



# **FPL Energy**

## **Seabrook Station**

JOB PERFORMANCE MEASURE 2007 NRC EXAM RO-ADMJPM01

PERFORM RCS STEADY STATE LEAK RATE CALCULATION

Student Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Evaluator Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

Evaluator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Training Coordinator Signature \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

SAT      UNSAT

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PREPARED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
INSTRUCTOR

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SUBJECT MATTER EXPERT (OPTIONAL)

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
TRAINING SUPERVISOR

## **JOB PERFORMANCE WORKSHEET**

### **1.0 Task Number and Description:**

0020200101 Perform RC Steady State Leak Rate Calculation.

### **2.0 Conditions:**

- A. The plant is in MODE 1, 100% steady state power.
- B. Your shift started a manual RCS leak rate calculation at 0030 to comply with OS07-01-02, RCS Leakage Monitoring/Action Commitment.
- C. Yesterdays RCS leakage was .004 gpm.

### **3.0 Standards:**

Calculate the manual steady state leak rate.

### **4.0 Student Materials:**

Copy of the Tear-Off Sheet.  
OX1401.02, RCS Steady State Leak Rate Calculation.  
OS07-01-02, RCS Leakage Monitoring/Action Commitment.  
Attached data table on JPM tear-off sheet.  
Primary Tech. Data Book  
Calculator

### **5.0 Limitations On Performance:**

Perform all steps. Verbalize all actions to the evaluator. Even if requested, no peer checks will be provided during the JPM.

### **6.0 References:**

Procedures:

- OX1401.02, RCS Steady State Leak Rate Calculation
- OS07-01-02, RCS Leakage Monitoring/Action Commitment.

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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM01

## **JOB PERFORMANCE WORKSHEET**

Sys	KA	Description	Value RO/SRO
	2.1.7	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation.	3.7/4.4

**7.0 Setting:**

Classroom

**8.0 Safety Considerations:**

None

**9.0 Approximate Completion Time:**

30 minutes

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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM01

## **JOB PERFORMANCE WORKSHEET**

### **10.0 Directions To The Student(s):**

Evaluator gives Tear-Off sheet to the student.

- A. You are the Primary Operator. You are going to complete a manual RCS steady state leak rate calculation.
- B. The following information is provided to you:
- 1) The plant is in MODE 1 at 100% power.
  - 2) The main plant computer system leak rate program is unavailable.
  - 3) Per procedure OS07-01-02, RCS Leakage Monitoring/Action Commitment, your shift started the daily manual RCS steady state leak rate surveillance at 0030.
  - 4) The previous days UNIDENTIFIED LEAK RATE measurement was .004 gpm.
- C. The evaluator will act as the Shift Manager and provide the cues and communications for this JPM. Do you have any questions?

### **11.0 Initiating Cue:**

Unit Supervisor to Primary Operator, **"The time is 0630. Complete the manual steady state leak rate calculation with the collected data provided. After you have completed the calculation let me know if RCS leakage is within the prescribed limits of OS07-01-02, RCS Leakage Monitoring/Action Commitment."**

#### **A) OX1401.02 collected data:**

<b>START DATA @ 0030</b>	
Tavg	589.8°F
PZR Level	59%
VCT Level	48%
Integrated Makeup	25 gallons
PRT Level	60%
RCDT Level	46%

<b>FINISH DATA @ 0630</b>	
Tavg	589.9°F
PZR Level	59%
VCT Level	51%
Integrated Makeup	230 gallons
PRT Level	60%
RCDT Level	61%

**B) Previous days UNIDENTIFIED LEAK RATE DATA: 0.004 gpm**

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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM01

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP  * denotes a critical step	STANDARD  * denotes a critical step	EVALUATION  SAT    UNSAT	INITIALS/DATE
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**NOTE:** 1. The completed Leak Rate worksheet, OX1401.02, Form B can be used to show satisfactory completion of the leak rate calculation.  
 2. The evaluator will act as the Unit Supervisor to complete communications with the student.

1.	P	Start time	Initiating cue read. Student obtains copy of OX1401.02, RCS Steady State Leak Rate Calculation.	_____	_____
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**Evaluator CUE:** If the student inquires about the chemistry notification, provide the cue, **"All prerequisites For the surveillance were met at 0030 this morning."**

2.	P	If the main plant computer is not available PERFORM the following:		_____	
		a. VERIFY the Prerequisites are complete.	Verifies prerequisites are complete.	_____	_____
		b. CALCULATE and RECORD data as shown on Form B:	Records and calculates required data on Form B:		
		(1) TIME	Time: 360 minutes	_____	_____
		(2) Tavg	Tavg: +8.396 gallons	_____	_____
		(3) PZR LEVEL	PZR level: 0 gallons	_____	_____
		(4) VCT LEVEL	VCT level: 93.42 gallons	_____	_____
		(5) INTEGRATED MAKEUP	INT MAKEUP: 205 gallons	_____	_____
		(6) PRT LEVEL	PRT level: 0 gallons	_____	_____
		(7) RCDT LEVEL	RCDT level: 55 gallons	_____	_____

**Evaluator Cue:** Student may ask if there is any additional leakage data. If the student asks, say **"There is No additional leakage"**.

*3	P	DETERMINE the RCS leak rate using Form B.		_____	
		a. Calculate Identified leakage.	a. Calculates IDENTIFIED LEAKAGE. (Range: 0.14 to 0.16 gpm)	_____	_____

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM01

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP	STANDARD	EVALUATION	INITIALS/DATE
	* denotes a critical step	* denotes a critical step	SAT    UNSAT	

b. Calculate Unidentified leakage.

\*b. Calculates UNIDENTIFIED LEAKAGE (Acceptable range: 0.16 to 0.20 gpm.)

\_\_\_\_\_

**Evaluator CUE:** If the student asks to record the data on the Shift Tech. Spec. Logs or PM Data Sheet, say “I will record the data when you complete your actions, continue with the JPM.”

4	P	RECORD the data using one or both of the following:  a. Tech.Spec. Logs. b. PM Data Sheet.	The PM sheet is not included with this JPM, therefore, no action is required.
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**NOTE:** The student should now be utilizing procedure OS07-01-02, RCS Leakage Monitoring/Action Commitment to determine if the UNIDENTIFIED LEAKAGE is less than the following limits:

- 0.27 (baseline + 0.25 gpm)
- 0.1 gpm greater than the previous day's measurement.

**Evaluator CUE:** If the student asks to record the unidentified leakage in the Unit Journal and Tech. Spec. Logs say “I will record the data when you complete your actions, continue with the JPM.”

*5	P	VERIFY RCS unidentified leakage less than the following limits:
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a. <0.27 gpm (baseline + 0.25 gpm)

\*Verifies YES. Unidentified Leak Rate is less than 0.27 gpm.

\_\_\_\_\_

b. <0.1 gpm greater than previous day's measurement.

\*VERIFIES NO the Unidentified Leak Rate is more than 0.1 gpm greater than the previous days measurement.

\_\_\_\_\_

**Evaluator CUE:** “The JPM is complete.”

9 Stop time \_\_\_\_\_

Evaluator calculates time to complete task.

Time to complete task ≤ 30 minutes.

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM01

Provide comments on unsatisfactory performance of an element/step or for deviation from performance as stated. Record interruptions in performance such as retraining, shift change, and processing of procedure changes. Recommend remedial training, if necessary.

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RO-ADMJPM01

## TEAR-OFF SHEET FOR RO-ADMINJPM01

### Sheet 1 of 2

#### Directions to the Student:

Evaluator gives Tear-Off sheet to the student.

- A. You are the Primary Operator. You are going to complete a manual RCS steady state leak rate calculation.
- B. The following information is provided to you:
  - 1) The plant is in MODE 1 at 100% power.
  - 1) The main plant computer system leak rate program is unavailable.
  - 2) Per procedure OS07-01-02, RCS Leakage Monitoring/Action Commitment, your shift started the daily manual RCS steady state leak rate surveillance at 0030.
  - 3) The previous days UNIDENTIFIED LEAK RATE measurement was .004 gpm.
- C. The evaluator will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

#### Initiating Cue:

Unit Supervisor to Primary Operator, **"The time is 0630. Complete the manual steady state leak rate calculation with the collected data provided. After you have completed the calculation let me know if RCS leakage is within the prescribed limits of OS07-01-02, RCS Leakage Monitoring/Action Commitment."**

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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM01



**TEAR-OFF SHEET FOR RO-ADMINJPM01**

Sheet 2 of 2

**A) OX1401.02 collected data:**

<b>START DATA @ 0030</b>	
Tavg	589.8°F
PZR Level	59%
VCT Level	48%
Integrated Makeup	25 gallons
PRT Level	60%
RCDT Level	46%

<b>FINISH DATA @ 0630</b>	
Tavg	589.9°F
PZR Level	59%
VCT Level	51%
Integrated Makeup	230 gallons
PRT Level	60%
RCDT Level	61%

**B) Previous days UNIDENTIFIED LEAK RATE DATA:**

**.004 gpm**

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM01

Answer Key

Form B: PM Number 1-LEAK-OT002-000

Test Data Sheet

(Sheet 2 of 2)

MANUAL RCS LEAK RATE						
PARAMETER	INSTRUMENT USED	FINISH	START	CHANGE FINISH-START	CONVERSION	GALLONS OR MINUTES
		0630	0030			

TIME	MCB CLOCK	0630	0030	360 min	60 min/hr	360 min (1)
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OBTAIN DATA FROM THE MAIN CONTROL BOARD AND CP-38A

TAVG	DIGITAL	589.9°F	589.8°F	.1 °F	83.96 gal/°F (Note 2)	8.396 gal (2)
PZR LEVEL	(Note 4)	59 %	59 %	0 %	61.31 gal/% (Note 2)	0 gal (3)
VCT LEVEL	LI-185	51 %	48 %	3 %	31.14 gal/%	93.42 gal (4)
INTEGRATED MAKEUP	CS-FIQ-111 (Note 5)	230 gal	25 gal	205 gal	N/A	205 gal (5)

PRT LEVEL	LI-470	8200 gal (Note 3)	8200 gal (Note 3)	0 gal	N/A	0 gal (6)
RCDT LEVEL	LI-1403 (at CP-38A)	215 gal (Note 3)	160 gal (Note 3)	55 gal	N/A	55 gal (7)

OBTAIN THIS DATA FROM ANY KNOWN SOURCE AND RECORD GALLONS (Note 1)

0						gal (8)
						gal (8)

IDENTIFIED LEAKAGE

$$\left( \overset{8}{0} \right) + \left( \overset{7}{55} \right) + \left( \overset{6}{0} \right) = \left( 0.153 \right) \text{ gpm}^{(9)}$$

$$\frac{\left( 360 \right)}{1} \text{ Identified Leakage Acceptance Criteria } \leq 10 \text{ gpm}$$

UNIDENTIFIED LEAKAGE

$$\left( \overset{5}{205} \right) + \left( \overset{2}{8.396} \right) - \left( \overset{3}{0} \right) - \left( \overset{4}{93.42} \right) - \left( \overset{9}{.153} \right) \text{ gpm} = .18 \text{ gpm}$$

$$\frac{\left( 360 \right)}{1}$$

Unidentified Leakage Acceptance Criteria  $\leq 1$  gpm

Note 1: This is for sampling losses, accumulator leaks, steam generator tube leakage, etc.

Note 2: These conversion factors are only valid for normal operating temperature and pressure. If the plant is stable at a reduced pressure and temp and the computer is not available, use the conversion factors from Figure 2.

Note 3: Obtain tank volume from the Primary Technical Data Book and record gallons for calculation. Do not use % due to nonlinearity of the tank volume.

Note 4: Record the instrument number and use the same hot calibrated level indicator for both start and finish.

Note 5: Any RWST, BWST, or SF Pool makeups must be subtracted from the integrated makeup total.

Calculations checked by: \_\_\_\_\_

OX1401.02

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4.

# INSTRUCTIONS

## NOTE

1. Loss of the Main Plant Computer **will** require performance of a Manual Leak Rate calculation once every 24 hrs in accordance with OX1401.02, RCS Steady State Leak Rate Calculation.
2. Steady State operating condition is defined as Steady state power level with equilibrium xenon

- ☐ 4.1 Once per day during Steady State operating conditions, MEASURE RCS unidentified leakage per OX1401.02, RCS Steady State Leak Rate Calculation.
- ☐ 4.2 RECORD daily RCS unidentified leakage value in the Unit Journal and Tech. Spec. Logs.
- ☐ 4.3 VERIFY RCS unidentified leakage less than the following limits:
  - 0.27 gpm (baseline + 0.25 gpm) *Yes*
  - 0.1 gpm greater than previous day's measurement *No*

## Answer Key

New calculated unidentified leakage per OX 1401.02, Form B was .18 gpm

(A) .18 gpm is less than .27 gpm

(B) Previous days calculated unidentified leak rate was .004 gpm. The new calculated unidentified leak rate of .18 gpm is .176 gpm greater than the previous day. Per Step 4.3 RCS unidentified leak rate is not less than the described limit.

OS07-01-02

Rev. 00

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# **FPL Energy**

## **Seabrook Station**

JOB PERFORMANCE MEASURE 2007 NRC EXAM RO-ADMJPM02

SHUTDOWN MARGIN (MODE 2)

Student Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Evaluator Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

Evaluator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Training Coordinator Signature \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

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PREPARED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
INSTRUCTOR

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SUBJECT MATTER EXPERT (OPTIONAL)

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
TRAINING SUPERVISOR

## **JOB PERFORMANCE WORKSHEET**

### **1.0 Task Number and Description:**

0010100401 Perform Shutdown Margin Calculations.

### **2.0 Conditions:**

- A. The plant is in MODE 2, Beginning of Life (BOL), at 3% power.
- B. RCS boron concentration is 1298 ppm.
- C. During performance of OX1410.02, Quarterly Rod Operability Surveillance, rod H-2 dropped to the bottom of the core.
- D. Rod H-2 cannot be moved. All other rods are fully withdrawn.
- E. The Unit Supervisor has entered procedure OS1210.05, DROPPED ROD.

### **3.0 Standards:**

Determine the shutdown margin within +/- 0.15%  $\Delta K/K$ .

### **4.0 Student Materials:**

Copy of the Tear-Off Sheet.  
RX1707, Shutdown Margin Surveillance  
BOL Primary Tech. Data Book  
Technical Specifications  
Technical Requirements

### **5.0 Limitations On Performance:**

Perform all steps. Verbalize all actions to the evaluator. Even if requested, no peer checks will be provided during the JPM.

### **6.0 References:**

Procedures:

RX1707, Shutdown Margin Surveillance

Sys	KA	Description	Value RO/SRO
	2.1.25	2.1.25 Ability to obtain and interpret station reference materials such as graphs, monographs, and tables, which contain performance data.	2.8/3.1

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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM02

## **JOB PERFORMANCE WORKSHEET**

### **7.0 Setting:**

Classroom

### **8.0 Safety Considerations:**

None

### **9.0 Approximate Completion Time:**

15 minutes

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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM02

## **JOB PERFORMANCE WORKSHEET**

### **10.0 Directions To The Student(s):**

Evaluator gives Tear-Off sheet to the student.

- A. You are going to calculate Shutdown Margin in MODE 2.
- B. The following information is provided to you:
  - 1) The plant is in MODE 2, Beginning of Life (BOL) at 3% power.
  - 2) RCS boron concentration is 1298 ppm.
  - 3) During performance of OX1410.02, Quarterly Rod Operability Surveillance, rod H-2 dropped to the bottom of the core.
  - 4) Rod H-2 cannot be moved.
  - 5) All other rods are fully withdrawn.
  - 6) The Unit Supervisor has entered procedure OS1210.05, DROPPED ROD.
- C. The evaluator will act as the Shift Manager and provide the cues and communications for this JPM. Do you have any questions?

### **11.0 Initiating Cue:**

Unit Supervisor says, **"Calculate Shutdown Margin and let me know if we are in compliance with Technical Specifications"**

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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM02

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP	STANDARD	EVALUATION		INITIALS/DATE
	* denotes a critical step	* denotes a critical step	SAT	UNSAT	

1.	Start time	Initiating cue read			_____
----	------------	---------------------	--	--	-------

**NOTE:** Calculate SDM per RX1707, Section 4.4.

*2.	P	Obtain copy of procedure RX1707.	*Obtains copy of RX1707.	_____	_____	_____
*3.	P	COMPLETE Part 1 of RX1707, Form C: Shutdown Margin Determination-Immovable, Untrippable, or Dropped Rod(s).				_____
		a. RECORD number of dropped rods.	a. Records number of dropped rods. (value a=1)	_____	_____	
		b. OBTAIN/ RECORD RE-18 value for dropped rod.	b. Records RE-18 value for dropped rod. (value b=1083 pcm)	_____	_____	
		c. CALCULATE Total Unavailable Rod Worth.	*c. Calculates Total Unavailable Rod Worth. (value c=1083 pcm)	_____	_____	
		d. OBTAIN/RECORD Total Power Defect.	d. Records Total Power Defect. ( Range: 40 to 70 pcm)	_____	_____	
		e. OBTAIN/RECORD Worth of the Control Banks Inserted to the Rod Insertion Limit-For Current Relative Power.	e. Records Worth of the Control Banks Inserted to the Rod Insertion Limit-For Current Relative Power. (Range: 1850 to 1900 pcm)	_____	_____	

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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM02



## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate		ELEMENT/STEP	STANDARD	EVALUATION		INITIALS/DATE
		* denotes a critical step	* denotes a critical step	SAT	UNSAT	
		f. OBTAIN/RECORD Total Control and Shutdown Rod Worth Minus Stuck Rod and 10% Uncertainty.	f. Records Total Control and Shutdown Rod Worth Minus Stuck Rod and 10% Uncertainty. (value f=5881 pcm)	_____	_____	
		g. CALCULATE Shutdown Margin.	*g. Calculates Shutdown Margin. (Within 0.15% $\Delta K/K$ of 2.88% $\Delta K/K$ . Acceptable range: 2.73 to 3.03 % $\Delta K/K$ )	_____	_____	
		h. DETERMINE if Shutdown Margin is adequate by comparing the calculated Shutdown Margin with the COLR Shutdown Margin limit.	*h. Determines that SDM is <b>adequate</b> by comparing the calculated SDM with the COLR SDM. (COLR Shutdown Margin requirement is: In <b>MODES 1, 2, and 3</b> the Shutdown Margin shall be greater than 1.3% $\Delta K/K$ )	_____	_____	
4.	P	INFORM Unit Supervisor of results. <b>CUE: "The JPM is complete."</b>	Informs Unit Supervisor of results.	_____	_____	_____
5.		Stop time  Evaluator calculates time to complete task.	Time to complete the task $\leq$ 15 minutes.	_____	_____	_____

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

## PERFORMANCE SUMMARY

Provide comments on unsatisfactory performance of an element/step or for deviation from performance as stated. Record interruptions in performance such as retraining, shift change, and processing of procedure changes. Recommend remedial training, if necessary.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM02

## **TEAR-OFF SHEET FOR JPM**

### **Directions to the Student:**

Evaluator gives Tear-Off sheet to the student.

Evaluator reads the following to student (Optional for multiple JPMs):

- A. You are going to calculate Shutdown Margin in MODE 2.
- B. The following information is provided to you:
  - 1) The plant is in MODE 2, Beginning of Life (BOL) at 3% power.
  - 2) RCS boron concentration is 1298 ppm.
  - 3) During performance of OX1410.02, Quarterly Rod Operability Surveillance, rod H-2 dropped to the bottom of the core.
  - 4) Rod H-2 cannot be moved.
  - 5) All other rods are fully withdrawn.
  - 6) The Unit Supervisor has entered procedure OS1210.05, DROPPED ROD.
- C. The evaluator will act as the Shift Manager and provide the cues and communications for this JPM. Do you have any questions?

### **Initiating Cue:**

Unit Supervisor says, **"Calculate Shutdown Margin and let me know if we are in compliance with Technical Specifications"**

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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM02

Answer Key Pg 1 of 2

**Form C: Shutdown Margin Determination  
Immovable, Untrippable Or Dropped Rod(s)**

(Sheet 1 of 2)

**PART I**

<b>Shutdown Margin Determination - MODEs 1 and 2 (step 4.4.1)</b>	
Number of Immovable, Untrippable and Dropped Rod(s)	<u>1</u> (a)
Maximum Worth Individual of Immovable, Untrippable or Dropped Rod (Primary Technical Data Book Figure RE-18)	<u>1083</u> pcm (b)
Total Unavailable Rod Worth = <u>1</u> (a) x <u>1083</u> (b) pcm = <u>1083</u> (c) pcm	
Total Power Defect - For Current Relative Power (Primary Technical Data Book Figure RE-8)	<u>55</u> pcm (d)
Worth of the Control Banks Inserted to the Rod Insertion Limit - For Current Relative Power (Primary Technical Data Book Figure RE-19)	<u>1870</u> pcm (e)
Total Control and Shutdown Rod Worth Minus Stuck Rod and less 10% uncertainty (Primary Technical Data Book Figure RE-18)	<u>5881</u> pcm (f)
Shutdown Margin $[f - (c + d + e)] / 1,000$	<u>2.873</u> %ΔK/K
Notify the SM/US if the Shutdown Margin is less than the limit specified in the Core Operating Limits Report.	
Completed By <u>Answer Key</u>	Date _____
Independently Verified By _____	Date _____

Student should determine that the shutdown margin is greater than the COCR requirement of 1.3%ΔK/K

Answer Key Pg 2 of 2

**2.2 Safety Limits: (Specification 2.1.1)**

2.2.1 In Modes 1 and 2, the combination of Thermal Power, reactor coolant system highest loop average temperature and pressurizer pressure shall not exceed the limits in Figure 6.

**2.3 Shutdown Margin Limit for MODES 1, 2, 3, and 4: (Specification 3.1.1.1)**

2.3.1 The Shutdown Margin shall be greater than or equal to

1.3%  $\Delta K/K$ , in MODES 1, 2 and 3.

2.3.2 The Shutdown Margin shall be greater than or equal to

2.3%  $\Delta K/K$ , in MODE 4.

2.3.3 The Boric Acid Storage System boron concentration

shall be greater than or equal to 7000 ppm.

**2.4 Shutdown Margin Limit for MODE 5: (Specification 3.1.1.2)**

2.4.1 The Shutdown Margin shall be greater than or equal to 2.3%  $\Delta K/K$ .

2.4.2 The RCS boron concentration shall be greater than or equal to 2000 ppm when the reactor coolant loops are in a drained condition.

2.4.3 The Boric Acid Storage System boron concentration shall be greater than or equal to 7000 ppm.

**2.5 Moderator Temperature Coefficient: (Specification 3.1.1.3)**

2.5.1 The Moderator Temperature Coefficient (MTC) shall be less positive than  $+4.201 \times 10^{-5} \Delta K/K/^{\circ}F$  for Beginning of Cycle Life (BOL), All Rods Out (ARO), Hot Zero Thermal Power conditions.

2.5.2 MTC shall be less negative than  $-5.5 \times 10^{-4} \Delta K/K/^{\circ}F$  for End of Cycle Life (EOL), ARO, Rated Thermal Power conditions.

2.5.3 The 300 ppm ARO, Rated Thermal Power MTC shall be less negative than  $-4.6 \times 10^{-4} \Delta K/K/^{\circ}F$  (300 ppm Surveillance Limit).

2.5.4 The Revised Predicted near-EOL 300 ppm MTC shall be calculated using the algorithm contained in WCAP 13749-P-A:

Revised Predicted MTC = Predicted MTC + AFD Correction – 3 PCM/degree F

If the Revised Predicted MTC is less negative than the SR 4.1.1.3.b 300 ppm surveillance limit and all the benchmark data contained in the surveillance procedure are met, then an MTC measurement in accordance with SR 4.1.1.3.b is not required to be performed.



# **FPL Energy**

## **Seabrook Station**

JOB PERFORMANCE MEASURE 2007 NRC EXAM RO-ADMJPM03

SPENT FUEL POOL BLENDED MAKEUP CALCULATION

Student Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Evaluator Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

Evaluator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Training Coordinator Signature \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

SAT      UNSAT

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PREPARED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
INSTRUCTOR

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SUBJECT MATTER EXPERT (OPTIONAL)

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
TRAINING SUPERVISOR

## **JOB PERFORMANCE WORKSHEET**

### **1.0 Task Number and Description:**

Position: RO

0040100601 Perform a boron change calculation.

### **2.0 Conditions:**

A. A manual blended makeup to the Spent Fuel Pool is required to raise pool level.

### **3.0 Standards:**

Calculate the required flow controller and totalizer setpoints for a 550 gallon manual blended makeup to the Spent Fuel Pool .

### **4.0 Student Materials:**

Copy of the Tear-Off Sheet.

RS1735, REACTIVITY CALCULATIONS

OS1008.01, CVCS MAKEUP OPERATIONS

### **5.0 Limitations On Performance:**

Perform all steps. Verbalize all actions to the evaluator. Even if requested, no peer checks will be provided during the JPM.

### **6.0 References:**

Procedures:

- RS1735, REACTIVITY CALCULATIONS
- OS1008.01, CVCS MAKEUP OPERATIONS

Sys	KA	Description	Value RO/SRO
	2.2.1	2.2.1 Ability to perform pre-startup procedures for the facility, including operating those controls associated with plant equipment that could affect reactivity.	3.7/3.6

### **7.0 Setting:**

Simulator

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM03

## **JOB PERFORMANCE WORKSHEET**

### **8.0 Safety Considerations:**

None

### **9.0 Approximate Completion Time:**

15 minutes

### **10.0 Directions To The Student(s):**

Evaluator gives Tear-Off sheet to the student.

- A. You are the Primary Operator. You are going to perform calculations for a 550 gallon blended makeup to the Spent Fuel Pool.
- B. The following information is provided to you:
  - 1) A 550 gallon manual blended makeup to the Spent Fuel Pool is required for pool inventory addition.
  - 2) Makeup total flow rate should be 50 gallons per minute.
  - 3) The makeup boron concentration should be at the current Spent Fuel Pool boron concentration.

### **11.0 Initiating Cue:**

Unit Supervisor to Primary Operator, **"Primary Operator, determine the required flow controller and totalizer setpoints for a 550 gallon manual blended makeup to the Spent Fuel Pool."**

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM03



## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP	STANDARD	EVALUATION	INITIALS/DATE
	* denotes a critical step	* denotes a critical step	SAT    UNSAT	

---

**NOTE: This JPM should be administered to an RO candidate following a scenario where the candidate has performed as the primary board operator.**

- |    |   |            |  |       |
|----|---|------------|--|-------|
| 1. | P | Start time | Initiating cue read. Student obtains copy of RS1735<br>REACTIVITY CALCULATIONS and OS1008.01, CVCS<br>MAKEUP OPERATION | _____ |
|----|---|------------|--|-------|

**NOTE: The candidate should refer to the simulator primary chemistry report to determine spent fuel pool and boric acid storage tank boron concentration. Report is located in blue binder on US desk.**

- |     |   |  |   |       |
|-----|---|--|---|-------|
| *2. | P | Determine the desired flows and quantities of boric acid and total makeup from RS1735, REACTIVITY CALCULATIONS |   | _____ |
|     |   | a. On Form D, Item 1, ENTER the desired makeup boron concentration.  | Enters the desired makeup boron concentration.<br><b>(2845 ppm)</b>                                     | _____ |
|     |   | b. On Form D, Item 2, ENTER the desired flowrate makeup setpoint.  | Enters the desired flowrate makeup setpoint.<br><b>(50 gpm)</b>   | _____ |
|     |   | c. On Form D, Item 3, ENTER the actual Boric Acid Storage Tank concentration.                                  | Enters the actual Boric Acid Storage Tank concentration.<br><b>(7100 ppm)</b>                           | _____ |
|     |   | d. On Form D, Item 4, ENTER the desired makeup quantity target.  | Enters the desired makeup quantity target.<br><b>(550 gallons)</b>                                      | _____ |
|     |   | *e. On Form D, CALCULATE the boric acid flowrate SETPOINT, ( $F_{BA}$ ).                                       | * Calculates the boric acid flowrate SETPOINT, ( $F_{BA}$ ).<br><b>(Acceptable range: 18 to 22 gpm)</b> | _____ |
- 

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM03

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP	STANDARD	EVALUATION	INITIALS/DATE
	* denotes a critical step	* denotes a critical step	SAT    UNSAT	

---

\*f. On Form D, CALCULATE the boric acid quantity target, ( $G_{BA}$ ).

\* Calculates the boric acid quantity target, ( $G_{BA}$ ).  
**(Acceptable range: 215 to 225 gallons)**

\_\_\_\_\_

**Evaluator Cue:** Student may ask for an Independent Verification of Form D. If student asks, say “ **For the purpose of this JPM an independent verification will not be performed.**”

**CUE:** “The JPM is complete.”

15.

Stop time

Time to complete the task  
≤ 15 minutes.

Evaluator calculates time to complete task.

\_\_\_\_\_

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM03

## PERFORMANCE SUMMARY

Provide comments on unsatisfactory performance of an element/step or for deviation from performance as stated. Record interruptions in performance such as retraining, shift change, and processing of procedure changes. Recommend remedial training, if necessary.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM03

## TEAR-OFF SHEET FOR RO-ADMINJPM03

### **Directions to the Student:**

Evaluator gives Tear-Off sheet to the student.

- A. You are the Primary Operator. You are going to perform a 550 gallon blended makeup to the Spent Fuel Pool.
- B. The following information is provided to you:
  - 1) A 550 gallon manual blended makeup to the Spent Fuel Pool is required for pool inventory addition.
  - 2) Makeup total flow rate should be 50 gallons per minute.
  - 3) The makeup boron concentration should be at the current Spent Fuel Pool boron concentration.
- C. The evaluator will act as the Shift Manager and provide the cues and communications for this JPM. Do you have any questions?

### **Initiating Cue:**

Unit Supervisor to Primary Operator, **"Primary Operator, determine the required flow controller and totalizer setpoints for a 550 gallon manual blended makeup to the Spent Fuel Pool."**

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

RO-ADMJPM03

## Form D: Blended Makeup Worksheet

(Sheet 1 of 1)

1. Desired Makeup Boron Concentration ( $C_{MU}$ ) 2845 ppm  
2. Desired Makeup Flow Rate SETPOINT: FIQ-111 ( $F_{TOT}$ ) 50 gpm  
3. Boric Acid Storage Tank Concentration ( $C_{BAST}$ ) 7100 ppm  
4. Desired Makeup Quantity TARGET: FIQ-111 ( $G_{TOT}$ ) 550 gals  
5. Boric Acid Flow Rate SETPOINT: FIQ-111 ( $F_{BA}$ )

$$F_{BA} = \frac{(C_{MU})(F_{TOT})}{C_{BAST}} = \frac{(2845)(50)}{(7100)} = 20.03 \text{ gpm}$$

Acceptable Range  
18-22 gpm

6. Boric Acid Quantity TARGET: FIQ-111 ( $G_{BA}$ )

$$G_{BA} = \frac{(C_{MU})(G_{TOT})}{C_{BAST}} = \frac{(2845)(550)}{(7100)} = 220.39 \text{ gal}$$

Acceptable Range  
215-225 gal

Calculated By:

Answer Key

Date:

Independently Verified By:

Date:



# **FPL Energy**

## **Seabrook Station**

JOB PERFORMANCE MEASURE 2007 NRC Exam RO-ADMJPM04

Verify COP Exhaust RM Setpoints Prior to Gaseous Effluent Release

Student Name: \_\_\_\_\_ Badge #: \_\_\_\_\_  
Evaluator Name: \_\_\_\_\_ Badge #: \_\_\_\_\_  
Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)  
Evaluator Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Training Coordinator Signature \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

SAT      UNSAT

This JPM was administered for qualification:    YES    NO

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PREPARED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
INSTRUCTOR

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SUBJECT MATTER EXPERT (OPTIONAL)

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
TRAINING SUPERVISOR

## JOB PERFORMANCE WORKSHEET

### 1.0 Task Number and Description:

Position: RO/SRO  
Task: 0290100401 Adjust Containment Pressure Using the COP System.  
0290100401 Start-Up the COP System.  
0710101302 Authorize Release of Gaseous Waste.

### 2.0 Conditions:

- A. Plant is in Mode 1.
- B. The previous shift has made preparations to place COP in service per OS1023.69 section 4.2.

### 3.0 Standards:

Verify COP Exhaust Radiation Monitors' Alert and Alarm setpoints prior to gaseous effluent release per OS1023.69 section 4.2.

### 4.0 Student Materials:

Copy of the Tear-Off sheet.  
Copy of CS0917.02C GEW Containment Purge Release Permit  
Copy of OS1023.69, Containment On-Line Purge System Operation

### 5.0 Limitations On Performance:

Perform all steps. Verbalize all actions to the evaluator.  
Even if requested, no Peer Checks will be provided during the JPM.

### 6.0 References:

Procedures:

- CS0917.02, Gaseous Effluent Releases, Rev. 10, Chg. 09.
- OS1023.69, Containment On-Line Purge System Operation, Rev. 10.
- CP-4.1 Effluent Surveillance Program, Rev. 17, Chg. 04.
- MA-4.6, RDMS Data Base Item Control Rev. 15, Chg. 04.

Sys	KA	Description	Value RO/SRO
Generic	K2.3.9	Knowledge of the Process for Performing a Containment Purge	2.5/3.4
Generic	A2.3.11	Ability to Control Radiation Releases	2.7/3.2

### 7.0 Setting:

Classroom or Control Room Simulator

### 8.0 Safety Considerations:

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

## JOB PERFORMANCE WORKSHEET

None

### **9.0 Approximate Completion Time:**

20 minutes

### **10.0 Directions To The Student(s):**

Evaluator gives Tear-Off sheet to the student.

- A. You are the Primary Operator. You are going to verify the alert and alarm setpoints of the COP Exhaust Radiation Monitors prior to placing COP in service.
- B. The following information is provided to you:
  - 1. Plant is in Mode 1.
  - 2. The previous shift has made preparations to place COP in service per OS1023.69, section 4.2 and has completed steps 4.2.1 and 4.2.2. All prerequisites have been met.
- C. The Evaluator will act as the Unit Supervisor and provide cues and communications for this JPM. Do you have any questions?

### **11.0 Initiating Cue:**

US to Primary Operator, **"Primary Operator (or student's name), after reviewing the Gaseous Effluent Waste Containment Purge Release Permit, continue with preparations to place COP in service per OS1023.69 step 4.2.3."**

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).



## PERFORMANCE CHECKLIST

		ELEMENT/STEP	STANDARD	EVALUATION		INITIALS/DATE
				SAT	UNSAT	
D=Discuss	P=Perform	S=Simulate	* denotes a critical step	* denotes a critical step		
1.	P	Start time	Initiating cue read.			
<b>CUE:</b> If the student requests a Peer Check at any time during the JPM respond: <b>“No one is available to peer check your actions. Please continue with the task.”</b>						
<b>CUE:</b> Provide student with a copy of OS1023.69 (steps 4.2.1 and 4.2.2 complete) and CS0917.02C GEW Containment Purge Release Permit.						
<b>CUE:</b> If the student asks for US approval for CS0917.02C respond <b>“The release permit has already been approved by a chemistry supervisor – no further approval is required.”</b>						
*2.	P	RECORDS the expected radiation monitor response from the Gaseous Effluent Waste (GEW) Containment Purge Release Permit, CH-L524.	RECORDS the value 31.2 as Expected Radiation Monitor Response per step 4.2.3.			
*3.	P	DETERMINES the New COP Monitor Background Levels (CPM)	Per step 4.2.4, ADDs the Expected Radiation Monitor Response value to the Current COP radiation monitor background levels recorded in step 4.2.2			
			<ul style="list-style-type: none"><li>*RECORDS 4.39E+01 (+/- 4 CPM) for 1-RM-6527A-1</li></ul>			
			<ul style="list-style-type: none"><li>*RECORDS 4.30E+01 (+/- 4 CPM) for 1-RM-6527A-2</li></ul>			
			<ul style="list-style-type: none"><li>*RECORDS 4.44E+01 (+/- 4 CPM) for 1-RM-6527B-1</li></ul>			
			<ul style="list-style-type: none"><li>*RECORDS 4.17E+01 (+/- 4 CPM) for 1-RM-6527B-2</li></ul>			

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP	STANDARD	EVALUATION	INITIALS/DATE
	* denotes a critical step	* denotes a critical step	SAT    UNSAT	

**NOTE:** If the student determines that it is not necessary to perform step 4.2.6, then the JPM is complete and the JPM is a failure.

*4.	P	Per Step 4.2.5, DETERMINES the Need to Make RDMS Data Base Changes.	*DETERMINES that it is necessary to perform step 4.2.6	_____	_____	_____
-----	---	---	--	-------	-------	-------

**CUE:** After student determines that it is necessary to make RDMS data base changes, **"I will complete the MA4.6A, RDMS Database Change Request paperwork per step 4.2.6.1"**

*5.	P	CALCULATES the New ALERT ALARM setpoint for each Channel.	Per step 4.2.6.2, multiplies the New COP Monitor Background Level recorded in step 4.2.4 by 1.5			
			<ul style="list-style-type: none"> <li>• *RECORDS 6.59E+01 (+/- 6 CPM) for 1-RM-6527A-1</li> </ul>	_____	_____	_____
			<ul style="list-style-type: none"> <li>• *RECORDS 6.45E+01 (+/- 6 CPM) for 1-RM-6527A-2</li> </ul>	_____	_____	_____
			<ul style="list-style-type: none"> <li>• *RECORDS 6.66E+01 (+/- 6 CPM) for 1-RM-6527B-1</li> </ul>	_____	_____	_____
			<ul style="list-style-type: none"> <li>• *RECORDS 6.26E+01 (+/- 6 CPM) for 1-RM-6527B-2</li> </ul>	_____	_____	_____
*6.	P	CALCULATES the New HIGH ALARM setpoint for each Channel.	Per step 4.2.6.3, multiplies the New COP Monitor Background Level recorded in step 4.2.4 by 1.95			
			<ul style="list-style-type: none"> <li>• *RECORDS 8.56E+01 (+/- 8 CPM) for 1-RM-6527A-1</li> </ul>	_____	_____	_____

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

## PERFORMANCE CHECKLIST

D=Discuss	ELEMENT/STEP	STANDARD	EVALUATION		INITIALS/DATE
P=Perform					
S=Simulate	* denotes a critical step	* denotes a critical step	SAT	UNSAT	

---

- \*RECORDS 8.39E+01  
(+/- 8 CPM) for 1-RM-  
6527A-2

\_\_\_\_\_

- \*RECORDS 8.66E+01  
(+/- 8 CPM) for 1-RM-  
6527B-1

\_\_\_\_\_

- \*RECORDS 8.13E+01  
(+/- 8 CPM) for 1-RM-  
6527B-2

\_\_\_\_\_

**CUE: When student reports that the step 4.2.6.3 is complete, the JPM is complete.**

**CUE: "The JPM is complete."**

- |    |  |  |       |
|----|--|--|-------|
| 7. | Stop time                                      | Time to complete the task<br>≤ 30 minutes. |       |
|    | Evaluator calculates time to<br>complete task. |  | _____ |

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

## PERFORMANCE SUMMARY

Provide comments on unsatisfactory performance of an element/step or for deviation from performance as stated. Record interruptions in performance such as retraining, shift change, and processing of procedure changes. Recommend remedial training, if necessary.

[illegible]

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

## **PERFORMANCE SUMMARY**

### **Directions to the Student:**

- A. You are the Primary Operator. You are going to verify the alert and alarm setpoints of the COP Exhaust Radiation Monitors prior to placing COP in service.
- B. The following information is provided to you:
  - 1. Plant is in Mode 1.
  - 2. The previous shift has made preparations to place COP in service per OS1023.69, section 4.2 and has completed steps 4.2.1 and 4.2.2. All prerequisites have been met.
- C. The Evaluator will act as the Unit Supervisor and provide cues and communications for this JPM. Do you have any questions?

### **Initiating Cue:**

US to Primary NSO, **"Primary Operator (or student's name), after reviewing the Gaseous Effluent Waste Containment Purge Release Permit, continue with preparations to place COP in service per OS1023.69 step 4.2.3."**

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

**SEABROOK STATION**

**Operations Procedure**

**KEY**

# **Containment On-Line Purge System Operation**

---

**OS1023.69**

**Rev. 10**

**KEY**

<p>Level of Use General</p>
---------------------------------

Procedure Owner:  
AOM Support  
System: COP

**Seabrook Station  
Operations Procedure  
Containment On-Line Purge System Operation**

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## 1. PURPOSE

### 1.1 Objective

The objective of this procedure is to provide a method for:

- Performing applicable sections of system lineup, Form B, as directed by US.
- Placing the containment on-line purge system in service.
- Placing the containment on-line purge system in the vent mode.
- Removing the containment on-line purge system from service.

## 2. PREREQUISITES

### 2.1 General

#### NOTE

A four hour time frame should be expected to allow for chemistry sampling requirements.

- 2.1.1 Chemistry has been notified and sampled containment for any necessary WRGM setpoint changes.
- 2.1.2 A Gaseous Effluent Waste (GEW) Containment Purge Release Permit has been obtained from Chemistry per CP4.1, Effluent Surveillance Program. (Sections 4.2 and 4.3)
- 2.1.3 **Either** PAH-FN-8A **or** PAH-FN-8B, PAB cleanup exhaust fans, are in operation with the associated damper open per OS1023.56, Primary Auxiliary Building Ventilation System Operation. (Sections 4.2 and 4.3)
- 2.1.4 Containment ventilation isolation is reset. (Sections 4.2 and 4.3)
- 2.1.5 RM-6527A-1, RM-6527A-2, RM-6527B-1 and RM-6527B-2, containment on-line purge radiation monitors, are in service before startup of containment on-line purge. (Sections 4.2 and 4.3)
- 2.1.6 If the WRGM is out of service, an assigned operator is available to monitor the RDMS console. (Section 4.2 and 4.3)



- 4.2.4 ADD the Expected Radiation Monitor Response value to the **CURRENT** COP rad monitor background levels recorded in step 4.2.2. These become the **new** COP rad monitor “in service” background levels:

Monitor ID	Current Background Level Indication (CPM)	Expected Radiation Monitor Response (CPM)	New COP Monitor Background Level (CPM)
1-RM-6527A-1	1.27E+01	+ 31.2	= 4.39E+01
1-RM-6527A-2	1.18E+01	+ 31.2	= 4.30E+01
1-RM-6527B-1	1.32E+01	+ 31.2	= 4.44E+01
1-RM-6527B-2	1.05E+01	+ 31.2	= 4.17E+01



### CAUTION



Changing conditions in the PAB can effect COP monitor background levels. Consideration should be given to evolutions in process that could increase COP monitor background levels when determining the need for making RDMS data base changes prior to placing COP in service.

### NOTE

Normally, the expected radiation monitor response from containment does **not** add a significant contribution to the in-service COP monitor background levels, making changes to the alert and high alarm setpoints unnecessary.

- 4.2.5 COMPARE the **new** COP Monitor Background Levels to the alert and high alarm values recorded in step 4.2.1. DETERMINE the need to make RDMS data base changes by checking the following:

- If the high alarm value remains within 2X background as prescribed in Tech. spec 3.3.2, table 3.3-4, Item 3.c.4),

**AND**

- The alert alarm value remains sufficiently higher than the **new** COP monitor in-service background levels to avoid an inadvertent alert alarm,

**THEN**

No RDMS data base changes are required. CONTINUE with step 4.2.7.

4.2.6 If COP rad monitor RDMS setpoint change requests are required, then PERFORM the following:

4.2.6.1 INITIATE MA4.6A, RDMS Data Base Item Change Request, (one form per monitor) for each of the following COP rad monitors as required:

1-RM-6527A-1

1-RM-6527A-2

1-RM-6527B-1

1-RM-6527B-2

CUE: (When asked by trainee): This step will be performed by the BOP Operator after you complete step 4.2.6.3

4.2.6.2 CALCULATE the **new** alert alarm setpoint by multiplying the **new** COP monitor background level recorded in step 4.2.4 by 1.5 for each monitor to be changed:

Monitor ID	New COP Monitor Background Level (step 4.2.4)		New Alert Alarm Setpoint
1-RM-6527A-1	4.39E+01	X 1.5	= 6.59E+01
1-RM-6527A-2	4.30E+01	X 1.5	= 6.45E+01
1-RM-6527B-1	4.44E+01	X 1.5	= 6.66E+01
1-RM-6527B-2	4.17E+01	X 1.5	= 6.26E+01

4.2.6.3 CALCULATE the **new** high alarm setpoint by multiplying the **new** COP monitor background level recorded in step 4.2.4 by 1.95 for each monitor to be changed:

Monitor ID	New COP Monitor Background Level (step 4.2.4)		New High Alarm Setpoint
1-RM-6527A-1	4.39E+01	X 1.95	= 8.56E+01
1-RM-6527A-2	4.30E+01	X 1.95	= 8.39E+01
1-RM-6527B-1	4.44E+01	X 1.95	= 8.66E+01
1-RM-6527B-2	4.17E+01	X 1.95	= 8.13E+01

## NOTE

Any ESF actuations during setpoint adjustments are **not** considered valid ESF actuations requiring reporting.

CUE: JPM  
is Complete

4.2.6.4 CHANGE the alert and high alarm setpoints to the **new** values by using MA4.6, RDMS Data Base Item Control, and OS1052.02, Operation Of Radiation Data Management System-Safety Related

4.2.7 UNLOCK and CLOSE the following circuits:

- Circuit 3 on 125VDC PP-112A (COP-V-1 and V-4 control power)
- Circuit 3 on 125VDC PP-112B (COP-V-2 and V-3 control power)



## CAUTION



If alarm point D7251, CONTAINMENT PURGE PRESS HIGH (setpoint at 15.35 psia) activates while placing COP system in service, COP-FN-73, containment on-line purge supply fan, should be manually stopped and containment pressure bled down as necessary through COP-V-3 and COP-V-4, COP system exhaust isolation valves.

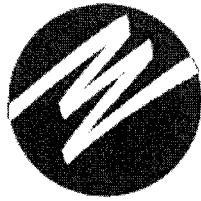
- 4.2.8 START COP-FN-73, containment on-line purge supply fan.

## NOTE

Steps 4.2.9.1 through 4.2.9.4 must be performed in order specified.

4.2.9 At MCB-CR, OPEN the following valves:

- 4.2.9.1 COP-V-1, on-line purge supply ORC isolation
- 4.2.9.2 COP-V-4, on-line purge exhaust ORC isolation
- 4.2.9.3 COP-V-2, on-line purge supply IRC isolation
- 4.2.9.4 COP-V-3, on-line purge exhaust IRC isolation



# **FPL Energy**

## **Seabrook Station**

JOB PERFORMANCE MEASURE SRO-ADMINJPM01

REPORTING REQUIREMENTS FOR ON-SITE EVENT

Student Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Evaluator Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

Evaluator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Training Coordinator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

SAT UNSAT

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PREPARED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
INSTRUCTOR

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SUBJECT MATTER EXPERT (OPTIONAL)

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
TRAINING SUPERVISOR

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP *denotes a critical step	STANDARD *denotes critical standard	EVALUATION		INITIALS/DATE
			SAT	UNSAT	

### 1.0 Task Number and Description:

Position: US

1190403903 DETERMINE REQUIRED NOTIFICATIONS/TIME PERIODICITIES OF ON-SITE AND OFF-SITE PERSONNEL FOR OFF NORMAL EVENTS

### 2.0 Conditions:

- A. The plant is operating at full power. The time is 1000 on July 1, 2007.
- B. The Shift Manager informs you that a sodium hypochlorite delivery truck caused a spill of approximately 500 gallons of 15% concentration sodium hypochlorite to the ground at the north end of the access road just prior to the Protected Area fence vehicle entrapment area.
- C. The fire brigade leader at the scene has informed the control room that a significant quantity of the fluid has flowed under the security fence and is leaching into the ground towards the marsh with the potential for offsite exposure.

### 3.0 Standards:

Respond to a Chemical Spill per ON1244.01, Spill Response.

### 4.0 Student Materials:

Copy of the Tear-Off Sheet  
ON1244.01, Spill Response

### 5.0 Limitations on performance:

Perform all steps. Verbalize all actions to the evaluator.

### 6.0 References:

ON1244.01 Spill Response

Sys	KA	Description	Value SRO
GEN	2.1.6	Ability to supervise and assume a management role during plant transients and upset conditions.	4.0

### 7.0 Setting:

Plant / Classroom / Simulator

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP *denotes a critical step	STANDARD *denotes critical standard	EVALUATION SAT    UNSAT	INITIALS/DATE
--------------------------------------	---	---	----------------------------	---------------

---

### 8.0    **Safety Considerations:**

If performed in the plant, ensure both student and evaluator have proper PPE.

### 9.0    **Approximate Completion Time:**

20 minutes

### 10.0    **Directions to the Student:**

Evaluator gives Tear-Off sheet to the student

A. The following information is provided to you:

- 1) The plant is operating at full power. The time is 1000 on July 1, 2007.
- 2) The Shift Manager informs you that a sodium hypochlorite delivery truck caused a spill of approximately 500 gallons of 15% concentration sodium hypochlorite to the ground at the north end of the access road just prior to the Protected Area fence vehicle entrapment area.
- 3) The fire brigade leader at the scene has informed the control room that a significant quantity of the fluid has flowed under the security fence and is leaching into the ground towards the marsh with the potential for offsite exposure.
- 4) The crew has entered ON1244.01, SPILL RESPONSE and has processed the procedure through step 3.

B. The evaluator will act as the Shift Manager and provide the cues and communications for this JPM. Do you have any questions?

### 11.0    **Initiating Cue:** Shift Manager to Unit Supervisor (or candidate name), **“Continue with ON1244.01, SPILL RESPONSE, at step 4.”**

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP *denotes a critical step	STANDARD *denotes critical standard	EVALUATION		INITIALS/DATE
			SAT	UNSAT	

- |     |   |                                   |                                      |       |       |
|-----|---|-----------------------------------|--------------------------------------|-------|-------|
| 1.  | P | Start time _____                  | Initiating cue read.                 |       |       |
| *2. | P | Obtain ON1244.01, Spill Response. | * Obtains ON1244.01, Spill Response. | _____ | _____ |

**NOTE:** The student may refer to ER-1.1A to confirm there is no E-Plan implication/classification. An Unusual Event per EAL 18a is not warranted based on the information provided that Station operations are not impacted.

**NOTE:** Student should refer to ON1244.01, Attachment B, Regulatory Notification, Step 3B, and Attachment D, Hazardous Materials Listing, for details and verification of spill quantity for needed actions.

- |     |   |  |   |       |       |
|-----|---|--|---|-------|-------|
| *3. | P | Refer to ON1244.01, SPILL RESPONSE, Attachment B.  | Refers to ON1244.01, SPILL RESPONSE, Attachment B.                                |       |       |
|     |   | Refer to ON1244.01, Spill Response, Attachment D.  | * Identifies that spill volume exceeds reportable levels. Spill must be reported. | _____ | _____ |
|     |   | NHDES Hazardous Material 603-271-3899.             | * Identifies notification to NHDES Hazardous Material is required.                | _____ | _____ |
|     |   | NATIONAL RESPONSE CENTER 800-424-8802              | * Identifies NATIONAL RESPONSE CENTER   | _____ | _____ |
|     |   | US Coast Guard 207-818-0621                        | * Identifies US Coast Guard.  | _____ | _____ |
|     |   | NH Office of Emergency Management. 1-800-852-3792. | * Identifies NH Office of Emergency Management. 1-800-852-3792.                   | _____ | _____ |
|     |   | Town of Seabrook LEPC. 603-474-5772.               | * Identifies Town of Seabrook LEPC. 603-474-5772.                                 | _____ | _____ |
|     |   | 4 hour report to NRC.                              | * Identifies need for 4 hour report to NRC.                                       | _____ | _____ |

2

•

**CUE:**

4.

### Stop time

Evaluator calculates the time to complete the task.

Start - Stop time is  $\leq 25$  minutes.

[illegible]



## PERFORMANCE SUMMARY

Provide comments on unsatisfactory performance of an element/step or for deviation from performance as stated. Record interruptions in performance such as retraining, shift change, and processing of procedure changes. Recommend remedial training, if necessary.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on the right side, suggesting it's resting on a surface.

Note to Evaluator - Obtain Tear-Off Sheets from student following JPM completion (Ops only).

SRO-ADMINJPM01

## **TEAR-OFF SHEET FOR SRO-ADMJPM01**

Directions to the Student:

Evaluator gives Tear-Off sheet to the student

A. The following information is provided to you:

- 1) The plant is operating at full power. The time is 1000 on July 1, 2007.
- 2) The Shift Manager informs you that a sodium hypochlorite delivery truck caused a spill of approximately 500 gallons of 15% concentration sodium hypochlorite to the ground at the north end of the access road just prior to the Protected Area fence vehicle entrapment area.
- 3) The fire brigade leader at the scene has informed the control room that a significant quantity of the fluid has flowed under the security fence and is leaching into the ground towards the marsh with the potential for offsite exposure.
- 4) The crew has entered ON1244.01, SPILL RESPONSE and has processed the procedure through step 3.

B. The evaluator will act as the Shift Manager and provide the cues and communication for this JPM. Do you have any questions?

**Initiating Cue:**

Shift Manager to Unit Supervisor (or name), **"Continue with ON1244.01, SPILL RESPONSE, at step 4."**

---

Note to Evaluator - Obtain Tear-Off Sheets from student following JPM completion (Ops only).

SRO-ADMINJPM01

Number <b>ON1244.01</b>	Title <b>SPILL RESPONSE</b>	Rev./Date <b>13 CHG 05 03/23/07</b>
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**ATTACHMENT B****REGULATORY NOTIFICATION**

**NOTE** *Products classified as petroleum products may also be classified as hazardous material. Reporting requirements may be different and should be evaluated, (Example: gasoline: 25 gallons as a petroleum product and 15 gallons as hazardous material).*

1. **PETROLEUM SPILLS – WITHIN ONE HOUR REPORT REQUIRED**

A. IF oil spill meets one or more of the following criteria has occurred:

- A discharge of any oil into surface or groundwater of the state
- A discharge of 25 gallons of more of oil to land
- A discharge of less than 25 gallons of oil to land where the oil will ultimately seep into groundwater or surface water unless the discharge is cleaned up immediately and disposed of properly
- A discharge that results in the presence of vapors which pose an imminent threat to human health
- A discharge resulting in the detection of NAPL (A non-aqueous phase liquid containing oil, that is immiscible or only partially miscible in water, and which exists as a separate phase)

THEN within one hour notify the New Hampshire DES:

- NH Department of Environmental Services      603-271-3899  
(NHDES) OIL SPILL
- After hours call state police dispatch      603-271-3636

B. IF any amount of oil is discharged or with the potential to be discharged to the river, ground waters, ocean or adjoining marsh, THEN within one hour notify the following authorities.

- NHDES OIL SPILL      603-271-3899  
After hours call state police dispatch      603-271-3636
- NATIONAL RESPONSE CENTER      800-424-8802
- U.S. COAST GUARD  
Marine Safety Office Portland, ME      207-780-3251  
Duty pager      207-818-0621  
If no call back within 30 minutes then call  
Portsmouth Coast Guard      603-436-4415

**ATTACHMENT B CONTINUED ON THE NEXT PAGE**

Number <b>ON1244.01</b>	Title <b>SPILL RESPONSE</b>	Rev./Date <b>13 CHG 05 03/23/07</b>
----------------------------	--------------------------------	--

**ATTACHMENT B****REGULATORY NOTIFICATION****2. SPILLS, POTENTIALLY HARMFUL DISCHARGES TO THE SANITARY SEWER SYSTEM – ASAP (within one hour) REPORT REQUIRED**

- A. Spills of any substance prohibited by the Town of Seabrook Sewer Use Permit or any slug loads (non-customary batch discharge) OR spills that may enter the public sewer via our sanitary sewer. This shall include immediate notification of any discharge that has the potential to adversely impact the publicly owned water treatment works.

Wastewater Treatment Plant Chief Operator      603-474-8012

After hours call Seabrook Police Dept.      603-474-5200

**3. HAZARDOUS MATERIALS SPILLS – WITHIN ONE HOUR REPORT REQUIRED**

- A. A hazardous waste spilled (any quantity) or hazardous material spilled, including releases to ambient air, in excess of a reportable quantity listed in ATTACHMENT D, HAZARDOUS MATERIALS LISTING, to adjoining lands NOT controlled by site systems.

- NHDES HAZARDOUS MATERIAL      603-271-3899

After hours call NH State Police dispatch      603-271-3636

- NATIONAL RESPONSE CENTER      800-424-8802

- B. A hazardous waste spilled (any quantity) or hazardous material spilled, including releases to ambient air, in excess of a reportable quantity listed in ATTACHMENT D, HAZARDOUS MATERIALS LISTING, to the river, ground waters or ocean.

- NHDES HAZARDOUS MATERIAL      603-271-3899

After hours call state police dispatch      603-271-3636

- NATIONAL RESPONSE CENTER      800-424-8802

- U.S. COAST GUARD      207-780-3251

(Marine Safety Office Portland ME)

**ATTACHMENT B CONTINUED ON THE NEXT PAGE**

Number <b>ON1244.01</b>	Title <b>SPILL RESPONSE</b>	Rev./Date <b>13 CHG 05 03/23/07</b>
----------------------------	--------------------------------	--

**ATTACHMENT B****REGULATORY NOTIFICATION**

C. A hazardous waste spilled (any quantity) or hazardous material spilled, including releases to ambient air, in excess of a reportable quantity listed in ATTACHMENT D, HAZARDOUS MATERIALS LISTING, with potential for offsite exposure, notification requirements are:

- NATIONAL RESPONSE CENTER 800-424-8802
- NH OFFICE OF EMERGENCY MANAGEMENT 800-852-3792
- TOWN OF SEABROOK LEPC 603-474-5772

4. **RADIOLOGICAL SPILLS NEAR GROUNDWATER**

A. For a contaminated water spill of greater than 100 gallons occurring outside or a contaminated water spill inside where the contaminated water spill could significantly impact groundwater.

- Contact Groundwater Radioactive assessment personnel per ATTACHMENT A to implement NP-922, MANAGING SITUATIONS INVOLVING INADVERTENT RADIOLOGICAL RELEASES INTO GROUNDWATER, and NARC Figure 3-1-2, HP Manager Regulatory Report/Special Reports for an outdoor spill, or to evaluate an indoor spill for the need to report per the above procedures.

5. **US Nuclear Regulatory Commission**

A 4 hour report to the NRC is required for any event or situation, related to the health and safety of the public or onsite personnel, or protection of the environment, for which a news release is planned or notification to other governmental agencies has been or will be made.

- END -

Number <b>ON1244.01</b>	Title <b>SPILL RESPONSE</b>	Rev./Date <b>13 CHG 05 03/23/07</b>
----------------------------	--------------------------------	--

**ATTACHMENT D****HAZARDOUS MATERIALS LISTING**

<u>HAZARDOUS MATERIAL</u>	<u>REPORTABLE QUANTITY</u>
Ammonium Hydroxide (30%)	1000 lbs (444 gal)
Calcium Hypochlorite (solid)	10 lbs
Hydrazine (35%) *	1 lbs (0.3 gal)
Mercuric Nitrate (solid)	10 lbs
Mercury (elemental)	1 lb
1,1,1 Trichloroethane (liquid)	1000 lbs (90 gal)
Nitric Acid (70%) *	1000 lbs (85 gal)
Silver Nitrate (solid)	1 lb
Sodium Hydroxide (20%)	1000 lbs (390 gal)
Sodium Hydroxide (50%)	1000 lbs (150 gal)
Sodium Hypochlorite (15%)	100 lbs (66 gal)
Sodium Phosphate (solid)	5000 lbs
Sulfuric Acid (96%) *	1000 lbs (69 gal)
Hazardous Waste as determined by Spill Response Coordinator	Any Quantity

\* These materials are regulated as both hazardous substances under CERCLA 40 CFR302.4, and as extremely hazardous substances under EPCRA 40 CFR355

- END -



# **FPL Energy**

## **Seabrook Station**

JOB PERFORMANCE MEASURE 2007 NRC EXAM SRO-ADMJPM02

TECHNICAL SPECIFICATIONS AND ALLOWED OUTAGE TIME (AOT)

Student Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Evaluator Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

Evaluator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Training Coordinator Signature \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

SAT      UNSAT

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PREPARED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
INSTRUCTOR

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SUBJECT MATTER EXPERT (OPTIONAL)

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
TRAINING SUPERVISOR

## **JOB PERFORMANCE WORKSHEET**

### **1.0 Task Number and Description:**

Position: SRO

1190401203 Clarify TS and application of action statement requirements.

### **2.0 Conditions:**

- 1) The plant is in MODE 1 at 100% power.
- 2) CBS-P-9A failed it's surveillance criteria and was declared inoperable at 0500 on July 1, 2007. The current time is 0820 on July 1, 2007.
- 3) Impeller replacement work is in progress.
- 4) The OCC has contacted the Shift Manager and notified him that the new impeller has been damaged and current projected time of arrival on-site for a replacement is 10 days away.

### **3.0 Standards:**

Determine appropriate allowed outage time per Technical Specification 3.6.2.1.

### **4.0 Student Materials:**

Copy of the Tear-Off Sheet.  
ODI.30, ALLOWED OUTAGE TIME WORKSHEET  
Technical Specifications

### **5.0 Limitations On Performance:**

Perform all steps. Verbalize all actions to the evaluator. Even if requested, no peer checks will be provided during the JPM.

### **6.0 References:**

Procedures:

- ODI-30 ALLOWED OUTAGE TIME WORKSHEET

Technical Specifications

- 3.6.2.1, Containment Spray System

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM02



## JOB PERFORMANCE WORKSHEET

Sys	KA	Description	Value SRO
	2.1.12	Ability to apply Technical Specifications for a system.	4.0

### **7.0 Setting:**

Classroom

### **8.0 Safety Considerations:**

None

### **9.0 Approximate Completion Time:**

30 minutes

### **10.0 Directions To The Student(s):**

Evaluator gives Tear-Off sheet to the student.

A. You are the Work Control Supervisor.

B. The following information is provided to you:

- 1) The plant is in MODE 1 at 100% power.
- 2) CBS-P-9A failed it's surveillance criteria and was declared inoperable at 0500 on July 1, 2007. The current time is 0820 on July 1, 2007.
- 3) Impeller replacement work is in progress.
- 4) The OCC has contacted the Shift Manager and notified him that the new impeller has been damaged and current projected time of arrival on-site for a replacement is 10 days away.

C. The evaluator will act as the Shift Manager and provide the cues and communications for this JPM. Do you have any questions?

### **11.0 Initiating Cue:**

Shift Manager to Work Control Supervisor, **"Work Control Supervisor, DETERMINE the allowed outage time and MODE restrictions for the inoperable CBS-P-9A."**

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM02

## PERFORMANCE CHECKLIST

		ELEMENT/STEP	STANDARD	EVALUATION		INITIALS/DATE
				SAT	UNSAT	
		D=Discuss P=Perform S=Simulate	* denotes a critical step	* denotes a critical step	SAT UNSAT	
1.	P	Start time	Initiating cue read.			
<b>NOTE: An adequate number of volumes of Technical Specifications must be provided to administer this JPM to a group of candidates.</b>						
*2	P	Student Determines applicable Tech. Spec. LCO and Action Statement.	<ul style="list-style-type: none"> <li>Determines applicable Tech. Spec LCO and Action Statement.</li> </ul> <b>(Tech Spec 3.6.2.1, Containment Spray System. Action should be entered as of 0500 on July 1, 2007.)</b>	_____	_____	_____
*3.	P	Refers to ODI 30 to calculate AOT: Determine the appropriate AOT worksheet using Figure 1, AOT Flowchart, as a guide for LCO 3.6.2.1: <ul style="list-style-type: none"> <li>Is the LCO in question shown on List A?</li> <li>Is the LCO in question 3.0.3?</li> <li>Does TS ultimately require Shutdown to COLD SHUTDOWN?</li> </ul>	Calculates AOT  Determines ODI.30A is form to be used from Figure 1.  <ul style="list-style-type: none"> <li>* • Determines NO</li> <li>* • Determines NO</li> <li>* • Determines YES</li> </ul>	_____	_____	_____
*4.	P	Enter information as required on Form ODI.30A, as appropriate.  Enters LCO info:  a) Hrs AOT provided before MODE reduction to MODE 3 required.  b) Hrs provided to change MODES to MODE 3.	Enters LCO specific information on form ODI.30A for TS 3.6.2.1  <ul style="list-style-type: none"> <li>* a) = 72 hours</li> <li>* b) = 6 hours</li> </ul>	_____	_____	_____

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM02

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate		ELEMENT/STEP	STANDARD	EVALUATION		INITIALS/DATE
		* denotes a critical step	* denotes a critical step	SAT	UNSAT	
		c) Hrs additional AOT provided in MODE 3 before reduction to MODE 4 or 5 required.	* Circles MODE 5 * c) = 48 hours	_____	_____	
		d) Hrs provided to change MODES from MODE 3 to MODE 4 or 5.	* Circles MODE 5 * d) = 30 hours	_____	_____	
*5.	P	1) Time LCO action statement entered.	*Enters 0500 and date (7/1/7) on line (e)	_____	_____	_____
6.	P	IF entered from MODE (Circle applicable)	Circles MODE 1.	_____	_____	_____
*7.	P	Based on entry from MODE 1, proceed to line 2.	* Proceeds to Line 2.	_____	_____	_____
*8.	P	2) Determine when mode reduction to MODE 3 must be started by.	* line f: Determines time and date to be in MODE 3 as 72 hours from entry into Tech. Spec. <b>(0500 on 7/4/2007)</b>	_____	_____	_____
*9.	P	3) Determine time that plant must be in MODE 3.	* line g: Determines time and date that plant must be in MODE 3. <b>(1100 on 7/4/2007)</b>	_____	_____	_____

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM02

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP	STANDARD	EVALUATION	INITIALS/DATE
	* denotes a critical step	* denotes a critical step	SAT    UNSAT	

**NOTE:** Steps 4 and 5 of ODI.30A are for tracking successful MODE reduction to MODE 3. The students are performing the time calculations for reducing MODES to MODE 3, and then to MODE 5. Steps 4 and 5 are not required for this calculation. The student should continue with the JPM at step 6 of ODI.30A.

**Evaluator CUE:** If the student states that they need to know the time that the plant entered MODE 3, say: **"The plant has not begun shutting down. Continue with ODI.30A and calculate the time that the plant must be in MODE 5."**

*10.	P	6) Determine the time that MODE reduction to MODE 4 or 5 must be started.	Circles MODE 5.  * line j: Determines the time that MODE reduction to MODE 5 must be started by. <b>(1100 on 7/6/2007)</b>	_____	_____	_____
*11.	P	7) Determine the time that the plant must be in MODE 5.	* line k: Determines the time that the plant must be in MODE 5. <b>(1700 on 7/7/2007)</b>	_____	_____	_____

**CUE:** **"The JPM is complete."**

12.	Stop time	Time to complete the task ≤ 30 minutes.	_____	_____	_____
	Evaluator calculates time to complete task.				

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM02

## PERFORMANCE SUMMARY

Provide comments on unsatisfactory performance of an element/step or for deviation from performance as stated. Record interruptions in performance such as retraining, shift change, and processing of procedure changes. Recommend remedial training, if necessary.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slightly textured appearance and is set against a dark background.

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM02

## TEAR-OFF SHEET FOR JPM

### Directions to the Student:

Evaluator gives Tear-Off sheet to the student.

A. You are the Work Control Supervisor.

B. The following information is provided to you:

- 1) The plant is in MODE 1 at 100% power.
- 2) CBS-P-9A failed it's surveillance criteria and was declared inoperable at 0500 on July 1, 2007. The current time is 0820 on July 1, 2007.
- 3) Impeller replacement work is in progress.
- 4) The OCC has contacted the Shift Manager and notified him that the new impeller has been damaged and current projected time of arrival on-site for a replacement is 10 days away.

C. The evaluator will act as the Shift Manager and provide the cues and communications for this JPM. Do you have any questions?

### Initiating Cue:

Shift Manager to Work Control Supervisor, **"Work Control Supervisor, DETERMINE the allowed outage time and MODE restrictions for the inoperable CBS-P-9A."**

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM02

SRO-ADMJPM.02

ODI.30 Page 1  
Rev. 05

Answer Key

OPERATIONS DEPARTMENT INSTRUCTION COVER FORM

Instruction Number ODI.30 Revision 05

Title ALLOWED OUTAGE TIME WORK

Originator J.W. Hill

B. APPROVAL AND IMPLEMENTATION

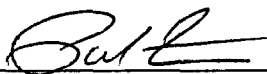
<u></u>	<u>9/11/00</u>	<u>9/18/00</u>
Operations Manager /Asst. Operations Manager	Approved Date	Effective Date

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	ODI.30B AOT WORKSHEET FOR 3.0.3 LCO's	



## 1.0 OBJECTIVE

This instruction provides guidance for completing the Allowed Outage Time (AOT) Worksheet.

## 2.0 REFERENCES

2.1 ER1.1 Classification of Emergencies

2.2 ODI.29 Action Statement Tracking

## 3.0 SCOPE

This instruction is to be used to calculate allowed outage time whenever entering an LCO which requires eventual plant shutdown to mode 5 in accordance with ER1.1 EAL 11a. Additionally, this instruction may be used at the discretion of the Shift Manager/Unit Supervisor to calculate allowed outage time.

## 4.0 DEFINITIONS

None

## 5.0 INSTRUCTIONS

5.1 Upon entering an applicable LCO determine the appropriate AOT Worksheet using Figure 6.1, AOT Flowchart, as a guide.

### CAUTION

IF THE TIME REMAINING TO REACH ANY MODE IS LESS THAN OR EQUAL TO ZERO, REFER TO ER1.1, CLASSIFICATIONS OF EMERGENCIES, EAL 11a

5.2 Enter information as required on either Form ODI.30A or ODI.30B, as appropriate. Maintain the form in the Control Room until the action statement is exited or the plant is shutdown to mode 5.

5.3 Forward completed AOT worksheets to the Operations Administrative Coordinator.

## 6.0 FIGURES

Figure 6.1 - AOT Flowchart

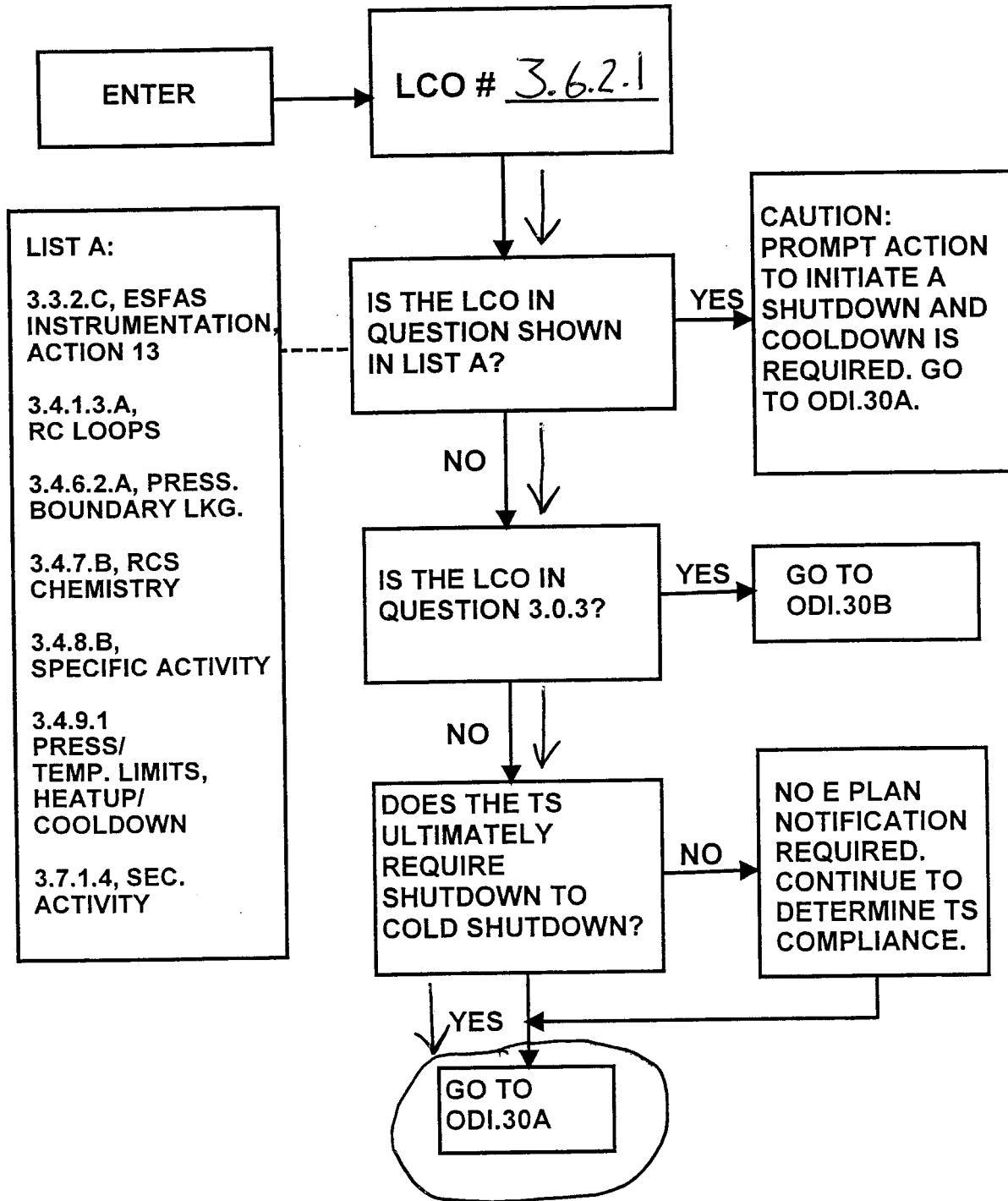
## 7.0 FORMS

ODI.30A - AOT Worksheet for non-3.0.3 LCO's

ODI.30B - AOT Worksheet for 3.0.3 LCO's

FIGURE 6.1

ALLOWED OUTAGE TIME FLOWCHART



# AOT WORKSHEET (EXCEPT 3.0.3)

LCO #	<u>3.6.2.1</u>	ACTION	_____	ENTERED FROM MODE	<u>1</u>
# HRS AOT PROVIDED BEFORE MODE REDUCTION TO MODE 3 REQUIRED					<u>72</u> (a)
# HRS PROVIDED TO CHANGE MODES TO MODE 3 (Zero If Entered From Mode 3 or 4)					<u>6</u> (b)
# HRS ADDITIONAL AOT PROVIDED IN MODE 3 BEFORE REDUCTION TO MODE 4 or 5 REQUIRED (Circle Applicable Mode)					<u>48</u> (c)
# HRS PROVIDED TO CHANGE MODES FROM MODE 3 TO MODE 4 or 5 (Circle Applicable Mode)					<u>30</u> (d)

1. TIME LCO ACTION STATEMENT ENTERED

TIME/DATE  
0500, 7/1/7 (e)

IF ENTERED FROM MODE (Circle Applicable)	GO TO LINE
<u>1</u> OR 2	2
3 OR 4	7

2. MODE REDUCTION TO MODE 3 MUST BE STARTED BY

0500, 7/4/7 (f)  
e+a

3. TIME PLANT MUST BE IN MODE 3

1100, 7/4/7 (g)  
e+(a+b)

4. TIME PLANT IN MODE 3

\_\_\_\_\_ / (h)

5. TIME REMAINING TO REACH MODE 3; IF "0",  
REFER TO ER 1.1\*

\_\_\_\_\_ (i)  
(a+b) - (h-e)

6. MODE REDUCTION TO MODE 4 or 5 MUST BE STARTED BY  
(Circle Applicable)

1100, 7/6/7 (j)  
e+(a+b+c)

7. TIME PLANT MUST BE IN MODE 4 or 5

1700, 7/7/7 (k)  
e+(a+b+c+d)

8. TIME PLANT IN MODE 4 or 5

\_\_\_\_\_ / (l)

9. TIME REMAINING TO REACH MODE 5; IF "0",  
REFER TO ER 1.1\*

\_\_\_\_\_ (m)  
(a+b+c+d) - (l-e)\*

10. ACTION STATEMENT EXITED

\_\_\_\_\_ / (n)

\* N/A IF COOLDOWN TO MODE 5 NOT REQUIRED

## AOT WORKSHEET (3.0.3 ONLY)

NOTE: LCO 3.0.3 only requires the unit to be placed in a Mode where the initial specification does **not** apply

- |  |    |     |
|--|----|-----|
| # HRS PROVIDED BEFORE REDUCTION TO MODE 3 IS REQUIRED                        | 1  | (a) |
| # HRS PROVIDED TO CHANGE MODES TO MODE 3                                     |    |     |
| a. (if entering from modes 1 or 2, b=6, if entering from modes 3 or 4, b=0). |    | (b) |
| # HRS PROVIDED TO CHANGE MODES FROM MODE 3 TO MODE 4                         |    |     |
| b. (if entering from modes 1, 2 or 3, c=6, if entering from mode 4, c=0).    |    | (c) |
| # HRS PROVIDED TO CHANGE MODES FROM MODE 4 TO MODE 5                         | 24 | (d) |

1. TIME LCO ACTION STATEMENT ENTERED

IF ENTERED FROM MODE	GO TO LINE
1 OR 2	2
3	7
4	12

- |  |                   |     |
|--|-------------------|-----|
| 2. MODE REDUCTION TO MODE 3 MUST BE STARTED BY                 | /                 | (e) |
|  | $e+a$             |     |
| 3. TIME PLANT MUST BE IN MODE 3                                | /                 | (g) |
|  | $e+(a+b)$         |     |
| 4. TIME PLANT IN MODE 3  | /                 | (h) |
| 5. TIME REMAINING TO REACH MODE 3: IF "0",<br>REFER TO ER 1.1* |                   | (i) |
|  | $(a+b) - (h-e)$   |     |
| 6. MODE REDUCTION TO MODE 4 MUST BE STARTED BY                 | /                 | (j) |
|  | $e+(a+b)$         |     |
| 7. TIME PLANT MUST BE IN MODE 4                                | /                 | (k) |
|  | $e+(a+b+c)$       |     |
| 8. TIME PLANT IN MODE 4  | /                 | (l) |
| 9. TIME REMAINING TO REACH MODE 4: IF "0",<br>REFER TO ER 1.1* |                   | (m) |
|  | $(a+b+c) - (l-e)$ |     |

\* N/A IF COOLDOWN TO MODE 5 NOT REQUIRED

## AOT WORKSHEET (3.0.3 ONLY)

10. MODE REDUCTION TO MODE 5 MUST BE STARTED BY

$$\frac{\quad / \quad}{e+(a+b+c)} \quad (n)$$

11. TIME PLANT MUST BE IN MODE 5

$$\frac{\quad / \quad}{e+(a+b+c+d)} \quad (o)$$

12. TIME PLANT IN MODE 5

$$\frac{\quad / \quad}{\quad} \quad (p)$$

13. TIME REMAINING TO REACH MODE 5: IF "0",  
REFER TO ER 1.1

$$\frac{\quad / \quad}{(a+b+c+d) - (p-e)} \quad (q)$$

14. ACTION STATEMENT EXITED

$$\frac{\quad / \quad}{\quad} \quad (r)$$



# **FPL Energy**

## **Seabrook Station**

JOB PERFORMANCE MEASURE 2007 NRC EXAM SRO-ADMJPM03

VERIFY RCS STEADY STATE LEAK RATE CALCULATION

Student Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Evaluator Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

Evaluator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Training Coordinator Signature \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

SAT      UNSAT

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PREPARED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
INSTRUCTOR

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SUBJECT MATTER EXPERT (OPTIONAL)

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
TRAINING SUPERVISOR

## **JOB PERFORMANCE WORKSHEET**

### **1.0 Task Number and Description:**

0020200101 Perform RC Steady Leak Rate Calculation.

### **2.0 Conditions:**

- A. The plant is in MODE 1, 100% steady state power.
- B. Your shift started a manual RCS leak rate calculation at 0030 to comply with OS07-01-02, RCS Leakage Monitoring/Action Commitment.
- C. Yesterdays RCS Unidentified Leak Rate was .004 gpm.

### **3.0 Standards:**

Calculate the manual steady state leak rate.

### **4.0 Student Materials:**

Copy of the Tear-Off Sheet.  
OX1401.02, RCS Steady State Leak Rate Calculation.  
OS07-01-02, RCS Leakage Monitoring/Action Commitment.  
Attached data table on JPM tear-off sheet.  
Primary Tech. Data Book  
Calculator

### **5.0 Limitations On Performance:**

Perform all steps. Verbalize all actions to the evaluator. Even if requested, no peer checks will be provided during the JPM.

### **6.0 References:**

Procedures:

- OX1401.02, RCS Steady State Leak Rate Calculation
- OS07-01-02, RCS Leakage Monitoring/Action Commitment.

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM03

## **JOB PERFORMANCE WORKSHEET**

Sys	KA	Description	Value RO/SRO
	2.2.12	2.2.12 Knowledge of surveillance procedures.	3.0/3.4

**7.0 Setting:**

Classroom

**8.0 Safety Considerations:**

None

**9.0 Approximate Completion Time:**

30 minutes

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM03



## **JOB PERFORMANCE WORKSHEET**

### **10.0 Directions To The Student(s):**

Evaluator gives Tear-Off sheet to the student.

- A. You are the Work Control Supervisor. You have been called to the control room and are going to verify the results of a manual RCS steady state leak rate calculation.
- B. The following information is provided to you:
  - 1) The plant is in MODE 1 at 100% power.
  - 2) The main plant computer system leak rate program is unavailable.
  - 3) Per procedure OS07-01-02, RCS Leakage Monitoring/Action Commitment, your shift started the daily manual RCS steady state leak rate surveillance at 0030.
  - 4) The previous days UNIDENTIFIED LEAK RATE measurement was .004 gpm.
- C. The evaluator will act as the Shift Manager and provide the cues and communications for this JPM. Do you have any questions?

### **11.0 Initiating Cue:**

Unit Supervisor to Work Control Supervisor, **"The time is 0630. Verify the manual steady state leak rate calculation per the completed Form B. After you have verified the calculation, continue with OS07-01-02, RCS Leakage Monitoring/Action Commitment, step 4.1 and let me know if RCS leakage is within the prescribed limits."**

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM03

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP  * denotes a critical step	STANDARD  * denotes a critical step	EVALUATION  SAT    UNSAT	INITIALS/DATE
--------------------------------------	---	---	--------------------------------	---------------

**NOTE:** 1. The completed Leak Rate worksheet, OX1401.02, Form B can be used to show satisfactory completion of the leak rate calculation.  
2. The evaluator will act as the Unit Supervisor to complete communications with the student.

1.	P	Start time	Initiating cue read. Student obtains copy of OX1401.02, RCS Steady State Leak Rate Calculation.	_____	_____	_____
----	---	------------	---	-------	-------	-------

**Evaluator CUE:** If the student inquires about the chemistry notification, provide the cue, **"All prerequisites For the surveillance were met at 0030 this morning."**

**Evaluator CUE:** If the student states that they are going to verify the data on Form B, state: Unit Supervisor to Work Control Supervisor, **"The collected data on Form B has already been verified. I want you to verify that the leak rate calculations are correct for the data provided."**

2.	P	If the main plant computer is not available PERFORM the following:				
		a. VERIFY the Prerequisites are complete.	Verifies prerequisites are complete.	_____	_____	_____
		b. Verify data as shown on Form B:	Verifies required data on Form B:			_____
		(1) TIME	Time: 360 minutes	_____	_____	
		(2) Tavg	Tavg: +8.396 gallons	_____	_____	
		(3) PZR LEVEL	PZR level: 0 gallons	_____	_____	
		(4) VCT LEVEL	VCT level: 93.42 gallons	_____	_____	
		(5) INTEGRATED MAKEUP	INT MAKEUP: 205 gallons	_____	_____	
		(6) PRT LEVEL	PRT level: 0 gallons	_____	_____	
		(7) RCDT LEVEL	RCDT level: 55 gallons	_____	_____	

**Evaluator Cue:** Student may ask if there is any additional leakage data. If the student asks, say **"There is No additional leakage"**.

*3	P	VERIFY the RCS leak rate calculation using Form B.				_____
----	---	--	--	--	--	-------

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM03

## PERFORMANCE SUMMARY

Provide comments on unsatisfactory performance of an element/step or for deviation from performance as stated. Record interruptions in performance such as retraining, shift change, and processing of procedure changes. Recommend remedial training, if necessary.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. On the right side, there is a vertical dashed line indicating where the paper can be folded. The paper appears to be from a notebook or a set of legal pads.

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM03

## **TEAR-OFF SHEET FOR SRO-ADMJPM03**

### **Directions to the Student:**

Evaluator gives Tear-Off sheet to the student.

- A. You are the Work Control Supervisor. You have been called to the control room and are going to complete a manual RCS steady state leak rate calculation.
- B. The following information is provided to you:
  - 1) The plant is in MODE 1 at 100% power.
  - 1) The main plant computer system leak rate computer is unavailable.
  - 2) Per procedure OS07-01-02, RCS Leakage Monitoring/Action Commitment, your shift started the daily manual RCS steady state leak rate surveillance at 0030.
  - 3) The previous days UNIDENTIFIED LEAK RATE measurement was .004 gpm.
- C. The evaluator will act as the Shift Manager and provide the cues and communications for this JPM. Do you have any questions?

### **Initiating Cue:**

Unit Supervisor to Work Control Supervisor, **"The time is 0630. Verify the manual steady state leak rate calculation per the completed Form B. After you have verified the calculation, continue with OS07-01-02, RCS Leakage Monitoring/Action Commitment, step 4.1 and let me know if RCS leakage is within the prescribed limits."**

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM03

## Form B: PM Number 1-LEAK-OT002-000

## Test Data Sheet

(Sheet 2 of 2)

MANUAL RCS LEAK RATE						
PARAMETER	INSTRUMENT USED	FINISH	START	CHANGE FINISH-START	CONVERSION	GALLONS OR MINUTES
		0630	0030			

TIME	MCB CLOCK	0630	0030	360 min	60 min/hr	360 min (1)
------	-----------	------	------	---------	-----------	-------------

## OBTAIN DATA FROM THE MAIN CONTROL BOARD AND CP-38A

TAVG	DIGITAL	589.9 °F	589.8 °F	.1 °F	83.96 gal/°F (Note 2)	8.396 gal (2)
PZR LEVEL	(Note 4)	59 %	59 %	0 %	61.31 gal/% (Note 2)	0 gal (3)
VCT LEVEL	LI-185	51 %	48 %	3 %	31.14 gal/%	93.42 gal (4)
INTEGRATED MAKEUP	CS-FIQ-111 (Note 5)	230 gal	25 gal	205 gal	N/A	205 gal (5)

PRT LEVEL	LI-470	8200 gal (Note 3)	8200 gal (Note 3)	0 gal	N/A	0 gal (6)
RCDT LEVEL	LI-1403 (at CP-38A)	215 gal (Note 3)	160 gal (Note 3)	55 gal	N/A	55 gal (7)

## OBTAIN THIS DATA FROM ANY KNOWN SOURCE AND RECORD GALLONS (Note 1)

0						gal (8)
						gal (8)

## IDENTIFIED LEAKAGE

$$\left( \overset{8}{0} \right) + \left( \overset{7}{55} \right) + \left( \overset{6}{0} \right) = \left( 0.153 \right) \text{ gpm}^{(9)}$$

$$\frac{\left( 360 \right)}{1} \quad \text{Identified Leakage Acceptance}$$

Criteria  $\leq 10$  gpm

## UNIDENTIFIED LEAKAGE

$$\left[ \left( \overset{5}{205} \right) + \left( \overset{2}{8.396} \right) - \left( \overset{3}{0} \right) - \left( \overset{4}{93.42} \right) \right] - \left( \overset{9}{0.153} \right) \text{ gpm} = \underline{.18} \text{ gpm}$$

$$\frac{\left( 360 \right)}{1} \quad \text{Unidentified Leakage Acceptance}$$

Criteria  $\leq 1$  gpm**Note 1:** This is for sampling losses, accumulator leaks, steam generator tube leakage, etc.**Note 2:** These conversion factors are only valid for normal operating temperature and pressure. If the plant is stable at a reduced pressure and temp and the computer is not available, use the conversion factors from Figure 2.**Note 3:** Obtain tank volume from the Primary Technical Data Book and record gallons for calculation. Do not use % due to nonlinearity of the tank volume.**Note 4:** Record the instrument number and use the same hot calibrated level indicator for both start and finish.**Note 5:** Any RWST, BWST, or SF Pool makeups must be subtracted from the integrated makeup total.

Calculations checked by: \_\_\_\_\_

\*\* Candidate will be given this completed form and must verify all data/calculations are satisfactory

4.

**INSTRUCTIONS****NOTE**

1. Loss of the Main Plant Computer will require performance of a Manual Leak Rate calculation once every 24 hrs in accordance with OX1401.02, RCS Steady State Leak Rate Calculation.
2. Steady State operating condition is defined as Steady state power level with equilibrium xenon



- 4.1 Once per day during Steady State operating conditions, MEASURE RCS unidentified leakage per OX1401.02, RCS Steady State Leak Rate Calculation.



- 4.2 RECORD daily RCS unidentified leakage value in the Unit Journal and Tech. Spec. Logs.



- 4.3 VERIFY RCS unidentified leakage less than the following limits:

- 0.27 gpm (baseline + 0.25 gpm) Yes
- 0.1 gpm greater than previous day's measurement No

## NOTE

1. If during the 72 hour leakage investigation, RCS unidentified leakage drops below the limits listed above, the requirement for shutdown **and/or** pressurizer Alloy 600/82/182 butt weld bare metal examination **shall not** apply.
2. A positive determination that the source of the unidentified leakage did **not** come from the pressurizer **will** negate the requirement for shutdown **and/or** pressurizer Alloy 600/82/182 butt weld bare metal examination.
3. If a quantity of leakage can be assigned to a source other than the pressurizer and that quantity decreases the unidentified leakage below one of the thresholds (0.1 gpm step increase **or** 0.25 gpm above baseline), this **will** negate the requirement for shutdown **and/or** pressurizer Alloy 600/82/182 butt weld bare metal examination.

4.4 If RCS unidentified leakage during steady state operating conditions exceeds either of the above limits, PERFORM the following:



4.4.1 ATTEMPT to identify the leakage source.



4.4.2 Refer to Figure 1, Commitment Letter L-2007-025.



4.4.3 Refer to AOP OS1201.02, RCS Leak.

4.4.4 If within 72 hours the leakage source cannot be positively identified as coming from a location other than the pressurizer and RCS unidentified leakage still exceeds one of the step 4.3 limits, then PERFORM the following:



4.4.4.1 PLACE the plant in HOT STANDBY within 6 hours and in COLD SHUTDOWN in the next 36 hours.



4.4.4.2 NOTIFY Materials Engineering Group to perform a bare metal visual examination of all pressurizer Alloy 600/82/182 butt weld locations.

4.4.5 If the increase in the RCS unidentified leak rate can be positively identified as coming from a source other than the pressurizer, then PERFORM the following:



4.4.5.1 DOCUMENT the source and approximate flow rate in the Unit Journal.

Determines  
that the  
plant does  
not have to  
be in HOT STANDBY  
within  
6 hours and  
COLD  
SHUTDOWN  
in the next  
36 hours.



# **FPL Energy**

## **Seabrook Station**

JOB PERFORMANCE MEASURE 2007 NRC EXAM SRO-ADMJPM04

VERIFY A LIQUID EFFLUENT WASTE SAMPLE REQUEST

Student Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Evaluator Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

Evaluator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Training Coordinator Signature \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

SAT      UNSAT

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PREPARED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
INSTRUCTOR

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SUBJECT MATTER EXPERT (OPTIONAL)

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
TRAINING SUPERVISOR



## **JOB PERFORMANCE WORKSHEET**

### **1.0 Task Number and Description:**

0690301502 Authorize a release of liquid waste.

### **2.0 Conditions:**

- A. The plant is in MODE 1 with two ocean Service Water and two Circulating Water pumps running with no expected change of configuration.
- B. WL-TK-63A, "A" Waste Test Tank has been filled to 18,000 gallons.
- C. WL-TK-63A, "A" Waste Test Tank has to be sampled to prepare a LEW permit for a release to the transition Structure.
- D. The Primary Operator has completed Section 1 of CP 4.1A, Liquid Effluent Waste Sample Requests.

### **3.0 Standards:**

Perform verification of CP4.1A, Liquid Effluent Waste Sample Requests.

### **4.0 Student Materials:**

Copy of the Tear-Off Sheet.  
ON1018.07, Waste Test Tank Recirculation.  
CP-4.1, Effluent Sampling Program.

### **5.0 Limitations On Performance:**

Perform all steps. Verbalize all actions to the evaluator. Even if requested, no peer checks will be provided during the JPM.

### **6.0 References:**

ON1018.07, Waste Test Tank Recirculation.  
SSCP, Station Chemistry Manual  
CP-4.1, Effluent Sampling Program.

Sys	KA	Description	Value RO/SRO
	2.3.10	Ability to perform procedures to reduce excessive levels of radiation and guard against personnel exposure.	2.9/3.3

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM04

## **JOB PERFORMANCE WORKSHEET**

### **7.0 Setting:**

Classroom

### **8.0 Safety Considerations:**

None

### **9.0 Approximate Completion Time:**

15 minutes

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM04

## **JOB PERFORMANCE WORKSHEET**

### **10.0 Directions To The Student(s):**

Evaluator gives Tear-Off sheet to the student.

- A. You are going to perform the verification of a Liquid Effluent Waste Sample Request, using the information provided.
- B. The following information is provided to you:
  - 1) The plant is in MODE 1 with two ocean Service Water and two Circulating Water pumps running with no expected change of configuration.
  - 2) WL-TK-63A, "A" Waste Test Tank has been filled to 18,000 gallons.
  - 3) WL-TK-63A, "A" Waste Test Tank has to be sampled to prepare a LEW permit for a release to the transition Structure.
  - 4) The Primary Operator has completed Section 1 of CP 4.1A, Liquid Effluent Waste Sample Request.
- C. The evaluator will act as the Shift Manager and provide the cues and communications for this JPM. Do you have any questions?

### **11.0 Initiating Cue:**

Primary Operator to Unit Supervisor , **"Unit Supervisor, I have completed Section 1 of Form CP 4.1A. Please perform the verification"**

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM04

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP	STANDARD	EVALUATION	INITIALS/DATE
	* denotes a critical step	* denotes a critical step	SAT    UNSAT	

- |    |   |            |  |  |
|----|---|------------|--|--|
| 1. | P | Start time | Initiating cue read. Form 4.1A given to student. |  |
|----|---|------------|--|--|

**Evaluator CUE:** Give the student a copy of the working procedures after they have identified the procedures required.

**NOTE:** It is assumed that the student will use CP 4.1 to process through the verification and check ON1018.07 to verify the tank volumes and recirculation flow rate. The student may choose to verify the tank volume and recirculation rate prior to referring to CP 4.1. These steps can be performed in any order as long as all steps are completed correctly.

- |    |   |   |  |  |
|----|---|---|--|--|
| *2 | P | Section 1 of CP 4.1A is completed by Operations and provides the following information: |  |  |
|----|---|---|--|--|

- |   |                                 |  |
|---|---------------------------------|--|
| a. Name of tank, sump, or SG demin. vessel to be sampled. | a. Verifies WTT "A" is entered. |  |
|---|---------------------------------|--|

**Evaluator Cue:** If the student wants to verify the amount of liquid in the "A" Waste Test Tank using the Main Plant Computer, tell them that the MPCS indicates 18,000 gallons.

- |   |  |  |
|---|--|--|
| b. Total tank or sump volume to be discharged or transferred. | b. Notes 18,000 gallons is consistent with initial conditions and indications. |  |
|---|--|--|

**NOTE:** The recirculation rate for WTT A is actually 150 gpm. Waste Holdup Sump recirculation rate is 400 gpm. The student must correct this mistake to ensure adequate tank recirculation prior to sampling.

**Evaluator CUE:** If the Primary Operator (Evaluator) is informed that the recirculation rate is incorrect, say "I must have been thinking about the Waste Holdup Sump recirculation rate."

**Evaluator CUE:** If the student (Unit Supervisor gives the form back to the evaluator (Primary Operator) to correct, say: "Use your corrected values and complete the verification."

- |                        |   |  |
|------------------------|---|--|
| c. Recirculation rate. | *c. Corrects the recirc. rate to 150 gpm and the recirc. required time to be 240 minutes. |  |
|------------------------|---|--|

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM04

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP	STANDARD	EVALUATION		INITIALS/DATE
			SAT	UNSAT	
	* denotes a critical step	* denotes a critical step			
	d. Recirculation starting time and date.	d. Verifies start time and date entered	_____	_____	
	e. Sample date and time	*e. Corrects sample time to reflect longer recirculation time. <b>(7/08/07 @1200)</b>	_____	_____	
	f. Disposition of tank.	f. Verifies DISCHARGE as disposition.	_____	_____	
	g. The projected CW and SW pump combination for the discharge.	g. Verifies projected pump combination is consistent with initial conditions.	_____	_____	
	h. Projected release start date and time (normally 8 hours from sample).	*h. Corrects projected start time. <b>(normally 8 hours from sample time)</b>	_____	_____	
	i. Date, time of request, and initials of originator.	i. Verifies time, date and initials are entered.	_____	_____	
	j. Date, time, and initials of individual that performed verification of operational data.	j. Enters date, time, and initials.	_____	_____	
<b>Evaluator CUE: "The JPM is complete".</b>					
4	Stop time _____	Start-Stop time is $\leq$ 15 minutes.	_____	_____	_____

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM04

## PERFORMANCE SUMMARY

Provide comments on unsatisfactory performance of an element/step or for deviation from performance as stated. Record interruptions in performance such as retraining, shift change, and processing of procedure changes. Recommend remedial training, if necessary.

[illegible]

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM04

## **TEAR-OFF SHEET FOR SRO-ADMJPM04**

### **Directions to the Student:**

Evaluator gives Tear-Off sheet to the student.

- A. You are going to perform the verification of a Liquid Effluent Waste Sample Request using the information provided.
- B. The following information is provided to you:
  - 1) The plant is in MODE 1 with two ocean Service Water and two Circulating Water pumps running with no expected change of configuration.
  - 2) WL-TK-63A, "A" Waste Test Tank has been filled to 18,000 gallons.
  - 3) WL-TK-63A, "A" Waste Test Tank has to be sampled to prepare a LEW permit for a release to the transition Structure.
  - 4) The Primary Operator has completed Section 1 of CP 4.1A, Liquid Effluent Waste Sample Request.
- C. The evaluator will act as the Primary Operator and provide the cues and communications for this JPM. Do you have any questions?

### **Initiating Cue:**

Primary Operator to Unit Supervisor , **"Unit Supervisor, I have completed Section 1 of Form CP 4.1A. Please perform the verification"**.

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO-ADMJPM04

SRO - ADM JPM 04

Tear Off Sheet

## Liquid Effluent Waste Sample Request

Section I		Operational Data (Completed by Operations Department)	
Tank, Sump, CPS or SG Demin. Vessel:	WTT "A"	Disposition:	<input checked="" type="checkbox"/> Discharge <input type="checkbox"/> Recycle
Tank or Sump Volume:	18,000	gallons	
Recirculate Rate:	400	gpm	
Minimum Recirc. Time* = 2 x Tank Vol. =	90	min.	
	Recirc. Rate		
Recirc. Start Date and Time:	Today	/	0800
Sample Date and Time:	Today	/	0930

## NOTE

CW-V-40 position cannot change once this form is submitted to Chemistry.

Project CW and SW pump combination for discharge:	CW	2	SW	2
Project Release Start Date and Time:	Today	/	(2/17/30)	
Originator	Date		Time	
Verified By	Date		Time	

Section II		Chemistry Data (Completed by Chemistry Department)	
Sample Date	Sample Time	Sample Collected by (Initials)	
Sample Identification No.			
LEW Permit Number:			
Dilution Water Flow Rate:	gpm		
Volume Discharged:	gallons		
Composite Volume:	mls		
Composite Updated by:	(Initials)		

\* or as directed by supervision



Answer Key

SRO-ADM JPM 04

# Liquid Effluent Waste Sample Request

Section I Operational Data (Completed by Operations Department)	
Tank, Sump, CPS or SG Demin. Vessel: <u>WTTA</u>	Disposition: <input checked="" type="checkbox"/> Discharge <input type="checkbox"/> Recycle
Tank or Sump Volume: <u>18,000</u>	gallons
Recirculate Rate: <u>400</u> <u>150</u>	gpm
Minimum Recirc. Time* = $2 \times \text{Tank Vol.}$ = <u>90</u> <u>240</u>	min.
Recirc. Rate	
Recirc. Start Date and Time: <u>Today</u> / <u>0800</u>	
Sample Date and Time: <u>Today</u> / <u>0930</u> <u>1200</u>	

## NOTE

CW-V-40 position cannot change once this form is submitted to Chemistry.

Project CW and SW pump combination for discharge:	CW <u>2</u>	SW <u>2</u>
Project Release Start Date and Time:	<u>Today</u> / <u>121730</u>	<u>2000</u>
Originator _____	Date _____	Time _____
Verified By _____	Date _____	Time _____

## Section II Chemistry Data (Completed by Chemistry Department)

Sample Date	Sample Time	Sample Collected by (Initials)
Sample Identification No. _____		
LEW Permit Number: _____		
Dilution Water Flow Rate: _____	gpm	
Volume Discharged: _____	gallons	
Composite Volume: _____	mls	
Composite Updated by: _____	(Initials)	

\* or as directed by supervision



# **FPL Energy**

## **Seabrook Station**

JOB PERFORMANCE MEASURE 2007 NRC EXAM SRO-ADMJPM05

### EMERGENCY PLAN CLASSIFICATION AND NOTIFICATION

Student Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Evaluator Name: \_\_\_\_\_ Badge #: \_\_\_\_\_

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

Evaluator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Training Coordinator Signature \_\_\_\_\_ Date: \_\_\_\_\_  
(optional)

SAT      UNSAT

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PREPARED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
INSTRUCTOR

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SUBJECT MATTER EXPERT (OPTIONAL)

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
TRAINING SUPERVISOR

## **JOB PERFORMANCE WORKSHEET**

### **1.0 Task Number and Description:**

Position: SRO

1190402003 Perform required notifications of on-site and off-site personnel for emergency events.

### **2.0 Conditions:**

A. As applicable to associated simulator scenario.

### **3.0 Standards:**

Classify the emergency condition and make the required notifications of on-site and state personnel for this event.

### **4.0 Student Materials:**

Copy of the Tear-Off Sheet.  
E-Plan folder drawer or copies of the following:  
ER-1.1, Classification of Emergencies  
ER-1.1A, Emergency Classification Flow Chart  
ER-1.2, Emergency Plan Activation

### **5.0 Limitations On Performance:**

Simulate/Perform all steps. Verbalize all actions to the evaluator. Even if requested, no peer checks will be provided during the JPM.

### **6.0 References:**

Procedures:

- RE-1.1, Classification of Emergencies
- ER-1.2, Emergency Plan Activation

Sys	KA	Description	Value SRO
	2.4.40	Knowledge of the SRO's responsibilities in emergency plan implementation.	4.0

### **7.0 Setting:**

Simulator, post scenario in FREEZE.

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO- ADMJPM05

## JOB PERFORMANCE WORKSHEET

### Notes To Evaluator

- Because this JPM is done with the simulator in freeze the Control Board clock cannot be used to track time. The digital clock on the Communications Console or a wristwatch must be used. There is a reminder cue in the body of the JPM.

#### 8.0 Safety Considerations:

None

#### 9.0 Approximate Completion Time:

15 minutes

#### 10.0 Directions To The Student(s):

Evaluator gives Tear-Off sheet to the student.

A. You are the Work Control Supervisor.

B. The following information is provided to you:

1) The plant was initially in Mode 1.

C. The evaluator will act as the Shift Manager and provide the cues and communications for this JPM. Do you have any questions?

#### 11.0 Initiating Cue:

Shift Manager to Work Control Supervisor, **“Work Control Supervisor, classify the Emergency Condition based on the most severe condition experienced during the scenario and activate the Emergency Plan for this event.”**

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO- ADMJPM05

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP	STANDARD	EVALUATION	INITIALS/DATE
	* denotes a critical step	* denotes a critical step	SAT    UNSAT	

1.	P	Start time	Initiating cue read.
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**\* 2. Performs ER-1.1 Section 5.1 Emergency Classification for Post Scenario Evaluation**

P	If there has been a valid reactor trip or safety injection signal(s), determine whether any of the following critical safety functions (CSFs) are challenged: S. Subcriticality C. Core cooling H. Heat sink P. RCS integrity Z. Containment integrity	Determines any applicable CSF Status.	_____	_____
P	Identify the color-coded event for the challenged CSFs.	Identifies any color-coded event.	_____	_____
P	Circle the letter and color of each CSF event or combination of events identified in Step 3 on form ER 1.1A, Emergency Classification Flow Chart.	Circles the letter and color of each CSF event or combination of events identified in Step 3 on form ER 1.1A, Emergency Classification Flow Chart.	_____	_____
P	Review and then circle the miscellaneous emergency conditions and combinations of miscellaneous emergency conditions that correspond to actual station conditions on form ER 1.1A.	Circles the miscellaneous emergency conditions and combinations of miscellaneous emergency conditions that correspond to actual station conditions on form ER 1.1A.	_____	_____
P	Circle any combinations of miscellaneous emergency conditions and critical safety functions that correspond to actual station conditions on form ER 1.1A.	Circles any combinations of miscellaneous emergency conditions and critical safety functions that correspond to actual station conditions on form ER 1.1A.	_____	_____

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO- ADMJPM05

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP	STANDARD	EVALUATION	INITIALS/DATE
	* denotes a critical step	* denotes a critical step	SAT    UNSAT	

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P	<p>At the discretion of the Shift Manager, the evaluation of EALs 12a, 12b, 12d and 12e may take place after an initial classification is made based on other plant or radiological Conditions. If emergency classification is being considered under any of the High Radiation EALs, which involve a release, (12a, 12b, 12d or 12e), implement offsite dose assessment using procedure ER 5.7, Offsite Dose Projection System (ODPS). A radiological release that requires dose assessment utilizing the Offsite Dose Projection System (ODPS) is defined as follows:</p> <ul style="list-style-type: none"> <li>a. A Wide Range Gas Monitor (WRGM) high alarm (RM-6528-4), or</li> <li>b. A Main Steam Line Monitor high alarm with an OPEN atmospheric steam dump valve (ASDV) or safety relief valve (SRV) on the affected line, or</li> <li>c. A Main Steam Line Monitor high alarm with the steam driven EFW pump running and fed from the affected line, or</li> <li>d. The results of effluent analysis or site boundary monitoring indicate a dose rate greater than or equal to 0.06 mRem/hr.</li> </ul> <p>In the event of a radiological</p>	These are not necessary	_____	_____
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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO- ADMJPM05

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP	STANDARD	EVALUATION	INITIALS/DATE
	* denotes a critical step	* denotes a critical step	SAT    UNSAT	

release via the turbine-driven EFW pump exhaust, dispatch a monitoring team to the downwind site boundary location to obtain a site boundary dose rate and use the Unmonitored Release Path of ODPS.

**NOTE: Expected emergency classification is identified at the end of each simulator exam scenario.**

P	Identify the most severe emergency classification that corresponds to the events circled on form ER 1.1A. Refer to the corresponding Figure 1 initiating condition to complete Classification.	*Identifies the most severe classification.	_____	_____	_____
	If an emergency classification is warranted, immediately implement Station Emergency Response Procedure ER 1.2, Emergency Plan Activation.	Moves on and processes ER-1.2	_____	_____	

**NOTE: The student is expected to use the applicable Emergency Plan binder from the drawer.**

**CUE:** If the sim is in freeze, when the student looks at the MCB clock, inform them that **“The MCB clock is not running. Please use the Communications Console clock or your wristwatch to determine the time.”**

3.	P	Acquires applicable binder.	Acquires binder.	_____	_____
----	---	-----------------------------	------------------	-------	-------

**CUE: Shift Manager to Work Control Supervisor, “There is no Code Red condition imminent or in progress”.**

**INSTRUCTOR CUE: DO NOT RESET THE SIMULATOR UNTIL THE CANDIDATE HAS ACQUIRED THE DATA TO DETERMINE THE E-PAN CLASSIFICATION!**

*4.	P	DETERMINE Schiller Station Activation:	Use flow chart:		
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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO- ADMJPM05

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP  * denotes a critical step	STANDARD  * denotes a critical step	EVALUATION		INITIALS/DATE
			SAT	UNSAT	
	• Is there a WRGM high alarm?	• Chooses appropriate path.	_____	_____	_____
	• Is there a Main Steam line monitor high alarm with an open ASDV or Safety Relief Valve on the affected line?	• Chooses appropriate path.	_____	_____	
	• Select appropriate procedure step?	• Determines Schiller Station is/is not activated and goes to Step 3.	_____	_____	

**EVALUATOR CUE:** Ask the candidate if they still need the simulator for data for this JPM. **If not** then direct the simulator operator to reset the simulator.

**EVALUATOR CUE:** If the student inquires about safety hazards, respond: **“There are no safety hazards within the site boundry to evacuate personnel.”**

*5.	P	NOTIFY Station Personnel (Using message in applicable ER procedure).	Notifies station personnel:		
		• Ensures night muting is off.	• Ensures night muting is off.	_____	_____
		• Sounds the plant emergency alarm.	*• Sounds the plant emergency alarm.	_____	_____
		• Uses the Gaitronics override, announce and note time.	* • Makes the applicable announcement over the Gaitronics and noted time.	_____	_____

**Time of Declaration:**\_\_\_\_\_. (Time when student makes announcement.)

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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO- ADMJPM05



## PERFORMANCE CHECKLIST

		ELEMENT/STEP	STANDARD	EVALUATION		INITIALS/DATE
				SAT	UNSAT	
D=Discuss P=Perform S=Simulate		* denotes a critical step	* denotes a critical step			
		<ul style="list-style-type: none"> <li>Repeats the plant emergency alarm.</li> </ul>	<ul style="list-style-type: none"> <li>Repeats the plant emergency alarm.</li> </ul>	_____	_____	
		<ul style="list-style-type: none"> <li>Using the Gaitronics override, repeat the announcement.</li> </ul>	<ul style="list-style-type: none"> <li>Repeats the applicable announcement.</li> </ul>	_____	_____	
		<ul style="list-style-type: none"> <li>Proceed to Step 5.</li> </ul>	<ul style="list-style-type: none"> <li>Goes to Step 5.</li> </ul>	_____	_____	
*6.	P	NOTIFY Guard Island Security	Notifies Guard Island			
		<ul style="list-style-type: none"> <li>Contact the Guard Island at ext. 4006.</li> </ul>	<ul style="list-style-type: none"> <li>Contacts the Guard Island supervisor.</li> </ul>	_____	_____	
<b>NOTE:</b> An instructor must be in the instructor booth to answer the phone and provide necessary feedback. Provide the following information:						
		<ul style="list-style-type: none"> <li>A (applicable emergency plan classification) has been declared.</li> </ul>	<ul style="list-style-type: none"> <li>(Applicable emergency plan classification) has been declared.</li> </ul>	_____	_____	
		<ul style="list-style-type: none"> <li>Time of declaration.</li> </ul>	<ul style="list-style-type: none"> <li>Time of Gaitronics announcement.</li> </ul>	_____	_____	
		<ul style="list-style-type: none"> <li>The emergency initiating condition.</li> </ul>	<ul style="list-style-type: none"> <li>Provides EAL.</li> </ul>	_____	_____	
		<ul style="list-style-type: none"> <li>Schiller Station is/is not being activated (as determined above).</li> </ul>	<ul style="list-style-type: none"> <li>Schiller Station is/is not activated.</li> </ul>	_____	_____	
		<ul style="list-style-type: none"> <li>Direct implementation of procedure GN1332.00, Security Response To A Declared Radiological Emergency.</li> </ul>	<ul style="list-style-type: none"> <li>Directs that GN1332.00 be implemented.</li> </ul>	_____	_____	
		Proceed to Step 6.	Goes to Step 6.	_____	_____	_____

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO- ADMJPM05

## PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP	STANDARD	EVALUATION	INITIALS/DATE
	* denotes a critical step	* denotes a critical step	SAT    UNSAT	

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*7.	P	Complete ER-2.0B, State Notification Fact Sheet.	Completes ER-2.0B:		
		• Block 1-Leave Blank	• Block 1- Leaves blank.	_____	_____

**CUE:** If asked, STED to WCS, “Time of declaration was \_\_\_\_\_ based on your announcement.”

• Block 2- Check (applicable emergency plan classification).	*• Block 2- Checks “Declared” and checks (applicable emergency plan classification) and enters time declared.	_____	_____
• Block 3- Enter emergency initiating condition.	*• Enters appropriate initiating condition.	_____	_____
• Block 4- Use applicable protective action recommendations.	*• Checks applicable PARS.	_____	_____

**NOTE:** The candidate should determine if there has been a release based upon scenario conditions.

• Determines if a release has occurred.	* • Block 5-checks a release has/has not occurred.	_____	_____
---	--	-------	-------

**NOTE:** When student presents form for authorization: **Make no comments of any sort on the information recorded. Sign and fill in the date and time. Return the signed form to the student.**

• Block 6-Self explanatory.	• Block 6- STED authorizes by signing and dating the form.	_____	_____
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**CUE:** Evaluator to student: “**Work Control Supervisor, implement ER 1.2E**”

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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO- ADMJPM05

## PERFORMANCE CHECKLIST

D=Discuss	ELEMENT/STEP	STANDARD	EVALUATION	INITIALS/DATE
P=Perform				
S=Simulate	* denotes a critical step	* denotes a critical step	SAT    UNSAT	

**NOTE:** An instructor must be in the instructor booth to answer the NAS phone and provide necessary feedback.

*8	P	IMPLEMENT ER-1.2E.	IMPLEMENTS ER-1.2E		
		<ul style="list-style-type: none"> <li>• Enter your name/title in Block 1, and contact states:</li> </ul>	<ul style="list-style-type: none"> <li>*• Enters name/title.</li> </ul>	_____	_____
		<ul style="list-style-type: none"> <li>• Pick up the handset and dial Group Call number A1.</li> </ul>	<ul style="list-style-type: none"> <li>*• Contacts states via NAS phone.</li> </ul>	_____	_____
		<ul style="list-style-type: none"> <li>• Verify the NH and MASS dispatchers are on the line.</li> </ul>	<ul style="list-style-type: none"> <li>*• Verifies NH and MASS on line.</li> </ul>	_____	_____
		<ul style="list-style-type: none"> <li>• Ensure that the dispatchers have a copy of the State Notification Fact Sheet.</li> </ul>	<ul style="list-style-type: none"> <li>*• Ensures dispatchers have a State Notification Fact Sheet.</li> </ul>	_____	_____
		<ul style="list-style-type: none"> <li>• Enter contact time in upper right hand corner.</li> </ul>	<ul style="list-style-type: none"> <li>*• Enters contact time in upper right corner of ER-2.0B.</li> </ul>	_____	_____

**TIME:** \_\_\_\_\_

**The time contact time written in the upper right corner of ER-2.0B minus the “Time of Declaration” noted in JPM step 4 equals the time required for State Notification. (\*Time must be less than or equal to 15 minutes.)**

<ul style="list-style-type: none"> <li>• Read all information slowly and clearly.</li> </ul>	<ul style="list-style-type: none"> <li>*• Reads information to dispatchers.</li> </ul>	_____	_____
<ul style="list-style-type: none"> <li>• Verify tha the dispatchers have received the correct information by assigning one to read the information back.</li> </ul>	<ul style="list-style-type: none"> <li>*• Asks one dispatcher to repeat information.</li> </ul>	_____	_____
<ul style="list-style-type: none"> <li>• Obtain the names of the dispatchers and enter in Block 7. Also enter the current date and time.</li> </ul>	<ul style="list-style-type: none"> <li>• Enters names of dispatchers and enters date and time.</li> </ul>	_____	_____

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO- ADMJPM05

## PERFORMANCE CHECKLIST

D=Discuss	ELEMENT/STEP	STANDARD	EVALUATION	INITIALS/DATE
P=Perform				
S=Simulate	* denotes a critical step	* denotes a critical step	SAT    UNSAT	

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**CUE:**    **"The JPM is complete."**

9.	Stop time	Time to complete the task ≤ 30 minutes.			
	Evaluator calculates time to complete task.				

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO- ADMJPM05

## PERFORMANCE SUMMARY

- Provide comments on unsatisfactory performance of an element/step or for deviation from performance as stated. Record interruptions in performance such as retraining, shift change, and processing of procedure changes. Recommend remedial training, if necessary.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO- ADMJPM05

**TEAR-OFF SHEET FOR JPM Error! Reference source not found.**

**Directions to the Student:**

Evaluator gives Tear-Off sheet to the student.

- A. You are the Work Control Supervisor. You are going to activate the emergency plan based on the following information.
- B. The following information is provided to you:
  - 1) The plan was initially in Mode 1.
- C. The evaluator will act as the Shift Manager and provide the cues and communications for this JPM. Do you have any questions?

**Initiating Cue:**

Shift Manager to Work Control Supervisor, **“Work Control Supervisor, classify the Emergency Condition based on the most severe condition experienced during the scenario, and activate the Emergency Plan for this event.”**

---

Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SRO- ADMJPM05