

1) *PV:1.0

Your work schedule for next week is as follows:

Unit 1 and Unit 2 are in OPCON 1

Saturday	Off	
Sunday	4 hours Just-In-Time Training	0800-1200
Monday	Day Shift PRO	0630-1830
Tuesday	Day Shift Unit 1 RO	0630-1830
Tuesday	Outage Meeting	2000-2300
Wednesday	Off	
Thursday	Night Shift Unit 1 RO	1830-0630
Friday	Night Shift 4th RO	1830-0630
Saturday	Night Shift Clearance Writter	1830-0630

- Who must review this schedule to ensure working hour limitations are not exceeded?
- Does this schedule meet applicable working hour limitations at LGS?
- Briefly, explain your answer.

NO.: 126 REV.: 5 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/12/01
DIFFICULTY: 3 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: SKA NO.: 2.1.10G TAXONOMY NO.: 2.7
LESSON PLANS: RO ADMIN #1 A.1 A-C-40
CATEGORY: 01 A RO
SYSTEMS:

QUESTION :

Your work schedule for next week is as follows:

Unit 1 and Unit 2 are in OPCON 1

Saturday	Off	
Sunday	4 hours Just-In-Time Training	0800-1200
Monday	Day Shift PRO	0630-1830
Tuesday	Day Shift Unit 1 RO	0630-1830
Tuesday	Outage Meeting	2000-2300
Wednesday	Off	
Thursday	Night Shift Unit 1 RO	1830-0630
Friday	Night Shift 4th RO	1830-0630
Saturday	Night Shift Clearance Writer	1830-0630

- Who must review this schedule to ensure working hour limitations are not exceeded?
- Does this schedule meet applicable working hour limitations at LGS?
- Briefly, explain your answer.

ANSWER :

(0.33 each)

- Myself
- No
- Monday and Tuesday schedule represents more than 24 hours in a 48-hour period.

2) *PV:1.0

You are the 4th RO operating the D12 EDG in support of the Division II LOCA/LOOP surveillance test.

The test will run into the next shift.

The Operations Narrative Log is unavailable due to a computer outage.

How will you document, in writing, your turnover to the oncoming 4th RO?

NO.: 127 REV.: 5 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/12/01
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: SKA NO.: 2.1.3G TAXONOMY NO.: 3.0
LESSON PLANS: RO ADMIN #2 A.1 LOT1574
: NOM-C-4.1
CATEGORY: 01 RO A N
SYSTEMS:

QUESTION :

You are the 4th RO operating the D12 EDG in support of the Division II
LOCA/LOOP surveillance test.

The test will run into the next shift.

The Operations Narrative Log is unavailable due to a computer outage.

How will you document, in writing, your turnover to the oncoming 4th
RO?

SWER :

(1 pt)

- Complete an Exhibit NOM-C-4.1:15, "Operations Turnover Checklist"

3) *PV:1.0

Refer to ATTACHMENT RO ADMIN #3:

You are the Refueling Unit RO

CCTAS step #3 has just been completed, fuel is ungrappled.

None of the fuel assemblies on this CCTAS are directly adjacent to an SRM.

- a. What action, if any, is required?
- b. If the current SRM countrate trend continues, at an increasing rate, list at least three (3) credible causes (excluding SRM instrument malfunction).

SRM ONLY

Written By: TRAINING USE ONLY

Unit LIMERICK GENERATING STATION Date 04/07/01

Reviewed By: TRAINING USE ONLY

Title TRAINING CCTAS

Authorized By: TRAINING USE ONLY

STEP NO.	COMPONENT SERIAL NO.	MOVE FROM	ORIENT	MOVE TO	ORIENT	FHD	RPO	CRO	SRM COUNTRATE				DATE	TIME
									A	B	C	D		
1	LYN521	L1SPENT C-22	SE	L1CORE 01-44	NW	caf	dam	irc	42	40	32	35	04/07/01	0930
2	LYG651	L1SPENT N-46	NW	L1CORE 03-42	SW	caf	dam	irc	49	41	33	38	04/07/01	0937
3	LYN463	L1SPENT C-21	NE	L1CORE 01-42	SW	caf	dam	irc	203	152	104	120	04/07/01	0945
4	LYG764	L1SPENT P-46	SW	L1CORE 03-44	SW									
5	YJ1407	L1CORE 19-52	SW	L1SPENT C-20	SW									

ATTACHMENT RO ADMIN #3

NO.: 128 REV.: 6 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/21/01
 DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
 TASK NUMBER: SKA NO.: 2.2.28G TAXONOMY NO.: 2.6
 LESSON PLANS: RO ADMIN #3 A.1 ON-120 BASES
 : FH-105
 CATEGORY: 01 RO A W
 SYSTEMS:

QUESTION :

Refer to ATTACHMENT RO ADMIN #3:

You are the Refueling Unit RO

CCTAS step #3 has just been completed, fuel is ungrappled.

None of the fuel assemblies on this CCTAS are directly adjacent to an SRM.

- a. What action, if any, is required?
- b. If the current SRM countrate trend continues, at an increasing rate, list at least three (3) credible causes (excluding SRM instrument malfunction).

ANSWER :

(0.5 pt) (in order)

- a.
 1. Notify Shift Supervision
 2. Evacuate fuel floor
 3. Ensure all insertable control rods are inserted
 4. Notify HP and Reactor Engineering

(0.5 pt) (any order)

- b.
 1. Fuel bundles were inserted into an area with two adjacent control blades removed
 2. One rod out interlock bypassed and two adjacent control rods withdrawn from fueled cells
 3. Major errors in tracking fuel and control rod locations

4) *PV:1.0

Plant conditions are as follows:

- An irradiated fuel bundle has been transferred to the North Fuel Preparation Machine from the Core.
- The North Fuel Preparation Machine has been raised to its upper stop.
- The next CCTAS step will return this bundle to the Core.

The RO to Refueling Bridge intercom in the MCR loses the ability to transmit and a replacement will take 8 hours to acquire.

- a. What action is required to continue with the next CCTAS step because of the intercom failure?
- b. Describe what, if any, action must be taken for the fuel bundle in the Prep Machine while waiting for intercom replacement?

NO.: 129 REV.: 6 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/12/01
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: SKA NO.: 2.2.30G TAXONOMY NO.: 3.5
LESSON PLANS: RO ADMIN #4 A.1 FH-105

CATEGORY: 01 RO A N
SYSTEMS:

QUESTION :

Plant conditions are as follows:

- An irradiated fuel bundle has been transferred to the North Fuel Preparation Machine from the Core.
- The North Fuel Preparation Machine has been raised to its upper stop.
- The next CCTAS step will return this bundle to the Core.

The RO to Refueling Bridge intercom in the MCR loses the ability to transmit and a replacement will take 8 hours to acquire.

- a. What action is required to continue with the next CCTAS step because of the intercom failure?
- b. Describe what, if any, action must be taken for the fuel bundle in the Prep Machine while waiting for intercom replacement?

ANSWER :

0.5 pt)

- a. Establish two-way communications between the MCR and the refuel bridge via an alternate means

(0.5 pt)

- b. Nothing, if alternate two-way communications are established promptly
OR
Lower Prep Machine to its lower stop and disconnect air supply while waiting for intercom replacement

5) *PV:1.0

You are the Unit RO

Based on a vendor recommendation, a temporary temperature probe has just been installed on the Drywell Chillers to monitor freon conditions and to initiate an additional chiller trip.

DWCW System design criteria has not been altered. This Temporary Plant Alteration (TPA) is to be removed after an evaluation period of 72 hours on a running chiller.

The TPA log has been updated.

This TPA is considered operationally significant.

- a. What action(s) will you take to ensure your relief is aware of this new chiller trip?
- b. Is an Equipment Status Tag required on the chiller control switches in the MCR due to this TPA? Explain your answer.
- c. 72 hours later, you are asked to approve the TPA removal. How will you determine if any prerequisites for removal must be met (e.g. chiller must be secured prior to TPA removal)?

NO.: 130 REV.: 4 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/12/01
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: SKA NO.: 2.2.11G TAXONOMY NO.: 2.5
LESSON PLANS: RO ADMIN #5 A.2 LOT1570.18A
: MOD-C-7
CATEGORY: 01 RO A N
SYSTEMS:

QUESTION :

You are the Unit RO

Based on a vendor recommendation, a temporary temperature probe has just been installed on the Drywell Chillers to monitor freon conditions and to initiate an additional chiller trip.

DWCW System design criteria has not been altered. This Temporary Plant Alteration (TPA) is to be removed after an evaluation period of 72 hours on a running chiller.

The TPA log has been updated.

is TPA is considered operationally significant.

- a. What action(s) will you take to ensure your relief is aware of this new chiller trip?
- b. Is an Equipment Status Tag required on the chiller control switches in the MCR due to this TPA? Explain your answer.
- c. 72 hours later, you are asked to approve the TPA removal. How will you determine if any prerequisites for removal must be met (e.g. chiller must be secured prior to TPA removal)?

ANSWER :

(0.33 pt)

- a. Update the Shift Turnover Checklist and provide a verbal report.

(0.33 pt)

- b. No, the TPA does not alter the system design criteria.

(0.33 pt)

- c. Review the MCR file containing the TPA-ECR file and look for any Evaluator specified prerequisites for TPA removal.

6) *PV:1.0

A Temporary Plant Alteration is no longer desired on the DWCW system.

Identify one verification method (IV or DV) to be used during the TPA removal for each of the components listed below.

- a. Re-land MCC bucket terminal block leads
- b. Install a fuse to enable a bypassed chiller trip circuit
- c. Restore a valve to its closed, locked position
- d. Throttle open (2 turns) a closed, unlocked manual valve

NO.: 131 REV.: 5 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/20/01
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: SKA NO.: 2.1.8G TAXONOMY NO.: 3.8
LESSON PLANS: RO ADMIN #6 A.2 LOT1514.22
: NOM-C-9.1 A-C-33
CATEGORY: 01 RO A N
SYSTEMS:

QUESTION :

A Temporary Plant Alteration is no longer desired on the DWCW system.

Identify one verification method (IV or DV) to be used during the TPA removal for each of the components listed below.

- a. Re-land MCC bucket terminal block leads
- b. Install a fuse to enable a bypassed chiller trip circuit
- c. Restore a valve to its closed, locked position
- d. Throttle open (2 turns) a closed, unlocked manual valve

ANSWER :

(0.25 pt. each)

- a. IV - Independant Verification
- b. DV - Double Verification
- c. IV - Independent Verification
- d. DV - Double Verification

7) *PV:1.0

You have been directed to perform T-200, "Primary Containment Venting", that requires entry into an area with general dose rates of 3 Rem/hr.

The same area will increase to 14 Rem/hr immediately after you exit.

- a. Describe a method for initially obtaining the door key to this area?
- b. If re-entry is required, how do these options change? Briefly explain your answer.

NO.: 132 REV.: 6 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/12/01
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: SKA NO.: 2.3.10G TAXONOMY NO.: 2.9
LESSON PLANS: RO ADMIN #7 A.3 LOT1760.01
: HP-C-202
CATEGORY: 01 RO A N
SYSTEMS:

QUESTION :

You have been directed to perform T-200, "Primary Containment Venting", that requires entry into an area with general dose rates of 3 Rem/hr.

The same area will increase to 14 Rem/hr immediately after you exit.

- a. Describe a method for initially obtaining the door key to this area?
- b. If re-entry is required, how do these options change? Briefly explain your answer.

ANSWER :

(0.5 pt)

a. Any one of the following:

- 1) Request HP technician support to provide access via a Level I key in his custody.
- 2) Sign out a Level I Locked High Rad Area key on the Locked High Radiation Area Key Log.
- 3) Use Ops master keys in the presence of a qualified HP technician.

(0.5 pt)

b. The Locked High Radiation Area level has changed to a Level II Locked High Rad Area key and can only be issued to a qualified Health Physics technician.

8) *PV:1.0

You are exiting the Refuel Floor area RCA.

The Whole Body Monitor (WBM) is out of service.

The portable frisker is on the X10 scale with an HP-210 probe reading 40 cpm.

The frisker pre-operational and calibration checks are SAT.

While frisking your left hand, before picking up the probe, the frisker meter rises to 55 cpm.

Describe at least four (4) actions you would take due to the conditions described above.

QUESTIONS for ADMIN

PAGE 1

03/22/01
16:38:15

NO.: 133 REV.: 4 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/12/01
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: SKA NO.: 2.3.4G TAXONOMY NO.: 2.5
LESSON PLANS: RO ADMIN #8 A.3 HP-C-818-1
: LOT1760.5A2
CATEGORY: 01 RO A N
SYSTEMS:

QUESTION :

You are exiting the Refuel Floor area RCA.

The Whole Body Monitor (WBM) is out of service.

The portable frisker is on the X10 scale with an HP-210 probe reading 40 cpm.

The frisker pre-operational and calibration checks are SAT.

While frisking your left hand, before picking up the probe, the frisker meter rises to 55 cpm.

Describe at least four (4) actions you would take due to the conditions described above.

ANSWER :

(0.25 pt each)

Any four (4) of the following:

- 1) Request HP assistance
- 2) Follow HP instructions
- 3) Place frisker on the X1 scale with right hand
- 4) Notify HP of high background levels and greater than 100 counts above background on left hand
- 5) Perform preliminary survey, of hands and feet
- 6) Transit to a lower, <300 cpm, background area while taking measures to prevent spread of contamination and complete whole body frisk via WBM or frisker

9) *PV:1.0

The following events occur:

At 09:15:00	UNUSUAL EVENT declared
At 09:22:00	15 Minute notifications completed
At 09:22:15	ALERT declared

Identify the time and specific information from Appendix ERP-200-1, Form 1, that must be communicated to the following groups due to the escalation.

- a. NRC, State and County Agencies
- b. Secondary notifications

NO.: 134 REV.: 5 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/12/01
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: SKA NO.: 2.4.43G TAXONOMY NO.: 2.8
LESSON PLANS: RO ADMIN #9 A.4 ERP-110
CATEGORY: 01 RO A N
SYSTEMS:

QUESTION :

The following events occur:

At 09:15:00 UNUSUAL EVENT declared
At 09:22:00 15 Minute notifications completed
At 09:22:15 ALERT declared

Identify the time and specific information from Appendix ERP-200-1, Form 1, that must be communicated to the following groups due to the escalation.

- a. NRC, State and County Agencies
- b. Secondary notifications

ANSWER :

(0.5 pt)

- a. Stop UNUSUAL EVENT Secondary notifications, if started.

Start ALERT notifications:

- 1) Notify State and County Agencies by 09:37:15 (15 mins.).
Read entire message from Appendix ERP-200-1, Form 1.
- 2) Notify NRC by 09:37:15 (15 mins.)
Read Sections 1, 2, and 3 only from Appendix ERP-200-1, Form 1.
Read Sections 4, 5, and 6 only if requested.

(0.5 pt)

- b. Start ALERT and include UNUSUAL EVENT information for Secondary notifications after 15 minute notifications are complete.

- 1) Read Section 1, 2, and 3 of Appendix ERP-200-1, Form 1

10) *PV:1.0

A SITE AREA EMERGENCY has been declared.

The Emergency Response Organization (ERO) is fully staffed.

You are the Unit RO and you have a technical question about HPCI system response to a partial loss of valve logic power.

- a. Which ERO group is responsible to respond to your question?
- b. Which ERO group is responsible for drafting a procedure so you can respond to this loss of power, if the action is not covered by an existing procedure?

NO.: 135 REV.: 6 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/12/01
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: SKA NO.: 2.4.43G TAXONOMY NO.: 2.8
LESSON PLANS: RO ADMIN #10 A.4 ERP-700
:
CATEGORY: 01 RO A N
SYSTEMS:

QUESTION :

A SITE AREA EMERGENCY has been declared.

The Emergency Response Organization (ERO) is fully staffed.

You are the Unit RO and you have a technical question about HPCI system response to a partial loss of valve logic power.

- a. Which ERO group is responsible to respond to your question?
- b. Which ERO group is responsible for drafting a procedure so you can respond to this loss of power, if the action is not covered by an existing procedure?

ANSWER :

(0.5 pt)

- a. Technical Support Group

(0.5 pt)

- b. Technical Support Group

1) *PV:1.0

Refer to ATTACHMENT SRO ADMIN #1

You are the off-going (Thursday Day Shift) Work Control Supervisor.

Review the "People Paper" for the on-coming shift ("A" Crew) and identify if any actions are required before "A" Crew can relieve your Crew.

ATTACHMENT SRO ADMIN #1

"A" CREW
Thursday Night Shift

SM

ORPHANOS

WCS

CRS

BOYLAN

FSS

REINER - STA

Common

PRO KIRSE

4th RO

	ST-6-107-590-0 Daily Log Common Plant	Radwaste	COLUMBUS	FB
	RT-6-111-643-0 River Water Log Using Water Wizard	Inside	FORREN	SS
		Outside		
Unit 1		RO	BELITSKY	
	ST-6-107-590-1 Daily Log for OPCON 1, 2, & 3	Reactor	HORNE	FB
	ST-6-043-320-1 Jet Pump Operability Verification	Turbine		
Unit 2		RO	PROCOPIO	
	ST-6-107-590-2 Daily Log for OPCON 1, 2, & 3	Reactor	GIAMBRONE	FB
	ST-6-043-320-2 Jet Pump Operability Verification	Turbine	KIRK	FB

*** ERROR LIKELY SITUATION: _____

Key:

FB - Fire Brigade
FBL - Fire Brigade Leader
SS - Safe Shutdown
STA - Shift Technical Advisor

FOR TRAINING PURPOSES ONLY

ATTACHMENT SRO ADMIN #1

NO.: 136 REV.: 3 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/19/01
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: SKA NO.: 2.1.3 TAXONOMY NO.: 3.4/A.1
LESSON PLANS: SRO ADMIN #1 TRM 6.2.2 OPM-C-30
: TS 6.2.2
CATEGORY: 01 SRO A N
SYSTEMS:

QUESTION :

Refer to ATTACHMENT SRO ADMIN #1

You are the off-going (Thursday Day Shift) Work Control Supervisor.

Review the "People Paper" for the on-coming shift ("A" Crew) and identify if any actions are required before "A" Crew can relieve your Crew.

ANSWER :

(1.0 pt) (Any order)

- Two (2) additional operators must be called in for Safe Shutdown duties (3 total).
- One (1) additional Fire Brigade member must be called in and a Fire Brigade Leader designated.

2) *PV:1.0

You are the Control Room Supervisor.

The LOCA/LOOP Test Director, an SRO Certified Instructor, requests permission to open and close 4kV safeguard breakers from the MCR as part of the test.

Identify at least four (4) factors you will consider before granting or denying this request.

NO.: 137 REV.: 7 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/16/01
 DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
 TASK NUMBER: SKA NO.: 2.1.9G TAXONOMY NO.: 2.5
 LESSON PLANS: SRO ADMIN #2 A.1 LOT1574
 : NOM-C-8.9
 CATEGORY: 01 SRO A N
 SYSTEMS:

QUESTION :

You are the Control Room Supervisor.

The LOCA/LOOP Test Director, an SRO Certified Instructor, requests permission to open and close 4kV safeguard breakers from the MCR as part of the test.

Identify at least four (4) factors you will consider before granting or denying this request.

ANSWER :

(0.25 pt each)

(any order)

1. Are the manipulations part of an approved surveillance test.
2. Are the devices to be manipulated "Reactor Controls" directly affecting reactivity.
3. Will manipulation of the devices significantly change plant conditions.
4. Does the individual has the necessary knowledge, experience, and training to correctly and safely perform the manipulations.

3) *PV:1.0

Refer to ATTACHMENT SRO ADMIN #3:

You are the Fuel Handling Director supervising CCTAS Step 1. Spent Fuel Pool Rack Location C-21 is blocked by filter vacuum hoses which cannot be re-routed.

Can the CCTAS be revised to indicate a different Spent Fuel Pool rack location? If Yes, describe the steps you will take or if No, explain why this is prohibited.

SRM ONLY

Written By: TRAINING USE ONLY

Unit LIMERICK GENERATING STATION Date 04/02/01

Reviewed By: TRAINING USE ONLY

Title TRAINING CCTAS

Authorized By: TRAINING USE ONLY

STEP NO.	COMPONENT SERIAL NO.	MOVE FROM	ORIENT	MOVE TO	ORIENT	FHD	RPO	CRO	SRM COUNTRATE				DATE	TIME
									A	B	C	D		
1	LYN463	L1SPENT C-20	NE	L1SPENT C-21	SW									

ATTACHMENT SR0 ADMIN # 3

NO.: 138 REV.: 5 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/16/01
 DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
 TASK NUMBER: SKA NO.: 2.2.26G TAXONOMY NO.: 3.7
 LESSON PLANS: SRO ADMIN #3 A.1 RE-C-40
 :
 CATEGORY: 01 SRO A N
 SYSTEMS:

QUESTION :

Refer to ATTACHMENT SRO ADMIN #3:

You are the Fuel Handling Director supervising CCTAS Step 1. Spent Fuel Pool Rack Location C-21 is blocked by filter vacuum hoses which cannot be re-routed.

Can the CCTAS be revised to indicate a different Spent Fuel Pool rack location? If Yes, describe the steps you will take or if No, explain why this is prohibited.

ANSWER :

(1.0 pt)

Yes, the CCTAS can be revised by performing the following steps

In order:

- 1) Call a Reactor Engineer who is authorized to make changes
- 2) Describe the reason for the change and discuss a proposed revision, (new Spent Pool location) to the RE
- 3) Perform pen and ink change(s) on Refuel Floor copies
- 4) Date and initial change by both FHD and RE on Refuel Floor copies

4) *PV:1.0

Refer to ATTACHMENT SRO ADMIN #4:

For each step of the CCTAS, identify if the step can or cannot be performed while Maintenance personnel inspect Feedwater nozzles inside the Bioshield above 303' elevation.

Explain your answer for each step.

SRM ONLY

Written By: TRAINING USE ONLY

Unit LIMERICK GENERATING STATION Date 04/02/01

Reviewed By: TRAINING USE ONLY

Title TRAINING CCTAS

Authorized By: TRAINING USE ONLY

STEP NO.	COMPONENT SERIAL NO.	MOVE FROM	ORIENT	MOVE TO	ORIENT	FHD	RPO	CRO	SRM COUNTRATE				DATE	TIME
									A	B	C	D		
1	LYN463	L1SPENT C-20	NE	L1SPENT C-21	SW									
2	LYG651	L1CORE 03-42	NW	L1CORE 01-42	SW									
3	DBL B/G	L1SPENT B-31/C-32	None	L1CORE 01-44/03-42	None									
4	LYG764	L1CORE 03-44	SW	L1SPENT P-46	SW									
5	LPRM	L1CORE 32-25	NONE	UNIT 1 SPENT FUEL POOL WALL	NONE									

ATTACHMENT SR0 ADMIN # 4

NO.: 139 REV.: 9 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/16/01
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: SKA NO.: 2.2.29 TAXONOMY NO.: 3.5
LESSON PLANS: SRO ADMIN #4 A.1
:
CATEGORY: 01 SRO A N
SYSTEMS:

QUESTION :

Refer to ATTACHMENT SRO ADMIN #4:

For each step of the CCTAS, identify if the step can or cannot be performed while Maintenance personnel inspect Feedwater nozzles inside the Bioshield above 303' elevation.

Explain your answer for each step.

ANSWER :

(0.20 pt each)

Can perform	Step #1, Spent Fuel Pool to Spent Fuel Pool
Cannot perform	Step #2, Irradiated fuel, above vessel flange
Can perform	Step #3, Double Blade Guide
Cannot perform	Step #4, Irradiated fuel, through transfer canal
Cannot perform	Step #5, Irradiated LPRM, through transfer canal

5) *PV:1.0

Refer to ATTACHMENT SRO ADMIN #5:

You are the Work Control Supervisor.

- Both Units are in OPCON 1
- No equipment is known to be INOPERABLE
- A TRT has been initiated to troubleshoot D23 starting air compressor

Complete the "Shift Management Approval" section of this TRT No. 0104XX.

ATTACHMENT SRO ADMIN #5

Effective Date: _____

Exhibit AG-CG-41-1, Rev. 1
Page 1 of 3
GHG:pjk

PORC	NO
SQR	NO
QR	NO
0.59	NO
RESP. MGR.	YES

Troubleshooting, Rework, and Testing Control Process (TRT)

TRT No.: 0104XX

Page 1 of 2

SECT 1	INITIATOR (PRINT): <u>IR CANDIDATE</u>	Ext.: <u>4084</u> Date: <u>05.07.01</u>
STATION/UNIT: <u>UGS, 2</u> WORK REFERENCE (W/O, ST, A/R, ECR, etc.): <u>N/A</u>		
AFFECTED COMPONENT(s)/PANEL No.: <u>D23</u> SYSTEM NUMBER: <u>20</u> SYSTEM NAME: <u>FUEL + DIESEL OIL XFER</u>		
DESCRIPTION OF PROBLEM/ACTIVITY OBJECTIVE: <u>STARTING AIR COMPRESSOR, 2C2K513, high RUN TIME DUE TO UNIDENTIFIED LEAKS.</u> <u>TROUBLESHOOT AND LOCATE STARTING AIR SYSTEM LEAKS.</u>		
SPECIAL REQUIREMENTS (See below) or "NONE": (Special Plant or Equipment Conditions, Special Equipment, Specific/Special Communications, DQ/EQ Requirements, ALARA, Radiological Controls) <u>CONSTANT COMMUNICATIONS VIA RADIO REQUIRED BETWEEN MGR AND D23</u> <u>D23 LINED UP FOR AUTO START DURING TEST/TROUBLESHOOTING ACTIVITY</u>		
PLANT RESPONSES (e.g., alarms, instrument indications, auto actions) or "NONE" expected to occur during the activity: <u>"NONE"</u>		

SQR APPROVAL

10CFR50.59 DETERMINATION REQUIRED? ☐ YES ☒ NO
STEP BY STEP INSTRUCTIONS REQUIRED? ☒ YES ☐ NO
DAISY CHAINED CIRCUITS INVOLVED? ☐ YES ☒ NO

SQR APPROVAL: DAVE FRITZ - GOFF Date: 05.07.01

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WHEN RED

SHIFT MANAGEMENT APPROVAL

PERMITTED TRT DURATION: ☒ 24 Hours ☐ Between 24 & 72 Hrs
SAFETY RELATED / TECH. SPEC.: ☐ YES ☐ NO (If YES, 2nd SRO Required Below) (Per OM-P-10.4:1 or OM-L-10.4:1, as applicable)
OPERABILITY IMPACT per Tech. Spec.: _____

AUTHORIZATION TO COMMENCE ACTIVITY: SRO: _____ Date: ____/____/____ Time: ____

For Equipment/systems described in OM-P-10.4:1 or OM-L-10.4:1, as applicable, Second SRO Required. (i.e., Safety-Related /Tech. Spec => YES)
2nd SRO Approval or N/A: _____ Date: ____/____/____

PERFORMER

TRT Discussed With Reactor Operator (RO): _____ Performer: _____ Date: ____/____/____

Complete all sections above - Do not leave any blank spaces

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NO.: 140 REV.: 5 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/16/01
 DIFFICULTY: 3 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
 TASK NUMBER: SKA NO.: 2.2.20G TAXONOMY NO.: 3.3/A.2
 LESSON PLANS: SRO ADMIN #5 ST-6-092-313-2 TECH SPECS
 : AG-CG-41 P&ID M-20
 CATEGORY: 01 SRO A N
 SYSTEMS:

QUESTION :

Refer to ATTACHMENT SRO ADMIN #5:

You are the Work Control Supervisor.

- Both Units are in OPCON 1
- No equipment is known to be INOPERABLE
- A TRT has been initiated to troubleshoot D23 starting air compressor

Complete the "Shift Management Approval" section of this TRT No. 0104XX.

ANSWER :

(1 pt)

- 1) Mark the "SAFETY RELATED/TECH SPEC" YES box
- 2) OPERABILITY IMPACT per Tech. Spec. - D23 will be INOP
 T.S. LCO 3.8.1.1 ACTION a. and e. applies:
 - Within 24 hours, verify Surveillance Requirement 4.8.1.1.1.a by determining for each Offsite Source and each Unit 2 4kV bus correct breaker alignment and power availability
 - For two train systems, verify within 2 hours that at least one of the required two train system subsystem, train, components, and devices is OPERABLE
 - Restore D23 to OPERABLE within 30 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours
- 3) Sign and date the TRT
- 4) Request a second SRO review the TRT

6) *PV:1.0

Unit 2 HPCI turbine has been replaced.

A Modification Work Order to install a new position indicator on the Aux steam supply isolation valve (21-2081) stem, so it can be seen without climbing a ladder, has been released for work, but is not complete.

No other work groups have any outstanding issues regarding HPCI OPERABILITY.

- a. Can HPCI OPERABILITY be reestablished under these conditions?
- b. Briefly, discuss why or why not.

NO.: 141 REV.: 7 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/22/01
 DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
 TASK NUMBER: SKA NO.: 2.2.21G TAXONOMY NO.: 3.5
 LESSON PLANS: SRO ADMIN #6 A.2 NOM-C-11.1
 : NOM-C-8.5
 CATEGORY: 01 SRO A N
 SYSTEMS:

QUESTION :

Unit 2 HPCI turbine has been replaced.

A Modification Work Order to install a new position indicator on the Aux steam supply isolation valve (21-2081) stem, so it can be seen without climbing a ladder, has been released for work, but is not complete.

No other work groups have any outstanding issues regarding HPCI OPERABILITY.

- a. Can HPCI OPERABILITY be reestablished under these conditions?
- b. Briefly, discuss why or why not.

ANSWER :

(0.5 pt)

- a. Yes

(0.5 pt)

- b. Mod work that does not affect HPCI system OPERABILITY is permitted.

7) *PV:1.0

Refer to ATTACHMENT SRO ADMIN #7-1, #7-2 and #7-3:

You are the Control Room Supervisor.

A planned special exposure is required to prevent a large release of radioactive material to Secondary Containment.

The Proposed Planned Special Exposure Dose for this job is 4,000 mrem.

The following EOs have volunteered:

EO #1 - Female, not declared pregnant, 33 years old, 10 years plant experience

EO #2 - Male, 45 years old, 14 years plant experience

EO #3 - Male, 27 years old, 8 years plant experience

- a. Which Equipment Operator will you approve to perform the task?
- b. Briefly explain your answer to part a.

Effective Date: 1/1/94

ATTACHMENT SRO ADMIN

#7-1

PLANNED SPECIAL EXPOSURE (PSE) APPROVAL FORMRequested By: (TRAINING ONLY)Date: TODAY

A. SCOPE OF ACTIVITY

ISOLATE PRIMARY CONTAINMENT LEAK

B. DESCRIPTION OF ACTIVITY:

MANUAL VALVE MANIPULATION

CONTROLLED COPY

C. JUSTIFICATION FOR PSE

PREVENT A LARGE RELEASE OF RADIOACTIVE MATERIAL TO SECONDARY CONTAINMENT

VALID ONLY

D. EXPOSURE INFORMATION

WHEN RED

Individual's Name: EO #1Date: TODAY

	Annual Dose	Life Time Dose	Previous PSE Dose		Proposed PSE Dose	Proposed Annual Dose
			Life Time Dose	Annual Dose		
	mREM	mREM	mREM	mREM	mREM	mREM
TEDE	127	915	Ø	Ø	4,000	4,127
EYE	Ø	40	Ø	Ø	Ø	Ø
SKIN/EXTM.	Ø	112	Ø	Ø	Ø	Ø
CRITICAL ORGAN	Ø	30	Ø	Ø	Ø	Ø

E. STATEMENT OF UNDERSTANDING

I have been informed of the purpose of the planned operation, the estimated doses, and the potential risks or other conditions that may be involved in performing this task. I have been given the opportunity to ask questions, and understand the operation and the planned special exposure estimate.

Employee Signature: EO #1Date: TODAY

PLANNED SPECIAL EXPOSURE APPROVAL FORM (CON'T)

FOR TRAINING PURPOSES ONLY

ATTACHMENT SRO ADMIN

#7-1

Effective Date: 1/1/94

ATTACHMENT SRO ADMIN

#7-2

PLANNED SPECIAL EXPOSURE (PSE) APPROVAL FORMRequested By: (TRAINING ONLY) Date: TODAY

A. SCOPE OF ACTIVITY

ISOLATE PRIMARY CONTAINMENT LEAK

B. DESCRIPTION OF ACTIVITY

MANUAL VALVE MANIPULATION

CONTROLLED COPY

C. JUSTIFICATION FOR PSE

PREVENT A LARGE RELEASE OF RADIOACTIVE MATERIAL TO SECONDARY CONTAINMENT

VALID ONLY

D. EXPOSURE INFORMATION

WHEN RED

Individual's Name: EO #2 Date: TODAY

	Annual Dose	Life Time Dose	Previous PSE Dose		Proposed PSE Dose	Proposed Annual Dose
			Life Time Dose	Annual Dose		
	mREM	mREM	mREM	mREM	mREM	mREM
TEDE	110	897	22460	900	4,000	4,110
EYE	0	64	0	0	0	0
SKIN/ EXTM.	0	90	0	0	0	0
CRITICAL ORGAN ()	0	27	0	0	0	0

E. STATEMENT OF UNDERSTANDING

I have been informed of the purpose of the planned operation, the estimated doses, and the potential risks or other conditions that may be involved in performing this task. I have been given the opportunity to ask questions, and understand the operation and the planned special exposure estimate.

Employee Signature: EO #2 Date: TODAY

PLANNED SPECIAL EXPOSURE APPROVAL FORM (CON'T)
FOR TRAINING PURPOSES ONLY

ATTACHMENT SRO ADMIN

#7-2

Effective Date: 1/1/94

ATTACHMENT SRO ADMIN
#7-3PLANNED SPECIAL EXPOSURE (PSE) APPROVAL FORMRequested By: (TRAINING ONLY) Date: TODAY

A. SCOPE OF ACTIVITY

ISOLATE PRIMARY CONTAINMENT LEAK

B. DESCRIPTION OF ACTIVITY

MANUAL VALVE MANIPULATION

CONTROLLED COPY

C. JUSTIFICATION FOR PSE

PREVENT A LARGE RELEASE OF RADIOACTIVE MATERIAL TO SECONDARY CONTAINMENT

VALID ONLY

D. EXPOSURE INFORMATION

WHEN RED

Individual's Name: EO #3Date: TODAY

	Annual Dose	Life Time Dose	Previous PSE Dose		Proposed PSE Dose	Proposed Annual Dose
			Life Time Dose	Annual Dose		
	mREM	mREM	mREM	mREM	mREM	mREM
TEDE	92	747	1,640	1,640	4,000	4,092
EYE	0	55	0	0	0	0
SKIN/ EXTM.	0	120	0	0	0	0
CRITICAL ORGAN	0	21	0	0	0	0

E. STATEMENT OF UNDERSTANDING

I have been informed of the purpose of the planned operation, the estimated doses, and the potential risks or other conditions that may be involved in performing this task. I have been given the opportunity to ask questions, and understand the operation and the planned special exposure estimate.

Employee Signature: EO #3 Date: TODAYPLANNED SPECIAL EXPOSURE APPROVAL FORM (CON'T)
FOR TRAINING PURPOSES ONLYATTACHMENT SRO ADMIN
#7-3

QUESTIONS for ADMIN

PAGE 1

03/22/01
16:39:21

NO.: 142 REV.: 5 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/16/01
DIFFICULTY: 3 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: SKA NO.: 2.3.2G TAXONOMY NO.: 2.9
LESSON PLANS: SRO ADMIN #7 A.3 HP-C-108
:
CATEGORY: 01 SRO A N
SYSTEMS:

QUESTION :

Refer to ATTACHMENT SRO ADMIN #7-1, #7-2 and #7-3:

You are the Control Room Supervisor.

A planned special exposure is required to prevent a large release of radioactive material to Secondary Containment.

The Proposed Planned Special Exposure Dose for this job is 4,000 mrem.

The following EOs have volunteered:

EO #1 - Female, not declared pregnant, 33 years old, 10 years plant experience

EO #2 - Male, 45 years old, 14 years plant experience

EO #3 - Male, 27 years old, 8 years plant experience

- a. Which Equipment Operator will you approve to perform the task?
- b. Briefly explain your answer to part a.

ANSWER :

(0.25 pt)

- a. EO #1

(0.75 pt)

- b. EO #1 correct choice, no previous PSE dose
EO #2 would exceed Lifetime PSE dose limit (25 rem TEDE)
EO #3 would exceed Annual PSE dose limit (5 rem TEDE)

8) *PV:1.0

A 43-year old Equipment Operator has received an actual Lifetime Dose, NRC Form 4 on file, of 42.5 Rem TEDE.

This EO is projected to receive 1.2 Rem TEDE this year.

- a. What is this EO's annual Dose Control Limit now?
- b. Will it change throughout the year as dose is received?
If so, how?

NO.: 143 REV.: 4 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/16/01
DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
TASK NUMBER: SKA NO.: 2.3.4G TAXONOMY NO.: 3.1
LESSON PLANS: SRO ADMIN #8 A.3 HP-C-106

CATEGORY: 01 SRO A N
SYSTEMS:

QUESTION :

A 43-year old Equipment Operator has received an actual Lifetime Dose, NRC Form 4 on file, of 42.5 Rem TEDE.

This EO is projected to receive 1.2 Rem TEDE this year.

- a. What is this EO's annual Dose Control Limit now?
- b. Will it change throughout the year as dose is received?
If so, how?

ANSWER :

(1.0 pt)

- a. 2 Rem/year TEDE
- b. Yes, When 43 Rem TEDE lifetime dose is reached the limit becomes 1 Rem/year TEDE.

9) *PV:1.0

You are the Work Control Supervisor asked to second check the Emergency Director's Protective Action Recommendation (PAR) given the following conditions:

LGS has escalated from an ALERT to a GENERAL EMERGENCY.

Unit 1 conditions are as follows:

The TECHNICAL SUPPORT CENTER and EMERGENCY OPERATIONS FACILITY are not yet activated.

- RPV level is unknown
- Drywell pressure is 19 psig
- Reactor coolant activity is 3000 $\mu\text{Ci/gm}$ Iodine-131
- Maximum Safe Operating temperature has been exceeded in ONE area (HPCI) due to an unisolable primary system leak
- Drywell radiation monitor is reading 6×10^5 R/hr.

What is the required MINIMUM PAR?

NO.: 144 REV.: 4 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/19/01
 DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
 TASK NUMBER: SKA NO.: 2.4.44 TAXONOMY NO.: 4.0
 LESSON PLANS: SRO ADMIN #9 A.4 ERP-200
 : ERP-100
 CATEGORY: 01 SRO A N
 SYSTEMS:

QUESTION :

You are the Work Control Supervisor asked to second check the Emergency Director's Protective Action Recommendation (PAR) given the following conditions:

LGS has escalated from an ALERT to a GENERAL EMERGENCY.

Unit 1 conditions are as follows:

The TECHNICAL SUPPORT CENTER and EMERGENCY OPERATIONS FACILITY are not yet activated.

- RPV level is unknown
- Drywell pressure is 19 psig
- Reactor coolant activity is 3000 $\mu\text{Ci/gm}$ Iodine-131
- Maximum Safe Operating temperature has been exceeded in ONE area (HPCI) due to an unisolable primary system leak
- Drywell radiation monitor is reading 6×10^5 R/hr.

What is the required MINIMUM PAR?

ANSWER :

(1.0 pt)

Evacuate 5 mile radius, evacuate affected sector(s) and 2 adjacent sectors for 5-10 miles.

10) *PV:1.0

An UNUSUAL EVENT has been declared.

You are directed by the Shift Manager to inform the Secondary Alarm Station (SAS) operator that emergency conditions exist and 15 minute notifications need to be completed.

The SAS is evacuated due to a fire and cannot be reached by phone or fax.

- a. Where will the SAS operator relocate to?
- b. What are the phone numbers, Prelude, Station and Fax, you will use to contact the SAS operator after relocation?

NO.: 145 REV.: 5 TYPE: ES ENTERED BY: CBG DATE ENTERED: 03/16/01
 DIFFICULTY: 2 POINT VALUE: 1.0 RESPONSE TIME: 0 DRAWING:
 TASK NUMBER: SKA NO.: 2.4.43G TAXONOMY NO.: 3.5
 LESSON PLANS: SRO ADMIN #10 A.4 ERP-110
 :
 CATEGORY: 01 SRO A N
 SYSTEMS:

QUESTION :

An UNUSUAL EVENT has been declared.

You are directed by the Shift Manager to inform the Secondary Alarm Station (SAS) operator that emergency conditions exist and 15 minute notifications need to be completed.

The SAS is evacuated due to a fire and cannot be reached by phone or fax.

- a. Where will the SAS operator relocate to?
- b. What are the phone numbers, Prelude, Station and Fax, you will use to contact the SAS operator after relocation?

ANSWER :

(0.5 pt)

- a. TSC E.D. Communicator area

(0.5 pt)

- b.
 - 1) Prelude phone extension 111
 - 2) Station extension 5109
 - 3) TSC fax number 2632