



FPL Energy

Seabrook Station

JOB PERFORMANCE MEASURE 2007 NRC EXAM SIMJPM01

MS-PT-3001 FAILS HIGH

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

0390101901 MONITOR SG PRESSURE

0390101501 OPERATE THE ASDV'S FROM THE MCB OR RSS

2.0 Conditions:

A. Plant is in MODE 1 at 100% power and all systems are normal.

3.0 Standards:

Identify and respond to the failed pressure channel and stuck open ASDV using VAS procedure D5214 ASDV A NOT FULL CLOSED.

4.0 Student Materials:

Copy of the Tear-Off Sheet.

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:

D5214 ASDV A NOT FULL CLOSED

Sys	KA	Description	Value RO/SRO
035	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

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

SIMJPM01

JOB PERFORMANCE WORKSHEET

7.0 Setting:

Simulator

- A. Simulator may be initialized to any 100% power condition, with all control systems in AUTOMATIC. For 2007 NRC exam use IC #30 or #205.

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.

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

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
- A. You are the Secondary Operator.
- B. The following information is provided to you:
- 1) The plant is in MODE 1 at 100% RTP and all systems are normal.
- C. The performance must meet the following standards:
- 1) Identify the event and respond per the appropriate procedural guidance.
- D. Perform the task using the appropriate procedural guidance or using verbal direction from the Unit Supervisor (instructor as US) reading from the procedure.
- E. To perform the task successfully, you must perform/simulate all critical steps correctly and verbalize all your actions to the evaluator.
- F. During the course of the walkthrough examination, there may be some tasks you will be asked to perform that may require you to implement an alternative method directed by plant procedures in order to complete the assigned task. You are expected to make decisions and take actions based on the facility's procedural guidance and the indications available.

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

SIMJPM01

JOB PERFORMANCE WORKSHEET

- G. Failure to perform or simulate a critical element within the prescribed standard will result in a failure of the task.
- H. I will inform you when the JPM is complete.
- I. We will begin after the Initiating Cue is read.
- J. I will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

11.0 Initiating Cue:

Unit Supervisor to Secondary Operator, **“Secondary Operator, perform a board walkdown and inform me when you are ready to assume the watch.”**

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

SIMJPM01

PERFORMANCE CHECKLIST

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

1	P	Start time	Initiating cue read.		
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Instructor CUE:

- Malfunctions: Main Steam Component: ptMSPK3001, SELECT: FAIL HIGH (MS-PT-3001, steamline pressure transmitter fails high)
- When the ASDV opens, Insert malfunction: svMSV3001, SELECT: FAIL OPEN

-or-

- Use scenario: Len MSTEST, SELECT: RUN

Evaluator CUE: When the candidate has identified the failure, **Unit Supervisor to BOP, "Stabilize plant conditions, then use the appropriate procedural guidance to respond to the failure."**

*2	P	ACKNOWLEDGE VAS alarm D5214, ASDV A NOT FULL CLOSED.	ACKNOWLEDGES VAS alarm D5214, ASDV A NOT FULL CLOSED	_____	_____
----	---	--	--	-------	-------

NOTE: The operator should recognize that, based on plant conditions, the ASDV should not be open. The operator should recommend closing the ASDV or should CLOSE the ASDV and inform the Unit Supervisor of the action taken.

Evaluator CUE: If the operator recommends closing the ASDV, provide the following cue: **"Secondary Operator, determine what actions are recommended by the VAS procedure and take actions as necessary."**

NOTE: (JPM Fault) When the operator attempts to close the valve using the ASDV controller, the valve will not respond.

3	P	VERIFY SG pressure and compare to ASDV controller setpoint.	VERIFIES SG pressure and compares to ASDV controller setpoint.	_____	_____
---	---	---	--	-------	-------

4	P	ADJUST ASDV controller setpoint and/or transfer steam load to condenser as required.	VERIFIES ASDV setpoint is set properly.	_____	_____
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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SIMJPM01

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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Instructor Cue: When the operator dispatches and NSO to close the upstream isolation, respond in accordance with station communication standards.

NOTE: If the operator does not remember that MS-V-5 is LOCKED OPEN, inform the Control Room, as the NSO, that the valve is UNLOCKED and CLOSED after closing the valve.

Instructor CUE: Delay closing the valve by approximately 2 minutes, then:

SELECT: rfMS009 on MS1
FINAL VALUE: 0
RAMP TIME: 60 Seconds
SELECT: INSERT

*5	P	IF an ASDV has failed open: Place the ASDV control switch to CLOSE. LOCALLY isolate ASDV as necessary.	ISOLATES the ASDV by: Places the ASDV control switch to CLOSE. Notes that the ASDV does NOT close. * DISPATCHES an NSO to unlock and close the upstream isolation (MS-V-5).	_____	_____	_____
----	---	--	--	-------	-------	-------

Evaluator CUE: The student should be aware that the open ASDV will increase thermal power and action should be taken as appropriate to avoid exceeding the license limit.

6	P	MAINTAIN thermal power below maximum control power per the Main Control Board 4 minute avg power display.	MAINTAIN thermal power below maximum control power.	_____	_____	_____
---	---	---	---	-------	-------	-------

Instructor Cue: NSO to Secondary Operator, "MS-V-5 is UNLOCKED and CLOSED."

Evaluator CUE: "The JPM is complete."

7		Stop time Evaluator calculates time to complete task.	Time to complete the task ≤ 15 minutes.	_____	_____	_____
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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SIMJPM01

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):

1. Ensure task is done correctly.
2. You may be asked follow-up questions to confirm knowledge of the task.

A. You are the Secondary Operator.

B. The following information is provided to you:

- 1) The plant is in MODE 1 at 100% RTP and all systems are normal.

B. I 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 Secondary Operator, **“Secondary Operator, perform a board walkdown and inform me when you are ready to assume the watch.”**

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

SIMJPM01



FPL Energy

Seabrook Station

JOB PERFORMANCE MEASURE 2007 NRC EXAM SIMJPM02

EMERGENCY TRIP OF DIESEL GENERATOR 1B

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

0640402501 Restore off-site power to Bus E5/E6

2.0 Conditions:

- A. Bus E6 was being supplied by the RAT to support a scheduled UAT breaker inspection.
- B. A loss of SF6 pressure in 345kv Zone 2 resulted in a loss of power to the RAT.
- C. DG "B" started and restored power to bus E6.
- D. Plant conditions have stabilized. The Shift Manager has directed the Unit Supervisor to transfer bus E6 to the UAT and shut down DG "B".
- E. The Shift Manager and Unit Supervisor have decided to use Attachment H of OS1246.01, LOSS OF OFFSITE POWER-PLANT SHUTDOWN, as guidance in restoring off-site power to bus E6.

3.0 Standards:

Attempt to restore off-site power to bus E6 and respond to degraded DG "B" condition as necessary.

4.0 Student Materials:

Copy of the Tear-Off Sheet.
Attachment H of OS1246.01, LOSS OF OFFSITE POWER-PLANT SHUTDOWN

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: Attachment H of OS1246.01, LOSS OF OFFSITE POWER-PLANT SHUTDOWN

Sys	KA	Description	Value RO/SRO
064	A4.07	Ability to manually operate and/or monitor in the control room: Transfer EDG with load to grid.	3.4/3.4

7.0 Setting:

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

SIMJPM02

JOB PERFORMANCE WORKSHEET

Simulator

- A. Initialize the simulator to a 100% power IC or IC-206. Place the simulator in run.
- B. Transfer Bus E6 to the RAT. Place the UAT breaker in Normal After Stop.
- C. Remove CS-P-2B from service by placing Danger Tags and racking out the breaker (Removed from service so it does not interfere with the JPM. The CCP's start on a LOP).
 - SELECT: Component Remote Functions
 - SELECT: bkCS1P2B_52 RACKOUT
- D. Insert malfunction: mfED042, Loss of 345kv Bus 2(RAT Supply),
- E. Check for the following:
 - EPS sequenced loads start, as applicable with the plant remaining at power.
 - SGBD isolated.
 - SW-V-5 closed.
- F. Clear RAT amber light and PLACE RAT breaker in PTL

8.0 Safety Considerations:

None

9.0 Approximate Completion Time:

20 minutes

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

SIMJPM02

JOB PERFORMANCE WORKSHEET

10.0 Directions To The Student(s):

Evaluator gives Tear-Off sheet to the student.

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

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
- A. You are the Secondary Operator.
- B. The following information is provided to you:
- 1) Bus E6 was being supplied by the RAT to support a scheduled UAT breaker inspection. The tagging clearance for the UAT breaker had not been started.
 - 2) A loss of SF6 pressure in 345kv Zone 2 resulted in a loss of power to the RAT.
 - 3) DG "B" started and restored power to bus E6.
 - 4) Plant conditions have stabilized. The Shift Manager has directed the Unit Supervisor to transfer bus E6 to the UAT and shutdown DG "B".
 - 5) The SM and US have decided to use Attachment H of OS1246.01, LOSS OF OFFSITE POWER-PLANT SHUTDOWN, as guidance in restoring off-site power to bus E6.
- C. The performance must meet the following standards:
- 1) Attempt to restore off-site power to bus E6 and respond to degraded DG "B" condition as necessary.
 - 2) Shutdown DG "B" in response to low lube oil pressure condition.
- D. Perform the task using Attachment H of OS1246.01, LOSS OF OFFSITE POWER-PLANT SHUTDOWN.
- E. To perform the task successfully, you must perform/simulate all critical steps correctly and verbalize all your actions to the evaluator.
- F. During the course of the walkthrough examination, there may be some tasks you will be asked to perform that may require you to implement an alternative method directed by plant procedures in order to complete the assigned task. You are expected to make decisions and take actions based on the facility's procedural guidance and the indications available.
- G. Failure to perform or simulate a critical element within the prescribed standard will result in a failure of the task.

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

SIMJPM02

JOB PERFORMANCE WORKSHEET

- H. I will inform you when the JPM is complete.
- I. We will begin after the Initiating Cue is read.
- J. I will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

11.0 Initiating Cue:

Unit Supervisor to Secondary Operator, **"Restore offsite power to bus E6 using Attachment H of OS1246.01, LOSS OF OFFSITE POWER-PLANT SHUTDOWN."**

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

SIMJPM02

PERFORMANCE CHECKLIST

	D=Discuss P=Perform S=Simulate	ELEMENT/STEP * denotes a critical step	STANDARD * denotes a critical step	EVALUATION		INITIALS/DATE
				SAT	UNSAT	
1	P	Start time	Initiating cue read.			
Evaluator CUE: If the student asks if the grid is stable, say: “The grid is stable.”						
2	P	Raise DG frequency to 60.2 to 60.4 Hz.	Raises DG frequency to 60.2 to 60.4 Hz.			
3	P	Place the DG synch. Selector switch in the UAT or RAT position.	*Places the DG synch. Selector switch in the UAT or RAT position.			
*4	P	Reset RMO.	*Resets RMO.			
5	P	Adjust EDG voltage to match INCOMING VOLTS with RUNNING VOLTS	Matches voltage \pm 10v			
*6	P	Adjust EDG frequency so that the synch meter is going slowly in the fast direction.	* Adjusts speed as required.			
*7	P	Close the RAT or UAT breaker when synchronized.	*Closes the RAT or UAT breaker when synchronized.			
8	P	Place the synch selector switch in OFF.	Places the synch selector switch in OFF.			

Instructor NOTE: The DB B Lube Oil Pressure Low and DG B Aux. Lube Oil Pump Running alarms should be initiated before the EDG can be unloaded.

Instructor CUE: Before the student starts unloading the EDG, the NSO makes an urgent report to the Control Room via the radio, **“ Control Room this is the Rover NSO at the Bravo Emergency Diesel. There is a large amount of lube oil spraying from the Bravo diesel engine.”**

Instructor CUE: Run scenario: Len, DG Test

-or-

Insert malfunction: svo6608DGB f:1

Insert malfunction: svo6611DGB f:1

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

SIMJPM02

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: On a low lube oil condition the emergency diesel engines should automatically trip. This scenario simulates failure of the automatic trip. Based on the VAS alarm and report from the field, it is expected that the candidate will immediately perform a manual emergency trip of the diesel generator.

7	P	Acknowledge the report from the field and the MPCS VAS alarm condition.	Acknowledges the report from the field.	_____	_____
			Acknowledges the MPCS VAS alarm condition.	_____	_____

Evaluator NOTE: The intention of the JPM is for the student to identify and recommend/perform and emergency shutdown of EDG 1B.

Evaluator CUE: If the student recommends stopping the diesel generator, say: **“Perform an emergency shutdown of EDG 1B.”**

*8	P	Perform emergency shutdown of DG-1B by simultaneously pressing BOTH Emergency Stop pushbuttons.	*Performs an emergency shutdown of DG-1B by simultaneously pressing BOTH Emergency Stop pushbuttons.	_____	_____	_____
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Evaluator CUE: **“The JPM is complete.”**

9		Stop time _____ Evaluator calculates the time to complete the task.	Start-Stop is \leq 20 minutes.	_____	_____	_____
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Note to Evaluator - Obtain Tear Off Sheets from student following JPM completion (Ops only).

SIMJPM02

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):

1. Ensure task is done correctly.
2. You may be asked follow-up questions to confirm knowledge of the task.

A. You are the Secondary Operator.

B. The following information is provided to you:

- 1) Bus E6 was being supplied by the RAT to support a scheduled UAT breaker inspection.
- 2) A loss of SF6 pressure in 345kv Zone 2 resulted in a loss of power to the RAT.
- 3) DG "B" started and restored power to bus E6.
- 4) Plant conditions have stabilized. The Shift Manager has directed the Unit Supervisor to transfer bus E6 to the UAT and shutdown DG "B".
- 5) The SM and US have decided to use Attachment H of OS1246.01, LOSS OF OFFSITE POWER-PLANT SHUTDOWN, as guidance in restoring off-site power to bus E6.

C. I 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 Secondary Operator, "**Restore offsite power to bus E6 using Attachment H of OS1246.01, LOSS OF OFFSITE POWER-PLANT SHUTDOWN.**"

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

SIMJPM02



FPL Energy

Seabrook Station

JOB PERFORMANCE MEASURE 2007 NRC EXAM SIMJPM03

POWER RANGE NI FAILURE

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

0150402101 ELECTRONICALLY REMOVE A FAILED NI DETECTOR

2.0 Conditions:

- A. Plant is in Mode 1 at 100% power
- B. The Unit Supervisor has entered OS1211.04, POWER RANGE NI INSTRUMENT FAILURE, in response to channel N41 failing high.

3.0 Standards:

Remove NI channel N41 from service per OS1211.04.

4.0 Student Materials:

Copy of the Tear-Off Sheet.
OS1211.04, POWER RANGE NI INSTRUMENT FAILURE

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: OS1211.04, POWER RANGE NI INSTRUMENT FAILURE

Sys	KA	Description	Value RO/SRO
015	A2.02	Ability to predict the impacts of the following malfunctions or operations on the NIS, and based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: faulty or erratic operation of detectors or compensating components.	3.1/3.5

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

SIMJPM03

JOB PERFORMANCE WORKSHEET

7.0 Setting:

Simulator

- A. Initialize the simulator to a 100% power IC with rod control in manual.
- B. Initiate malfunction IMF NI001:
 - Select malfunction: IMF mfNI001
 - Final Value: 120
 - Ramp:0

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).

SIMJPM03

JOB PERFORMANCE WORKSHEET

10.0 Directions To The Student(s):

Evaluator gives Tear-Off sheet to the student.

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

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
-
- A. You are the Primary Operator. You are going to take actions for a power range instrument failure.
 - B. The following information is provided to you:
 - 1) The plant is in Mode 1 at 100% power.
 - 2) Power range channel N41 has failed high.
 - 3) Rod control has been placed in manual.
 - C. The performance must meet the following standards:
 - 1) Remove power range channel N41 from service.
 - D. Perform the task using OS1211.04, POWER RANGE NI INSTRUMENT FAILURE.
 - E. To perform the task successfully, you must perform/simulate all critical steps correctly and verbalize all your actions to the evaluator.
 - F. During the course of the walkthrough examination, there may be some tasks you will be asked to perform that may require you to implement an alternative method directed by plant procedures in order to complete the assigned task. You are expected to make decisions and take actions based on the facility's procedural guidance and the indications available.
 - G. Failure to perform or simulate a critical element within the prescribed standard will result in a failure of the task.
 - H. I will inform you when the JPM is complete.
 - I. We will begin after the Initiating Cue is read.
 - J. I will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

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

SIMJPM03

JOB PERFORMANCE WORKSHEET

11.0 Initiating Cue:

Unit Supervisor to Primary Operator, **"I want you to bypass the failed channel per OS1211.04. I will read the procedure steps to you."**

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

SIMJPM03

PERFORMANCE CHECKLIST

	D=Discuss P=Perform S=Simulate	ELEMENT/STEP * denotes a critical step	STANDARD * denotes a critical step	EVALUATION		INITIALS/DATE
				SAT	UNSAT	
1	P	Start time	Initiating cue read.			
2	P	Check Power Range Channel- Failed High	YES- N41			
3	P	Place rod control in MANUAL	Verifies rod control is in MANUAL.	_____	_____	_____
*4	P	Select Rod Stop Bypass Switch-TO FAILED CHANNEL	* Selects Rod Stop Bypass Switch to N41	_____	_____	_____
5	P	Check Tavg-Within 1°F of Tref.	If temp > 1°F of Tref- Manually control rod motion or turbine load to restore temperature.	_____	_____	_____
*6	P	Bypass the failed power range channel.				
		Select UPPER SECTION DETECTOR CURRENT COMPARATOR switch to PRN41	*UPPER SECTION DETECTOR CURRENT COMPARATOR switch selected to PRN41	_____	_____	_____
		Select LOWER SECTION DETECTOR CURRENT COMPARATOR switch to PRN41	*LOWER SECTION DETECTOR CURRENT COMPARATOR switch selected to PRN41	_____	_____	_____
		Select POWER MISMATCH BYPASS switch to N41	*POWER MISMATCH BYPASS switch selected to N41	_____	_____	_____
		If <u>NOT</u> selected previously, select ROD STOP BYPASS switch to N41.	Was previously selected.	_____	_____	_____
		Select COMPARATOR CHANNEL DEFEAT switch to N41.	*COMPARATOR CHANNEL DEFEAT switch selected to N41.	_____	_____	_____

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

SIMJPM03

PERFORMANCE CHECKLIST

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

*7	P	Trip affected channels bistables: Verify redundant channel bistables-NOT TRIPPED: • RCS Loop OTΔT (UL-6) • PR High Trip (UL-6) • PR High Rate Trip (UL-6) Remove control power fuses from affected power range channel.	Verifies UL lamps for channels N42, N43, and N44 not lit. • RCS Loop OTΔT (UL-6) • PR High Trip (UL-6) • PR High Rate Trip (UL-6) * Removes control power fuses from power range channel N41.	_____	_____	_____
----	---	--	---	-------	-------	-------

Evaluator CUE: "The JPM is complete."

8		Stop time _____ Evaluator calculates the time to complete the task.	Start-Stop is ≤ 15 minutes.	_____	_____	_____
---	--	--	-----------------------------	-------	-------	-------

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

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):

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
- A. You are the Primary Operator. You are going to take actions for a power range instrument failure.
- B. The following information is provided to you:
- 1) The plant is in Mode 1 at 100% power.
 - 2) Power range channel N41 has failed high.
 - 3) Rod control has been placed in manual.
- C. I 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, **"I want you to bypass the failed channel per OS1211.04. I will read the procedure steps to you."**

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

SIMJPM03



FPL Energy

Seabrook Station

JOB PERFORMANCE MEASURE 2007 NRC EXAM SIMJPM04

CONTAINMENT ON-LINE PURGE SYSTEM LINEUP

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

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INSTRUCTOR

REVIEWED BY: _____ DATE: _____
SUBJECT MATTER EXPERT (OPTIONAL)

APPROVED BY: _____ DATE: _____
TRAINING SUPERVISOR

JOB PERFORMANCE WORKSHEET

1.0 Task Number and Description:

Position: RO

0290100201 Startup the COP System

2.0 Conditions:

- A. Plant is in Mode 1 at 100% power
- B. Maintenance is preparing for a long duration job in containment and has requested the COP system be placed in service to improve air quality.

3.0 Standards:

Perform the COP system lineup per OS1023.69, Containment On-Line Purge System Operation, in the control room.

4.0 Student Materials:

Copy of the Tear-Off Sheet.
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: OS1211.04, POWER RANGE NI INSTRUMENT FAILURE

Sys	KA	Description	Value RO/SRO
029	2.1.29	Knowledge of how to conduct and verify valve lineups.	3.4/3.3

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

SIMJPM04

JOB PERFORMANCE WORKSHEET

7.0 Setting:

Simulator

A. Reset the simulator to an IC which has been snapped(**Alternate Path JPM**).

-or-

Reset to a 100% IC (IC 30).

B. (**Alternate Path JPM**).

On Remote Functions, Containment On-Line Purge:

SELECT: rCOP02, COP-V-2 and COP-V-3 rack in.

SELECT: Rack In

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).

SIMJPM04

JOB PERFORMANCE WORKSHEET

10.0 Directions To The Student(s):

Evaluator gives Tear-Off sheet to the student.

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

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
-
- A. You are the Primary Operator. You are going to perform the Main Control Board control switch portion of the COP system lineup.
 - B. The following information is provided to you:
 - 1) The plant is in Mode 1 at 100% power.
 - 2) Maintenance is preparing for a long duration job in containment and has requested the COP system be placed in service to improve air quality.
 - C. The performance must meet the following standards:
 - 1) Perform the COP system MCB SWITCH LINEUP per form B (starting on sheet 2 of 3) of OS1023.69, Containment On-Line Purge System Operation.
 - D. Perform the task using form B (starting on sheet 2 of 3) of OS1023.69, Containment On-Line Purge System Operation.
 - E. To perform the task successfully, you must perform/simulate all critical steps correctly and verbalize all your actions to the evaluator.
 - F. During the course of the walkthrough examination, there may be some tasks you will be asked to perform that may require you to implement an alternative method directed by plant procedures in order to complete the assigned task. You are expected to make decisions and take actions based on the facility's procedural guidance and the indications available.
 - G. Failure to perform or simulate a critical element within the prescribed standard will result in a failure of the task.
 - H. I will inform you when the JPM is complete.
 - I. We will begin after the Initiating Cue is read.
 - J. I will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

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

SIMJPM04

JOB PERFORMANCE WORKSHEET

11.0 Initiating Cue:

Unit Supervisor to Primary Operator, **“Perform the Main Control Board Switch Lineup in preparation for placing the COP System in service per FORM B (starting on sheet 2 of 3) of OS1023.69. The remaining portions of the lineup have already been performed.**

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

SIMJPM04

PERFORMANCE CHECKLIST

	D=Discuss P=Perform S=Simulate	ELEMENT/STEP * denotes a critical step	STANDARD * denotes a critical step	EVALUATION		INITIALS/DATE
				SAT	UNSAT	
1	P	Start time	Initiating cue read.			
2	P	Verify Control Switch for COP-V-1, On-Line Purge Sup. Iso. in AUTO with the valve position lights de-energized (MCB-CR).	Verifies Control Switch for COP-V-1, On-Line Purge Sup. Iso. is in AUTO with the valve position lights de-energized .			
3	P	Verify Control Switch for COP-V-4, On-Line Purge Exh. ORC Iso. in AUTO with the valve position lights de-energized (MCB-CR).	Verifies Control Switch for COP-V-4, On-Line Purge Exh. ORC Iso. Is in AUTO with the valve position lights de-energized.			
4	P	Verify Control Switch for COP-FN-73, Contm. On-Line Purge Supply Fan in STOP(MCB-CR).	Verifies that the Control Switch for COP-FN-73, Contm. On-Line Purge Supply Fan is in STOP.			
5	P	Verify Selector Switch for COP-V-4, Contm. On-Line Purge/Vent Mode Selector switch. in PURGE (MCB-CR).	Verifies Selector Switch for COP-V-4, Contm. On-Line Purge/Vent Mode Selector switch. Is in PURGE (MCB-CR).			
6	P	Verify Control Switch for COP-V-7, On-Line Purge Flow (Press) Ctl-Fine is at Normal 0% (MCB-CR).	Verifies Control Switch for COP-V-7, On-Line Purge Flow (Press) Ctl-Fine is at Normal 0% (MCB-CR).			
7	P	Verify Control Switch for COP-V-8, On-Line Purge Flow (Press) Ctl-Coarse is at Normal 0% (MCB-CR).	Verifies Control Switch for COP-V-8, On-Line Purge Flow (Press) Ctl-Coarse is at Normal 0% (MCB-CR).			

Evaluator Cue: If the student informs the Unit Supervisor that the valve position indicating lights for COP-V-2 and COP-V-3 were found energized, then state **“Unit Supervisor to Primary Operator. Do not de-energize the COP-V-2 and COP-V-3 position indicating lights. I will notify the Shift Manager to initiate a Condition Report.”**

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

SIMJPM04

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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*8	P	Verify Control Switch for COP-V-2, On-Line Purge Sup IRC Iso. is in AUTO with the valve position lights de-energized (MCB-CR).	*Notes that the Control Switch for COP-V-2, On-Line Purge Sup IRC Iso. is in AUTO, however, the valve position lights are energized (MCB-CR). DOES NOT DE-ENERGIZE THE POSITION IND. LIGHTS.	_____	_____	_____
----	---	--	--	-------	-------	-------

*9	P	Verify Control Switch for COP-V-3, On-Line Purge Exh IRC Iso. is in AUTO with the valve position lights de-energized (MCB-CR).	*Notes that the Control Switch for COP-V-3, On-Line Purge Exh IRC Iso. is in AUTO however, the valve position lights are energized (MCB-CR). DOES NOT DE-ENERGIZE THE POSITION IND. LIGHTS.	_____	_____	_____
----	---	--	---	-------	-------	-------

Evaluator CUE: "The JPM is complete."

10		Stop time _____ Evaluator calculates the time to complete the task.	Start-Stop is \leq 15 minutes.	_____	_____	_____
----	--	--	----------------------------------	-------	-------	-------

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

SIMJPM04

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):

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
- A. You are the Primary Operator. You are going to perform the Main Control Board control switch portion of the COP system lineup.
- B. The following information is provided to you:
- 1) The plant is in Mode 1 at 100% power.
 - 2) Maintenance is preparing for a long duration job in containment and has requested the COP system be placed in service to improve air quality.
- C. I 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, **“Perform the Main Control Board Switch Lineup in preparation for placing the COP System in service per FORM B (starting on sheet 2 of 3) of OS1023.69. The remaining portions of the lineup have already been performed.**

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

SIMJPM04



FPL Energy

Seabrook Station

JOB PERFORMANCE MEASURE 2007 NRC EXAM SIMJPM05

DEPRESSURIZE THE RCS USING AUXILIARY SPRAY

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

0390500601 Isolate Ruptured Steam Generator-RCS Depressurization

2.0 Conditions:

- A. A manual SI was initiated due to a SG tube leak.
- B. The control room executed E-0 and, at step 19 transitioned to E-3.
- C. The "C" stem generator has been identified as the ruptured steam generator and has been isolated. The RCS has been cooled down to a target temperature of 495°F.
- D. Due to an operator error, the RCP's were inadvertently secured in E-3.
- E. The "B" pressurizer PORV is out of service due to a control circuit failure.

3.0 Standards:

Depressurize the ruptured SG under the direction of the Unit Supervisor in accordance with E-3, step 18.

4.0 Student Materials:

Copy of the Tear-Off Sheet.
E-3, STEAM GENERATOR TUBE RUPTURE

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: E-3, STEAM GENERATOR TUBE RUPTURE

Sys	KA	Description	Value RO/SRO
002	A2.01	Ability to predict the impacts of the following malfunctions or operations on the RCS, and based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Loss of Coolant Inventory.	4.3/4.4

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

SIMJPM05

JOB PERFORMANCE WORKSHEET

7.0 Setting:

Simulator

If a pre-written simulator IC exists:

- 1) Initialize to the IC created for this JPM (IC 366)
- 2) Place the "B" pressurizer PORV switch to CLOSE position and hang a danger tag on the switch.
- 3) Using I/O override, de-energize the position indicating lights for the "B" PORV.
- 4) Use Reactor Coolant Malfunctions, Components, avRCPCv456A, RC-1-PCV-456A.
SELECT: FAIL CLOSED, to fail the 'A' PORV

If a pre-written IC does not exist:

- 5) Initialize the simulator to a 100% IC (IC 30)
- 6) Place the "B" pressurizer PORV switch to CLOSE position and hang a danger tag on the switch.
- 7) Using I/O override, de-energize the position indicating lights for the "B" PORV.
- 8) Use Reactor Coolant Malfunctions, Components, avRCPCv456A, RC-1-PCV-456A.
SELECT: FAIL CLOSED, to fail the 'A' PORV
- 9) Activate malfunction MFI,SG,SG001 "C" SG Tube Rupture
SEVERITY: 450 gpm
RAMP:0
INITIAL SEVERITY: 0
- 10) Manually actuate Safety Injection and perform the steps of E-0 to step 19.
- 11) At step 1 of E-3, trip all RCP's.
- 12) Continue with the steps of E-3 SGTR up to step 18, including isolating the "C" SG and cooling down the RCS to below 495°F.
- 13) Place the simulator in FREEZE.

8.0 Safety Considerations:

None

9.0 Approximate Completion Time:

25 minutes

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

SIMJPM05

JOB PERFORMANCE WORKSHEET

10.0 Directions To The Student(s):

Evaluator gives Tear-Off sheet to the student.

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

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
- A. You are the Primary Operator. You are going to depressurize the RCS per E-3, STEAM GENERATOR TUBE RUPTURE.
- B. The following information is provided to you:
- 1) A MANUAL safety Injection was initiated due to a steam generator tube rupture.
 - 2) The control room has executed E-0 and, at step 19, transitioned to E-3, STEAM GENERATOR TUBE RUPTURE.
 - 3) The "C" steam generator has been identified as the ruptured steam generator and has been isolated.
 - 4) The reactor coolant system has been cooled down in preparation for depressurization.
 - 5) Due to a control circuit failure, the "B" Pressurizer PORV is unavailable.
 - 6) Due to operator error, all Reactor Coolant Pumps were tripped at step 1 of E-3.
- C. The performance must meet the following standards:
- Depressurize the Reactor Coolant System using the "A" PORV in accordance with E-3, step 18.
- D. Perform the task using E-3, STEAM GENERATOR TUBE RUPTURE, starting at step 18.
- E. To perform the task successfully, you must perform/simulate all critical steps correctly and verbalize all your actions to the evaluator.
- F. During the course of the walkthrough examination, there may be some tasks you will be asked to perform that may require you to implement an alternative method directed by plant procedures in order to complete the assigned task. You are expected to make decisions and take actions based on the facility's procedural guidance and the indications available.

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

SIMJPM05

JOB PERFORMANCE WORKSHEET

- G. Failure to perform or simulate a critical element within the prescribed standard will result in a failure of the task.
- H. I will inform you when the JPM is complete.
- I. We will begin after the Initiating Cue is read.
- J. I will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

11.0 Initiating Cue:

Evaluator to student, **“Walk down the control board, When you are ready, continue with E-3 starting at step 18 to depressurize the RCS using the “A” pressurizer PORV.**

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

SIMJPM05

PERFORMANCE CHECKLIST

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

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

Instructor Cue: When the student is ready, place the simulator in RUN.

Evaluator NOTE: When the student established an RCS depressurization rate with Aux. Spray at step 17b. the JPM is complete.

*2	P	E-3, Step 18: Depressurize the RCS using PZR PORV to minimize break flow and refill the pressurizer.	Depressurize the RCS.		
		a. PZR PORV-At least one available.	*Notes that the "A" PORV will not open.	_____	_____
		a. RNO-Perform the following to establish auxiliary spray:		_____	_____
		1) Verify at least one SI pump is running.	Determines that both SI pumps are running.	_____	_____
		2) Verify at least one CCP is running.	Determines that both CCP's are running.	_____	_____
		3) Establish Aux. Spray using Attachment C and return to step 17b.		_____	_____
		a. Verify normal spray valves are closed.	a. Verifies normal spray valves are closed.	_____	_____
		b. Open the following valves: CS-V-142 CS-V-143 CS-V-185	*b. Opens the following valves: CS-V-142 CS-V-143 CS-V-185	_____	_____
		c. Close CCP to RCS cold leg isolation valves: SI-V-138 SI-V-139	*c. Closes CCP to RCS cold leg isolation valves: SI-V-138 SI-V-139	_____	_____

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

SIMJPM05

PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP * denotes a critical step	STANDARD * denotes a critical step	EVALUATION		INITIALS/DATE
			SAT	UNSAT	
	d. Close normal charging loop isolation valves: CS-V-177 CS-V-180	*d. Closes normal charging loop isolation valves: CS-V-177 CS-V-180	_____	_____	
	e. Place CS-FK-121 in manual and charge at maximum rate.	*e. Places CS-FK-121 in manual and charge at maximum rate.	_____	_____	
	f. Adjust seal injection flow as necessary using CS-HCV-182.	f. Adjusts seal injection flow as necessary using CS-HCV-182.	_____	_____	
	g. Go to step 17b.	*g. Returns to step 17b.	_____	_____	

Evaluator NOTE: When the student established an RCS depressurization rate with Aux. Spray at step 17b. the JPM is complete.

E-3, Step 17b: Spray PZR with maximum available spray until ANY of the following conditions are satisfied:

* Commences depressurization and MONITORS RCS conditions for depressurization termination criteria.

- BOTH of the following:
- RCS Pressure: LESS THAN RUPTURED SG PRESSURE, AND
 - PZR LEVEL: GREATER THAN 7% (28% FOR ADVERSE CONTAINMENT)

-OR-

PZR LEVEL-GREATER THAN

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

SIMJPM05

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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75% (65% FOR ADVERSE
CONTAINMENT)

-OR-

RCS SUBCOOLING: LESS
THAN 40°F

Evaluator CUE: "The JPM is complete."

3 Stop time _____ Start-Stop is <25 minutes. _____

 Evaluator calculates the time to
 complete the task.

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

SIMJPM05

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):

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
- A. You are the Primary Operator. You are going to depressurize the RCS per E-3, STEAM GENERATOR TUBE RUPTURE.
- B. The following information is provided to you:
- 1) A MANUAL safety Injection was initiated due to a steam generator tube rupture.
 - 2) The control room has executed E-0 and, at step 19, transitioned to E-3, STEAM GENERATOR TUBE RUPTURE.
 - 3) The "C" steam generator has been identified as the ruptured steam generator and has been isolated.
 - 4) The reactor coolant system has been cooled down in preparation for depressurization.
 - 5) Due to a control circuit failure, the "B" Pressurizer PORV is unavailable.
 - 6) Due to operator error, all Reactor Coolant Pumps were tripped at step 1 of E-3.
- C. I will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

Initiating Cue:

Evaluator to student, **"Walk down the control board, When you are ready, continue with E-3 starting at step 18 to depressurize the RCS using the "A" pressurizer PORV.**

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

SIMJPM05



FPL Energy

Seabrook Station

JOB PERFORMANCE MEASURE 2007 NRC EXAM SIMJPM06

PERFORM SI TERMINATION/REDUCTION

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

0060500101 Perform SI Termination/Reduction

2.0 Conditions:

- A. The reactor tripped and SI was initiated.
- B. The crew completed all LOCA actions and determined that post-LOCA cooldown and depressurization was required.
- C. The crew initiated post-LOCA cooldown and depressurization actions.
- D. An RCS cooldown to cold shutdown remains in progress with all but one SI pump stopped.
- E. The Unit Supervisor continued the cooldown and wants to attempt to stop the remaining SI pump.

3.0 Standards:

Secure the remaining SI pump.

4.0 Student Materials:

Copy of the Tear-Off Sheet.

Copy of ES-1.2, POST LOCA COOLDOWN AND DEPRESSURIZATION.

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: ES-1.2, POST LOCA COOLDOWN AND DEPRESSURIZATION.

Sys	KA	Description	Value RO/SRO
006	A4.07	Ability to manually operate and/or monitor in the control room: ECCS pumps and valves.	4.4/4.4

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

SIMJPM06

JOB PERFORMANCE WORKSHEET

7.0 Setting:

Simulator

If a snapshot is used for this JPM, verify that it contains the following(IC361/L0025J):

- 1) Reset the simulator to an IC at 100% power and insert malfunction for RCS leak at 900 gpm.
- 2) Run the simulator and allow the reactor to trip and SI.
- 3) Complete all E-0,E-1, and ES-1.2 steps through once, stopping one CCP and all but one SI pump.
- 4) Continue through ES-1.2 steps that bypass stopping the remaining SI pump until RCS hot leg is less than 480°F.
- 5) Establish the following conditions:
 - One SI pump in operation.
 - Cooldown rate of less than 100°F/hr.
 - Required RCP in operation.
- 6) Freeze the simulator. The intent of this setup is to have conditions that will exercise checking for conditions for securing the remaining SI pump.
- 7) Set final RCS leak to 800 gpm for this JPM.

8.0 Safety Considerations:

None

9.0 Approximate Completion Time:

10 minutes

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

SIMJPM06

JOB PERFORMANCE WORKSHEET

10.0 Directions To The Student(s):

Evaluator gives Tear-Off sheet to the student.

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

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
- B. You are the Primary Operator. If conditions are satisfied, you are going to stop the remaining running SI pump.
- C. The following information is provided to you:
- 1) The reactor tripped and SI was initiated.
 - 2) The crew completed all the LOCA actions and determined that a post LOCA cooldown and depressurization was required.
 - 3) The crew initiated post LOCA cooldown and depressurization actions.
 - 4) Temperature and subcooling originally prevented stopping the remaining SI pump.
 - 5) The Unit Supervisor continued the cooldown and wants to again attempt to stop the remaining SI pump, per ES-1.2, Step 14.
- D. The performance must meet the following standards:
- Perform ES-1.2, POST LOCA COOLDOWN AND DEPRESSURIZATION, starting at step 14, to determine if an additional SI pump should be stopped.
- E. Perform the task using ES-1.2, POST LOCA COOLDOWN AND DEPRESSURIZATION
- E. To perform the task successfully, you must perform/simulate all critical steps correctly and verbalize all your actions to the evaluator.
- F. During the course of the walkthrough examination, there may be some tasks you will be asked to perform that may require you to implement an alternative method directed by plant procedures in order to complete the assigned task. You are expected to make decisions and take actions based on the facility's procedural guidance and the indications available.
- G. Failure to perform or simulate a critical element within the prescribed standard will result in a failure of the task.
- H. I will inform you when the JPM is complete.
- I. We will begin after the Initiating Cue is read.
- J. I will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

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

SIMJPM06

JOB PERFORMANCE WORKSHEET

11.0 Initiating Cue:

Unit Supervisor to Primary Operator, **“Primary Operator, if conditions are satisfied, stop the running SI pump per ES-1.2, Step 14.”**

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

SIMJPM06

PERFORMANCE CHECKLIST

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

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

Evaluator Cue: At this point the evaluator/or designated instructor will begin reading at Step 14 in ES-1.2.

*2	P	Check if one SI pump should be stopped: a. Any SI pump-Running.	Depressurize the RCS. *Verifies one SI pump is running.	_____	_____	_____
3	P	b. Determine required RCS subcooling from table: • Any RCP's running. • CCP status	b. Determines: • One RCP is running. • One CCP is running.	_____	_____	_____
*4	P	c. RCS Subcooling- Greater than required subcooling.	*c. Determines NO . Subcooling is less than the required 135°F.	_____	_____	_____
*5	P	c. (RNO). If RCS Hot Leg temperature is greater than 360°F then go to Step 22.	*c. (RNO) Determines that RCS temperature is greater than 360°F.	_____	_____	_____

Evaluator/Instructor CUE: At this point the Eval/Inst reading the procedure should proceed to Step 22.

*6	P	Verify ECCS not required.	Verifies the following: *a. RCS subcooling is greater than 40°F. *b. Pressurizer level is greater than 7%(28% for adverse containment.)	_____	_____	_____
*7	P	Check if SI accumulators should be isolated.	Checks the following: *a. RCS subcooling is greater than 40°F. *b. Pressurizer level is greater than 7%(28% for adverse containment.)	_____	_____	_____

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

PERFORMANCE CHECKLIST

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

Evaluator CUE: "The JPM is complete."

3 Stop time _____ Start-Stop is \leq 10 minutes. _____
Evaluator calculates the time to complete the task.

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

SIMJPM06

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):

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
- A. You are the Primary Operator. If conditions are satisfied, you are going to stop the remaining running SI pump.
- B. The following information is provided to you:
- 1) The reactor tripped and SI was initiated.
 - 2) The crew completed all the LOCA actions and determined that a post LOCA cooldown and depressurization was required.
 - 3) The crew initiated post LOCA cooldown and depressurization actions.
 - 4) Temperature and subcooling originally prevented stopping the remaining SI pump.
 - 5) The Unit Supervisor continued the cooldown and wants to again attempt to stop the remaining SI pump, per ES-1.2, Step 14.
- C. I 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, **“Primary Operator, if conditions are satisfied, stop the running SI pump per ES-1.2, Step 14.”**

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

SIMJPM06



FPL Energy

Seabrook Station

JOB PERFORMANCE MEASURE 2007 NRC EXAM SIMJPM07

RESPOND TO LIQUID RADWASTE HIGH RADIATION

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

0720101601 Operate RDMS Console Channel/Monitor Control Functions

2.0 Conditions:

- A. SG Blowdown is in service.
- B. RM-6519-1, Blowdown Flash Tank Outlet in High Alarm.

3.0 Standards:

Properly responds to a Liquid High Radiation condition in accordance with OS1252.01, PROCESS OR EFFLUENT HIGH RADIATION.

4.0 Student Materials:

Copy of the Tear-Off Sheet.
Copy of OS1252.01, PROCESS OR EFFLUENT HIGH RADIATION.

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: OS1252.01, PROCESS OR EFFLUENT HIGH RADIATION.

Sys	KA	Description	Value RO/SRO
068	A4.04	Ability to manually operate and/or monitor in the control room: Automatic isolation.	3.8/3.7

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

SIMJPM07

JOB PERFORMANCE WORKSHEET

7.0 Setting:

Simulator

- 1) Reset the simulator to IC 30 or an IC that has been snapped to meet the conditions for this JPM.
- 2) RM-6519-1 Blowdown Flash Tank Outlet was snapped in high alarm as follows:
SELECT: MF List
SELECT: Radiation Monitoring (component)
SELECT: rm806519
SELECT: Go to POS # CH1
SELECT: Highest Value
SELECT: INSERT
- 3) INSERT: Component Malfunction from SB2, CV6519
SELECT: FAIL OPEN
- 4) Activate trigger LEN SB Testing or set up a trigger to delete component malfunction when CV6519 is taken to CLOSE.

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).

SIMJPM07

JOB PERFORMANCE WORKSHEET

10.0 Directions To The Student(s):

Evaluator gives Tear-Off sheet to the student.

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

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
-
- A. You are the Unit Supervisor. You are going to respond to a process/effluent High Radiation alarm.
 - B. The following information is provided to you:
 - 1) An RDMS Alarm was just received in the control room.
 - 2) You are to focus on this alarm ONLY, despite other alarms or plant conditions.
 - C. The performance must meet the following standards:

Respond to a process/effluent High Radiation Alarm using OS1252.01, PROCESS OR EFFLUENT HIGH RADIATION.
 - D. Perform the task using OS1252.01, PROCESS OR EFFLUENT HIGH RADIATION.
 - E. To perform the task successfully, you must perform/simulate all critical steps correctly and verbalize all your actions to the evaluator.
 - F. During the course of the walkthrough examination, there may be some tasks you will be asked to perform that may require you to implement an alternative method directed by plant procedures in order to complete the assigned task. You are expected to make decisions and take actions based on the facility's procedural guidance and the indications available.
 - G. Failure to perform or simulate a critical element within the prescribed standard will result in a failure of the task.
 - H. I will inform you when the JPM is complete.
 - I. We will begin after the Initiating Cue is read.
 - J. I will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

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

SIMJPM07

JOB PERFORMANCE WORKSHEET

11.0 Initiating Cue:

Evaluator to student, **"Unit Supervisor. You are going to respond to an RDMS alarm using OS1252.01, PROCESS OR EFFLUENT HIGH RADIATION."**

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

SIMJPM07

PERFORMANCE CHECKLIST

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

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

Evaluator Cue: If the student begins to check for indications of a Steam Generator Tube Leak per the Note prior to Step 1, respond: **“There are no indications of a Steam Generator Tube Leak.”**

2	P	Obtain a copy of OS1252.01, PROCESS OR EFFLUENT HIGH RADIATION.	When the student locates OS1252.01, PROCESS OR EFFLUENT HIGH RADIATION, provide a copy.		
---	---	---	---	--	--

3	P	Check RDMS Console-In Alarm.	Accesses RDMS console and notes RM6519-1, Blowdown Flash Tank Outlet is in High alarm.		
---	---	------------------------------	--	--	--

Evaluator CUE: If the student states that the Unit Supervisor normally directs the control board operators to manipulate control switches, say: **“Nobody else is available, you will perform all actions.”**

*4	P	Determine if release paths are isolated, per Attachment A.	*Determines that SG blowdown flash tank discharge valve SB-CV-6519 should auto close.		
----	---	--	---	--	--

*5	P	Manually isolate systems as required.	*Manually closes SB-CV-6519.		
----	---	---------------------------------------	------------------------------	--	--

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

6		Stop time _____ Evaluator calculates the time to complete the task.	Start-Stop is \leq 15 minutes.		
---	--	--	----------------------------------	--	--

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

SIMJPM07

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):

1. Ensure task is done correctly.
2. You may be asked follow-up questions to confirm knowledge of the task.

Unit Supervisor
A. You are the Unit Supervisor. You are going to respond to a process/effluent High Radiation alarm.

B. The following information is provided to you:

- 1) An RDMS Alarm was just received in the control room.
- 2) You are to focus on this alarm ONLY, despite other alarms or plant conditions.

C. I will provide the cues and communications for this JPM. Do you have any questions?

Initiating Cue:

Evaluator to student, "**Unit Supervisor. You are going to respond to an RDMS alarm using OS1252.01, PROCESS OR EFFLUENT HIGH RADIATION.**"

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

SIMJPM07



FPL Energy

Seabrook Station

JOB PERFORMANCE MEASURE 2007 NRC EXAM SIMJPM08

SHIFTING FROM CCP TO PDP

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:

Position: RO

0040103801 Shift Between the Positive Displacement Charging pump and the Centrifugal Charging Pumps

2.0 Conditions:

- A. Plant is at 100% power.
- B. Tech. Support needs the PDP in service to evaluate long term operation capabilities.
- C. OS1002.02, Operation Of The Letdown, Charging, and Seal Injection prerequisites are complete.
- D. All PDP pump pre-start checks are complete.

3.0 Standards:

Shift from the centrifugal charging pump to the positive displacement charging pump per OS1002.02, Operation Of The Letdown, Charging, and Seal Injection.

4.0 Student Materials:

Copy of the Tear-Off Sheet.
Copy of OS1002.02, Operation Of The Letdown, Charging, and Seal Injection

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: OS1002.02, Operation Of The Letdown, Charging, and Seal Injection

Sys	KA	Description	Value RO/SRO
004	A4.08	Ability to operate and/or monitor in the control room: Charging	3.8/3.4

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

SIMJPM08

JOB PERFORMANCE WORKSHEET

7.0 Setting:

Simulator

- 1) Reset the simulator to any 100% power condition (IC 30 OR IC 205).
- 2) Adjust letdown flow to 75 gpm.

8.0 Safety Considerations:

None

9.0 Approximate Completion Time:

20 minutes

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

SIMJPM08

JOB PERFORMANCE WORKSHEET

10.0 Directions To The Student(s):

Evaluator gives Tear-Off sheet to the student.

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

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
-
- A. You are the Primary Operator. You are going to shift from the centrifugal charging pump to the positive displacement charging pump.
 - B. The following information is provided to you:
 - 1) The plant is in MODE 1 at 100% power.
 - 2) Tech. Support needs the PDP in service to evaluate long term operation capabilities.
 - 3) OS1002.02, Operation Of The Letdown, Charging, and Seal Injection prerequisites are complete.
 - 4) All PDP pump pre-start checks are complete and satisfactory.
 - 5) Heater HTR-369-A, PDP Stabilizer/Separator Heater has been energized for 1 hour.
 - C. The performance must meet the following standards:

Shift from the Alpha (or Bravo) centrifugal charging pump to the positive displacement charging pump.
 - D. Perform the task using OS1002.02, Operation Of The Letdown, Charging, and Seal Injection.
 - E. To perform the task successfully, you must perform/simulate all critical steps correctly and verbalize all your actions to the evaluator.
 - F. During the course of the walkthrough examination, there may be some tasks you will be asked to perform that may require you to implement an alternative method directed by plant procedures in order to complete the assigned task. You are expected to make decisions and take actions based on the facility's procedural guidance and the indications available.
 - G. Failure to perform or simulate a critical element within the prescribed standard will result in a failure of the task.
 - H. I will inform you when the JPM is complete.
 - I. We will begin after the Initiating Cue is read.

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

SIMJPM08

JOB PERFORMANCE WORKSHEET

- J. I will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

11.0 Initiating Cue:

Unit Supervisor to Primary Operator, **“Shift charging from the running centrifugal charging pump to the positive displacement charging pump.”**

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

SIMJPM08

PERFORMANCE CHECKLIST

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

1	P	Start time	Initiating cue read.			
2	P	VERIFY RC-SK-459A, PDP speed controller is in MANUAL and set to MINIMUM.	Verifies RC-SK-459A, PDP speed controller is in MANUAL and set to MINIMUM.			

NOTE: •Student may mention step 4.10.4, which states contingency actions in the event of a Safety Injection.
 •Student may mention need to enter applicable Tech. Spec. per step 4.10.5.

Evaluator CUE: If the student mentions addressing Tech. Specs., say: **“I will address the Tech. Specs., continue with the evolution.”**

3	P	PLACE the control switch for the standby centrifugal charging pump in PULL-TO-LOCK.	Places the control switch for the standby centrifugal charging pump in PULL-TO-LOCK.			
*4	P	OPEN CS-V-205, PDP minimum flow valve.	*Opens CS-V-205, PDP minimum flow valve.			
5	P	PERFORM pump prestarts.	Verifies that pump prestarts had already been completed.			
*6	P	START CS-P-128, Positive Displacement Charging Pump.	*Starts CS-P-128, Positive Displacement Charging Pump.			
*7	P	INCREASE speed of CS-P-128 to 30%.	Increases speed of CS-P-128 to 30%.			
*8	P	CHECK or PLACE CS-FCV-121, charging flow controller in MANUAL.	* Places CS-FCV-121, charging flow controller in MANUAL.			
9	P	ADJUST seal injection flow to between 6 to 8 gpm.	Adjusts seal injection flow to between 6 to 8 gpm.			
10	P	ADJUST total charging flow to between 65 and 75 gpm.	Adjusts total charging flow to between 65 and 75 gpm.			

Evaluator CUE: When the student verbalizes that the PDP must be run for 12 minutes, provide the cue, **“For the purpose of the JPM, the pump has been operating for 12 minutes.”**

*11	P	After the PDP has been running for at least 12 minutes, PLACE the control switch for CS-V-205 to THROTTLE	* Places the control switch for CS-V-205 to THROTTLE CLOSE.			
-----	---	---	---	--	--	--

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

SIMJPM08

PERFORMANCE CHECKLIST

	D=Discuss P=Perform S=Simulate	ELEMENT/STEP * denotes a critical step	STANDARD * denotes a critical step	EVALUATION		INITIALS/DATE
				SAT	UNSAT	
		CLOSE.				
12	P	ADJUST the following to maintain the desired charging and seal injection flows until CS-V-205 is full closed: CS-FCV-121, charging flow control. CS-HCV-182, RCP seal flow control	Adjusts valves as necessary.			
*13	P	Simultaneously THROTTLE CLOSED CS-FCV-121, charging flow control valve, and INCREASE speed of CS-P-128, positive disp. charging pump, until letdown and charging flows are matched.	*Simultaneously throttles closed CS-FCV-121, charging flow control valve, and INCREASE speed of CS-P-128, positive disp. charging pump, until letdown and charging flows are matched.			
*14	P	PLACE RC-LK-459, master level controller, in MANUAL.	*Places RC-LK-459, master level controller, in MANUAL.			
*15	P	MATCH the output of RC-LK-459, master level controller, with then output of RC-SK-459A, PDP speed controller.	*Matches the output of RC-LK-459, master level controller, with then output of RC-SK-459A, PDP speed controller.			
*16	P	PLACE RC-SK-459A, PDP speed controller, in AUTO.	*Places RC-SK-459A, PDP speed controller, in AUTO.			
*17	P	PLACE RC-LK-459, master level controller, in AUTO.	*Places RC-LK-459, master level controller, in AUTO.			

Evaluator CUE: IF the student requests Unit Supervisor direction to stop the centrifugal charging pump, respond, **“Stop the centrifugal charging pump.”**

*18	P	As directed by the Unit Supervisor, STOP the running centrifugal charging pump and	*Stops STOP the running centrifugal charging pump and PLACE the control			
-----	---	--	---	--	--	--

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

SIMJPM08

PERFORMANCE CHECKLIST

	ELEMENT/STEP	STANDARD	EVALUATION		INITIALS/DATE
			SAT	UNSAT	
	D=Discuss P=Perform S=Simulate				
	* denotes a critical step	* denotes a critical step			
	PLACE the control switch in NORMAL AFTER STOP.	switch in NORMAL AFTER STOP.	_____	_____	_____
19	P PLACE the control switch for CS-V-205, PDP minimum flow valve, to AUTO.	Places the control switch for CS-V-205, PDP minimum flow valve, to AUTO.	_____	_____	_____
Evaluator CUE: "The JPM is complete."					
20	Stop time _____ Evaluator calculates the time to complete the task.	Start-Stop is \leq 25 minutes.	_____	_____	_____

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

SIMJPM08

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):

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
- A. You are the Primary Operator. You are going to shift from the centrifugal charging pump to the positive displacement charging pump.
- B. The following information is provided to you:
- 1) The plant is in MODE 1 at 100% power.
 - 2) Tech. Support needs the PDP in service to evaluate long term operation capabilities.
 - 3) OS1002.02, Operation Of The Letdown, Charging, and Seal Injection prerequisites are complete.
 - 4) All PDP pump pre-start checks are complete and satisfactory.
 - 5) Heater HTR-369-A, PDP Stabilizer/Separator Heater has been energized for 1 hour.
- C. I 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, **"Shift charging from the running centrifugal charging pump to the positive displacement charging pump."**

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

SIMJPM08



FPL Energy

Seabrook Station

JOB PERFORMANCE MEASURE 2007 NRC EXAM SIMJPM09

TRANSFER TO COLD LEG RECIRCULATION (LOSS OF RECIRCULATION)

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:

0050500601 Align RH For SI Recirculation, Cold Leg
0060500301 Transfer SI To Cold Leg Recirculation

2.0 Conditions:

- A. A reactor trip with SI occurred from 100% power.
- B. The Unit Supervisor has transitioned through E-0 to E-1, and is ready to transfer to ES-1.3, TRANSFER TO COLD LEG RECIRCULATION.
- C. RWST level is decreasing toward the RWST LEVEL LO-LO setpoint.

3.0 Standards:

While aligning ECCS equipment to Cold Leg Recirculation, identify a loss of ECCS recirculation condition.

4.0 Student Materials:

Copy of the Tear-Off Sheet.
Copy of ES-1.3, TRANSFER TO COLD LEG RECIRCULATION.

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:

ES-1.3, TRANSFER TO COLD LEG RECIRCULATION

Sys	KA	Description	Value RO/SRO
026	A2.02	Ability to predict the impact of the following malfunctions or operations on the CSS, and based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Failure of automatic recirculation transfer.	4.2/4.4

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

SIMJPM09

JOB PERFORMANCE WORKSHEET

7.0 Setting:

Simulator

- A. The simulator can be initialized to any MODE 1 IC (IC 389), or to a snapshot IC for the JPM.
- B. Using Panel Graphics PBF11, override the control switch for CBS-V-2 to the "Throttled-Open" position.
- C. Insert a double ended RCS Cold Leg Break malfunction.
- D. Run the simulator while performing the following per E-0 and E-1:
 1. Trip RCP's
 2. Reset SI
 3. Throttle EFW
 4. Shutdown both EDG's by stopping both, shutting SW-V-16 and SW-V-18, resetting both diesels.
 5. Place the simulator in FREEZE when the RWST is at approximately 135,000 gallons to ensure the automatic swapper signal has not actuated.

8.0 Safety Considerations:

None

9.0 Approximate Completion Time:

20 minutes

10.0 Directions To The Student(s):

Evaluator gives Tear-Off sheet to the student.

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

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
-
- A. You are the Primary Operator. You are going to transfer ECCS to the Cold Leg Recirculation Mode when the RWST LO-LO level alarm is received.
 - B. The following information is provided to you:
 - 1) A reactor trip with SI occurred from 100% power.
 - 2) The Unit Supervisor has transitioned through E-0 to E-1, and is ready to transition to ES-1.3, TRANSFER TO COLD LEG RECIRCULATION.
 - 3) The RWST level has decreased to approximately 135,000 gallons.

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

SIMJPM09

JOB PERFORMANCE WORKSHEET

- C. The performance must meet the following standards:
- 1) Perform the actions of ES-1.3, Transfer To Cold Leg Recirculation.
- D. Perform the task using the appropriate procedural guidance or using verbal direction from the Unit Supervisor (instructor as US) reading from the procedure.
- E. To perform the task successfully, you must perform/simulate all critical steps correctly and verbalize all your actions to the evaluator.
- F. During the course of the walkthrough examination, there may be some tasks you will be asked to perform that may require you to implement an alternative method directed by plant procedures in order to complete the assigned task. You are expected to make decisions and take actions based on the facility's procedural guidance and the indications available.
- G. Failure to perform or simulate a critical element within the prescribed standard will result in a failure of the task.
- H. I will inform you when the JPM is complete.
- I. We will begin after the Initiating Cue is read.
- J. I (or an instructor) will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

11.0 Initiating Cue:

Unit Supervisor to Primary Operator, **“Primary Operator, let me know when we receive the RWST LEVEL LO-LO alarm, then you will transfer the Emergency Core Cooling System to Cold Leg Recirculation per ES-1.3.”**

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

SIMJPM09

PERFORMANCE CHECKLIST

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

Evaluator NOTE: This JPM is an "Alternate Path" JPM. CBS-V-2 will fail to close, resulting in a loss of Train "A" ECCS recirculation, later RH-P-8B will trip, resulting in a complete loss of ECCS recirculation capability.

Instructor NOTE: VERIFY that the control switch for CBS-V-2 is in the AUTO position.

Instructor/Evaluator NOTE: ENSURE that the person reading the procedure to the student reads the CAUTION prior to Step 1 of ES-1.3.

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

Evaluator CUE: If the student asks for a peer check at any time during the JPM, respond: "No one is available to peer check your actions. Please continue with the task."

NOTE: JPM actions will commence with actuation of the RWST LEVEL LO-LO alarm.

2	P	ACKNOWLEDGE RWST LO-LO alarm.	Acknowledges RWST LO-LO alarm.			
3	P	RESET SI	Resets SI	_____	_____	_____
4	P	VERIFY Containment Sump Recirculation Valves-FULL OPEN:	VERIFIES ASDV setpoint is set properly.			_____
		TRAIN A: CBS-V-8	Verifies CBS-V-8 open.	_____	_____	
		TRAIN B: CBS-V-14	Verifies CBS-V-14 open.	_____	_____	
*5	P	SIMULTANEOUSLY CLOSE RWST Suction Valves:				_____
		Train A: CBS-V-2	*Attempts to close CBS-V-2.	_____	_____	
*6	P	Train B: CBS-V-5 IDENTIFY that CBS-V-2 will not close and notify Unit Supervisor.	*Closes CBS-V-5. *Identifies that CBS-V-2 will not close and notifies Unit Supervisor.	_____	_____	_____

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

SIMJPM09

PERFORMANCE CHECKLIST

	D=Discuss P=Perform S=Simulate	ELEMENT/STEP * denotes a critical step	STANDARD * denotes a critical step	EVALUATION		INITIALS/DATE
				SAT	UNSAT	
*7	P	If a valve can NOT be fully closed, THEN place the corresponding RHR and CBS pumps in Pull-To-Lock:				_____
		RH-P-8A	*Places switch in Pull-To-Lock.	_____	_____	
		CBS-P-9A	*Places switch in Pull-To-Lock.	_____	_____	

Evaluator NOTE: The student should identify the B RHR pump trip and that there are no RHR pumps running.

Instructor CUE: Insert MALFUNCTION for overcurrent trip of RH-P-8B:

- SELECT: Malfunctions
- SELECT: Residual Heat Removal
- SELECT: mFRH004, RHR Pump P-8B OC Trip
- SELECT: INSERT

*8	P	ALIGN ECCS for Cold Leg Recirculation:				_____
		VERIFY at least one RHR pump running.	Identifies that there are no RHR pumps running.	_____	_____	

Evaluator CUE: "The JPM is complete."

9		Stop time	Time to complete the task ≤ 20 minutes.	_____	_____	_____
		Evaluator calculates time to complete task.				

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

SIMJPM09

TEAR-OFF SHEET FOR JPM

Directions to the Student:

- A. You are the Primary Operator. You are going to transfer ECCS to the Cold Leg Recirculation Mode when the RWST LO-LO level alarm is received.
- B. The following information is provided to you:
 - 1) A reactor trip with SI occurred from 100% power.
 - 2) The Unit Supervisor has transitioned through E-0 to E-1, and is ready to transition to ES-1.3, TRANSFER TO COLD LEG RECIRCULATION.
 - 3) The RWST level has decreased to approximately 135,000 gallons.
- C. I (or an instructor) 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, **“Primary Operator, let me know when we receive the RWST LEVEL LO-LO alarm, then you will transfer the Emergency Core Cooling System to Cold Leg Recirculation per ES-1.3.”**

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

SIMJPM09



FPL Energy

Seabrook Station

JOB PERFORMANCE MEASURE 2007 NRC EXAM PLANTJPM01

TRANSFER VITAL INSTRUMENT BUS

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:

0620201504 Transfer A Vital (120 vac) Instrument Bus Power Supply

2.0 Conditions:

- A. The plant is in MODE 5.
- B. UPS EDE-I-1A (B,C,D) is being removed from service for inspection.

3.0 Standards:

Energize a vital power panel from it's maintenance supply per OS1047.02, Transferring Power Supplies To 120 VAC Vital Instrument Buses.

4.0 Student Materials:

Copy of the Tear-Off Sheet.
OS1047.02, Transferring Power Supplies To 120 VAC Vital Instrument Buses.

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:

OS1047.02, Transferring Power Supplies To 120 VAC Vital Instrument Buses.

Sys	KA	Description	Value RO/SRO
062	A2.10	Ability to predict the impact of the following malfunctions or operations on the AC distribution system, and based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Effects of switching power supplies on instruments and controls.	3.0/3.3

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

PLANTJPM01

JOB PERFORMANCE WORKSHEET

7.0 Setting:

Plant-Essential Switchgear Room

8.0 Safety Considerations:

Ensure proper PPE for evaluator and student.
Energized electrical equipment.

9.0 Approximate Completion Time:

10 minutes

10.0 Directions To The Student(s):

Evaluator gives Tear-Off sheet to the student.

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

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
-
- A. You are the Secondary NSO. You are going to simulate transferring an instrument power panel to it's maintenance supply.
 - B. The following information is provided to you:
 - 1) The plant is in MODE 5.
 - 2) UPS EDE-I-1A (B,C,D) is being removed from service for inspection.
 - C. The performance must meet the following standards:
 - 1) SIMULATE transferring an instrument power panel to it's maintenance supply.
 - D. Perform the task using OS1047.02, Transferring Power Supplies To 120 VAC Vital Instrument Buses.
 - E. To perform the task successfully, you must perform/simulate all critical steps correctly and verbalize all your actions to the evaluator.
 - F. During the course of the walkthrough examination, there may be some tasks you will be asked to perform that may require you to implement an alternative method directed by plant procedures in order to complete the assigned task. You are expected to make decisions and take actions based on the facility's procedural guidance and the indications available.

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

PLANTJPM01

JOB PERFORMANCE WORKSHEET

- G. Failure to perform or simulate a critical element within the prescribed standard will result in a failure of the task.
- H. I will inform you when the JPM is complete.
- I. We will begin after the Initiating Cue is read.
- J. I will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

11.0 Initiating Cue:

Unit Supervisor to Secondary NSO, **“Secondary NSO, simulate transferring power panel PP-1A (B,C,D) to it’s maintenance supply per OS1047.02. All of the procedure prerequisites are complete.”**

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

PLANTJPM01

PERFORMANCE CHECKLIST

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

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

Evaluator CUE: When the student looks for or asks for OS1047.02, provide it.

Evaluator CUE: IF the student simulates contacting the Control Room regarding the caution prior to step 4.1.1(4.2.1,4.3.1,4.4.1) then say: **“Unit Supervisor to NSO, I understand PP-1A (B,C,D) will be momentarily de-energized. We have entered Tech. Spec. 3.8.3.2. You may continue.”**

Evaluator CUE: When the student asks about LTOP, say: **“Unit Supervisor to NSO, LTOP is not armed, We have entered Tech. Spec. 3.4.9.3 and placed the control switch for RC-PCV-456A (B) in CLOSE.”**

Evaluator CUE: When the student looks at the breaker, say: **“The breaker at NODE D29 (25,24,28) is in the ON position.”**

2	S	CHECK CLOSED/CLOSE the MCC maintenance supply feeder breaker to PP-1A (B,C,D).	Simulates Checking CLOSED the MCC maintenance supply feeder breaker to PP-1A (B,C,D). _____
---	---	--	---

Evaluator CUE: When the student simulates loosening the nuts, say **“The nuts loosen”**.

*3	S	LOOSEN the nuts on the PP-1A (B,C,D) mechanical interlock device.	* Simulates loosening the nuts on the PP-1A (B,C,D) mechanical interlock device. _____
----	---	---	--

Evaluator CUE: When the student reads the step about making a gaitronics announcement say: **“The announcement has been made by the Unit Supervisor.”**

4	S	MAKE an announcement that the containment evacuation alarm will sound.	Announcement made by Unit Supervisor per cue above. _____
---	---	--	---

Evaluator Cue: When the student simulates opening the normal supply breaker, say: **“The breaker opens.”**

*5	S	OPEN circuit 15, PP-1A (B,C,D) normal supply breaker.	*Simulates opening circuit 15, PP-1A (B,C,D) normal supply breaker. _____
----	---	---	---

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

PLANTJPM01

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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Evaluator CUE: When the student simulates closing the mainenance supply breaker, say: **“The breaker closes.”**

*6	S	CLOSE circuit 16, PP-1A (B,C,D) maintenance supply breaker.	*Simulates closing circuit 16, PP-1A (B,C,D) maintenance supply breaker.	_____	_____	_____
----	---	---	--	-------	-------	-------

Evaluator CUE: When the student tightening the nuts, say: **“The nuts tighten.”**

7	S	TIGHTEN the nuts on the PP-1A (B,C,D) mechanical interlock device.	Simulates tightening the nuts on the PP-1A (B,C,D) mechanical interlock device.	_____	_____	_____
---	---	--	---	-------	-------	-------

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

7		Stop time Evaluator calculates time to complete task.	Time to complete the task ≤ 10 minutes.	_____	_____	_____
---	--	--	---	-------	-------	-------

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

PLANTJPM01

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):

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
-
- A. You are the Secondary NSO. You are going to simulate transferring an instrument power panel to it's maintenance supply.
 - B. The following information is provided to you:
 - 1)The plant is in MODE 5.
 - 2) UPS EDE-1-A (B,C,D) is being removed from service for inspection.
 - C. I 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 Secondary NSO, "**Secondary NSO, simulate transferring power panel PP-1A (B,C,D) to it's maintenance supply per OS1047.02. All of the procedure prerequisites are complete.**"

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

PLANTJPM01



FPL Energy

Seabrook Station

JOB PERFORMANCE MEASURE 2007 NRC EXAM PLANTJPM02

ALIGN ALTERNATE COOLING TO CCP LUBE OIL COOLER

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:

0080102804 Adjust PCCW Flows Through Components

2.0 Conditions:

- A. The plant is in MODE 3.
- B. CS-P-2A is not available.
- C. Train "B" PCCW has been lost.
- D. The Unit Supervisor has entered OS1212.01, PCCW SYSTEM MALFUNCTION.

3.0 Standards:

Manually align alternate cooling to CS-P-2B lube oil cooler per OS1002.02, OPERATION OF LETDOWN, CHARGING AND SEAL INJECTION.

4.0 Student Materials:

Copy of the Tear-Off Sheet.
Student should have a flashlight.
OS1002.02, OPERATION OF LETDOWN, CHARGING AND SEAL INJECTION.

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:

OS1212.01, PCCW SYSTEM MALFUNCTION.
OS1002.02, OPERATION OF LETDOWN, CHARGING AND SEAL INJECTION.

Sys	KA	Description	Value RO/SRO
008	2.1.30	Ability to predict the impact of the following malfunctions or operations on the CCWS, and based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Loss of CCW Pump.	3.3/3.6

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

PLANTJPM02

JOB PERFORMANCE WORKSHEET

7.0 Setting:

Plant-RCA

PAB 25 ft. level

8.0 Safety Considerations:

Ensure proper PPE for evaluator and student.
HP postings and ALARA.

9.0 Approximate Completion Time:

15 minutes

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

PLANTJPM02

JOB PERFORMANCE WORKSHEET

10.0 Directions To The Student(s):

Evaluator gives Tear-Off sheet to the student.

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

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
- A. You are the Primary NSO. You are going to simulate locally aligning Fire Protection (FP) water as alternate cooling to the CS-P-2B ("B" Centrifugal Charging Pump) lube oil cooler.
- B. The following information is provided to you:
- 1) The plant is in MODE 3.
 - 2) CS-P-2A is not available.
 - 3) Train "B" PCCW has been lost.
 - 4) The Unit Supervisor has entered OS1212.01, PCCW SYSTEM MALFUNCTION.
 - 5) Step 1 RNO of OS1212.01 instructs the crew to align alternate cooling to the charging pump lube oil cooler per OS1002.02, OPERATION OF LETDOWN, CHARGING AND SEAL INJECTION.
 - 6) The Control Room has contacted Chemistry for the required Non Rad Release Permit.
 - 7) The Roving NSO and a Firefighter have been dispatched to connect the drain hose from the charging pump lube oil coolers outlet to a storm drain (OS1002.02, step 4.21.2).
 - 8) The control switch for CS-P-2B is in Pull-To-Lock.
 - 9) All prerequisites have been completed.
- C. The performance must meet the following standards:
- 1) SIMULATE manually aligning Fire Protection (FP) water as alternate cooling to the CS-P-2B lube oil cooler.
- D. Perform the task per OS1002.02, OPERATION OF LETDOWN, CHARGING AND SEAL INJECTION.
- E. To perform the task successfully, you must perform/simulate all critical steps correctly and verbalize all your actions to the evaluator.
- F. During the course of the walkthrough examination, there may be some tasks you will be asked to perform that may require you to implement an alternative method directed by plant procedures in order to complete the assigned task. You are expected to make decisions and take actions based on the facility's procedural guidance and the indications available.

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

PLANTJPM02

JOB PERFORMANCE WORKSHEET

- D. Failure to perform or simulate a critical element within the prescribed standard will result in a failure of the task.
- E. I will inform you when the JPM is complete.
- F. We will begin after the Initiating Cue is read.
- G. I will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

11.0 Initiating Cue:

Unit Supervisor to Primary NSO, **“Primary NSO, simulate aligning Fire Protection (FP) water as alternate cooling to CS-P-2B lube oil cooler using OS1002.02, starting at step 4.21.5. Inform the Control Room as soon as cooling flow has been established.”**

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

PLANTJPM02

PERFORMANCE CHECKLIST

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

1 P Start time Initiating cue read.

NOTE: The student should demonstrate that they could locate a copy of the procedure in the PAB remote satellite. Provide a copy of OS1002.02.

NOTE: Valves CC-V-315, CC-V-318, CC-V-1297, CC-V-1290, and CC-V-1294 are all located along the wall, outside the degasifier room in the main passage way of the 25 ft level PAB, across from the sampling room. FP-V-1129 is in the South Stairwell of the 25 ft level PAB, approx. 7 ft above the floor.

Evaluator CUE: IF the student states that Chemistry must be notified to issue a Non Rad Release Permit say: **“The Non Rad Release Permit has been issued.”**

Evaluator Cue: If the student states that a drain hose must be connected, say: **“The drain hose has been connected and is in place”.**

Evaluator Cue: If the student states that the Control Room should refer to the applicable Tech. Specs. say: **“The Control Room has addressed the Tech. Specs.”**

*2	S	UNLOCK and CLOSE:	Simulates unlocking and closing:			
		a. CC-V-318, PCCW return from CS-P-2B oil cooler.	*a. CC-V-318, PCCW return from CS-P-2B oil cooler.			
		b. CC-V-315, Supply to CS-P-2B oil cooler.	*b. CC-V-315, Supply to CS-P-2B oil cooler.			
3	S	If DM water is to be aligned to the CS-P-2B cooler, perform the following.....	Skips step 4.21.6 for aligning DM and goes to step 4.21.7.			
*4	S	IF FP water is to be aligned to the CS-P-2B lube oil cooler in response to a loss of PCCW, PERFORM the following:	Alignes FP water to CS-P-2B lube oil cooler:			
		a. CLOSE CC-V-1297, FP alternate cooling tell tale drain.	*Simulates closing CC-V-1297, FP alternate cooling tell tale drain.			

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

PLANTJPM02

PERFORMANCE CHECKLIST

D=Discuss P=Perform S=Simulate	ELEMENT/STEP	STANDARD	EVALUATION		INITIALS/DATE
			SAT	UNSAT	

	b. OPEN FP-V-1129, Charging Pump oil coolers alternate supply.	* Simulates opening FP-V-1129, Charging Pump oil coolers alternate supply.	_____	_____	
	c. OPEN CC-V-1290, Fire Water alternate cooling supply to CS-P-2B lube oil cooler.	* Simulates opening CC-V-1290, Fire Water alternate cooling supply to CS-P-2B lube oil cooler.	_____	_____	

*5	S	THROTTLE CC-V-1294, CS-P-2B oil cooler alternate cooling outlet as necessary to maintain 10 to 30 gpm as read on CC-FISL-2218 (PAB 7 ft. level near RMW pumps, on MM-IR-19B).	*Throttles open CC-V-1294, CS-P-2B oil cooler alternate cooling outlet.	_____	_____	_____
----	---	---	---	-------	-------	-------

Evaluator CUE: When the student checks flow at CC-FISL-2218, say: **“The indicator shows 18 gpm.”**

6*	S	Check flow as indicated on CC-FISL-2218.	* Checks flow as indicated on CC-FISL-2218.	_____	_____	_____
7	S	REPORT to the Control Room that FP water has been aligned to CS-P-2B lube oil cooler.	Reports to the Control Room that FP water has been aligned to CS-P-2B lube oil cooler.	_____	_____	_____

Evaluator CUE: Unit Supervisor responds to NSO: **“I copy, Fire Protection water has been aligned to the CS-P-2B lube oil cooler”**

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

8		Stop time _____	Time to complete the task ≤ 15 minutes.	_____	_____	_____
---	--	-----------------	---	-------	-------	-------

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

PLANTJPM02

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):

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
-
- A. You are the Primary NSO. You are going to simulate locally aligning Fire Protection (FP) water as alternate cooling to the CS-P-2B ("B" Centrifugal Charging Pump) lube oil cooler.
 - B. The following information is provided to you:
 - 1) The plant is in MODE 3.
 - 2) CS-P-2A is not available.
 - 3) Train "B" PCCW has been lost.
 - 4) The Unit Supervisor has entered OS1212.01, PCCW SYSTEM MALFUNCTION.
 - 5) Step 1 RNO of OS1212.01 instructs the crew to align alternate cooling to the charging pump lube oil cooler per OS1002.02, OPERATION OF LETDOWN, CHARGING AND SEAL INJECTION.
 - 6) The Control Room has contacted Chemistry for the required Non Rad Release Permit.
 - 7) The Roving NSO and a Firefighter have been dispatched to connect the drain hose from the charging pump lube oil coolers outlet to a storm drain (OS1002.02, step 4.21.2).
 - 8) The control switch for CS-P-2B is in Pull-To-Lock.
 - 9) All prerequisites have been completed.
 - C. I 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 NSO, **"Primary NSO, simulate aligning Fire Protection (FP) water as alternate cooling to CS-P-2B lube oil cooler using OS1002.02, starting at step 4.21.5. Inform the Control Room as soon as cooling flow has been established."**

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

PLANTJPM02



FPL Energy

Seabrook Station

JOB PERFORMANCE MEASURE 2007 NRC EXAM PLANTJPM03

LOCAL RAPID MANUAL BORATION

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:

0040405504 Perform Rapid Manual Boration Of The RCS

2.0 Conditions:

- A. The plant is in MODE 5.
- B. The last shift completed placing CS-DM-2B in service.
- C. The operable boration flowpath is the "A" Boric Acid Tank and the "B" Centrifugal Charging Pump (CS-P-2A) via the "A" Boric Acid Pump (CS-P-3A).
- D. The Hi Flux at Shutdown Monitor Hi alarm came in 10 minutes ago.
- E. The Unit Supervisor has entered OS1202.04, Rapid Boration.
- F. CS-V-426 will not open from the main control board.

3.0 Standards:

Manually align a boration flow path.

4.0 Student Materials:

Copy of the Tear-Off Sheet.
Student should have a flashlight.

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:

OS1202.04, RAPID BORATION.
OS1090.01, Manual Operation of Remote Operated Valves.
OX1408.02, Boration Flow Path Monthly Valve Alignment Check

Sys	KA	Description	Value RO/SRO
004	2.1.30	Ability to locate and operate components, including local controls.	3.9/3.4

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

PLANTJPM03

JOB PERFORMANCE WORKSHEET

7.0 Setting:

Plant-RCA

PAB Boric Acid Tank Room

8.0 Safety Considerations:

Ensure proper PPE for evaluator and student.

HP postings and ALARA.

Trip hazards in BAT room.

9.0 Approximate Completion Time:

15 minutes

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

PLANTJPM03

JOB PERFORMANCE WORKSHEET

10.0 Directions To The Student(s):

Evaluator gives Tear-Off sheet to the student.

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

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
-
- A. You are the Primary NSO. You are going to simulate locally aligning a boration flow path.
 - B. The following information is provided to you:
 - 1) The plant is in MODE 5.
 - 2) The last shift completed placing CS-DM-2B in service.
 - 3) The operable boration flowpath is the "A" Boric Acid Tank and the "B" Centrifugal Charging Pump (CS-P-2A) via the "A" Boric Acid Pump (CS-P-3A).
 - 4) The Hi Flux at Shutdown Monitor Hi alarm came in 10 minutes ago.
 - 5) The Unit Supervisor has entered OS1202.04, Rapid Boration.
 - 6) CS-V-426 will not open from the main control board.
 - C. The performance must meet the following standards:
 - 1) SIMULATE manually aligning a boration flow path.
 - D. Perform the task per Unit Supervisor verbal cues from OS1202.04, RAPID BORATION.
 - E. To perform the task successfully, you must perform/simulate all critical steps correctly and verbalize all your actions to the evaluator.
 - F. During the course of the walkthrough examination, there may be some tasks you will be asked to perform that may require you to implement an alternative method directed by plant procedures in order to complete the assigned task. You are expected to make decisions and take actions based on the facility's procedural guidance and the indications available.
 - G. Failure to perform or simulate a critical element within the prescribed standard will result in a failure of the task.
 - H. I will inform you when the JPM is complete.
 - I. We will begin after the Initiating Cue is read.

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

PLANTJPM03

JOB PERFORMANCE WORKSHEET

- J. I will act as the Unit Supervisor and provide the cues and communications for this JPM. Do you have any questions?

11.0 Initiating Cue:

Unit Supervisor to Primary NSO, **“Primary NSO, simulate locally opening CS-V426, the Emergency Borate Valve.”**

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

PLANTJPM03

PERFORMANCE CHECKLIST

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

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

NOTE: If requested, provide a copy of OS1090.01, Manual Operation of Remote Operated Valves.

Evaluator CUE: If the clutch is operated correctly, then provide the cue: **“The valve stem rises”**, if not then **“The handwheel free-wheels”**.

*2	S	OPEN CS-V-426.	Opens CS-V-426. _____ *a. Depresses the de-clutch lever _____ _____ *b. Rotates CS-V-426 handwheel counter clockwise. _____ _____ *c. REPORTS that CS-V-426 has been opened. _____ _____
----	---	----------------	--

Evaluator CUE: The Unit Supervisor responds, **“I copy, CS-V-426 is open. We will be starting CS-P-3A”**.

Evaluator CUE: After a short delay, the Unit Supervisor informs the NSO, **“CS-P-3A will not start. ~~To line up for gravity feed from the “A” Boric Acid Tank, we will shut CS-LCV-112B. I want you to verify OPEN CS-V-410, and OPEN CS-V-437, CS-V-439, and CS-V-442.”~~”**

Evaluator CUE: If student simulates turning handwheels counterclockwise, then provide the cue for each valve operated: **“ The stem rises”**. When the last valve begins opening: **“Flow noise is heard”**.

*3	S	ESTABLISH a gravity feed flow path.	Establishes a gravity feed flow path: _____ a. Verifies OPEN CS-V-410. _____ _____ *b. Opens CS-V-437. _____ _____ *c. Opens CS-V-439. _____ _____ *d. Opens CS-V-442. _____ _____
----	---	-------------------------------------	---

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

PLANTJPM03

PERFORMANCE CHECKLIST

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

4	P	REPORT to the Control Room that the gravity feed path has been established.	Reports to the Control Room that the gravity feed path has been established.	_____	_____	_____
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Evaluator Cue: Unit Supervisor responds to NSO: **“I copy, CS-V-437, CS-V-439, and CS-V-442 have been opened”.**

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

7		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).

PLANTJPM03

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):

1. Ensure task is done correctly.
 2. You may be asked follow-up questions to confirm knowledge of the task.
-
- A. You are the Primary NSO. You are going to simulate locally aligning a boration flow path.
 - B. The following information is provided to you:
 - 1) The plant is in MODE 5.
 - 2) The last shift completed placing CS-DM-2B in service.
 - 3) The operable boration flowpath is the "A" Boric Acid Tank and the "B" Centrifugal Charging Pump (CS-P-2A) via the "A" Boric Acid Pump (CS-P-3A).
 - 4) The Hi Flux at Shutdown Monitor Hi alarm came in 10 minutes ago.
 - 5) The Unit Supervisor has entered OS1202.04, Rapid Boration.
 - 6) CS-V-426 will not open from the main control board.
 - C. I 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 NSO, "**Primary NSO, simulate locally opening CS-V426, the Emergency Borate Valve.**"

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

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