fan C

Determine the number of remaining available charging pumps.

- A. 0
- B. 1
- C. 2
- D. 3

ANSWER

C
COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 47
QUESTION ID: 5865 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Conditions Requiring Manual Initiation of EFAS
AUTHOR: avest **REVISION** 0 **REVISION DATE** 10/25/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 10/25/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: EFW **CATEGORY:** PROCEDURE
PPE
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
SD-EFW 06
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.2-013-A1.04 3.4 3.6

QUESTION

Determine which of the following conditions would require manual initiation of both EFAS1 and EFAS 2. Assume all levels are slowly lowering and automatic actuations have not occurred.

- A. S/G 1 NR Level 30%, S/G 1 Pressure 1000 psia and steady, S/G 2 NR Level 25%, S/G 2 Pressure 1000 psia and steady.
- B. S/G 1 NR Level 25%, S/G 1 Pressure 850 psia and rising slowly, S/G 2 NR Level 20%, S/G 2 Pressure 750 psia and slowly lowering.
- C. S/G 1 NR Level 15%, S/G 1 Pressure 750 psia and steady, S/G 2 NR Level 20%, S/G 2 Pressure 750 psia and lowering.
- D. S/G 1 NR Level 25%, S/G 1 Pressure 950 psia and slowly rising, S/G 2 NR Level 25%, S/G 2 Pressure 950 psia and slowly rising.

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 48

QUESTION ID: 5825 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Predict how pulse counters will affect planar radial peaking factors
AUTHOR: avest **REVISION** 0 **REVISION DATE** 07/22/2000
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/03/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: COL **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
SD-COL 03
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.1-014-K3.02 2.5 2.8* W-3-LP-OPS-COL00 2
W-3-LP-OPS-COL00 4

QUESTION

ASI control is in progress and CEA 20 slips into the core 7" and is subsequently realigned. The pulse counter indication is not reset immediately. What affect does this have on COLSS?

- A. The Primary Calorimetric power calculation block will be inaccurate.
- B. Planar radial peaking factors applied to other calculations will be inaccurate.
- C. The Plant Power Selection block will select Secondary Calorimetric power.
- D. The Incore Detector Dynamic Compensation Block will be inaccurate.

ANSWER

B
COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-1	Bank
Question History	NRC 2000 SRO			

Waterford 3 Examination Question Examination Bank

Examination Question Number 49
QUESTION ID: 5901 - **A** **STATUS:** Approved **LAST USED**
DESCRIPTION: CEA Position Interlocks
AUTHOR: avest **REVISION** 0 **REVISION DATE** 11/17/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/17/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: CED **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
SD-CED 04
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.1-014-K4.05 3.1 3.3 W-3-LP-OPS-CED00 4

QUESTION

Reg Group 6 stops while being withdrawn for ASI control. The NPO notes the following CEA position indication:

- CEA 20 – 148.5”
- CEA 21 – 147.75”
- CEA 22 – 147”
- CEA 23 – 145.5”

Which of the following stopped Reg Group 6

- A. CEA 20 at Upper Electrical Limit
- B. CEA Group Major Deviation
- C. CEA Withdrawal Prohibit
- D. CEA 23 at Upper Group Stop

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 50

QUESTION ID: 5859 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Knowledge of effect of Losing SUPS AB on ENIs

AUTHOR: avest **REVISION** 0 **REVISION DATE** 10/30/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 10/30/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: ENI **CATEGORY:** SYSTEM
PPO

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-901-312 01 05 07/18/2001

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.7-015-K1.02 3.4 3.6

QUESTION

SUPS AB fails with the Alternate Source unavailable. This failure results in the loss of which of the following:

- A. ENI Control Channels 1& 2; Startup Channels 1 & 2
- B. ENI Logarithmic Channels A & B
- C. ENI Linear Channels A & B
- D. Incore Nuclear Instrument APC Mux Cabinets A & B

ANSWER

A

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-1	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 51

QUESTION ID: 26 - **STATUS:** Approved **LAST USED**

DESCRIPTION: Steam production and CET response during core uncover
AUTHOR: avest **REVISION** 3 **REVISION DATE** 11/05/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/05/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: INI **CATEGORY:**
MCD

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
LP-MCD04
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.7-017-A1.01 3.7 3.9 W-3-LP-OPS-MCD04 12

QUESTION

- A large break LOCA and a Station Blackout are in progress.
- Safety Injection Tanks are empty.
- Representative CET Temperature is currently 800 °F

SELECT the expected response as the above conditions continue.

- A. The rate of steam production rises and CET temperatures lower.
- B. The rate of steam production rises and CET temperatures rise.
- C. The rate of steam production lowers and CET temperatures rise.
- D. The rate of steam production lowers and CET temperatures lower.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 52

QUESTION ID: 5704 - **STATUS:** Approved **LAST USED**
N

DESCRIPTION: Effects of containment pressure on status of CCS

AUTHOR: avest **REVISION** 0 **REVISION DATE** 07/13/1999

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/04/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: CCS **CATEGORY:** SYSTEM

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

OP-008-003

05

SD-CCS 05

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

3.5-022-K4.02

3.1*

3.4*

W-3-LP-OPS-CCS00

2

QUESTION

The plant is operating in MODE 1 with all system alignments normal when a Main Steam leak occurs inside Containment. The following conditions are noted:

- RCS pressure = 1750 psia
- Containment Temperature = 160° F
- Containment Pressure = 17.0 psia
- All Containment Fan Coolers (CFCs) are OPERABLE
- No manual operator actions have been taken

Determine the expected status of the Containment Cooling System at this point in time.

- A. 3 of 4 CFCs running in slow speed and discharging through the safety dampers.
- B. 4 of 4 CFCs running in slow speed and discharging through the ring header.
- C. 3 of 4 CFCs running in fast speed and discharging through the ring header.
- D. 4 of 4 CFCs running in fast speed and discharging through the safety dampers.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-1	Bank
Question History	NRC 2000 SRO			

**Waterford 3 Examination Question
Examination Bank**

Examination Question Number 53 This Question Deleted From Examination

QUESTION ID: 5933 - **STATUS:** Approved **LAST USED:**
A
DESCRIPTION: Containment Spray Pump UV start with CSAS initially actuated
AUTHOR: avest **REVISION:** 0 **REVISION DATE:** 12/07/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/07/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE:**
SPECIAL REFERENCES: **SIMULATOR SETUP:**
PLANT SYSTEM: CS **CATEGORY:**
EDG
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
SD-EDG 03
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.5-026-A3.01 4.3 4.5 W-3-LP-OPS-CS00 4

QUESTION

~~Containment Spray Pump A was running due to Hi-Hi Containment pressure when a loss of offsite power occurs. From the time EDG A gets a start signal, determine the time that Containment Spray A breaker gets a close signal if the EDG breaker closes in at the maximum time for the EDG to reach TS required speed and voltage.~~

~~A. 13.4 sec~~

~~B. 11.5 sec~~

~~C. 9.9 sec~~

~~D. 8 sec~~

ANSWER

B

COMMENTS

TS max time = 10 sec; CS Pump A starts on 1.5 sec block 10+1.5 =11.5 sec
Provide examinee with copy of CWD Sht.E605

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 54
QUESTION ID: 5682 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Tech Specs with Containment Spray Pump inoperable
AUTHOR: avest **REVISION** 1 **REVISION DATE** 11/26/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/26/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: CS **CATEGORY:** SRO LEVEL SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
SD-EDG 04
TS 4.8.1.1
LOU-1564-B-424 Sht E605
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-1-12 2.9 4.0 W-3-LP-OPS-CS00 6

QUESTION

It is discovered that an unqualified replacement part was used to repair the Containment Spray (CS) Pump A breaker during a planned outage. CS Pump A has been declared inoperable. CS Train A is in its normal alignment. As a result:

- A. Enter Tech Spec 3.6.2.1. Restore CS Train A within 7 days.
- B. Enter Tech Spec 3.6.2.1 and 3.6.3. Restore CS Spray Train A within 72 hours. Close CS-125A within 4 hours.
- C. Enter Tech Spec 3.6.2.1 and 3.6.3. Restore CS Spray Train A within 7 days. Gag close CS-125A within 4 hours.
- D. Enter Tech Spec 3.6.2.1. Restore CS Train A within 72 hours.

ANSWER

A

COMMENTS

Provide T. S. 3.6.2.1 and 3.6.3.

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-1	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 55

QUESTION ID: 1870 - **STATUS:** Approved **LAST USED**

A

DESCRIPTION: Feedwater Pump Trips due to condensate pumps

AUTHOR: avest **REVISION** 1 **REVISION DATE** 10/31/2001

APPROVAL: rfletch **APPROVAL DATE:** 10/22/1997

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 10/31/2001

TYPE: MULTIPLE CHOICE **TIME:** 3 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: CD **CATEGORY:** SYSTEM

FW

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

SD-FW 01

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

3.4-056-K1.03 2.6 2.6 W-3-LP-OPS-FW00 03

QUESTION

Plant conditions are as follow:

- Reactor power is 18% following a Reactor Power Cutback due to a loss of the Main Turbine
- Both Steam Generator Feed Pumps are running
- All 3 Condensate Pumps are running

What would be the expected configuration of the Feedwater Pumps (FWPTs) if the A and C Condensate Pumps were to trip?

- A. Only FWPT A would be operating
- B. Only FWPT B would be operating
- C. Both FWPTs would be operating
- D. Neither FWPT would be operating

ANSWER

B

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-1	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 56

QUESTION ID: 3918 - **STATUS:** Approved **LAST USED**

DESCRIPTION: Reasons for taking care when dumping condensate to CST or pond
AUTHOR: avest **REVISION** 2 **REVISION DATE** 11/05/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/05/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: CD **CATEGORY:** PROCEDURE
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
SD-EFW 06
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-1-32 3.4 3.8 W-3-LP-OPS-CD00 8

QUESTION

Procedure OP-003-003 "Condensate - Feedwater" states that care should be used when dumping condensate to the CST. WHICH of the following is the reason for this caution?

- A. Filling the CST too rapidly could cause overpressurization and possible failure of the CST.
- B. Placing condensate water in the CST could cause an out of spec hydrazine condition.
- C. Filling the CST too rapidly could cause a runout condition for a single running CD pump.
- D. The condensate dump relief valve could lift diverting condensate to the storm drains.

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-1	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 57

QUESTION ID: 3082 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: FWC system response to a MSIS

AUTHOR: avest **REVISION** 3 **REVISION DATE** 11/17/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/17/2001

TYPE: Multiple Choice **TIME:** 3 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE** X

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: FW **CATEGORY:** SYSTEM
FWC

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

OP-902-009

01

SD-MS

05

NRC KA NUMBER:

RO

SRO

TRAINING MATERIAL:

OBJECTIVE

3.4-059-A4.12

3.4

3.5

W-3-LP-OPS-FWC00

08

QUESTION

Which ONE of the following describes the response of the Main Feedwater System to a Reactor trip initiated by low steam generator pressure?

- A. The Main Feed Pumps slow to 3800-3900 RPM; the Startup Feed Reg Valves go to 13-21% position; and the Main Feed Reg Valves close.
- B. The Main FeedPumps slow to 3800-3900 RPM, the Startup Feed Reg Valves and the Main Feed Reg Valves close.
- C. The Main Feed Pumps slow to Turning Gear speed; the Startup Feed Reg Valves and the Main Feed Reg Valves close.
- D. The Main Feed Pumps slow to Turning Gear speed; the MOV isolations for the Startup Feed Reg Valves and the Main Feed Reg Valves close.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 58
QUESTION ID: 1786 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Status of EFW FCVs with failed flow instrument.
AUTHOR: avest **REVISION** 2 **REVISION DATE** 11/05/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/05/2001
TYPE: Multiple Choice **TIME:** 2 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE** X
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: EFW **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 3.4-061-K3.02 4.2 4.4 W-3-LP-OPS-EFW00 05
 W-3-LP-OPS-EFW00 06

QUESTION

Given the following plant status:

S/G #1

- 39% WR level (decreasing)
- EFW Flow transmitter failed high
- EFW isolation valves - open
- EFW Primary FCV – red light illuminated on Lower Output pushbutton
- EFW Backup FCV- Auto

CHOOSE the proper EFW system response. Assume EFAS-1 is the only ESFAS Actuation initiated and the level value given is the lowest level seen during the transient.

- A. S/G 1 Primary FCV is open to preset position, Backup FCV is throttled providing 400 gpm flow.
- B. S/G 1 Primary and Backup FCVs are full open.
- C. S/G 1 Primary and Backup FCVs are full closed.
- D. S/G 1 Primary FCV is full closed, Backup FCV is throttled to provide 175 gpm flow.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-1	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 59
QUESTION ID: 5462 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: Effects of grounds on DC distribution system
AUTHOR: mcorneil **REVISION** 1 **REVISION DATE** 12/03/1998
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/26/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: DC **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
SD-DC
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.6-063-K4.02 2.9* 3.2* W-3-LP-OPS-DC00 05,06

QUESTION

Which of the following best describes the DC distribution system response to electrical Grounds on associated equipment?

- A. System is ungrounded, at least two grounds; one positive and one negative is necessary to trip a feeder circuit breaker.
- B. System is ungrounded, any combination of two grounds will trip a feeder circuit breaker.
- C. System is grounded, at least two grounds; one positive and one negative is necessary to trip a feeder circuit breaker.
- D. System is grounded, any combination of two grounds will trip a feeder circuit breaker.

ANSWER

A
COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 60

QUESTION ID: 3985 - b **STATUS:** Approved **LAST USED**
DESCRIPTION: Automatic termination of a BACT discharge to Circ Water
AUTHOR: avest **REVISION** 2 **REVISION DATE** 11/06/2001
APPROVAL: rfletch **APPROVAL DATE:** 10/16/1998
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/06/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: BM **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
SD-BM 04
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.9-068-A2.02 2.8 W-3-LP-OPS-BM00 7

QUESTION

A discharge of a BACT is in progress when the NPO notes that the Boron Management to Circulating Shutoff Valve, BM-547 and the Boron Management to Circulating Control Valve, BM-549 have closed. Which of the following could have caused these valves to close?

- A. Discharge flow to Circ Water exceeded preset limit of release permit.
- B. Discharge flow dropped below the minimum due to LOW level in the BACT tripping the BACT pump.
- C. Release permit limits were based on a sample obtained 15 minutes after the BACT was placed on recirc.
- D. BACT fluid conductivity exceeds a preset limit based on tank samples.

ANSWER

C
COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-1	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 61
QUESTION ID: 4645 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Response of Waste Gas Disposal System to radiation alarms
AUTHOR: avest **REVISION** 2 **REVISION DATE** 12/04/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/04/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE** X
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: CAP **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-901-403 01
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 3.9-071-A3.03 3.6 3.8 W-3-LP-OPS-HVR00 3

QUESTION

Given the following:

The plant is at 100% power.

A containment purge is in progress.

RAB Vent Mode selector switch is in CNTMT PURGE position.

Which of the following automatically CLOSES Containment Purge Exhaust Inside Containment Damper, CAP-203?

- A. CAP-203 valve disc travels past the 52° OPEN position.
- B. Containment pressure is -6.0 inches water below atmospheric.
- C. Outside air makeup flow rate drops below a predetermined setpoint.
- D. A Hi-Hi alarm on PRM-IRI-0100.2S (Plant Stack B PIG Rad Monitor).

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 62
QUESTION ID: 3504 - **STATUS:** Approved **LAST USED**
DESCRIPTION: CROAI auto actuations
AUTHOR: wmatthe **REVISION** 2 **REVISION DATE** 04/15/1999
APPROVAL: rfletch **APPROVAL DATE:** 04/26/1999
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/26/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE** X
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: HVC **CATEGORY:** PROCEDURE
PPO SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-901-401 00 01 08/06/2001
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
072-K1.04 3.5* W-3-LP-OPS-HVC00 2
W-3-LP-OPS-PPO40 1

QUESTION

The following plant conditions exist:

- 100% power, steady-state operations
- No major equipment out of service
- The following annunciators are received:
 - RAD MONITORING SYS ACTIVITY HI-HI on CP-36
 - CLASS 1E RAD MONITORING SYS ACTIVITY HI-HI on CP-18
- The PNPO notices that CROAI A NORTH (0200.1) rad monitor indicates red with a rising trend

Which of the following actions will occur because of this condition?

- A. All possible air intakes into the Control Room are isolated.
- B. Control Room Toilet Exhaust Fan A starts.
- C. Control Room Emergency Filtration Units A and B start.
- D. Control Room Emergency Filtration Unit A starts.

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-1	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 63
QUESTION ID: 5475 - b **STATUS:** Approved **LAST USED**
DESCRIPTION: LOCA safety function check
AUTHOR: trohe **REVISION** 0 **REVISION DATE**
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/26/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** **OPEN REFERENCE:** X
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPE **CATEGORY:** PROCEDURE
 SI
 RCS
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-902-002 09 00 04/12/2001
 OP-902-009 01
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 3.4-002-A1.05 3.4 3.7 W-3-LP-OPS-PPE02 22

QUESTION

A loss of coolant accident has occurred and OP-902-002 has been entered. The plant parameters are as follows:

Pzr level – 0%
 RCS Thot 540°F
 RCS Tcold 535°F
 RCS pressure 1000 psia
 RVLMS plenum level – 20 %
 HPSI flow –100 gpm per loop
 LPSI flow 0 gpm per loop
 RCPs 1B and 2B are running
 A and B charging pumps operating
 CET temperatures – 545°F

Which of the following actions should be taken:

- A. Remain in OP-902-002 and trip the remaining RCPs.
- B. Go to diagnostics or OP-902-008 and trip the remaining RCPs.
- C. Remain in OP-902-002 and leave RCPs running.
- D. Go to diagnostics or OP-902-008 and leave remaining RCPs running.

ANSWER

A

COMMENTS

Provide examinee with Attachments 2-A, B, and C of OP-902-009

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-2	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 64
QUESTION ID: 5882 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Effect of ECCS operation on Subcooled Margin during casualty
AUTHOR: rglaze **REVISION** 0 **REVISION DATE** 11/13/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: rglaze **VERIFICATION DATE:** 11/13/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: RCS **CATEGORY:**
 SI
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 LP-PPE00
 OP-902-002 09
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 3.2-006-A1.06 3.6 3.9

QUESTION

While operating the plant at 20% power following a refueling outage, a small Steam Generator Tube Rupture occurs. RCS pressure lowers to 1300 psig. Which of the following could result in a reduction in RCS Subcooled Margin?

- A. Starting the third charging pump.
- B. Steam Generator level reaching critical level.
- C. Stopping both High Pressure Safety Injection pumps.
- D. Changing SBSCS valve from 50% to 30% following the cooldown to 520°F.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 65
QUESTION ID: 5889 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: Using the level control system during RCS inventory balance surveillance.
AUTHOR: rglaze **REVISION** 0 **REVISION DATE** 11/14/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: rglaze **VERIFICATION DATE:** 11/14/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: CVC **CATEGORY:** PROCEDURE
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-903-024 11 00 10/26/1995
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 2-2-12 3 3.4

QUESTION

- During performance of OP-903-024, “RCS Water Inventory Balance” a leak-rate of 1.5 gpm has been detected. The suspected source of leakage is CVCS.
- The procedure directs the operator to verify sufficient level in the Pressurizer prior to securing charging and letdown.

Which of the following methods is used to accomplish the Pressurizer level increase?

- A. Reduce turbine load slowly to increase T-AVE and Pressurizer level.
- B. Increase reactor power if allowed, to increase T-AVE and pressurizer level.
- C. Place the Pressurizer level controller in manual and start a second charging pump.
- D. Place the letdown flow controller in manual and reduce letdown flow.

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 66

QUESTION ID: 5881 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: With the plant power level at 100%, SUPS MA is lost. What effect will this have on the plant?

AUTHOR: rglaze **REVISION** 0 **REVISION DATE** 11/13/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: rglaze **VERIFICATION DATE:** 11/13/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: CED **CATEGORY:** SYSTEM

PPS

PPO

ID

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-901-312 01 05 07/18/2001

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.7-012-A3.03 3.4 3.5 W-3-LP-OPS-PPO30 1

QUESTION

With the plant power level at 100%, SUPS MA is lost. What effect will this have on the plant?

- A. Two Reactor Trip Breakers open with NO reactor trip.
- B. Four Reactor Trip Breakers open with NO reactor trip.
- C. Four Reactor Trip Breakers open CAUSING a reactor trip.
- D. Eight Reactor Trip Breakers open CAUSING a reactor trip.

ANSWER

B

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 67

QUESTION ID: 5659 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Tcold fails high, Pressurizer level setpoint fails, CVCS responds
AUTHOR: jsigno1 **REVISION** 0 **REVISION DATE** 06/14/1999
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/04/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: CVC **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-901-110 03 01 09/02/1998
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 3.7-016-K1.02 3.4* 3.3* W-3-LP-OPS-PLC00 7

QUESTION

- A reactor start-up is in progress.
- The reactor is not yet critical.
- Reactor Reg 2 is selected on CP-2 and the T_{COLD} selector switches for loop 1 and 2 are in NORM.
- The T_{AVE} LOOP SELECTOR on both Reactor Reg drawers 1 and 2 are in BOTH.

What is the proper plant response if the normal T_{COLD} RTD for loop 1 fails high?

- A. No change due to Reactor Reg 2 being selected.
- B. Letdown flow goes to maximum.
- C. Letdown flow goes to minimum, both back-up Charging Pumps start.
- D. No change due to setpoint failing to current Pressurizer level.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-2	Bank
Question History	1999 NRC RO			

Waterford 3 Examination Question Examination Bank

Examination Question Number 68

QUESTION ID: 5789 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Reducing Containment Airborne Activity with a locked in CPIS.

AUTHOR: dcassid **REVISION** 0 **REVISION DATE** 06/28/2000

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/26/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: ARR **CATEGORY:** SYSTEM

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-901-403 01 03 10/19/2000

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.5-027-K5.01 3.1* 3.4* W-3-LP-OPS-PPO40 6

QUESTION

The plant is in Mode 6. A fuel accident has occurred inside of Containment which has generated a Containment Purge Isolation Signal (CPIS). In accordance with OP-901-405, Fuel Handling Incident, what can the CRS direct to help reduce the levels of airborne radionuclides inside of Containment?

- A. Restart Containment Purge.
- B. Start up available ARRS units.
- C. Start up a CARS and a SBV train.
- D. Align CARS for Containment Pressure Control.

ANSWER

B

COMMENTS

REF: OP-901-405, Fuel Handling Incident. R1 C4. Page 11.

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-2	Bank
Question History	NRC 2000 SRO			

Waterford 3 Examination Question Examination Bank

Examination Question Number 69
QUESTION ID: 1293 -B **STATUS:** Approved **LAST USED**
DESCRIPTION: Start of H2 Recombiners
AUTHOR: rglaze **REVISION** 1 **REVISION DATE** 11/08/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: rglaze **VERIFICATION DATE:** 11/08/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE** X
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: HRA **CATEGORY:** SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 LP-OPS-HRA00
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 3.5-028-K6.01 2.6 3.1 W-3-LP-OPS-HRA00 3

QUESTION

Failure of a single Hydrogen Recombiner will not prevent the remaining recombiner from fulfilling its design function of limiting H₂ concentration in containment to less than:

- A. 0.6 %, 24 hrs post-LOCA.
- B. 3.0 %, 24 hrs post-LOCA.
- C. 4.0 % for duration of accident
- D. 0.6% for duration of accident

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-2	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 70

QUESTION ID: 2246 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Spent Fuel Pool LO Level alarm

AUTHOR: avest **REVISION** 1 **REVISION DATE** 11/26/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/26/2001

TYPE: MULTIPLE CHOICE **TIME:** 1 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: FS **CATEGORY:** SYSTEM

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

OP-901-513

02

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

3.8-033-A3.02

2.9

3.1

W-3-LP-OPS-FS00

3

QUESTION

The following conditions exist:

- The RAB watch has just completed opening the Fuel Transfer Tube Gate Valve in the FHB
- The RAB watch reports that SFP level dropped to 41 feet when he was opening the valve

As a result of this SFP level, which of the following action(s) should have occurred.

- A. Low Spent Fuel Pool (SFP) Level Alarm only.
- B. Low SFP Level Alarm and CMU Auto Makeup Valve Opens.
- C. Low SFP Level Alarm and running SFP Cooling Pump Trips.
- D. Low SFP Level Alarm and FHB Isolation Actuation occurs.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-2	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 71

QUESTION ID: 1194 - **A** **STATUS:** Approved **LAST USED**

DESCRIPTION: New Fuel Elevator

AUTHOR: WJV **REVISION** 0 **REVISION DATE** 03/26/1991

APPROVAL: trown **APPROVAL DATE:** 06/01/1995

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/26/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE** X

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: PPN **CATEGORY:** PROCEDURE

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
RF-005-002 05 02 10/13/2000

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-2-26 2.5 3.7 W-3-LP-OPS-REQ04 03

QUESTION

After lowering the New Fuel Elevator, the Fuel Handling Engineer informs the operator he needs to bring the new fuel assembly back up for further inspection. Permission to perform this operation must be granted by the:

- A. Fuel Handling Supervisor.
- B. Control Room Supervisor.
- C. Duty Plant Manager.
- D. Reactor Engineering Supervisor.

ANSWER

A

COMMENTS

CAUTION in section 5.5 requires FHS permission to place key switch in bypass.

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-2	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 72
QUESTION ID: 1373 - **STATUS:** Approved **LAST USED**
DESCRIPTION: response of the Response of MFRV and SUFRV to a Reactor Trip signal
AUTHOR: avest **REVISION** 1 **REVISION DATE** 11/26/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/26/2001
TYPE: MULTIPLE CHOICE **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPE **CATEGORY:**
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-902-000 09 00 02/12/2001
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 3.4-035-K4.01 3.6 3.8 W-3-LP-OPS-FW00 4
 W-3-LP-OPS-FWC00 6

QUESTION

Which of the following statements is most correct concerning the automatic response of the Main Feed Regulating Valves (MFRV) and Startup Feed Regulating Valves (SUFRV) to a Reactor Trip signal? (Assume initial 100% power operation.)

- A. Both MFRVs and SUFRVs remain in their pre-trip positions.
- B. The MFRVs close to 13-21% open and the SUFRVs remain open.
- C. The MFRVs close and the SUFRVs position to 13-21% open.
- D. The MFRVs and the SUFRVs all position to 13-21% open.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-2	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 73

QUESTION ID: 5740 - **STATUS:** Approved **LAST USED**
N

DESCRIPTION: Atmospheric Dump Valve failure and plant response

AUTHOR: jsigno1 **REVISION** 0 **REVISION DATE** 08/03/1999

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/26/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: MS **CATEGORY:** SYSTEM

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

OP-500-011 9

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

3.4-039-K1.02 3.3 3.3 W-3-LP-OPS-MS00 1

W-3-LP-OPS-MS00 4

QUESTION

The plant is operating at 100% when the PNPO notices T_{COLD} dropping and Power rising. Which of the following would give these indications?

- A. Atmospheric Dump Valve #1 failed open.
- B. Emergency Feedwater Pump AB tripped on overspeed.
- C. EH-118, EH Emergency Trip Header Interface, fails open.
- D. MOOG valve for Governor Valve #4 failed, closing Governor #4.

ANSWER

A

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-2	Bank
Question History	NRC 1999 RO			

Waterford 3 Examination Question Examination Bank

Examination Question Number 74
QUESTION ID: 5903 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: Functions of Condenser Air Evacuation PIG
AUTHOR: avest **REVISION** 0 **REVISION DATE** 11/19/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/19/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: AE **CATEGORY:** SYSTEM
 PRM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 SD-RMS 07
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 3.4-055-K1.06 2.6 2.6 W-3-LP-OPS-AE00 4

QUESTION

The Condenser Air Evacuation PIG provides which of the following functions:

- A. Provides a process input to the Primary-Secondary Leakrate (PSLR) Program.
- B. Closes AE-117, AE Pumps to Atmosphere Exhaust Valve on Hi Rad Signal.
- C. Opens AE-118, AE Pumps to RAB Normal Exhaust Valve on Hi Rad Signal.
- D. Shuts down or prevents starting of Air Evacuation Pumps on a Hi Rad Signal.

ANSWER

A

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 75
QUESTION ID: 5868 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: Loss of TGB DC Bus
AUTHOR: rglaze **REVISION** 0 **REVISION DATE** 10/31/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: rglaze **VERIFICATION DATE:** 10/31/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: DC **CATEGORY:** PROCEDURE
 SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-901-313 01 04 06/14/2001
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 3.6-062-K1.03 3.5 4.0 W-3-LP-OPS-PPO30 06

QUESTION

During a loss of the 125 Volt TGB-DC bus the Control room needs to transfer the 1A and 2A busses from the UAT's to the SUT's. Which of the following is correct concerning the transfer of these busses?

- A. The 1A and 2A busses are transferred remotely from the control room as dead bus transfers.
- B. The 1A and 2A busses are transferred locally as dead bus transfers.
- C. The 1A bus is transferred remotely from the control room and the 2A bus is transferred locally as live bus transfers.
- D. The 1A and 2A busses are transferred locally as live bus transfers.

ANSWER

C
COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 76

QUESTION ID: 5902 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Process Radiation Monitor Power Supplies

AUTHOR: avest **REVISION** 0 **REVISION DATE** 11/19/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/19/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: PRM **CATEGORY:**

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-004-001 08 00 12/11/2000

PDMD sht 30

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.7-073-K2.01 2.3* 2.7 W-3-LP-OPS-RMS00 3

QUESTION

The feeder breaker on Bus 21A to MCC 211A trips open. Which of the following Radiation Monitors will lose power?

- A. Plant Stack PIG A
- B. Containment PIG
- C. FHB PIG
- D. Ind. Waste Sump RM

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 77

QUESTION ID: 1294 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: IA Setpoints and reasons for actions

AUTHOR: avest **REVISION** 2 **REVISION DATE** 11/14/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/14/2001

TYPE: MULTIPLE CHOICE **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: IA **CATEGORY:** SYSTEM
SA

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-901-511 04 03 07/03/2000

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.8-079-A2.01 2.9 3.2 W-3-LP-OPS-AIR00 1
W-3-LP-OPS-PPO50 1

QUESTION

- The plant is at 100% power
- Excessive Instrument Air (IA) usage has been noted on the PMC AIR mimic
- Initial Instrument Air header pressure was 115 psig and is slowly dropping

As IA header pressure drops, which one of the following actions occur?

- A. The running IA compressor loads at 105 psig IA header pressure to raise air compressor output.
- B. The SA to IA Crossconnect valve starts to open at 105 psig to provide a backup source of air.
- C. The IA compressor selected for standby starts at 100 psig to double air compressor capacity.
- D. The Instrument Air Dryers are bypassed at 85 psig to ensure dessicant blockage if not a factor.

ANSWER

B

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-2	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 78

QUESTION ID: 5875 - **STATUS:** Approved **LAST USED**

DESCRIPTION: Effect of fire water spray on electrical components.

AUTHOR: rglaze **REVISION** 0 **REVISION DATE** 11/12/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: rglaze **VERIFICATION DATE:** 11/12/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: FPP **CATEGORY:** SYSTEM

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

SD-FP 01

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.8-086-K5.03 3.1 3.1 W-3-LP-OPS-FP00 1

QUESTION

Given an automatic actuation of installed fire suppression equipment in an Emergency Diesel Generator Room, select the hazard associated with this scenario.

- A. Asphyxiation of personnel due to Halon discharge.
- B. Asphyxiation of personnel due to Carbon Dioxide discharge.
- C. Safety-related equipment malfunction due to Dry Chemical discharge.
- D. Safety-related equipment malfunction due to Water discharge.

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-2	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 79

QUESTION ID: 1202 - **STATUS:** Approved **LAST USED**

A

DESCRIPTION: SIAS equipment starts

AUTHOR: avest **REVISION** 2 **REVISION DATE** 11/19/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/19/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: CCS **CATEGORY:** SYSTEM

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

3.5-103-A4.01 01 3.2* 3.3 W-3-LP-OPS-CCS00 02

QUESTION

The following conditions exist

- RCS Pressure 1650 psia
- Containment Pressure 16.9 psia

What is an expected response of the Containment Cooling System?

- A. All Control Element Drive Mechanism Cooling Fans start.
- B. The Reactor Cavity Cooling Fans start.
- C. CC isolation and flow control valves open for CFCs.
- D. The Containment Cooling System Safety Dampers close.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-2	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 80

QUESTION ID: 5695 - **STATUS:** Approved **LAST USED**
N

DESCRIPTION: Determine the effect of starting a RCP with a large primary to secondary delta-T
AUTHOR: avest **REVISION** 0 **REVISION DATE** 07/08/1999

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/04/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: RCP **CATEGORY:** SYSTEM

TS

SDC

RCS

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

TS 3.4.8

OP-010-003 01

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

3.4-005-K4.01 3 3.2 W-3-LP-OPS-RCPO0 13

W-3-LP-OPS-RCS00 9

W-3-LP-OPS-RCS00 11

W-3-LP-OPS-RCPO0 9

QUESTION

The following conditions exist:

- RCS is filled and vented and the PZR is solid
- RCS pressure is being controlled by both letdown backpressure control valves
- RCS pressure = 370 psia
- CET temperature = 130°F
- Steam Generator 1 water temperature = 220°F
- All RCPs are secured

Which of the following is true when starting RCP 1A under these conditions.

- A. RCS pressure would rise to the setpoint of the LTOP reliefs; the combined capacity of both LTOP reliefs is required to protect the RCS from overpressure.
- B. RCS pressure would lower but be controlled by the letdown backpressure control valves above the minimum pressure for running the RCP.
- C. RCS pressure would rise above the setpoint of the LTOP reliefs; the RCS is protected from overpressurization by the capacity of one LTOP relief.
- D. RCS pressure would drop below the pressure for operating a RCP causing cavitation of the RCP and possible damage to the impeller and seals.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-3	Bank
Question History	NRC 1999 RO			

Waterford 3 Examination Question Examination Bank

Examination Question Number 81
QUESTION ID: 1310 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Temperature change across a PZR safety
AUTHOR: avest **REVISION** 1 **REVISION DATE** 11/27/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/27/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: RCS **CATEGORY:** SYSTEM
 TYH THEORY
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 LP-OPS-RCS00

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 3.5-007-A4.10 3.6 3.8 W-3-LP-OPS-MCD01 03
 W-3-LP-OPS-TYH04 21
 W-3-LP-OPS-RCS00 02

QUESTION

Assuming a Pressurizer Safety Valve lifts, which of the following statements is correct?

- A. The downstream Safety Relief temperature detector will indicate T_{sat} for the current Pressurizer pressure.
- B. Quench Tank temperature will equal T_{sat} for the current Pressurizer pressure.
- C. The downstream Safety Relief temperature detector will indicate T_{sat} for the pressure at the detector.
- D. Quench Tank pressure will equal P_{sat} for the current Pressurizer vapor space temperature.

ANSWER

C.

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-3	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 82

QUESTION ID: 1685 - **STATUS:** Approved **LAST USED**

A

DESCRIPTION: Response of CC Pump AB and system to SIAS.

AUTHOR: avest **REVISION** 2 **REVISION DATE** 11/27/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/27/2001

TYPE: Multiple Choice **TIME:** 1 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE** X

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: CC **CATEGORY:** SYSTEM

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

SD-CC 06

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

3.8-008-K1.02 3.3 3.4 W-3-LP-OPS-CC00 4

QUESTION

Component Cooling Water (CCW) Pumps A and B are in operation when a Safety Injection Actuation Signal (SIAS) occurs. The AB CCW Pump Assignment Switch is in the B position with the white light energized. Select the statement which describes the expected CCW System response?

- A. CCW Pump B trips and the AB Loop is supplied from CC Safety Loop A.
- B. CCW Pump AB starts and CCW flow to Emergency Diesel Generators goes to maximum.
- C. The BA Concentrator and the Waste Gas Compressors are supplied from CC Safety Loop A.
- D. The CCW Pump suction and discharge cross-connect valves powered from Train A fail open.

ANSWER

B

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			2-3	Modified
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 83

QUESTION ID: 1944 **-B** **STATUS:** Approved **LAST USED**
DESCRIPTION: IA air compressor operation with an SIAS
AUTHOR: avest **REVISION** 1 **REVISION DATE** 11/27/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/27/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: IA **CATEGORY:** FROZEN SIM SYSTEM
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
SD-AIR 03
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
3.8-078-A3.01 3.1 3.2 W-3-LP-OPS-AIR00 4

QUESTION

Instrument air compressor A is running and instrument air compressor B is in standby. The plant is manually tripped and an SIAS is manually initiated. Which of the following is correct concerning instrument air compressor B response to a lowering instrument air header pressure?

- A. Instrument air compressor B breaker must be reset to enable auto start.
- B. Instrument air compressor B automatically starts on lowering air pressure.
- C. Instrument air compressor B must be manually started with a SIAS.
- D. Instrument air compressor B auto and manual start signals are locked out.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			2-3	Bank
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 84

QUESTION ID: 5894 - **A** **STATUS:** Approved **LAST USED**

DESCRIPTION: Which one of the following Component Cyclic Limits has allowances for an unlimited number of cycles?

AUTHOR: kkirkpa **REVISION** 0 **REVISION DATE** 11/15/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: kkirkpa **VERIFICATION DATE:** 11/15/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: TS **CATEGORY:** PROCEDURE
SRO LEVEL

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

TS 5.7				
NRC KA NUMBER:	RO	SRO	TRAINING MATERIAL:	OBJECTIVE
2-1-10	2.7	3.9	W-3-LP-OPS-TS03	4
			W-3-LP-OPS-TS03	5

QUESTION

Which one of the following Tech Spec Component Cyclic Limits have conditions that allow an unlimited number of cycles?

- A. Pressurizer Spray Nozzle cycles
- B. Pressurizer heatup and cooldown cycles
- C. Reactor Coolant System heatup and cooldown cycles
- D. Reactor Coolant System hydrostatic testing cycles

ANSWER

A

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 85

QUESTION ID: 5898 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Shift Manager notification of the Duty Plant Manager of any unplanned INPO unavailability.

AUTHOR: kkirupa **REVISION** 0 **REVISION DATE** 11/15/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: kkirupa **VERIFICATION DATE:** 11/15/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: PPA **CATEGORY:** PROCEDURE
SRO LEVEL

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OI-035-000 05 01 04/04/2001

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-1-14 2.5 3.3 w-3-lp-ops-ppa00 3

QUESTION

Which of the following sets of systems require the Shift Manager to notify the Duty Plant Manager for any unplanned unavailability greater than one hour.

- A. EFW, EDG, RPS
- B. EFW, CCW, CVC
- C. HPSI, EFW, CHW
- D. HPSI, LPSI, CS

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 86

QUESTION ID: 5926 - **STATUS:** Approved **LAST USED**

DESCRIPTION: Positive indication of ADV position.

AUTHOR: kkirkpa **REVISION** 0 **REVISION DATE** 11/28/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: kkirkpa **VERIFICATION DATE:** 11/28/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: MS **CATEGORY:** SYSTEM

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

SD-MS 05

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

2-1-19 3 3 W-3-LP-OPS-MS00 2

QUESTION

Which one of the following Control Room indications provides positive indication that MS-116B, Steam Generator 2 Atmospheric Dump Valve, is full open:

- A. M/A station output reading 100%
- B. M/A station output Raise pushbutton illuminated
- C. PMC mimic for Main Steam indicates 100% on MS-116B
- D. SG 2 ATMOSPHERIC DUMP VLV OPEN annunciator actuated

ANSWER

C
COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 87
QUESTION ID: 5905 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: Which one of the following conditions represents an entry-level condition for Technical Specifications?
AUTHOR: kkirropa **REVISION** 0 **REVISION DATE** 11/19/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: kkirropa **VERIFICATION DATE:** 11/19/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: TS **CATEGORY:** PROCEDURE
SRO LEVEL
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
TS 3.9.8.1 48
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-1-33 3.4 4 W-3-LP-OPS-TS04 1

QUESTION

Which one of the following conditions represents an entry-level condition for Technical Specifications?

- A. Reactor power is 100% and secondary coolant activity is 0.085 $\mu\text{Ci/gm}$ DEI-131
- B. Steam Generator #2 secondary temperature is 130°F with secondary pressure at 215 psig.
- C. Both Shutdown Cooling Trains have been secured for 65 minutes while seating irradiated fuel in front of #2 Hot Leg.
- D. The 3AB3-S and the 3AB31-S busses have tripped off while the Upper Guide Structure is being lifted from the reactor vessel.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 88

QUESTION ID: 5908 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Pre-Startup Checks--verify ECC.

AUTHOR: kkirupa **REVISION** 0 **REVISION DATE** 11/26/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: kkirupa **VERIFICATION DATE:** 11/26/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: TYR **CATEGORY:** PROCEDURE
SRO LEVEL

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-004-019 08 00 07/30/2001

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-2-1 3.7 3.6 W-3-LP-OPS-TYR10 5

QUESTION

Shutdown Margin is satisfied in Mode 3 during a reactor startup by verifying actual RCS boron concentration is no more than _____ Critical Boron Concentration and the allowable CEA range is _____.

- A. 10 ppm below; above Group 4 at 40 inches
- B. 20 ppm below; above Group 4 at 90 inches
- C. 30 ppm below; above Group 4 at 140 inches
- D. 40 ppm below; above Group 5 at 90 inches

ANSWER

B

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 89
QUESTION ID: 5910 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Determine when reactor shutdown is required from a list of plant conditions.
AUTHOR: kkirka **REVISION** 0 **REVISION DATE** 11/26/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: kkirka **VERIFICATION DATE:** 11/26/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: TS **CATEGORY:** PROCEDURE
 SRO LEVEL
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 TS 3.8.1.1 166
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 2-2-23 2.6 3.8 W-3-LP-OPS-TS04 1

QUESTION

The plant is operating at 100% power with the following plant conditions:

- The AB electrical buses are aligned to the A side
- CS Pump A has been Out of Service for 2 days
- CCW Pump A has been Out of Service for 5 days
- CCW Pump AB is aligned to replace CCW Pump A
- CFC C has been Out of Service for 6 days
- EDG B has been Out of Service for 1 hour
- The remaining A.C. circuits have been verified Operable

Determine the length of time before a reactor shutdown is required to satisfy Tech Spec.

- A. immediately
- B. in 1 hour
- C. in 2 hours
- D. in 72 hours

ANSWER

B COMMENTS

B is correct due to TS 3.8.1.1 Action d concerning CS system will force the shutdown in 2 hours from when EDG was declared inoperable. Since the EDG has been OOS for 1 hour, only 1 hour remains.

Provide the following:

Tech Specs - 3.6.2.1, CS; 3.6.2.2, CFC; 3.7.3, CCS; 3.8.1.1, AC Sources

TRM – 3.7.3, CCW

OP-100-014 - Att 6.6 for CCW & EDG

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 90
QUESTION ID: 5911 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: Refueling Loss of Water Level Guidelines
AUTHOR: kkirupa **REVISION** 0 **REVISION DATE** 11/26/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: kkirupa **VERIFICATION DATE:** 11/26/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: RF **CATEGORY:** PROCEDURE
SRO LEVEL
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
RF-005-001 07 03 10/24/2000
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2.2.28 3.5 W-3-LP-OPS-REQ04 7

QUESTION

During a refueling operation, the Refueling Crew in the Fuel Handling Building is withdrawing a spent fuel assembly from the upender baskets. When the spent fuel assembly has cleared the top of the upender basket, the Refueling Crew receives word that a nozzle dam has partially failed. The Fuel Handling Supervisor notes that reactor cavity level is lowering at approximately two inches per minute.

In accordance with the Loss of Water Level Guidelines in RF-005-001, the Fuel Handling Supervisor should order the crew to _____, and close the transfer tube isolation valve.

- A. place the spent fuel assembly in the spent fuel pool, return the transfer carriage to the Containment
- B. place the spent fuel assembly in the spent fuel pool, leave the transfer carriage in the Fuel Handling Building (FHB)
- C. return the spent fuel assembly to the upender baskets, return the transfer carriage to the Containment
- D. return the spent fuel assembly to the upender baskets, place the upender in the horizontal position in the FHB

ANSWER

A

COMMENTS

This question is for K/A 2.2.28, which is not in the database. It needs to be added.

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 91

QUESTION ID: 5912 - **STATUS:** Approved **LAST USED**

A

DESCRIPTION: Regulating Group CEA limits for ASI control.

AUTHOR: kkirupa **REVISION** 0 **REVISION DATE** 11/26/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: kkirupa **VERIFICATION DATE:** 11/26/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: PPN **CATEGORY:** PROCEDURE
SRO LEVEL

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

OP-010-005 00

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**

2-2-33 2.2 2.9* W-3-LP-OPS-PPN02 1

W-3-LP-OPS-PPN02 4

QUESTION

A normal plant shutdown is in progress. The Regulating Groups CEAs are being used for ASI control. Regulating Group 6 CEAs are at 75 inches. To maintain CEAs within the Transient Insertion Limit and OP-010-005 ASI Control Guidelines, Regulating Group 5 may not be inserted until reactor power is below ____ % and may not be inserted beyond ____ inches.

- A. 90; 90
- B. 90; 75
- C. 80; 90
- D. 80; 75

ANSWER

C

COMMENTS

Supply Examinee a copy of COLR Figure 4, Transient Insertion Limits

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 92

QUESTION ID: 5916 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Containment Building power entries are allowed while in Mode 2 as long as reactor power is
AUTHOR: kkirupa **REVISION** 0 **REVISION DATE** 11/27/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: kkirupa **VERIFICATION DATE:** 11/27/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPA **CATEGORY:** PROCEDURE
 RAD SRO LEVEL
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 HP-001-213 11 01 08/14/2000
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 2-3-1 2.6 3 w-3-lp-ops-ppa00 3

QUESTION

Containment Building power entries are allowed while in Mode 2 as long as reactor power is above _____ and rising at less than _____.

- A. $5 \times 10^{-4}\%$; 3%/hr
- B. $5 \times 10^{-4}\%$; 5%/hr
- C. the point of adding heat; 3%/hr
- D. the point of adding heat; 5%/hr

ANSWER

C
COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 93
QUESTION ID: 5913 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: Planned Special Exposure limits.
AUTHOR: kkirupa **REVISION** 0 **REVISION DATE** 11/26/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: kkirupa **VERIFICATION DATE:** 11/26/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: RAD **CATEGORY:** PROCEDURE
 SRO LEVEL
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 RP-207 00
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 2-3-4 2.5 3.1 W-3-LP-OPS-RAD02 6

QUESTION

- A valve is to be repaired under the Planned Special Exposure (PSE) limits of RP-207. The radiation dose on contact at the valve is 25 rem/hour.
- The individual assigned, an employee of Atlantic Group, has never had any radiation exposure beyond normal annual limits.
- Shielding will be used to prevent TEDE dose in excess of Waterford 3 administrative limits.

Considering only the exposure to the individual's hands, the maximum amount of time the person may be permitted to work on the valve is _____ minutes; and _____ authorization is required, in addition to normal PSE requirements, because the individual is not an Waterford 3 employee.

- A. 12; Shift Manager
- B. 120; Atlantic Group Supervisor
- C. 12; Individual Worker
- D. 120; RP Supervisor

ANSWER

B

COMMENTS

RP-207, Planned Special Exposure, needs to be added to the database as a reference.

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 94
QUESTION ID: 5920 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: SM/CRS review of Liquid Batch Release
AUTHOR: kkirkpa **REVISION** 0 **REVISION DATE** 11/27/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: kkirkpa **VERIFICATION DATE:** 11/27/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: LWM **CATEGORY:** PROCEDURE
RAD SRO LEVEL
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
CE-003-514 00 02 11/04/1999
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-3-6 2.1 3.1 W-3-LP-OPS-LWM00 8

QUESTION

While reviewing a Liquid Radioactive Effluent Batch Release Permit, the SM/CRS ensures a minimum dilution flow of _____ gpm and a maximum waste flow of _____ gpm.

- A. 250,000; 50
- B. 250,000; 100
- C. 500,000; 50
- D. 500,000; 100

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 95
QUESTION ID: 5918 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: Which one of the following area postings is the minimum level at which a Specific RWP is required?
AUTHOR: kkirupa **REVISION** 0 **REVISION DATE** 11/27/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: kkirupa **VERIFICATION DATE:** 11/27/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: PPA **CATEGORY:** PROCEDURE
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 RP-105 00
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 2-3-7 2 3.3 w-3-lp-ops-ppa00 3

QUESTION

Which one of the following area postings is the minimum level at which a Specific RWP is required for routine tasks?

- A. Contamination Area
- B. High Contamination Area
- C. High Radiation Area
- D. Very High Radiation Area

ANSWER

D

COMMENTS

RP-105, Radiation Work Permits, needs to be added to the database as a reference.

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 96
QUESTION ID: 5921 - **STATUS:** Approved **LAST USED**
DESCRIPTION: Containment Purge operation while in Mode 6.
AUTHOR: avest **REVISION** 0 **REVISION DATE** 12/03/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 12/03/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: HVR **CATEGORY:** PROCEDURE
 RAD SRO LEVEL
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 CE-003-515 00 03 09/01/2000
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 2-3-9 2.5 3.4

QUESTION

Containment Purge was secured after operating for several days with the plant in Mode 6. Prior to commencing core alterations, the refueling crew requests that Containment Purge be reinitiated.

In this situation, Containment Purge may be reinitiated:

- A. by issuing a Batch Release Permit; with Chemistry approval.
- B. by issuing a Batch Release Permit; without Chemistry approval.
- C. using the Continuous Release Permit; with Chemistry approval.
- D. using the Continuous Release Permit; without Chemistry approval.

ANSWER

C

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 97

QUESTION ID: 5922 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Required SG Level Accident Monitoring Level indications
AUTHOR: kkirupa **REVISION** 0 **REVISION DATE** 11/27/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: kkirupa **VERIFICATION DATE:** 11/27/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: MCD **CATEGORY:** SRO LEVEL
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
 OP-903-013 13 03 06/28/2000
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
 2-4-3 3.5 3.8

QUESTION

Which one of the following Steam Generator Level indications are required Post Accident Monitoring indications for Steam Generator Level?

- A. CP-1 and CP-8 NR indicators
- B. CP-8 NR indicators only
- C. CP-8 WR indicators only
- D. CP-8 WR and NR indicators

ANSWER

D

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 98

QUESTION ID: 5924 - **STATUS:** Approved **LAST USED**
A

DESCRIPTION: Recognition of entry conditions for offnormals

AUTHOR: avest **REVISION** 0 **REVISION DATE** 11/27/2001

APPROVAL: rfletch **APPROVAL DATE:** 12/08/01

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/27/2001

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: FW **CATEGORY:** PROCEDURE
PPO SRO LEVEL

REFERENCE: **REVISION:** **CHANGE:** **DATE:**

SD-RXC 05

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-4-4 4 4.3 W-3-LP-OPS-PPO10 1

QUESTION

- The plant is at 100% power
- All systems are aligned normally
- FWPT A trips on Overspeed
- Plant systems respond normally to the event

Which of the following procedures should be implemented?

- A. OP-901-101, Reactor Power Cutback
- B. OP-901-201, Steam Generator Level Control Malfunction
- C. OP-901-212, Rapid Plant Power Reduction
- D. OP-902-000, Standard Post Trip Actions

ANSWER

A

COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 99

QUESTION ID: 5937 - **STATUS:** Approved **LAST USED**

A

DESCRIPTION: Knowledge of Generator Malfunction Offnormal

AUTHOR: avest **REVISION** 0 **REVISION DATE** 01/08/2002

APPROVAL: rfletch2 **APPROVAL DATE:** 01/08/2002

REFERENCE VERIFIED: avest **VERIFICATION DATE:** 01/08/2002

TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1

QUIZ ONLY: **CLOSED REFERENCE:** **OPEN REFERENCE** X

SPECIAL REFERENCES: **SIMULATOR SETUP**

PLANT SYSTEM: GEN **CATEGORY:** PROCEDURE
PPO SRO LEVEL

REFERENCE: **REVISION:** **CHANGE:** **DATE:**
OP-901-211 02 01 09/25/2001

NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-4-11 3.4 3.6 W-3-LP-OPS-PPO20 1
W-3-LP-OPS-PPO20 3

QUESTION

- The Main Generator is loaded to 1150 MWe
- Reactor Power Cutback is in service
- C58500 = 24 °F
- C58501-C58504 read between 17.0 °F and 18.5 °F
- A58504-A58565 read between 160 °F and 170 °F
- A58566 = 196 °F
- A58567-A58575 read between 162 °F and 172 °F
- The Generator Condition Monitor is NOT in alarm

Determine which of the following actions is appropriate in accordance with OP-901-211, Generator Malfunction.

- A. Continue monitoring generator temperatures.
- B. Perform Section E2; SCW Skid Operations.
- C. Immediately reduce Generator Load until limits are not exceeded.
- D. Trip Main Turbine, verify Generator trips, enter Rx Power Cutback offnormal.

ANSWER

C

COMMENTS

Provide Examinee with copy of OP-901-211, Section E0 and Attachment 1

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			3	New
Question History				

Waterford 3 Examination Question Examination Bank

Examination Question Number 100
QUESTION ID: 5907 - **STATUS:** Approved **LAST USED**
A
DESCRIPTION: Classify E-Plan for Fuel Handling Incident
AUTHOR: avest **REVISION** 0 **REVISION DATE** 11/21/2001
APPROVAL: rfletch **APPROVAL DATE:** 12/08/01
REFERENCE VERIFIED: avest **VERIFICATION DATE:** 11/21/2001
TYPE: Multiple Choice **TIME:** 5 **POINTS:** 1
QUIZ ONLY: **CLOSED REFERENCE:** X **OPEN REFERENCE**
SPECIAL REFERENCES: **SIMULATOR SETUP**
PLANT SYSTEM: EP **CATEGORY:** PROCEDURE
PPO **SRO LEVEL**
REFERENCE: **REVISION:** **CHANGE:** **DATE:**
EP-001-001
NRC KA NUMBER: **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**
2-4-38 2.2 4 W-3-LP-EP-SS 17

QUESTION

A third-burn fuel bundle is dropped in the refueling cavity deep end. The following indications are noted in the Control Room:

- Containment Purge Rad Monitor Hi Alarm Setpoints = 40mR/hr
- Highest Containment Purge Rad Monitor reading = 6.0 E+02 mR/hr
- Containment PIG Gas Channel reads 1.2 E-01 and rising slowly

Determine the E-Plan Classification.

- A. Unusual Event
- B. Alert
- C. Site Area Emergency
- D. General Emergency

ANSWER

C

COMMENTS

Supply Examinee a copy of EP-001-001, Emergency Action Levels attachments

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis			3	New
Question History				