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REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Admin-130

(SRO Only)

CANDIDATE

EXAMINER

REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

<u>Task:</u>

Perform Manual RCS Leakage Calculation and TS Determination

Alternate Path:

No

Facility JPM #:

CRO-43

K/A Rating(s):

System: Gen K/A: 2.1.7 Rating: 4.4/4.7

Task Standard:

RCS Leakage is correctly calculated per of attached key. TS 3.4.13 Condition A entered.

Preferred Evaluation Location:

Simulator _____ In-Plant _____ Classroom __X___

References:

PT/O/A/0600/001A, Loss Of Computer, rev 30 PT/1/A/0600/10, Reactor Coolant Leakage, rev 91 TS 3.4.13 RCS Operational LEAKAGE

Validation Time: 18 minutes	=======================================	<u>Time Critical:</u> NO		
Candidate:		Time Start:		
NAME		Time Finish:		
Performance Rating: SAT UNSAT		Performance Time		
Examiner:NAME		SIGNATURE	/ DATE	
	<u>COMMENT</u>		============	

Preferred Evaluation Method:

Perform X Simulate

SIMULATOR OPERATOR INSTRUCTIONS

NONE

Tools/Equipment/Procedures Needed:

PT/1/A/600/10 Enclosure 13.3 Technical Specifications

READ TO OPERATOR

DIRECTION TO TRAINEE

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS

Oconee Unit 1 computer repairs are expected to be extended through turnover for hardware replacement. The Loss of Computer procedure PT/O/A/0600/001A, Loss of Computer, is in progress; however an RCS Leakage Calculation has not been performed during this shift.

INITIATING CUES

- The OSM directs you to perform a manual RCS leakage calculation per PT/1A/600/10 (Reactor Coolant Leakage), Enclosure 13.3 (Manual RCS Leakage Calculation Data Sheet) using the data collected below.
- Evaluate leakage and determine if any TS LCO's are not met.
- Assume all leakage is unidentified

Manual	RCS	Leakage	Data
--------	-----	---------	------

Parameter	Initial	Final	
Time	0015	0115	
Pzr level	219.0 inches	219.5 inches	
Tave Indication	579.1°F	579.0°F	
Quench Tank Level	86.5 inches	86.5 inches	
LDST Level	76.7 inches	74.0 inches	
Power Range NI	100.0%	100.1%	
RCS NR Pressure	2150 psig	2150 psig	
Group 7 Control Rod Position	92.7%	92.7%	

START TIME:

a. . .

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STEP 1:	Step 2.1					
<u></u>	Record Initial Da					
Value	Initial Data	Minus	Final Data	Equals	Change	
PZR Level	219.0 inches	-		=		
RCS Temp	579.1°F	-		=		-
QT Level	86.5 inches	-		=		Sat
LDST Level	76.7 inches	-		=		
Rx Power	100.0%	-		=		
RCS Press	2150 psig	-		=		Unsat
CR Pos	92.7%	-		=		
<u>STANDARD</u> :	Candidate enter	s initial set c	of data into "Table	#1" of Enclos	sure 13.3	
	(Manual Leakag	e Calculatio	n Data Sheet) fro	m the initiatin	g cue.	
COMMENTS						
<u>STEP 2</u> :	Step 2.2					
	Record time Initi	al Data reco	orded:			
	.					0
STANDARD:	Candidate enter	s 0015 (from	n initiating cue)			Sat
COMMENTS						Lincot
						Ulisat

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					· · · · · · · · · · · · · · · · · · ·	
<u>STEP 3</u> :	Step 2.3					
	After 1 hour, reco	ord Final Data	a in "Table #1".			
Value	Initial Data	Minus	Final Data	Faual	Change	_
PZR Level	219 0 inches	-	219 5 inches		Unange	-
RCS Temp	579 1°F		579 0°E	_		-
OT Level	86.5 inches		86.5 inches			-
	76.7 inches		74 0 inches			-
Rx Power	100.0%	-	100.1%			Sat
RCS Press	2150 psig	-	2150 psig			-
CR Pos	92.7%	_	92.7%	=		-
			02.170	1	1	- Unsat
STANDARD:	Candidate enters	final set of d	lata into "Table #1	" of Enclos	uro 13 3	
	(Manual Leakage	Calculation	Data Sheet) (from	initiating c		
	(indinadi zodinago	Galoalation	Bata Greet) (nom	i initiating c	ue)	
COMMENTS						
STEP 4:	Sten 2.4					
<u>01LI 4</u> .	Record time Final	Data record	lad.			
	record anter ind		ieu.	_		
STANDARD:	Candidate enters	Sat				
<u></u> .		0110				
COMMENTS						Unsat
STEP 5	Step 2.5					
<u>0121 0</u> .	Record time elan	sed time:	minu	toe		CRITICAL STEP
				163		
STANDARD.	Candidate enters	60 minutes				
<u></u>		oo minatoo				Sat
0010151170						
COMMENTS						
						linsat
						Onoat

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STEP 6.	Stop 2.6					
	Siep 2.0 Calculate and record "Change" values in "Table # 1"					CRITICAL STEP
		oord Onling		5#1		
Value	Initial Data	Minus	Final Data	Equal	Change	-
PZR Level	219.0 inches	-	219.5 inches	=	5 inches	-
RCS Temp	579.1°F	-	579.0°F	=	+.1°F	
QT Level	86.5 inches	-	86.5 inches	=	0 inches	Sat
LDST Level	76.7 inches	-	74.0 inches	=	+2.7 inches	
Rx Power	100.0%	-	100.1%	=	1%	
RCS Press	2150 psig	-	2150 psig	=	0 psig	Unsat
CR Pos	92.7%	-	92.7%	=	0%	
STANDARD:	Candidate calcu column.	lates the cha	ange in data and fil	ls in Table 1	I change	
<u>COMMENTS</u>						
<u>STEP</u> :7	Step 2.7 Calculate Correc	CRITICAL STEP				
<u>STANDARD</u> :	-0.5 inches – (6.831 inches/°F X +.1°F) = -1.1831 inches (-1.18 to -1.2)					Sat
<u>COMMENTS</u>						Unsat
<u>STEP</u> :8	Step 2.8 Convert Corrected Pzr Level Change to gallons					CRITICAL STEP
STANDARD:	-1.1831 inches	X 14.364 gal	lons / inch = -16.9	94 gallons		Sat
<u>COMMENTS</u>	(-1.1010-1.2)		(-16.9	ວ ເບ - 17.24)	1	3ai
						Unsat

STEP :9	Step 2.9	
<u>912.</u>	Convert QT Level Change to gallons:	CRITICAL STEP
STANDARD	No change	
OTANDARD.	No change	Sat
<u>COMMENTS</u>		
		Uncot
<u>STEP</u> :10	Step 2.10 Convert LDST Level Change to gallons	CRITICAL STEP
	convert Ebor Level change to gallons	
STANDARD:	+2.7 inches X 30.956 gallons / inch = +83.5812 gallons	
	(+83.5 to +83.6)	Sat
COMMENTS		
<u>oommento</u>		Unsat
<u>STEP</u> :11	Step 2.11	CRITICAL STEP
	Calculate Total Volume Change	
STANDARD:	-16.994 gallons + 0 gallons + 83.5812 gallons = 66.5872 gallons	
	(-16.95 to -17.24) (+83.5 to +83.6) (66.26 to 66.65)	Sat
<u>COMMENTS</u>		
		Unsat
STEP :12	Step 2 12	
<u></u>	Calculate "RCS Unidentified Leakage Rate"	CRITICAL STEP
STANDARD	66,5872 college / 60 minutes = 1,100 mm	
OTANDARD.	(66.26 to 66.65) (1.104 to 1.11)	Sat
		O
<u>COMMENTS</u>		Unsat

<u>STEP</u> :13	Refer to TS 3.4.13 RCS Operational LEAKAGE	CRITICAL STEP
<u>STANDARD</u> :	Determine leakage exceeds 1 gpm unidentified and TS 3.4.13 Condition A applies. Reduce LEAKAGE to within limits with a completion time of 4 hours.	Sat
<u>COMMENTS</u>		Unsat
	END TASK	

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STOP TIME: _____

CRITICAL STEP EXPLANATIONS

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STEP #	Explanation
5	Necessary data calculation to properly determine manual RCS leakage rate.
6	Necessary data calculation to properly determine manual RCS leakage rate.
7	Necessary data calculation to properly determine manual RCS leakage rate.
8	Necessary data calculation to properly determine manual RCS leakage rate.
9	Necessary data calculation to properly determine manual RCS leakage rate.
10	Necessary data calculation to properly determine manual RCS leakage rate.
11	Necessary data calculation to properly determine manual RCS leakage rate.
12	Necessary data calculation to properly determine manual RCS leakage rate.
13	Necessary to refer to correct TS and conclude 1 gpm unidentified is exceeded.

CANDIDATE CUE SHEET (TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

INITIAL CONDITIONS

Oconee Unit 1 computer repairs are expected to be extended through turnover for hardware replacement. The Loss of Computer procedure PT/O/A/0600/001A, Loss of Computer, is in progress; however, an RCS Leakage Calculation has not been performed during this shift.

INITIATING CUES

- The OSM directs you to perform a manual RCS leakage calculation per PT/1A/600/10 (Reactor Coolant Leakage), Enclosure 13.3 (Manual RCS Leakage Calculation Data Sheet) using the data collected below.
- Evaluate leakage and determine if any TS LCO's are not met.
- Assume all leakage is unidentified

Parameter	Initial	Final
Time	0015	0115
Pzr level	219.0 inches	219.5 inches
Tave Indication	579.1°F	579.0°F
Quench Tank Level	86.5 inches	86.5 inches
LDST Level	76.7 inches	74.0 inches
Power Range NI	100.0%	100.1%
RCS NR Pressure	2150 psig	2150 psig
Group 7 Control Rod Position	92.7%	92.7%

Manual RCS Leakage Data

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REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Admin-131

(RO Only)

CANDIDATE

EXAMINER

REGION IL INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Task:

Perform Manual RCS Leakage Calculation

Alternate Path:

No

Facility JPM #:

CRO-43

K/A Rating(s):

System: Gen K/A: 2.1.7 Rating: 4.4/4.7

Task Standard:

RCS Leakage is correctly calculated per of attached key.

Preferred Evaluation Location:

Simulator _____ In-Plant _____ Classroom _ X

References:

PT/O/A/0600/001A, Loss Of Computer, rev 30 PT/1/A/600/10, Reactor Coolant Leakage, rev 91

Validation Time: 18 minutes

Time Critical: NO

Preferred Evaluation Method:

Perform X Simulate

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(:a	na	103	to.	
νu	IIM	IUG		

NAME

Time	Start:	

Time Finish: _____

Performance Rating:	: SAT UNSAT Performance Time		
Examiner:			1
	NAME	SIGNATURE	DATE

COMMENTS

SIMULATOR OPERATOR INSTRUCTIONS

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NONE

PT/1/A/600/10 Enclosure 13.3

READ TO OPERATOR

DIRECTION TO TRAINEE

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS

Oconee Unit 1 computer repairs are expected to be extended through turnover for hardware replacement. The Loss of Computer procedure PT/O/A/0600/001A, Loss of Computer, is in progress, however an RCS Leakage Calculation has not been performed during this shift.

INITIATING CUES

The Control Room SRO directs you to perform a manual RCS leakage calculation per PT/1A/600/10 (Reactor Coolant Leakage), Enclosure 13.3 (Manual RCS Leakage Calculation Data Sheet) using the data collected below.

Parameter	Initial	Final
Time	0015	0115
Pzr level	219.0 inches	219.5 inches
Tave Indication	579.1°F	579.0°F
Quench Tank Level	86.5 inches	86.5 inches
LDST Level	76.7 inches	74.0 inches
Power Range NI	100.0%	100.1%
RCS NR Pressure	2150 psig	2150 psig
Group 7 Control Rod Position	92.7%	92.7%

Manual RCS Leakage Data

START TIME: ____

STEP 1:	Step 2.1					1
	Record Initial Da	ata in "Table	#1".			
Value	Initial Data	Minus	Final Data	Equals	Change	-
PZR Level	219.0 inches	-		=		-
RCS Temp	579.1°F	-		=		
QT Level	86.5 inches	-		=		Sat
LDST Level	76.7 inches	-		=		
Rx Power	100.0%	-		=		-
RCS Press	2150 psig	-		=		Unsat
CR Pos	92.7%	-		=		-
					1	-
<u>STANDARD</u> :	Student enters i	nitial set of d	ata into "Table #	1" of Enclosur	e 13.3	
	(Manual Leakag	e Calculatio	n Data Sheet) fro	m the initiatin	g cue.	
COMMENTS						
<u>STEP 2</u> :	Step 2.2					
	Record time Initi	al Data reco	rded:			
<u>STANDARD</u> :	Student enters 0	015 (from in	itiating cue)			Sat
<u>COMMENTS</u>						Linest
						Unsat

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STED 3	Stop 2.2		· ·· ·····		* * . * . *		
$\underline{\mathbf{STLF}}$.	After 1 hour room	rd Einel Det					
	Alter Fridur, record Final Data in "Table #1".						
Value	Initial Data	Minus	Final Data	Equal	Change	-	
PZR Level	219.0 inches	-	219.5 inches	=	Ununge		
RCS Temp	579.1°F	-	579.0°F	=		-	
QT Level	86.5 inches	-	86.5 inches	=		-	
LDST Level	76.7 inches	-	74.0 inches	=			
Rx Power	100.0%	-	100.1%	=		Sat	
RCS Press	2150 psig	-	2150 psig	=		-	
CR Pos	92.7%	-	92.7%	=			
				1		Unsat	
STANDARD:	Student enters fin	al set of data	a into "Table #1" o	f Enclosure	e 13.3 (Manual		
	Leakage Calculat	tion Data She	eet) (from initiating	cue)			
				, ,			
COMMENTS							
<u></u>							
<u>STEP 4</u> :	Step 2.4						
	Record time Final	l Data record	ed:				
<u>STANDARD</u> :	Student enters 01		Sat				
COMMENTS							
<u>o o miniciti o</u>						Unsat	
STEP 5:	Step 2.5					CRITICAL STEP	
	Record time elaps	sed time:	minu	tes			
	·						
STANDARD:	Student enters 60) minutes					
						Sat	
COMMENTS							
<u></u>							
						Unsat	

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STEP 6:	Step 2.6					
<u> </u>	Calculate and record "Change" values in "Table # 1"				CRITICAL STEP	
Value	Initial Data	Minus	Final Data	Equal	Change	-
PZR Level	219.0 inches	-	219.5 inches	=	5 inches	
RCS Temp	579.1°F	-	579.0°F	=	+.1°F	
QT Level	86.5 inches	-	86.5 inches	=	0 inches	Sat
LDST Level	76.7 inches	-	74.0 inches	=	+2.7 inches	
Rx Power	100.0%	-	100.1%	=	1%	
RCS Press	2150 psig	-	2150 psig	=	0 psig	Unsat
CR Pos	92.7%	-	92.7%	=	0%	
STANDARD:	Student calculate	es the chang	e in data and fills i	n Table 1 cl	nange column.	
<u>COMMENTS</u>						
STEP ·7	Sten 2.7					
	Calculate Correc	ted Pzr Leve	l Change			CRITICAL STEP
			i onange.			
STANDARD	-0.5 inches $-(6.8)$	31 inches/%		A in also a		Sat
<u>0171107170</u> .	0.0 1101103 - (0.0	STITUTES/ 1	- ^ +.1 F) - •1.183	of incres		
			(-1.18)	to -1.2)		
						Unsat
<u>COMMENTS</u>						
STEP :8	Step 2.8					
<u></u>	Convert Corrected Pzr Level Change to gallons					CRITICAL STEP
	-					
STANDARD:	-1.1831 inches X	14.364 gall	ons / inch = -16.9 9	4 gallons		
	(-1.18 to -1.2)	-	(-16.9	5 to -17 24)		Sat
COMMENTS	. ,		(10.00	5 (5 11.24)		
						Unsat
<u>STEP</u> :9	Step 2.9					CRITICAL STEP
	Convert QT Leve	Change to	gallons:			
	N I I					
STANDARD:	No change					
						Sat
<u>COMMENTS</u>						
						Unsat
	·					

.

<u>STEP</u> .10	Step 2.10	CRITICAL STEP
	Convert LDST Level Change to gallons	
STANDARD	+2 7 inches X 30 956 gallons / inch = +92 5912 gallong	
<u></u> .	(100 Etc. 100 0)	Cat
	(+83.5 to +83.6)	Sat
<u>COMMENTS</u>		Unsat
		011041
STEP :11	Step 2.11	CRITICAL STER
	Calculate Total Volume Change	ONTIOAL STEP
<u>STANDARD</u> :	-16.994 gallons + 0 gallons + 83.5812 gallons = 66.5872 gallons	
	(-16.95 to -17.24) (+83.5 to +83.6) (66.26 to 66.65)	Sat
<u>COMMENTS</u>		
		Unsat
	040.40	
<u>STEP</u> .12	Step 2.12 Coloulate "BCS Unidentified Lealurus Data"	CRITICAL STEP
	Calculate RCS Unidentified Leakage Rate"	
STANDARD:	66.5872 gallons / 60 minutes = 1 109 gnm	
	(66.26 to 66.65) (1 104 to 1 11)	Sat
		Oat
COMMENTS		
<u>oominerro</u>		Unsat
	END TASK	

STOP TIME: _____

CRITICAL STEP EXPLANATIONS:

STEP #	Explanation
5	Necessary data calculation to properly determine manual RCS leakage rate.
6	Necessary data calculation to properly determine manual RCS leakage rate.
7	Necessary data calculation to properly determine manual RCS leakage rate.
8	Necessary data calculation to properly determine manual RCS leakage rate.
9	Necessary data calculation to properly determine manual RCS leakage rate.
10	Necessary data calculation to properly determine manual RCS leakage rate.
11	Necessary data calculation to properly determine manual RCS leakage rate.
12	Necessary data calculation to properly determine manual RCS leakage rate.

CANDIDATE CUE SHEET (TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

INITIAL CONDITIONS

Oconee Unit 1 computer repairs are expected to be extended through turnover for hardware replacement. The Loss of Computer procedure PT/O/A/0600/001A, Loss of Computer, is in progress, however an RCS Leakage Calculation has not been performed during this shift.

INITIATING CUES

The Control Room SRO directs you to perform a manual RCS leakage per PT/1A/600/10 (Reactor Coolant Leakage), Enclosure 13.3 (Manual RCS Leakage Calculation Data Sheet) using the data collected below.

Parameter	Initial	Final
Time	0015	0115
Pzr level	219.0 inches	219.5 inches
Tave Indication	579.1°F	579.0°F
Quench Tank Level	86.5 inches	86.5 inches
LDST Level	76.7 inches	74.0 inches
Power Range NI	100.0%	100.1%
RCS NR Pressure	2150 psig	2150 psig
Group 7 Control Rod Position	92.7%	92.7%

Manual RCS Leakage Data



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REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Admin-136 (RO Only)

CANDIDATE

EXAMINER

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REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

<u>Task:</u>

Determine Absolute Keowee Lake Level and SLC entry

Alternate Path:

N/A

Facility JPM #:

New

K/A Rating(s):

System: Gen K/A: 2.1.45 Rating: 4.3/4.3

Task Standard:

Determine Absolute Keowee Lake Level is 792.4 feet and the level is NOT within the limits of SLC 16.9.7.

Preferred Evaluation Location:

Simulator	In-Plant	Classroom	Х

References:

PT/1/A/0600/001, rev 321 SLC 16.9.7 (Keowee lake level)

Validation Time: 10 minutes

Time Critical: NO

Time Finish:_____

Performance Time _____

Preferred Evaluation Method:

Perform X Simulate

Candidate:	Time Start:

NAME

Performance Rating: SAT _____ UNSAT _____

Examiner:		/
NAME	SIGNATURE	DATE
		======

COMMENTS

SIMULATOR OPERATOR INSTRUCTIONS

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NONE

Tools/Equipment/Procedures Needed

PT/1/A/0600/001 Encl. 13.1 and 13.13

READ TO OPERATOR

DIRECTION TO TRAINEE

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS

Unit 1 reactor power = 100%

PT/1/A/0600/001 Enclosure 13.1 is in progress.

INITIATING CUES

The CRSRO directs you to determine Absolute Keowee Lake Level and if the level is within the limits of SLC 16.9.7.

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START TIME:		Fage 5 01 o
<u>STEP 1</u> :	Determine Absolute Keowee Lake Level by using computer point O1E0149 (CCW INTAKE LEVEL):	CRITICAL STEP
	Computer Point - 0.50 ft instrument error = Absolute Keowee Lake Level OR	
	Perform Enc. 13.13 "Keowee Lake Level Determination".	SAT
	Record absolute Keowee lake level	
STANDARD:	Determine that the OAC point O1E0149 (CCW INTAKE LEVEL) is (794.5 feet) Magenta and cannot be used and Perform Enc. 13.13 "Keowee Lake Level Determination".	UNSAT
COMMENTS:		

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		Page 6 of 8		
STEP 2	Determine Manual Absolute Keowee Lake Level by performing one of the following:	CRITICAL STEP		
	IF using manual (Wooden Block method) Keowee lake level calculation perform the following:	SAT		
	810 ft (Keowee Lake Level Measurement per OP/1/A/1104/012 (CCW System)) - 0.1 ft. instrument error = Absolute Keowee Lake Level			
	810 ft ft 0.1 ft. = ft.	UNSAT		
	IF using manual (Staff Gauge method) Keowee lake level calculation perform the following:			
	ft 0.1 ft. = ft.			
Cue: When asked inform candidate that Lake Keowee level using the "Wooden Block method" is 17.5 feet.				
Cue: When a method				
STANDARD:	Determine Absolute Keowee Lake Level:			
	Wooden Block method			
	810 ft <u>17.5</u> ft 0.1 ft. = 792.4 ft.			
	Staff Gauge method			
	<u>792.5</u> ft 0.1 ft. = <u>792.4</u> ft.			
COMMENTS:				
<u>STEP 3</u> :	Verify absolute Keowee lake level within limits per SLC 16.9.7 as applied to Unit 1.	CRITICAL STEP		
STANDARD:	Determine that absolute Keowee lake level is NOT within limits per SLC 16.9.7.	SAT		
COMMENTS:		UNSAT		
END OF TASK				

TIME STOP: _____

CRITICAL STEP EXPLANATIONS

STEP

Explanation

- 1 Step is required to determine absolute Keowee lake level
- 2 Step is required to determine absolute Keowee lake level
- 3 Step is required to determine that the SLC is NOT met.

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INITIAL CONDITIONS

Unit 1 reactor power = 100%

PT/1/A/0600/001 Enclosure 13.1 is in progress.

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INITIATING CUES

The CRSRO directs you to determine Absolute Keowee Lake Level and if the level is within the limits of SLC 16.9.7.

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REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Admin-137 (SRO Only)

CANDIDATE

EXAMINER

REGION II . . **INITIAL LICENSE EXAMINATION** JOB PERFORMANCE MEASURE

<u>Task:</u>

Determine Absolute Keowee Lake Level and associated SLC requirements

Alternate Path:

N/A

Facility JPM #:

New

K/A Rating(s):

System: Gen K/A: 2.1.45 Rating: 4.3/4.3

Task Standard:

Determine Absolute Keowee Lake Level is 792.4 feet and the level is NOT within the limits of SLC 16.9.7 and condition A should be entered.

Preferred Evaluation Location:	Preferred Evaluation Method:	
Simulator In-Plant Classroom X	Perform X_Simulate	
References:		
PT/1/A/0600/001, rev 321 SLC 16.9.7 (Keowee lake level)		
Validation Time: 10 minutes	<u>Time Critical:</u> NO	
Candidate:	Time Start:	
NAME	Time Finish:	
Performance Rating: SAT UNSAT	Performance Time	
Examiner:	/	
NAME	SIGNATURE DATE	

COMMENTS

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SIMULATOR OPERATOR INSTRUCTIONS

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NONE

Tools/Equipment/Procedures Needed

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PT/1/A/0600/001 Encl. 13.1 and 13.13

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READ TO OPERATOR

DIRECTION TO TRAINEE

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS

Unit 1 reactor power = 100% PT/1/A/0600/001 Enclosure 13.1 is in progress.

INITIATING CUES

The CRSRO directs you to determine Absolute Keowee Lake Level and list any SLC 16.9.7 conditions NOT met (if any).
Admin-137 r0 Page 5 of 8

START TIME: _____ <u>STEP 1</u>: Determine Absolute Keowee Lake Level by using computer point **CRITICAL STEP** O1E0149 (CCW INTAKE LEVEL): Computer Point - 0.50 ft instrument error = Absolute Keowee Lake Level OR SAT Perform Enc. 13.13 "Keowee Lake Level Determination". Record absolute Keowee lake level UNSAT STANDARD: Determine that the OAC point O1E0149 (CCW INTAKE LEVEL) is (794.5 feet) Magenta and cannot be used and Perform Enc. 13.13 "Keowee Lake Level Determination". COMMENTS:

		Admin-137 r0 Page 6 of 8
STEP 2	Determine Manual Absolute Keowee Lake Level by performing one of the following:	CRITICAL STEP
	IF using manual (Wooden Block method) Keowee lake level calculation perform the following:	SAT
	810 ft (Keowee Lake Level Measurement per OP/1/A/1104/012 (CCW System)) - 0.1 ft. instrument error = Absolute Keowee Lake Level	
	810 ft ft 0.1 ft. = ft.	UNSAT
	IF using manual (Staff Gauge method) Keowee lake level calculation perform the following:	
	(Keowee Lake Level Measurement per OP/1/A/1104/012 (CCW System)) - 0.1 ft. instrument error = Absolute Keowee Lake Level	
	ft 0.1 ft. =ft.	
Cue: When a Block n Cue: When a method	sked inform candidate that Lake Keowee level using the "Wooden nethod" is 17.5 feet. sked inform candidate that Lake Keowee level using the "Staff Gauge " is 792 5 feet	
<u>STANDARD</u> :	Determine Absolute Keowee Lake Level:	
	Wooden Block method	
	810 ft <u>17.5</u> ft 0.1 ft. = <u>792.4</u> ft.	
	Staff Gauge method	
	792.5 ft 0.1 ft. = 792.4 ft.	
COMMENTS:		
<u>STEP 3</u> :	Verify absolute Keowee lake level within limits per SLC 16.9.7 as applied to Unit 1.	CRITICAL STEP
STANDARD:	Determine that absolute Keowee lake level is NOT within limits per SLC 16.9.7. Enter Condition "A"	SAT
	A.1 Log unavailability duration in the Operations Log for Maintenance Rule Performance Monitoring.	UNSAT
	AND	
	A.2 Perform a risk assessment using the Electronic Risk Assessment Tool or other means considering CCW gravity induced reverse flow not met for all three units.	
	Completion time is Immediately.	
COMMENTS:		
	END OF TASK	

TIME STOP: _____

CRITICAL STEP EXPLANATIONS

STEP

Explanation

- 1 Step is required to determine absolute Keowee lake level
- 2 Step is required to determine absolute Keowee lake level
- 3 Step is required to determine the SLC conditions NOT met.

CANDIDATE CUE SHEET (TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

INITIAL CONDITIONS

Unit 1 reactor power = 100% PT/1/A/0600/001 Enclosure 13.1 is in progress.

INITIATING CUES

The CRSRO directs you to determine Absolute Keowee Lake Level and list any SLC 16.9.7 conditions NOT met (if any).

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REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Admin-237

(Both)

CANDIDATE

EXAMINER

REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

<u>Task:</u>

Perform SG Downcomer Temperature Surveillance

Alternate Path:

No

Facility JPM #:

Admin-207

K/A Rating(s):

 System:
 Gen

 K/A:
 2.2.12

 Rating:
 3.7/4.1

Task Standard:

Perform SG Downcomer Temperature Surveillance by procedure for the 1A (ONLY) SG and determine that the surveillance requirement is NOT met.

Preferred Evaluation Location:

Simulator	In-Plant	Classroom X	
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Preferred Evaluation Method:

Perform X Simulate

Time Critical: NO

References:

OP/1/A/1105/014 Encl 4.1 (Mode 1&2), rev 024 OP/1/A/1105/014 Encl. 4.19 (Channel Check Of OTSG Downcomer Temperatures), rev 024

Validation Time: 18 minutes

Candidate:

NAME

Performance Rating: SAT _____ UNSAT _____

Time Start: _____

Time Finish: _____

Performance Time: _____

Examiner:		1		
NAME	SIGNATURE	DATE		
<u>COMMENTS</u>				

Admin-237 r0 Page 3 of 9

SIMULATOR OPERATOR INSTRUCTIONS

NONE

Tools/Equipment/Procedures Needed:

OP/1/A/1105/014 (Control Room Instrumentation Operation And Information) OAC Screen capture image for SG Downcomer temperatures and Outlet Pressures

READ TO OPERATOR

DIRECTION TO TRAINEE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

Reactor power = 25%

OP/1/A/1105/014 (Control Room Instrumentation Operation And Information) Enclosure 4.1 (Mode 1 & 2) in progress.

INITIATING CUES:

CR SRO directs you to perform OP/1/A/1105/014 (Control Room Instrumentation Operation And Information) Enclosure 4.1 (Mode 1 & 2) on page 4 component check for the <u>1A SG</u> Downcomer Temperature.

START TIME:		an a
STEP 1:	SLC 16.7.5	CRITICAL STEP
	Verify All SG Downcomer Temperature computer points agree within 3°F of each other.	SAT
	IF All SG Downcomer Temperatures DO NOT agree within 3°F of each other, then perform Enclosure "Channel Check Of OTSG Downcomer Temperatures".	UNSAT
	O1E2008 – 534.4°F O1E2009 – 538.6°F O1E2012 – 535.7°F O1E2013 – 532.8°F	
<u>STANDARD</u> :	Determine that the above OAC points do NOT agree within 3°F of each other, and perform Enclosure 4.19 "Channel Check of OTSG Downcomer Temperatures".	
COMMENTS:		
<u>STEP 2</u> :	Step 3.1 (Enclosure 4.19)	
	Determine saturation temperature for 1A OTSG based on power level and 1A OTSG outlet pressure as follows:	SAT
	Step 3.1.1	
	Determine 1A OTSG outlet pressure using any one of the following computer points:	UNSAT
	 O1E2281 – 889.8 psig O1E2283 – 892.4 psig O1E2031 – 890.0 psig O1E2032 – 891.5 psig 	
<u>STANDARD</u> :	Using the OAC determine that 1A OTSG pressure is between 889.8 and 892.4 psig.	
COMMENTS:		

		Admin-237 r0 Page 6 of 9
<u>STEP 3</u> :	Step 3.1.2	CRITICAL STEP
	Using table in Section 4, determine the 1A OTSG saturation temperature based on power level and 1A OTSG Outlet Pressure obtained in step 3.1.1.	SAT
	1A OTSG saturation temperature	
STANDARD:	Determine that 1A OTSG saturation temperature is \approx 533.1°F (533.07°F to 533.412 °F) by using the table in section 4.	UNSAT
COMMENTS:		
<u>STEP 4</u> :	Step 3.1.3	CRITICAL STEP
	Compare O1E2008 SG Lower Downcomer Temperature Loop A to the 1A OTSG saturation temperature determined in step 3.1.2:	SAT
	Step 3.1.4	
	IF O1E2008 SG Lower Downcomer Temperature Loop A is NOT within ± 4.9 °F of the 1A OTSG saturation temperature, then enter Condition A of SLC 16.7.5 for OTSG overfill protection system inoperable.	UNSAT
<u>STANDARD</u> :	Determine that O1E2008 SG Lower Downcomer Temperature Loop A is within \pm 4.9 °F of the 1A OTSG saturation temperature and N/A this step.	
COMMENTS:		

		Admin-237 r0 Page 7 of 9
<u>STEP 5</u> :	Step 3.1.5	CRITICAL STEP
	Compare Q1E2009 SG Lower Downcomer Temperature Loop A to the 1A OTSG saturation temperature determined in step 3.1.2:	SAT
	Step 3.1.6 IF O1E2009 SG Lower Downcomer Temperature Loop A is NOT within \pm 4.9 °F of the 1A OTSG saturation temperature, then enter Condition A of SLC 16.7.5 for OTSG overfill protection system inoperable.	UNSAT
<u>STANDARD</u> :	Determine that O1E2009 SG Lower Downcomer Temperature Loop A is NOT within \pm 4.9 °F of the 1A OTSG saturation temperature, and enter Condition A of SLC 16.7.5 for OTSG overfill protection system inoperable.	
Cue: SRO is i complet	notified to enter SLC 16.7.5 Condition A and another operator will te this procedure, the JPM is complete.	
COMMENTS:		
	END TASK	

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STOP TIME: _____

and the second second

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STEP

Explanation

- 1 Step is required to complete the surveillance.
- 3 Step is required to complete the surveillance.
- 4 Step is required to complete the surveillance.
- 5 Step is required to determine that entry into SLC 16.7.5 is required.

CANDIDATE CUE SHEET (TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

INITIAL CONDITIONS:

Reactor power = 25%

OP/1/A/1105/014 (Control Room Instrumentation Operation And Information) Enclosure 4.1 (Mode 1 & 2) in progress.

INITIATING CUES:

CR SRO directs you to perform OP/1/A/1105/014 (Control Room Instrumentation Operation And Information) Enclosure 4.1 (Mode 1 & 2) on page 4 component check for the <u>1A SG</u> Downcomer Temperature.

REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Admin-330

(Both)

CANDIDATE

EXAMINER

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REGION II والتناوين بالمتداوين **INITIAL LICENSE EXAMINATION** JOB PERFORMANCE MEASURE

<u>Task:</u>

Calculate the Maximum Permissible Stay Time

- , at ---

Alternate Path:

N/A

Facility JPM #:

CRO-302

K/A Rating(s):

System: Gen K/A: 2.3.4 Rating: 3.2/3.7

Task Standard:

Calculate the Maximum Permissible Stay Time

Preferred Evaluation Location:

Simulator _____ In-Plant _____ Classroom X

References:

NSD-507, Radiation Protection, rev 014

Validation Time: 10 min.

Candidate:

Performance Rating: SAT _____ UNSAT _____

Candidate:		Time Start:
	NAME	Time Finish:

Time Critical: NO

Preferred Evaluation Method:

Perform X Simulate

Performance Time

Examiner:		1
NAME	SIGNATURE	DATE
	======================================	

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SIMULATOR OPERATOR INSTRUCTIONS

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× - , -

NONE

Tools/Equipment/Procedures Needed

Color copies of the following:

- Room 254 (3B SFP Filter) Plan View
- RWP #116

READ TO OPERATOR

DIRECTIONS TO STUDENT

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS

3B SFP Filter is required to be isolated for filter replacement.

All work will be performed in the vicinity of the 3B SFP filter.

INITIATING CUE

Refer to RWP #116 and the plan view for Unit 3 SFP Demineralizer and Filters Room and determine how long the NEO can stay in the room performing this isolation before he must exit due to a <u>dose alarm</u>.

Assume no dose received in transient to and from the task.

START TIME:

المراجع والمحتان والمتعاد

Note: Candidate may perform these steps in a different order however the calculated stay time should be correct.

<u>STEP 1</u> : <u>STANDARD</u> : <u>COMMENTS</u> :	From the Plan View of room 254 (Unit 3 Demineralizer and Filter) determine dose rate in the vicinity of the 3B SFP filter. Plan View is referenced and the general area dose rate is determined to be 250 mr/hr at the "3B" SFP Filter.	CRITICAL STEP
<u>STEP 2</u> : <u>STANDARD</u> : <u>COMMENTS</u> :	Determine from RWP the dose alarm setpoint. RWP #116, Task 2 (High Radiation Area Entry) Dose alarm set at 150mr	CRITICAL STEP
<u>STEP 3</u> : <u>STANDARD</u> : <u>COMMENTS</u> :	Calculate maximum stay time the NEO has to complete the isolation before he must exit due to a dose alarm. Stay time is calculated to be: <u>Available Dose</u> = <u>150 mrem</u> = 0.6 hours (36 minutes) Dose Rate 250 mrem/hr	CRITICAL STEP
	END OF TASK	

TIME STOP: _____

CRITICAL STEP EXPLANATIONS

STEP

Explanation

- 1 The plan view must be referenced to determine the dose rate in the room.
- 2 Required to calculate how much dose the NEO has available before a dose alarm is recieved.
- 3 Required to calculate stay time.

CANDIDATE CUE SHEET (TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

INITIAL CONDITIONS

3B SFP Filter is required to be isolated for filter replacement.

All work will be performed in the vicinity of the 3B SFP filter.

INITIATING CUE

Refer to RWP #116 and the plan view for Unit 3 SFP Demineralizer and Filters Room and determine how long the NEO can stay in the room performing this isolation before he must exit due to a <u>dose alarm</u>.

Assume no dose received in transient to and from the task.

TRAINING	Oconee Nuclear Sta	tion TRA	INING
USE ONLY	Radiation Work Per	rmit USE	ONLY
Entry For Routine Plant A	nd Systems Operation (Operations)	RWP # 116	Rev: (
	Task # 1		
	Entry For Routine Plant And Systems Ope	ration (Operations)	
	ED Alarm Set Points:	ан түүүүлөр жаанаан алаан алаан ал	
Dose Alarm:	10	Dose Rate Ala	arm: 50
	Stov Time Alexand	2000	
	Stay Time Alarm: 5	0:00	
	RWP Requiremen	ts	
	Dress Category/Work Descript	ion	
 Dress Category "A" Worl 	in a non-contaminated area		
Dress Category "B" Worl contact with contaminated n etc.).	k in a non-contaminated area with contaminated naterial other than by hand and durability of sur	d material where there is NO p gical gloves is sufficient (e.g.,	ootential for taking smears
 Dress Category "C" Worl contact with contaminated n 	k in a non-contaminated area with contaminate naterial other than by hand AND durability of su	d material where there is NO p rgical gloves is NOT sufficient	ootential for
 Dress Category "D" World contamination of unprotecte 	< of short duration, in open area(s) with NO obs d skin or clothing	structions that could contribute	e to
 Dress Category "E" Worl surgical gloves requires con loose surface contamination 	where: (1) Complete protection of skin and clusideration; (3) Radioactive material is handled exist.	othing is NOT required; (2) Du and/or transported AND the po	rability of otential for
Dress Category "F" Work	in a contaminated area where complete prote	ction of skin and clothing is N	OT necessary.
Dress Category "G" Wor	k in a dry contaminated area.		
Dress Category "H" Worl	k in a contaminated area.		
Dress Category "N" Perf	orming work in contaminated wet conditions.		
Modesty garments, top &	bottom, are required under protective clothing v	where personal outer clothing	is not worn
	Contamination Control		
 Wipe down AND bag all to 	ools and equipment prior to removal from a con	taminated area as directed by	RP
 Utilize facial protection (e. 	g. face shield, hood sock, power visor) as direc	ted by RP	
 Install catch containments 	OR drain rigs to prevent spills if draining comp	ponents	
 If installing a drain rig, use 	hose clamps or similar device to secure hose	OR tubing connections	
 If installing a drain rig, sec 	ure hose OR tubing to floor drain	0	
Wear disposable (plastic)	booties inside of orex booties for work in wet c	onditions	
Change outer rubber alov	es often when handling highly contaminated m	aterial as directed by RP	
Use surgical gloves in lieu	of rubber gloves for the manipulation of small	or specialty items as directed	by RP

RP Job Coverage

Start of Job, Intermittent or No Coverage In Radiation Areas or Less

RP Coverage Required To Transport Material > 100 Mrem/Hr Contact On Material

Dosimetry Requirements

• Monitor ED periodically while inside the RCA/RCZ (once or twice per hour in low dose rate areas). Monitor more frequently in higher dose rate areas, for example every 10 to 15 minutes.

• If dress requirements prevent the monitoring of ED, and RP is not remotely monitoring (via teledose & communications), place ED external to the outmost layer of protective clothing for monitoring

RP Hold Points

RP survey required prior to handling debris or foreign material

Notify RP prior to reaching OR entry into the overhead (8 feet and above)

Accumulated dose higher than expected

Stop Work Criteria

Dose Alarm

Unexpected dose rate alarm

Airborne conditions higher than expected

• Actual dose rates are higher than the expected levels written on this RWP task

• Actual contamination levels are higher than the expected levels written on this RWP task

· Unexpected wet conditions

• If monitoring of the ED indicates that the dose alarm set point will be exceeded prior to completing the job, leave the area and contact RP. Do not wait to receive an alarm before exiting the area

Failure of OR sweat soaked protective clothing

Expected Radiological Conditions

General area dose rates: 0.1 mrem/hr - 100 mrem/hr High contact dose rates: 0.1 mrem/hr - 3000 mrem/hr Contamination levels: <1000 dpm/100cm2 - 100,000 dpm/100cm2 (Beta/Gamma) Contamination levels: 0 dpm/100cm2 - 300 dpm/100cm2 (Alpha)

Additional Instructions

Utilize Mirrors and / or Remote Surveillance Equipment to Eliminate Room Entry When Feasible.

TRAINING

USE ONLY

Oconee Nuclear Station Radiation Work Permit

TRAINING

USE ONLY

Entry For Routine Plant And Systems Operation (Operations)

RWP # 116

Rev: 00

Task # 2

Isolate and drain the 3B SFP Filter (Operations)

ED Alarm Set Points:

Dose Alarm: 150

Dose Rate Alarm: 500

Stay Time Alarm: 45:00

High Radiation Area Entry

RWP Requirements

Dress Category/Work Description

Dress Category "A" Work in a non-contaminated area

• Dress Category "B" Work in a non-contaminated area with contaminated material where there is NO potential for contact with contaminated material other than by hand and durability of surgical gloves is sufficient (e.g., taking smears, etc.).

• Dress Category "C" Work in a non-contaminated area with contaminated material where there is NO potential for contact with contaminated material other than by hand AND durability of surgical gloves is NOT sufficient.

• Dress Category "D" Work of short duration, in open area(s) with NO obstructions that could contribute to contamination of unprotected skin or clothing

• Dress Category "E" Work where: (1) Complete protection of skin and clothing is NOT required; (2) Durability of surgical gloves requires consideration; (3) Radioactive material is handled and/or transported AND the potential for loose surface contamination exist.

• Dress Category "F" Work in a contaminated area where complete protection of skin and clothing is NOT necessary.

• Dress Category "G" Work in a dry contaminated area.

• Dress Category "H" Work in a contaminated area.

• Dress Category "I" Hands on work with higher contaminated material or beta dose concerns to hands only.

• Dress Category "N" Performing work in contaminated wet conditions.

• Modesty garments, top & bottom, are required under protective clothing where personal outer clothing is not worn

Contamination Control

· Wipe down AND bag all tools and equipment prior to removal from a contaminated area as directed by RP

Utilize facial protection (e.g. face shield, hood sock, power visor) as directed by RP

Install catch containments OR drain rigs to prevent spills if draining components

If installing a drain rig, use hose clamps or similar device to secure hose OR tubing connections

· If installing a drain rig, secure hose OR tubing to floor drain

Wear disposable (plastic) booties inside of orex booties for work in wet conditions

· Change outer rubber gloves often when handling highly contaminated material as directed by RP

Use surgical gloves in lieu of rubber gloves for the manipulation of small or specialty items as directed by RP

Start of Job, Intermittent or No Coverage for work in High Radiation Areas or less		
Timekeeping/dose controller required for workers exposed to an actual dose rate >1500 mrem/hr OR dose will exceed 500 mrem for an individual entry		
Pre-job briefing required		
Dosimetry Requirements		
An Auxiliary ED alarm is required in areas where general area dose rates are > 100 mrem/hr if any of the following onditions exist:		
1. High noise level in the work area.		
2. Use of head phones		
3. Hearing impairment		
4. Any other condition that would impair hearing an ED alarm		
Monitor ED periodically while inside the RCA/RCZ (once or twice per hour in low dose rate areas). Monitor more requently in higher dose rate areas, for example every 10 to 15 minutes.		
If dress requirements prevent the monitoring of ED, and RP is not remotely monitoring (via teledose & communications), place ED external to the outmost layer of protective clothing for monitoring		
Respiratory Protection	1	
If weighted DAC-Hours are expected to result in greater than or equal to 4 DAC-Hours per person, perform a EDE/ALARA evaluation		
Full Face Particulate (Additional Hood Required) IF warranted by TEDE ALARA Evaluation OR directed by RP		
RP Hold Points		
RP survey required prior to handling valve/pump parts or internals		
RP survey required prior to handling debris or foreign material		
Notify RP prior to reaching OR entry into the overhead (8 feet and above)		
Accumulated dose higher than expected		
Notify RP Prior to Start of Work		
RP briefing required prior to entering High Radiation Areas		
Stop Work Criteria		
Dose Alarm		
Unexpected dose rate alarm		
Actual dose rates are higher than the expected levels written on this RWP task		
Actual contamination levels are higher than the expected levels written on this RWP task		
Unexpected wet conditions		I
Work scope changes		1
If monitoring of the ED indicates that the dose alarm set point will be exceeded prior to completing the job, leave the area and contact RP. Do not wait to receive an alarm before exiting the area		
Failure of OR sweat soaked protective clothing	_	
Expected Radiological Conditions		
General area dose rates: 100 mrem/hr - 700 mrem/hr High contact dose rates: 0.1 mrem/hr - 3000 mrem/hr Contamination levels: <1000 dpm/100cm2 - 100,000 dpm/100cm2 (Beta/Gamma) Contamination levels: 0 dpm/100cm2 - 300 dpm/100cm2 (Alpha)		
		1





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REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Admin-430

(SRO Only)

CANDIDATE

EXAMINER

REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

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<u>Task</u>:

Determine Emergency Classification and Protective Action Recommendations

Alternate Path:

NO

Facility JPM #:

CRO-407

K/A Rating(s):

System: Gen K/A: 2.4.38 Rating: 2.4/4.4

Task Standard:

Appropriate classification is determined and associated Emergency Notification Form is completed.

Preferred Evaluation Location:			Preferred Evaluation M	Preferred Evaluation Method:	
Simulator	In-Plant	ClassroomX	Perform X Simulat	e	
<u>References:</u>					
RP/0/B/1000/ RP/0/B/1000/ RP/0/B/1000/ BASIS Docur	/01, rev 029 /02, rev 023 /015A, rev 013 ment (Volume "A	", Section "D" of the Emergency F	Yan)		
Validation Ti	ime: 20 min. ====================================		Time Critical:	/es =============	
Candidate:			Time Start:		
		NAME	Time Finish:		
Performance	e Rating: SAT	UNSAT	Performance Tin	ne:	
Examiner: _				/	
==========	NAM ===========	t ====================================	SIGNATURE	DATE =======	
		Comments			

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SIMULATOR OPERATOR INSTRUCTIONS

NONE

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Tools/Equipment/Procedures Needed:

RP/0/B/1000/01 RP/0/B/1000/02

READ TO OPERATOR

DIRECTIONS TO STUDENT

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS

TIME: 5 Minutes ago

- Unit 2 & 3 at 100% power
- Unit 1 tripped due to a turbine control system malfunction
- 1A SG MSRV 1MS-6 failed to fully reseat result in 1A SG pressure stabilizing at ≈ 850 psig

CURRENT CONDITIONS

- Chemistry reports Unit 1 RCS activity is 305 µCi/ml DEI
- 1A SG tube leakage calculated at 105 gpm
- 1RIA-58 (High Range Containment Monitor) reading 1.3 R/hr and slowly increasing

INITIATING CUE

You are to perform the required actions of the Emergency Coordinator by referring to RP/0/B/1000/01, Emergency Classification:

- 1. Determine Emergency Classification at present time.
- 2. Complete appropriate Emergency Notification Form for the current conditions.

Inform the examiner when you have made the classification.

THIS IS A TIME CRITICAL JPM

Note: Do not use Emergency Coordinator's judgment while classifying the event. When required, an operator will maintain the Emergency Coordinator's Log and assume the duties of the Control Room Offsite Communicator.

START TIME:

<u>STEP 1</u> :	Classify the Event	CRITICAL STEP
<u>STANDARD</u> :	Refer to RP/0/B/1000/01 (Emergency Classification) Enclosure 4.1 (Fission Product Barrier Matrix).	SAT
	Classify the event as a "General Emergency" due to the following:	
	Loss of RCS barrier (5 points) (1RIA-58 > 1.0 R/hr)	
	Loss of Fuel Clad Barriers (5 points) (Coolant activity ≥ 300 µCi/ml DEI)	UNSAT
	Loss of Containment Barrier (3 points) (Failure of secondary side of SG results in a direct opening to the environment with SG Tube Leak ≥ 10 gpm in the SAME SG)	
	Time for Classification	
<u>COMMENTS</u> :		
<u>STEP 2</u> :	Commence the Off-Site Notification Form.	
<u>STANDARD</u> :	Go to RP/0/B/1000/002 (Control Room Emergency Coordinator Procedure) and initiate procedure by determining symptoms for entry exist and check Step 1.1	SAT
COMMENTS:		UNSAT
<u>STEP 3</u> :	Step 2.1.	
	IF No EAL exists, AND ERO activation is desired, THEN GO TO Enclosure 4.4, (ERO Pager Activation)	SAT
STANDARD:	Determine step 2.1 does not apply	
COMMENTS:		UNSAT
<u>STEP 4</u> :	Step 2.2 Declare the appropriate Emergency Classification level. Classification <u>GE</u> (UE, ALERT, SAE, GE) Time Declared:	TIME CRITICAL STEP
STANDARD:	Declare a GE due to: 4.1.G.2 Loss of all three barriers	SAT
STOP TIME #1: Time GE Declared		
(Actual time)	(SAT is < Start Time + 15 minutes)	UNSAT
COMMENTS:		

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<u>STEP 5</u> :	Step 2.3 IF a Security event is in progress THEN GO TO Step 2.5	SAT
STANDARD:	Determine Steps 2.3 does not apply	
COMMENTS:		UNSAT
STEP 6:	Step 2.4	
	IF assistance from ERO personnel is desired/required:	0.47
STANDARD:	Determine Steps 2.4 does not apply	SAT
COMMENTS:		
		UNSAT
<u>STEP 7</u> :	Step 2.5 Appoint Control Room Offsite Communicator(s) and notify him to be prepared to transmit messages.	
STANDARD:	Any name (real or imaginary) is acceptable.	SAT
COMMENTS:		UNSAT
<u>STEP 0</u> :	IAAT Changing plant conditions require an emergency classification upgrade,	
STANDARD:	An Upgrade is not expected.	SAT
COMMENTS:		
		UNSAT

STEP 9:	Step 2.7	CRITICAL STEP
	Obtain the appropriate Offsite Notification form from the Emergency Plan cart.	SAT
STANDARD:	Initial General Emergency form # 4.1.G.2 is selected and candidate continues to fill-out form per substeps of Step 2.7.	UNSAT
COMMENTS:		
<u>STEP 10</u> :	Step 2.7	*CRITICAL STEP
Ensure E	EAL # as determined by RP/0/B/1000/001 matches Line 4. (4.1.G.2)	
Line 1	Mark appropriate box "Drill" or "Actual Event" (DRILL)	SAT
*Line 1	Enter Message # (#1)	SAT
*Line 2	Mark Initial (INITIAL marked)	
Line 8	Mark "Stable" unless an upgrade or additional PARs are anticipated within an hour. (A condition marked is CRITICAL; stable, improving or degrading- does not matter)	UNSAT
	 Refer to Enclosure 4.9, (Event Prognosis Definitions) 	
*Line 10	Military time and date of declaration (Refer to date/time in Step 2.2) (Inserts time from STEP 1 and today's date, military time is not critical as long as time is specific and accurate)	
Line 11	If more than one unit affected, mark "All" (Unit 1 only)	
*Line 12	Mark affected unit(s) (reference Line 11) AND enter power level of affected unit(s) or time/date of shutdown {14} (Unit 1 0% power, Shutdown 5 minutes ago with today's date.)	
Line 13	If the OSM has no remarks, write "None"	
2.7.12	If Condition "A" exists ensure following PARs are included Line 5.	
	(Condition A does not exist. No PAR required)	
<u>STANDARD</u> :	Correctly fills out Emergency Notification Form in accordance with Key.	
COMMENTS:		

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<u>STEP 11</u> :	Step 2:7 Continued	TIME CRITICAL STEP
Line 17	- OSM signature, CURRENT Time/Date (MUST SIGN)	
STANDARD:	Correctly fills out Emergency Notification Form within 15 minutes of classification time recorded in step 1.	SAT
STOP TIME	STOP TIME #2: Time for Notification	
(Actual time)	(SAT is < Stop Time #1 + 15 minutes)	UNSAT
COMMENTS:		
	END OF TASK	

TIME STOP: _____

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CRITICAL STEP EXPLANATIONS

STEP

Explanation

- 1 The candidate needs to be able to utilize the procedure and determine the conditions meet a Site Area Emergency classification.
- This is a time critical step. The candidate needs to declare the SAE within 15 minutes of beginning the JPM. (The start of the JPM is the beginning of the assessment period)
- 9 The correct form that matches the EAL # is selected.
- 10 The emergency notification form is accurately filled-out; identified steps from the KEY are critical items.
- 11 This is a time critical step. The Candidate needs to complete the notification form within 15 minutes from the time the EAL was declared. (Declaration time is the time recorded in JPM step 4)
CANDIDATE CUE SHEET (TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

INITIAL CONDITIONS

TIME: 5 Minutes ago

- Unit 2 & 3 at 100% power
- Unit 1 tripped due to a turbine control system malfunction
- 1A SG MSRV 1MS-6 failed to fully reseat result in 1A SG pressure stabilizing at ≈ 850 psig

CURRENT CONDITIONS

- Chemistry reports Unit 1 RCS activity is 305 µCi/ml DEI
- 1A SG tube leakage calculated at 105 gpm
- 1RIA-58 (High Range Containment Monitor) reading 1.3 R/hr and slowly increasing

INITIATING CUE

You are to perform the required actions of the Emergency Coordinator by referring to RP/0/B/1000/01, Emergency Classification:

- 1. Determine Emergency Classification at present time.
- 2. Complete appropriate Emergency Notification Form for the current conditions.

Inform the examiner when you have made the classification.

THIS IS A TIME CRITICAL JPM

Note: Do not use Emergency Coordinator's judgment while classifying the event. When required, an operator will maintain the Emergency Coordinator's Log and assume the duties of the Control Room Offsite Communicator.