Facility: Limerick Generating Station		Date of Examination: 05/04/2001
Examination Level RO		Operating Test Number: _____
Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Shift Turnover	Question: Working Hour Restrictions (A-C-40)
		Question: Shift Turnover Documentation (NOM-C-4.1)
	Fuel Handling	Question: Inadvertent criticality during re-load (ON-120) Question: Continuous communication requirements (FH-105)
A.2	Modifications	Question: Application of temporary alteration (MOD-C-7)
		Question: Independent verification (NOM-C-9.1)
A.3	Exposure Limits and Controls	Question: Locked High Rad area controls (HP-C-202)
		Question: Response to Personnel Contamination (HP-C-818)
A.4	Emergency Response Facilities	Question: Activation of ERP facilities (ERP-140)
		Question: Technical Support Center functions (ERP-700)

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

a. Who must review this schedule to ensure working hour limitations are not exceeded?

b. Does this schedule meet applicable working hour limitations at LGS?

c. 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 Writter	1830-0630

a. Who must review this schedule to ensure working hour limitations are not exceeded?

b. Does this schedule meet applicable working hour limitations at LGS?

c. Briefly, explain your answer.

ANSWER :

(0.33 each)

a. Myself

b. No

c. 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 writting, 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 writting, your turnover to the oncoming 4th RO?

ANSWER :

(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).

TRANSFER AUTHORIZATION FOR FH-105
M-219966 Rev. 1/89
DOCTYPE 113

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 aquire.

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.: 10 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 aquire.

With the intercom unavailable, what action is required to continue with the next CCTAS step?

ANSWER :

(1 pt)

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

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.

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)?

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.

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) Notifify 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