

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 1

**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:**

OP-901-102 03 02 08/07/2001

OP-500-008 13 00 07/16/2001

**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

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** 2

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

**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
Comprehension or Analysis		1-1		New
Question History				

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 3

**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:** trown **APPROVAL DATE:** 05/23/1996

**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:**  
OP-902-000 09 00 02/12/2001

**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
Memory or Fundamental Knowledge		1-1		Bank
Question History				

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 4

**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    00    01    12/16/1999  
**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		I-1		Bank
Question History				

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 5

**QUESTION ID:** 5927 - **STATUS:** Approved **LAST USED**  
**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:**  
OP-500-011 16 00 06/25/2001  
**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 is 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		I-1		New
Question History				

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 6

**QUESTION ID:** 1347 - **STATUS:** Approved **LAST USED**  
A

**DESCRIPTION:** power reduction during loss of pZR heaters

**AUTHOR:** avest **REVISION** 2 **REVISION DATE** 11/26/2001

**APPROVAL:** tBrown **APPROVAL DATE:** 07/27/1994

**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:** PPC **CATEGORY:** PROCEDURE  
PPO

**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
OP-901-120 02 02 02/23/2000

**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
2-4-9 3.3 3.9 W-3-LP-OPS-PLC00 7  
W-3-LP-OPS-PPO10 4

### QUESTION

During a shutdown and cooldown required by a total loss of pressurizer heaters with only one charging pump available, the the time to shutdown and depressurize will be limited by:

- A. The max cooldown rate of 100° F/hr.
- B. The ability to maintain ASI at ESI.
- C. The rapid downpower limit of 30 MW/min.
- D. The ability to maintain PZR level steady.

### 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** 7

**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:** thrown **APPROVAL DATE:** 08/11/1994  
**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 1  
**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** 8

**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-902-004 09 00 04/12/2001

OP-902-009 00 01 12/16/1999

**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** 10  
**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** 11

**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

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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

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C

### COMMENTS

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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** 12

**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:**

Dwg G-160 Sh 2

**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** 13

**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:** OP-901-502      **REVISION:** 06      **CHANGE:** 02      **DATE:** 01/03/2001

**NRC KA NUMBER:** 4.2-A67-AK3.04      **RO** 3.3      **SRO** 4.1      **TRAINING MATERIAL:** W-3-LP-OPS-PPO51      **OBJECTIVE** 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** 15

**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  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
4.2-A69-AK1.01 2.6 3.1 W-3-LP-OPS-CS00 5

### **QUESTION**

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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**

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A

### **COMMENTS**

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Reference: Containment Spray System Description (CS)

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

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 16

**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:** johern **APPROVAL DATE:** 11/18/1994

**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:**  
W-3-LP-OPS-PPE05 00 04/12/2001

**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** 17

**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

**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
Comprehension or Analysis		1-2		New
Question History				

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 18

**QUESTION ID:** 5872 - **STATUS:** Approved **LAST USED**  
A

**DESCRIPTION:** EOP Entry Conditions in OP-901-102

**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:** PROCEDURE  
PPO

**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 02

### QUESTION

The following plant conditions exist:

- 60% power
- ASI control is in progress using Reg Group 6 CEAs
- When the PNPO drives the Reg Group in, CEAs 20 & 21 drop to the bottom

What are the required operator actions as a result of this condition?

- A. Enter CEA Misalignment section of OP-901-102, CEA or CEDMCS Malfunction.
- B. Enter CEA Timer Failure section of OP-901-102, CEA or CEDMCS Malfunction.
- C. Enter Immovable CEA section of OP-901-102, CEA or CEDMCS Malfunction.
- D. Manually trip the reactor and enter OP-902-000, Standard Post Trip Actions.

### ANSWER

D

### 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** 19  
**QUESTION ID:** 3476 - **STATUS:** Approved **LAST USED**  
**DESCRIPTION:** DRTS ACTIVATION ON HIGH PRESSURE  
**AUTHOR:** avest **REVISION** 1 **REVISION DATE** 07/11/2000  
**APPROVAL:** thrown **APPROVAL DATE:** 01/11/1995  
**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**  
4.1-E07-EK2.02 2.6 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	2000 SRO exam			

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 20  
**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 MFW 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** 21

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

**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		Bank
Question History				

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 22  
**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:** JMO **APPROVAL DATE:** 02/23/1994  
**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		1-2		Bank
Question History				

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 23

**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

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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

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Provide attachment 2 from OP-901-131

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** 24

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

**DESCRIPTION:** Assessing Reactivity Control in OP-902-008

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

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

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

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

### QUESTION

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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  $4.0 \times 10^{-4}$ % 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 <u>In Use</u> _____	SFSC <u>Met</u> _____
A.	RC-1	Yes
B.	RC-1	No
C.	RC-2	Yes
D.	RC-2	No

### ANSWER

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D

### COMMENTS

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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		1-2		New
Question History				

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 25

**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** 26

**QUESTION ID:** 5673 - **STATUS:** Approved **LAST USED**  
N

**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	99 RO exam			

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 27

**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 Tables  
**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** 28  
**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    1  
**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** 29

**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

**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** 30  
**QUESTION ID:** 5935 - **STATUS:** Approved **LAST USED**  
**DESCRIPTION:** Effects of Radiation Field after LOCA  
**AUTHOR:** avest **REVISION** 1 **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:** RAD **CATEGORY:** THEORY  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
EOI-S-LP-GET-RWT01  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
4.2-A59-AK1.02 2.6 3.2\* EOI-S-LP-GET-RWT01 24

### QUESTION

An NAO suffered a blackout on rounds in the -4 wing area when a LOCA occurs. The NAO is exposed to a 40 Rem/hr radiation field for approximately 20 minutes. Determine if the NAO has exceeded the applicable dose limit.

- A. Limit exceeded. 10CFR20 federal dose limit applies.
- B. Limit exceeded. Corrective action emergency limit applies.
- C. Limit is **NOT** exceeded. Lifesaving emergency limit applies.
- D. Limit is **NOT** exceeded. Planned special exposure limit applies.

### 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** 31  
**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 2  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 4.2-A60-AA2.02 3.1 4

### 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** 32

**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** 33  
**QUESTION ID:** 4294 - **STATUS:** Approved **LAST USED**  
**A**  
**DESCRIPTION:** Conditions requiring entry into OP-902-008.  
**AUTHOR:** avest **REVISION** 3 **REVISION DATE** 12/05/2001  
**APPROVAL:** rfletch **APPROVAL DATE:** 11/12/1998  
**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/05/2001  
**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-902-009 01  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 4.4-E9-EK3.4 3.2 W-3-LP-OPS-PPE08 1

### QUESTION

Which of the following situations require entry into OP-902-008, Functional Recovery Procedure? (Assume all other equipment is operating as designed unless specified otherwise)

- A. 5 CEA's failed to insert into the core and a Station Blackout is in progress.
- B. SGTR in progress and the reactor could only be tripped by opening the A32 and B32 feeder breakers.
- C. SG 1 Main Steam Line Break with Charging Pumps A/B and B unavailable.
- D. Large Break LOCA combined with a loss of the East and West Switchyard buses.

### ANSWER

A

### COMMENTS

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** 34  
**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  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
4.2-A36-AA2.02 3.4 4.1 W-3-LP-OPS-HVR00 3

### QUESTION

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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

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C

### COMMENTS

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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** 35

**QUESTION ID:** 3166 - **STATUS:** Approved **LAST USED**  
A

**DESCRIPTION:** Determining if Inventory is being met

**AUTHOR:** tmccool **REVISION** 1 **REVISION DATE** 11/18/1994

**APPROVAL:** johern **APPROVAL DATE:** 11/18/1994

**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/05/2001

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

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

**SPECIAL REFERENCES:** **SIMULATOR SETUP**

**PLANT SYSTEM:** PPE **CATEGORY:** Procedure

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

OP-902-008 12

Steam Tables

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

000056 AK1.03 3.1 W-3-LP-OPS-PPE05 1

### QUESTION

Plant conditions following a reactor trip due to a loss of offsite power are:

- Pressurizer level - 20% and stable
- Pressurizer pressure - 2000 psia and stable
- Representative CET temperature - 620°F and stable
- RVLMS indicates no levels voided

The RCS inventory safety function is:

- A. Being maintained because RVLMS indicates plenum level greater than 80%.
- B. Being maintained because Pressurizer level is greater than 7% and stable.
- C. NOT being maintained because RCS subcooled margin is less than 28°F.
- D. NOT being maintained because Pressurizer level is less than 33%.

### ANSWER

C

### COMMENTS

Provide steam tables

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis		1-3		Bank
Question History	99 RO exam			

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 36  
**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 3 4 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** 37

**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:**  
OP-010-004 00 05 10/23/2001

W-3-LP-OPS-TYR10

**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** 38  
**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-902-009 00 01 12/16/1999  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 3.4-003-K6.14 2.6 2.9 W-3-LP-OPS-PPE02 11

### QUESTION

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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

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A

### COMMENTS

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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
Memory or Fundamental Knowledge		2-1		New
Question History				

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 39  
**QUESTION ID:** 3456 - **STATUS:** Approved **LAST USED**  
**A**  
**DESCRIPTION:** Reason 4 RCP Flow is not allowed below 500 degrees F  
**AUTHOR:** avest **REVISION** 1 **REVISION DATE** 10/31/2001  
**APPROVAL:** thrown **APPROVAL DATE:** 01/11/1995  
**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 10/31/2001  
**TYPE:** Multiple Choice **TIME:** 5 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** X **OPEN REFERENCE** X  
**SPECIAL REFERENCES:** **SIMULATOR SETUP**  
**PLANT SYSTEM:** RCP **CATEGORY:**  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
SD-RCS  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
3.4.003 A1.05 3.4 W-3-LP-OPS-PPN01 2

### QUESTION

WHICH of the following is the reason for limiting RCS flowrate by not starting the fourth Reactor Coolant Pump until RCS temperature is greater than 500°F?

- A. To minimize Steam Generator tube sheet stress.
- B. To minimize flow erosion of Steam Generator tubes.
- C. To prevent exceeding fuel assembly uplift limitations.
- D. To prevent exceeding RCS heatup rate limitations.

### ANSWER

C

### 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** 40

**QUESTION ID:** 5864 - **STATUS:** Approved **LAST USED**  
A

**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

CWDs E1140 & 2347S

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

3.1-004-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** 41

**QUESTION ID:** 5863 - **STATUS:** Approved **LAST USED**

A

**DESCRIPTION:** Operation of Letdown Isolation Valves

**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:**

OP-902-009

01

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

3.2-004-A4.06

3.6

3.1

W-3-LP-OPS-CVC00

03

3.1-004-A4.06

3.6

3.1

### QUESTION

An inadvertent SIAS has occurred. No other actuations have occurred. Which of the following describes the status of CVC automatic isolation valves?

- A. CVC-103, Letdown Inside Containment Isolation Valve is closed.
- B. CVC-109, Letdown Outside Containment isolation Valve is closed
- C. RC-606, RCP Controlled Bleedoff Inside Containment Isolation Valve is closed.
- D. CVC-401, RCP Controlled Bleedoff Outside Containment Isolation Valve is closed.

### 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** 42  
**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  
**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** 43  
**QUESTION ID:** 5855 - **STATUS:** Approved **LAST USED**  
**DESCRIPTION:** Effect of Loss of DC Control Power on ESFAS Components  
**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:** DC **CATEGORY:** PROCEDURE  
**SYSTEM**  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
 OP-901-313 01 04 06/14/2001  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 3.2-013-A2.05 3.7 4.2

### QUESTION

A fault causes the loss of Train A 125 VDC battery and battery chargers. This is followed shortly thereafter by a LOCA inside Containment. RCS pressure is currently 1000 psia and Cntnmt Pressure is 20 psia. Describe the effect on PPS and ESFAS equipment.

- A. MSIV A would fail to close on MSIS due to loss of control power for the hydraulic fluid dump valves.
- B. The Train A LPSI, HPSI, and CS pumps would fail to start due to a loss of control power to the closing circuit.
- C. The Train A HPSI and LPSI Cold Leg Flow Control Valves would fail to open due to loss of control power.
- D. The reactor would fail to trip, requiring the use of DRTS pushbuttons, due to loss of control power.

### ANSWER

B

### COMMENTS

A has is not correct because the MSIV has redundant Train B powered dump valves. B is correct because all DC control power for 3A bus components is supplied by Train A DC. Additionally the sequencer, which starts these pumps, is Train A DC powered and would fail to operate. C is incorrect because the control power for these 480v powered MOVs is supplied by individual 480/120 VAC step-down transformers within each motor control center cubicle. D is incorrect because loss of Train A DC de-energizes the UV coils of Reactor Trip Switchgear breakers 1, 3, 5, and 7 which causes those breakers to open. This combination of breakers opening would cause a reactor trip.

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** 44  
**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** 45  
**QUESTION ID:** 5860 - **STATUS:** Approved **LAST USED**  
**DESCRIPTION:** Effect of CET Failure on Representative CET Indication  
**AUTHOR:** avest **REVISION** 0 **REVISION DATE** 10/31/2001  
**APPROVAL:** rfletch **APPROVAL DATE:** 12/08/01  
**REFERENCE VERIFIED:** avest **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:** QSP **CATEGORY:** SYSTEM  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
SD-QSP  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
3.7-017-K6.01 2.7 3 W-3-LP-OPS-QSP00 03

### QUESTION

Which of the following describes the effect on QSPDS Representative CET Temperature if a CET fails high out of range?

- A. Indicates the new median (middle) value of the remaining operable CETs because the bad value is thrown out of the calculation.
- B. Indicates the new mean (average) value of the remaining operable CETs because the bad value is thrown out of the calculation.
- C. Indicates the new median (middle) value of all CETs.
- D. Indicates the new mean (average) value of all CETs.

### ANSWER

B

### 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** 46

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

**DESCRIPTION:** Steam production and CET response during core uncover  
**AUTHOR:** avest **REVISION** 3 **REVISION DATE** 11/05/2001  
**APPROVAL:** johern **APPROVAL DATE:** 11/18/1994  
**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:**  
W-3-LP-OPS-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** 47  
**QUESTION ID:** 2365 - **STATUS:** Approved **LAST USED**  
**DESCRIPTION:** Power Supplies to CFC's  
**AUTHOR:** TPM **REVISION** 0 **REVISION DATE** 11/07/1991  
**APPROVAL:** trown **APPROVAL DATE:** 07/05/1996  
**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/06/2001  
**TYPE:** MULTIPLE CHOICE **TIME:** 1 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** X **OPEN REFERENCE** X  
**SPECIAL REFERENCES:** **SIMULATOR SETUP**  
**PLANT SYSTEM:** CCS **CATEGORY:** SYSTEM  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
SD-CCS  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
3.5-022-K2.01 3.0\* 3.1 W-3-LP-OPS-CCS00 04

### QUESTION

Which of the following provide electrical power to the Containment Cooling Fans.

- A. MCC 317AS and MCC 317BS
- B. MCC 313AS and MCC 313BS
- C. 31AS and 31BS
- D. MCC 312AS and MCC 312BS

### ANSWER

- A. MCC 317AS and MCC 317BS

### 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** 48

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

**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

**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	99 RO exam 2000 SRO exam			

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 49

**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

**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** 50

**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:** thrown **APPROVAL DATE:** 07/31/1995  
**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:**  
 OP-003-003 16 04 10/08/2001  
**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** 51

**QUESTION ID:** 5707 - **STATUS:** Approved **LAST USED**  
N

**DESCRIPTION:** Determine response of S/G level and FWP to a failed open steam bypass valve  
**AUTHOR:** avest **REVISION** 0 **REVISION DATE** 07/15/1999  
**APPROVAL:** rfletch **APPROVAL DATE:** 12/08/01  
**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/06/2001  
**TYPE:** Multiple Choice **TIME:** 5 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** X **OPEN REFERENCE**  
**SPECIAL REFERENCES:** **SIMULATOR SETUP**  
**PLANT SYSTEM:** FW **CATEGORY:** SYSTEM  
FWC

**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
SD-FWC  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
3.4-059-A3.04 2.5\* W-3-LP-OPS-FWC00 4  
W-3-LP-OPS-SBC00 3  
W-3-LP-OPS-MS00 14

### QUESTION

The plant is at 40% power with FWPT A in service when steam bypass valve MS-319A fails to 100% open. Which of the following describes the response of steam generator levels and FWPT A speed?

- A. Steam generator levels initially swell and then lower. FWPT A speed rises and steam generator levels return to setpoint.
- B. Steam generator levels initially swell and then lower. FWPT A speed rises to maximum; steam generator levels continue to lower.
- C. Steam generator levels initially shrink, FWPT A speed rises to maximum program speed, then steam generator levels return to setpoint and FWPT A speed lowers.
- D. Steam generator levels initially shrink; FWPT A speed rises to maximum; steam generator levels continue to lower.

### ANSWER

A

### COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis		2-1		Modified
Question History	99 RO exam			

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 52

**QUESTION ID:** 1948 - **STATUS:** Approved **LAST USED**  
A

**DESCRIPTION:** FW pump discharge valve operation on a FWPT trip  
**AUTHOR:** BL **REVISION** 0 **REVISION DATE** 07/27/1991  
**APPROVAL:** thrown **APPROVAL DATE:** 01/31/1995  
**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/06/2001  
**TYPE:** Multiple Choice **TIME:** 3 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** X **OPEN REFERENCE** X  
**SPECIAL REFERENCES:** **SIMULATOR SETUP**  
**PLANT SYSTEM:** FW **CATEGORY:** SYSTEM  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
SD-FW  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
2-1-28 3.2 3.3 W-3-LP-OPS-FW00 04  
W-3-LP-OPS-FWP00 03

### QUESTION

Which ONE of the following statements is CORRECT regarding automatic response of feedwater system components?

- A. feedwater pump bypass valve (FW-125) goes shut on low feedwater pump discharge pressure
- B. feedwater pump recirculation valve (FW-111) goes open on a FWPT trip
- C. feedwater pump discharge valve (FW-118) goes closed on a FWPT trip
- D. feedwater dump valve (FW-154) goes open on high feedwater pump discharge pressure

### 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** 53  
**QUESTION ID:** 1786 - **STATUS:** Approved **LAST USED**  
**A**  
**DESCRIPTION:** Status of EFW FCVs with failed flow instrument.  
**AUTHOR:** avest **REVISION** 2 **REVISION DATE** 11/05/2001  
**APPROVAL:** thrown **APPROVAL DATE:** 02/14/1995  
**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:**  
SD-EFW  
**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

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Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis		2-1		Modified
Question History	99 RO exam			

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 54

**QUESTION ID:** 5871 - **STATUS:** Approved **LAST USED**  
A

**DESCRIPTION:** Less than 1 hr TS actions for EFW

**AUTHOR:** avest **REVISION** 0 **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:** EFW **CATEGORY:** ADMIN  
TS PROCEDURE

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

TS 3.7.1.2

**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
2-1-11 3 3.8 W-3-LP-OPS-EFW00 08

### QUESTION

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Given the following:

- EFW Pump A and B are declared inoperable due to a common mode failure.
- During routine rounds the RAB Operator notes that MS-401B power cables are damaged and MS-401B is declared inoperable.
- All flowpaths to the S/Gs are OPERABLE.

Determine the timeframe allowed before a shutdown to Mode 3 must be commenced.

- A. Immediately shutdown
- B. One hour
- C. Twenty-four hours
- D. Seventy-Two hours

### ANSWER

---

A

### COMMENTS

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Supply examinee with copy of Tech Spec 3.7.1.2

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** 55

**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  
**NRC KA NUMBER:**    **RO**    **SRO**    **TRAINING MATERIAL:**    **OBJECTIVE**  
3.9-068-A2.02    2.7       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** 56

**QUESTION ID:** 3317 - **STATUS:** Approved **LAST USED**  
**A**  
**DESCRIPTION:** auto actions of gaseous release (NRC RO EXAM 1994)  
**AUTHOR:** tmccool **REVISION** 1 **REVISION DATE** 07/13/1994  
**APPROVAL:** tbrown **APPROVAL DATE:** 07/27/1994  
**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/06/2001  
**TYPE:** Multiple Choice **TIME:** 3 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** X **OPEN REFERENCE**  
**SPECIAL REFERENCES:** **SIMULATOR SETUP**  
**PLANT SYSTEM:** PPO **CATEGORY:** Procedure  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
SD-GWM  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
071 K3.04 2.7 W-3-LP-OPS-PPO40 4

### QUESTION

Given the following:

- A waste gas release is in progress.
- PRM-IRE-0648, "Gaseous Waste Management" is in High Alarm.

Which one (1) of the following automatic actions occurs as a result of these conditions?

- A. Gas Decay Tank outlet valves (GWM 305 A, B, C) CLOSE.
- B. Waste Gas Discharge Flow Control valve (GWM 309) CLOSES.
- C. The operating RAB exhaust fan trips.
- D. Containment Vent Header Isolation Valves (GWM 104/105) CLOSE.

### ANSWER

- B. Waste Gas Discharge Flow Control valve (GWM 309) CLOSES.

### 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** 57

**QUESTION ID:** 4645 - **STATUS:** Approved **LAST USED**

A

**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

1

**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** 58  
**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 3.3 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** 59

**QUESTION ID:** 4500 - **STATUS:** Approved **LAST USED**  
A

**DESCRIPTION:** Why ion chambers are well-suited to high range area radiation detection

**AUTHOR:** rwrig90 **REVISION** 0 **REVISION DATE** 11/11/1997

**APPROVAL:** rfletch **APPROVAL DATE:** 11/15/1997

**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/06/2001

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

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

**SPECIAL REFERENCES:** **SIMULATOR SETUP**

**PLANT SYSTEM:** MCD **CATEGORY:**

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

W-3-LP-OPS-MCD06

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

3.7-072-K5.01 2.7 3 W-3-LP-OPS-MCD06 6

### QUESTION

Which of the following is best suited for high-range area radiation monitoring applications in post-accident radiation fields?

- A. Scintillation detector
- B. Ion chambers detector
- C. Geiger-Mueller detector
- D. Germanium-Lithium (Ge-Li) detector

### ANSWER

- B. Ion chambers detector

### 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:** 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 W-3-LP-OPS-PPE02 22

### QUESTION

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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

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

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

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 61

**QUESTION ID:** 5882 - **STATUS:** Approved **LAST USED**  
A

**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:**  
OP-902-002 9

W-3-LP-OPS-PPE02

**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** 62

**QUESTION ID:** 5932 - **STATUS:** Approved **LAST USED**  
A

**DESCRIPTION:** Knowledge of Power Supplies to Pzr Heaters

**AUTHOR:** avest **REVISION** 1 **REVISION DATE** 12/05/2001

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

**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/05/2001

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

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

**SPECIAL REFERENCES:** **SIMULATOR SETUP**

**PLANT SYSTEM:** 4KV **CATEGORY:** SYSTEM  
PPC

**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
SD-4KV

<b>NRC KA NUMBER:</b>	<b>RO</b>	<b>SRO</b>	<b>TRAINING MATERIAL:</b>	<b>OBJECTIVE</b>
3.3-010-K2.01	3	3.4	W-3-LP-OPS-ED00	4
			W-3-LP-OPS-ED00	7

### QUESTION

- Containment Pressure = 17.5 psia
- A Loss of Offsite Power has occurred
- Both Emergency Diesel Generators started and loaded

Interlocks prevent which of the following components from having power restored under these conditions?

- A. Instrument Air Compressors
- B. Pressurizer Heaters
- C. Dry Cooling Tower Sump Pumps
- D. Reactor Coolant Pump Lift Oil Pumps

### 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** 63

**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** 64  
**QUESTION ID:** 5881 - **STATUS:** Approved **LAST USED**  
**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  
 SD-CED  
**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** 65

**QUESTION ID:** 5825 - **STATUS:** Approved **LAST USED**  
**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  
**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		2-2		Bank
Question History	2000 SRO exam			

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 66

**QUESTION ID:** 5659 - **STATUS:** Approved **LAST USED**  
N

**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:** OP-901-110 **REVISION:** 03 **CHANGE:** 01 **DATE:** 09/02/1998

SD-RR

**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<sub>COLD</sub> selector switches for loop 1 and 2 are in NORM.
- The T<sub>AVE</sub> LOOP SELECTOR on both Reactor Reg drawers 1 and 2 are in BOTH.

What is the proper plant response if the normal T<sub>COLD</sub> 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	99 RO exam			

**Waterford 3 Examination Question  
Examination Bank**

**Examination Question Number 67 This Question Deleted From Exam**

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  
TS 4.8.1.1.2  
CWD E605

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		2-2		New
Question History				

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 68  
**QUESTION ID:** 5879 - **STATUS:** Approved **LAST USED**  
**A**  
**DESCRIPTION:** NPO/CR action on rad monitor indications of a dropped fuel bundle  
**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:** FHS **CATEGORY:** ADMIN  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
 OP-901-405 01 02 08/14/2000  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 3.8-029-A4.04 3.5 3.6

### QUESTION

During refueling operations inside the Containment Bldg., a spent fuel bundle is dropped from the refueling machine grapple to the refueling canal floor. Numerous area and process radiation alarms for the Containment Bldg. are received in the main control room. Per OP-901-405, "Fuel Handling Incident" what action is required of the NPO/control room staff?

- A. Manually actuate the Containment Isolation Actuation Signal (CIAS).
- B. Direct the NAO to close the FHB fuel transfer tube gate valve.
- C. Start the Containment Purge system.
- D. Announce a Containment evacuation on the Page system.

### 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** 69

**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:** tbrown **APPROVAL DATE:** 09/22/1994

**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

2

**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** 70  
**QUESTION ID:** 1373 - **STATUS:** Approved **LAST USED**  
**A**  
**DESCRIPTION:** response of the Response of MFRV and SUFRV to a Reactor Trip signal  
**AUTHOR:** avest **REVISION** 1 **REVISION DATE** 11/26/2001  
**APPROVAL:** JMO **APPROVAL DATE:** 10/14/1991  
**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** 71

**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  $T_{\text{COLD}}$  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
Comprehension or Analysis		2-2		Bank
Question History	99 RO exam			

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 72

**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

W-3-LP-OPS-AE00

**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** 73

**QUESTION ID:** 5868 - **STATUS:** Approved **LAST USED**

A

**DESCRIPTION:** Loss of TGB DC Bus

**AUTHOR:** rglaze

**APPROVAL:** rfletch

**REFERENCE VERIFIED:** rglaze

**TYPE:** Multiple Choice

**QUIZ ONLY:**

**SPECIAL REFERENCES:**

**PLANT SYSTEM:** DC

**REVISION** 0

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

**VERIFICATION DATE:** 10/31/2001

**TIME:** 5

**CLOSED REFERENCE:** X

**SIMULATOR SETUP**

**CATEGORY:** PROCEDURE  
SYSTEM

**REVISION DATE** 10/31/2001

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

**VERIFICATION DATE:** 10/31/2001

**POINTS:** 1

**OPEN REFERENCE**

**REFERENCE:**

OP-901-313

**REVISION:**

01

**CHANGE:**

04

**DATE:**

06/14/2001

**NRC KA NUMBER:**

3.6-062-K1.03

**RO**

3.5

**SRO**

4

**TRAINING MATERIAL:**

W-3-LP-OPS-PPO30

**OBJECTIVE**

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** 74  
**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		2-2		Bank
Question History				

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 75

**QUESTION ID:** 4126 - **STATUS:** Approved **LAST USED**  
N

**DESCRIPTION:** Shed DC loads after a LOOP with failure of both EDGs to start  
**AUTHOR:** bmather **REVISION** 1 **REVISION DATE** 06/29/1996  
**APPROVAL:** tbrown **APPROVAL DATE:** 07/05/1996  
**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/06/2001  
**TYPE:** Multiple Choice **TIME:** 5 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** X **OPEN REFERENCE**  
**SPECIAL REFERENCES:** **SIMULATOR SETUP**  
**PLANT SYSTEM:** DC **CATEGORY:** PROCEDURE  
PPE  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
OP-902-005 11 00 04/12/2001  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
064 A4.10 3.3 W-3-LP-OPS-PPE05 01

### QUESTION

A total loss of offsite power has occurred and both Emergency Diesel Generators have failed to start automatically or manually. Which of the following statements describes how long the operator has to shed specific DC Safety bus loads?

- A. Within 15 minutes
- B. Within 30 minutes
- C. Within 45 minutes
- D. Within 60 minutes

### ANSWER

- B. Within 30 minutes

### COMMENTS

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** 76

**QUESTION ID:** 2218    **-B**    **STATUS:** Approved    **LAST USED**  
**DESCRIPTION:** BD-303 auto closure  
**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:** 1    **POINTS:** 1  
**QUIZ ONLY:**    **CLOSED REFERENCE:** X    **OPEN REFERENCE**  
**SPECIAL REFERENCES:**    **SIMULATOR SETUP**  
**PLANT SYSTEM:** BD    **CATEGORY:** SYSTEM  
**REFERENCE:**    **REVISION:**    **CHANGE:**    **DATE:**  
 OP-901-414    0  
**NRC KA NUMBER:**    **RO**    **SRO**    **TRAINING MATERIAL:**    **OBJECTIVE**  
 3.7-073-K3.01    3.6       W-3-LP-OPS-BD00    2

### QUESTION

While discharging Blowdown to Circ Water a \_\_\_\_\_ will cause the BD to CW and Metal Pond Isolation valve (BD-303) to close.

- A. Circ Water Rad Monitor failure
- B. Blowdown Rad Monitor failure
- C. Steam Generator 1 OR 2 Low Level
- D. Steam Generator 1 AND 2 Low Level

### 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** 77

**QUESTION ID:** 5771 - **STATUS:** Approved **LAST USED**  
A

**DESCRIPTION:** Requirements to Discharge WCT to Circ Water  
**AUTHOR:** dcassid **REVISION** 0 **REVISION DATE** 06/20/2000  
**APPROVAL:** rfletch **APPROVAL DATE:** 12/08/01  
**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/06/2001  
**TYPE:** Multiple Choice **TIME:** 5 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** X **OPEN REFERENCE**  
**SPECIAL REFERENCES:** **SIMULATOR SETUP**  
**PLANT SYSTEM:** LWM **CATEGORY:** PROCEDURE  
 SRO LEVEL  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
 OP-007-004 15 02 09/28/2001  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 075 K1.02 2.9 W-3-LP-OPS-LWM00 8

### QUESTION

- The plant is in Mode 5
- Main Condenser Waterboxes B1, B2, C1 and C2 are out of service to clean condenser tubes
- The LWM discharge flow instrument is inoperable.
- The LWM Rad Monitor is inoperable.
- The Low Level Trip of WCT Pump A is out of service

A Release Permit has been issued by the Shift Chemist to discharge WCT A to Circ Water. Which of the following must be done to approve release of WCT A?

- A. Return one of the required Waterboxes to service.
- B. Restore the LWM discharge flow instrument to operable.
- C. Restore the Low Level Trip for WCT Pump A to service.
- D. Restore the LWM radiation Monitor to operable.

### ANSWER

A

### COMMENTS

REF: OP-007-004, Liquid Waste Management System. R14 C3. Pages 7, 22-23.

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

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 78

**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:** tbrown **APPROVAL DATE:** 02/17/1995

**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** 79  
**QUESTION ID:** 5875 - **STATUS:** Approved **LAST USED**  
**A**  
**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  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
3.8-086-K5.03 3.1 3.4 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** 80

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

**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 (Basis)				
OP-010-003	1			
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

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Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge		2-3		Bank
Question History	99 RO exam			

## 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:** tbrown **APPROVAL DATE:** 07/05/1996  
**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:**  
 W-3-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:** thrown **APPROVAL DATE:** 08/23/1994  
**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  
**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:** 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		2-3		Bank
Question History	2000 SRO exam			

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 84  
**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:**  
W-3-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 H<sub>2</sub> 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		2-3		Modified
Question History				

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 85  
**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		2-3		Bank
Question History				

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 86

**QUESTION ID:** 2241 - **STATUS:** Approved **LAST USED**  
A

**DESCRIPTION:** Plant effect on Turbine Trip with RXC out of service.

**AUTHOR:** WAH **REVISION** 0 **REVISION DATE** 09/05/1991

**APPROVAL:** thrown **APPROVAL DATE:** 09/22/1994

**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/06/2001

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

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

**SPECIAL REFERENCES:** SIMULATOR SETUP

**PLANT SYSTEM:** RXC **CATEGORY:** SYSTEM

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

SD-RXC

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

3.4-045-K3.01 2.9 W-3-LP-OPS-RXC00 3

### QUESTION

While at 100% power the PNPO inadvertently removes Reactor Power Cutback (RXC) from service by depressing the AUTO ACTUATE OUT OF SERVICE pushbutton. Before RXC is returned to service the Main Generator trips due to a grid disturbance. SELECT which of the following Reactor trips would occur.

- A. Reactor trip on Turbine trip
- B. Reactor trip due to high Pressurizer pressure
- C. Reactor trip due to low Steam Generator pressure
- D. Reactor trip due to high Steam Generator level

### ANSWER

- B. Reactor trip due to high Pressurizer pressure

### COMMENTS

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

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 87

**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  
**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** 88  
**QUESTION ID:** 2476 **-B** **STATUS:** Approved **LAST USED**  
**DESCRIPTION:** Loss of communications during direct dilution.  
**AUTHOR:** avest **REVISION** 1 **REVISION DATE** 11/08/2001  
**APPROVAL:** rfletch **APPROVAL DATE:** 12/08/01  
**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 11/08/2001  
**TYPE:** MULTIPLE CHOICE **TIME:** 1 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** X **OPEN REFERENCE**  
**SPECIAL REFERENCES:** **SIMULATOR SETUP**  
**PLANT SYSTEM:** CVC **CATEGORY:** PROCEDURE  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
 OP-002-005 16 01 10/20/1901  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 2-1-8 3.8 3.6 W-3-LP-OPS-CVC00 09

### QUESTION

While diluting to the Reactor Coolant system locally, communications between the RCA Watch at the Local Dilution Valve and the Control Room is lost. The NPO should verify which of the following actions is taken by the RCA Watch:

- A. Establishes telephone communications with the Control Room within three minutes of the loss.
- B. Maintains the dilution valve at present position until local totalizer indication reaches the desired value.
- C. Immediately closes the dilution valve by verifying totalizer and flow indication on CP-2.
- D. Maintains the desired flow rate while RAB Watch reestablishes communication.

### ANSWER

C

### COMMENTS

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

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 89

**QUESTION ID:** 5897 - **STATUS:** Approved **LAST USED**  
A

**DESCRIPTION:** Radio communications established between the Control Room/TSC and the Spill Response Team is on the \_\_\_\_\_ frequency (channel).

**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:**

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

FP-001-020 11 01 02/28/2000

UNT-007-064 00

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

2-1-16 2.9 2.8

### QUESTION

Radio communications established between the Control Room/TSC and the Spill Response Team is on the \_\_\_\_\_ frequency (channel).

- A. Operations
- B. Maintenance
- C. Security
- D. Radiation Protection

### 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** 90

**QUESTION ID:** 1630 - **STATUS:** Approved **LAST USED**  
N

**DESCRIPTION:** Frequency for updating field control verifications

**AUTHOR:** avest **REVISION** 2 **REVISION DATE** 12/06/2001

**APPROVAL:** trown **APPROVAL DATE:** 07/05/1996

**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/06/2001

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

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

**SPECIAL REFERENCES:** **SIMULATOR SETUP**

**PLANT SYSTEM:** GOP **CATEGORY:** Procedure  
PPA

**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
OP-100-001 18 01 09/21/2001

**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
2-1-21 3.1 3.2 w-3-lp-ops-ppa00 02

### QUESTION

Reverification of a field controlled copy of a procedure is required to be performed every

\_\_\_\_\_.

- A. 7 days
- B. 14 days
- C. 30 days
- D. 60 days

### ANSWER

D

### COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge		3		Modified
Question History	99 RO exam			

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 91  
**QUESTION ID:** 47 - **STATUS:** Approved **LAST USED**  
**DESCRIPTION:** Conditions requiring resetting SG trip setpoints during RCS cooldown  
**AUTHOR:** RJC **REVISION** 1 **REVISION DATE** 02/24/1994  
**APPROVAL:** thrown **APPROVAL DATE:** 07/05/1996  
**REFERENCE VERIFIED:** mjesse **VERIFICATION DATE:** 09/20/1996  
**TYPE:** Multiple Choice **TIME:** 5 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** X **OPEN REFERENCE**  
**SPECIAL REFERENCES:** **SIMULATOR SETUP**  
**PLANT SYSTEM:** PPN **CATEGORY:** PROCEDURE  
 PPS SYSTEM  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
 OP-010-005 0  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 2.1.23 3.9 W-3-LP-OPS-PPN02 03  
 W-3-LP-OPS-PPS00 00

### QUESTION

A Cooldown to Mode 5 using the Steam Bypass Control System is in progress.

Plant conditions are as follows:

Steam Generator 1 & 2 pressures are 800 psia.

Reactor Coolant System temperature is 518°F.

Pressurizer pressure is 2100 psia and level is 33%.

Select the action which should be performed to prevent an inadvertent Engineered Safety Features Actuation Signal (ESFAS).

- A. Reset the Pressurizer low pressure trip setpoints.
- B. Raise Pressurizer level to 50%.
- C. Bypass the Pressurizer low pressure trips.
- D. Reset the Steam Generator low pressure trip setpoints.

### ANSWER

- D. Reset the Steam Generator low pressure trip setpoints.

### COMMENTS

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

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 92  
**QUESTION ID:** 1380 - **STATUS:** Approved **LAST USED**  
**A**  
**DESCRIPTION:** Requirements for Core Alterations.  
**AUTHOR:** kkirupa **REVISION** 1 **REVISION DATE** 09/12/1995  
**APPROVAL:** trown **APPROVAL DATE:** 09/13/1995  
**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/06/2001  
**TYPE:** MULTIPLE CHOICE **TIME:** 2 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** X **OPEN REFERENCE** X  
**SPECIAL REFERENCES:** **SIMULATOR SETUP**  
**PLANT SYSTEM:** ENI **CATEGORY:** PROCEDURE  
 TS  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
 TS 3.9.2  
 TS 4.0.3  
 TS 4.0.2  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 2-1-12 3.0 W-3-LP-OPS-ENI00 11,14  
 W-3-LP-OPS-REQ04 2

### QUESTION

The plant is in mode 6 with core alterations in progress. At 8 AM on 1/18/02 it is determined that the last time the 7 day channel functional test surveillance on the Source Range Flux monitors was performed was at 8 AM on 1/10/02. Which of the following actions apply?

- A. Immediately suspend all operations involving Core Alterations or positive reactivity changes.
- B. Determine the boron concentration of the Reactor Coolant System at least once per 12 hours.
- C. Perform the surveillance within the next 18 hours, Core Alterations may continue unless the performance of the surveillance renders the channel inoperable.
- D. Immediately suspend all operations involving Core Alterations or positive reactivity changes and determine the boron concentration of the Reactor Coolant System at least once per 12 hours.

### ANSWER

C

### COMMENTS

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

## Waterford 3 Examination Question

**Examination Question Number** 93  
**QUESTION ID:** 4137 - **STATUS:** Approved **LAST USED**  
**DESCRIPTION:** Determine Acceptability of Thermal limits  
**AUTHOR:** rglaze **REVISION** 3 **REVISION DATE** 11/07/2001  
**APPROVAL:** rfletch **APPROVAL DATE:** 04/28/1999  
**REFERENCE VERIFIED:** rglaze **VERIFICATION DATE:** 11/07/2001  
**TYPE:** Multiple Choice **TIME:** 5 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** **OPEN REFERENCE** X  
**PLANT SYSTEM:** TS **CATEGORY:** PROCEDURE  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
 TS 3.2.1, 3.2.7, 3.2.4, 3.2.3 05 03 06/19/2000  
 OP-901-501  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 2-2-24 2.6 W-3-LP-OPS-PPO50 5

### QUESTION

Given the following conditions:

- The plant completed an up-power to 100% power 3 hours ago
- The 'B' backup APC mux is out of service for maintenance in progress
- No other equipment is out of service
- ASI control is in progress and CEAs are being repositioned

The 'B' primary APC muxsite fails and will not reboot. The CRS enters OP-901-501 "PMC or COLSS Inoperable". The SNPO takes the following data on his first set of 15 minutes logs.

	PID 406	PID 179	PID 268	PID 160
	DNBR	LPD	ASI	T-cold
CPC A	1.94	12.79	-0.165	545 F
CPC B	1.92	12.98	-0.160	545 F
CPC C	1.93	13.01	-0.168	545 F
CPC D	1.92	12.92	-0.158	545 F

WHICH of the following actions are required to meet Tech Specs as a result of these readings?

- A. Continue to take 15 minute logs. All LCO's are currently satisfied
- B. Restore the parameters to within limits within 2 hours or reduce thermal power to < 20% power within the next 4 hours
- C. Restore the parameters to within limits within 2 hours or reduce thermal power to < 20% power within the next 6 hours
- D. Restore the parameters to within limits within 4 hours or reduce thermal power to < 20% power within the next 6 hours

### ANSWER

A

### COMMENTS

If given on Closed Book Exam, provide T.S. 3.2.7, 3.2.4, & 3.2.1  
 4/19/99 – Updated to Cycle 10....Riley  
 Provide Att. 3 "15 Minute Log" from OP-901-501

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

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 94  
**QUESTION ID:** 1033 - **STATUS:** Approved **LAST USED**  
**DESCRIPTION:** Manual/Auto Sequential CEA movement program  
**AUTHOR:** avest **REVISION** 1 **REVISION DATE** 06/28/1996  
**APPROVAL:** trown **APPROVAL DATE:** 07/05/1996  
**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 11/01/2001  
**TYPE:** Multiple Choice **TIME:** 1 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** X **OPEN REFERENCE**  
**SPECIAL REFERENCES:** **SIMULATOR SETUP**  
**PLANT SYSTEM:** CED **CATEGORY:** SYSTEM  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
 OP-004-004 08 03 09/13/2001  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 2.2.33 2.5 W-3-LP-OPS-CED00 01  
 W-3-LP-OPS-PPN01 03

### QUESTION

The Primary Operator is withdrawing CEA's in the Manual Sequential mode during a Reactor Startup. Regulating Group 5 has just started outward motion from 0.0 inches. At what Reg. Group 5 position should Reg. Group 6 start outward motion?

- A. 50 inches
- B. 75 inches
- C. 100 inches
- D. 125 inches

### ANSWER

c

### COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge		3		Bank
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  
RAD SRO LEVEL

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

RP-105 00

**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
2-3-2 2.5 2.9 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:** 5745 - **STATUS:** Approved **LAST USED**  
N

**DESCRIPTION:** Dose calculation during LOCA for equipment malfunction

**AUTHOR:** jsigno1 **REVISION** 0 **REVISION DATE** 09/20/1999

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

**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/06/2001

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

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

**SPECIAL REFERENCES:** **SIMULATOR SETUP**

**PLANT SYSTEM:** RAD **CATEGORY:** PROCEDURE

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

W-3-LP-OPS-RAD02

EP-002-030 8

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

2.3.4 2.5 W-3-LP-OPS-RAD02 3

### QUESTION

HPSI Pump A is out of service for planned maintenance when a loss of coolant accident occurs. ACC-110 B, ACCW Pump B Discharge, fails to automatically open. The Emergency Coordinator in the TSC authorizes accident mitigating exposure limits and sends a volunteer to open the valve manually. There is a hot point source in the -35 wing area that reads 100 rem/hr at 5 feet. ACC-110 B is 10 feet from the spot. What is the maximum time the volunteer can spend at the valve and not exceed the applicable exposure limits?

- A. 5 minutes
- B. 10 minutes
- C. 20 minutes
- D. 30 minutes

### ANSWER

- C. 20 minutes

### COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Comprehension or Analysis		3		Bank
Question History	99 RO exam			

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 97  
**QUESTION ID:** 5660 - **STATUS:** Approved **LAST USED**  
**DESCRIPTION:** Actions on RAS to minimize off site and in-plant exposure  
**AUTHOR:** jsigno1 **REVISION** 0 **REVISION DATE** 06/14/1999  
**APPROVAL:** rfletch **APPROVAL DATE:** 12/08/01  
**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/06/2001  
**TYPE:** Multiple Choice **TIME:** 5 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** X **OPEN REFERENCE**  
**SPECIAL REFERENCES:** **SIMULATOR SETUP**  
**PLANT SYSTEM:** SI **CATEGORY:**  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
 OP-902-002 09 00 04/12/2001  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 2.3.10 2.9 W-3-LP-OPS-PPE02 11, 25

### QUESTION

A large break LOCA has occurred, and a RAS has actuated. What actions must be taken to minimize radiation exposure to plant and off site personnel?

- A. Verify LPSI Pumps A and B are secured after verifying adequate Safety Injection Sump level.
- B. Secure all Charging Pumps and isolate the Charging penetration.
- C. Close SI-106 A and B, ESF Pumps' suction from the RWSP.
- D. Close SI-120 A (B) and SI-121 A (B), SI Recirculation isolations to the RWSP.

### ANSWER

D

### COMMENTS

Cognitive Level	Tier-Group	RO	SRO	Question Source
Memory or Fundamental Knowledge		3		Bank
Question History	99 RO exam			

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 98

**QUESTION ID:** 1371 - **STATUS:** Approved **LAST USED**  
A

**DESCRIPTION:** Charging Malfunction conditions that require a reactor trip.  
**AUTHOR:** kkirkpa **REVISION** 1 **REVISION DATE** 06/12/1996  
**APPROVAL:** tbrown **APPROVAL DATE:** 06/18/1996  
**REFERENCE VERIFIED:** avest **VERIFICATION DATE:** 12/06/2001  
**TYPE:** MULTIPLE CHOICE **TIME:** 1 **POINTS:** 1  
**QUIZ ONLY:** **CLOSED REFERENCE:** X **OPEN REFERENCE**  
**SPECIAL REFERENCES:** **SIMULATOR SETUP**  
**PLANT SYSTEM:** PPO **CATEGORY:** Procedure  
**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
 OP-901-112 02 03 10/18/2001  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 2.4.4 4.0 W-3-LP-OPS-PPO10 3

### QUESTION

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Reactor Power is stable at 100% with Tave on program. DETERMINE which of the following conditions requires a manual Reactor Trip: (consider each condition separately)

- A. RCS leakage to SG #2 is 0.75 gpm.
- B. Charging and Letdown flow imbalance is 45 gpm, and Charging Pump AB is out of service.
- C. A 100 gpm Charging line leak exists whenever Charging flow is aligned to the Containment via the Charging Header Stop Valve (CVC-209). Charging and Letdown is presently isolated, and Pressurizer Level is 50% and slowly lowering.
- D. The AB Safety Bus is de-energized, Charging Pump B has been tagged out, Charging Pump A has tripped on overcurrent and cannot be reset, and Pressurizer Level is 28% and slowly lowering.

### ANSWER

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D

### COMMENTS

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

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 99  
**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 01 07/03/2000  
**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
 2.4.16 3.0 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		3		Bank
Question History	2000 SRO exam			

## Waterford 3 Examination Question Examination Bank

**Examination Question Number** 100

**QUESTION ID:** 5930 - **STATUS:** Approved **LAST USED**  
A

**DESCRIPTION:** 15 Minute Notifications at an Alert

**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:** EP **CATEGORY:** PROCEDURE

**REFERENCE:** **REVISION:** **CHANGE:** **DATE:**  
EP-002-010 28/22 00 04/26/2001

**NRC KA NUMBER:** **RO** **SRO** **TRAINING MATERIAL:** **OBJECTIVE**  
2-4-29 2.6 4 WLP-OPS-EP01 12  
WLP-OPS-EP02 9

### QUESTION

Which of the following must be notified within 15 minutes of an Alert declaration:

- A. Waterford 1 & 2
- B. U. S. Coast Guard
- C. La. Office of State Police
- D. Union Pacific Railroad

### ANSWER

A

### COMMENTS

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