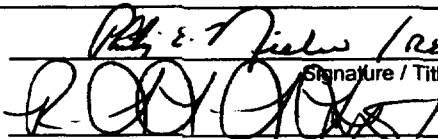
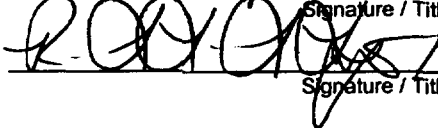


**EXELON NUCLEAR**  
Nuclear Generation Group

**OJT/TPE MATERIAL COVERSHEET**

<input checked="" type="checkbox"/> <b>X</b>	<b>Peach Bottom</b>	<input type="checkbox"/>	<b>Limerick</b>	<input type="checkbox"/>	<b>Common</b>
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	<input checked="" type="checkbox"/> <b>X</b>	<b>JPM</b>	<input type="checkbox"/>	<b>QUALIFICATION MANUAL</b>	<input type="checkbox"/>	<b>OJT MODULE</b>
	<b>LICENSED OPERATOR TRAINING</b>					<b>PLOR-NEW</b>
	<b>LICENSED OPERATOR REQUALIFICATION</b>					<b>000</b>
	<b>Philip E. Nielsen</b>					<b>pen</b>
	<b>VERIFY ISOLATION OF DRYWELL CHILLED WATER AND RBCCW</b>					
<b>APPROVALS:</b>						
<div style="display: flex; justify-content: space-between;"><div style="width: 60%;"> Signature / Title</div><div style="width: 35%; text-align: right;"><u>15 Nov 2004</u> Date</div></div>						
<div style="display: flex; justify-content: space-between;"><div style="width: 60%;"> Signature / Title</div><div style="width: 35%; text-align: right;"><u>11-16-4</u> Date</div></div>						
<div style="display: flex; justify-content: space-between;"><div style="width: 60%;"> Signature / Title</div><div style="width: 35%; text-align: right;"> Date</div></div>						
<div style="display: flex; justify-content: space-between;"><div style="width: 60%;"> Signature / Title</div><div style="width: 35%; text-align: right;"> Date</div></div>						
<b>APPROVED FOR USE:</b>						
<div style="display: flex; justify-content: space-between;"><div style="width: 60%;"> Signature / Title</div><div style="width: 35%; text-align: right;"> Date</div></div>						
<b>EFFECTIVE DATE:</b> ____ / ____ / ____						

<b>NAME:</b> _____ <div style="display: flex; justify-content: space-around; font-size: small;"><span>Last</span><span>First</span><span>M.I.</span></div>	<b>ISSUE DATE:</b> _____				
<b>SOC. SEC. NO.</b> _____	<b>COMPLETION DATE:</b> _____				
<b>COMMENTS:</b>					
<b>Training Review for Completeness:</b>  _____ Signature/Date	<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 50%;"><b>PIMS CODE:</b></td><td style="width: 50%;"></td></tr><tr><td><b>PIMS ENTRY:</b></td><td></td></tr></table>	<b>PIMS CODE:</b>		<b>PIMS ENTRY:</b>	
<b>PIMS CODE:</b>					
<b>PIMS ENTRY:</b>					

# TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-NEW

REV. NO.: 000

TITLE: Verify Isolation of Drywell Chilled Water and RBCCW

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EXELON NUCLEAR  
PEACH BOTTOM ATOMIC POWER STATION  
JOB PERFORMANCE MEASURE

POSITION TITLE: Unit Reactor Operator/Senior Reactor Operator

TASK-JPM DESIGNATOR: 2130220401/ PLOR-NEW

K/A: 295024EA1.07

URO: 3.8    SRO: 3.9

TASK DESCRIPTION: Verify Isolation of Drywell Chilled Water and RBCCW

A. NOTES TO EVALUATOR:

1. An asterisk (\*) before the step number denotes a CRITICAL STEP. CRITICAL STEPS are those steps which when not performed correctly will prevent the system from functioning properly or prevent successful task completion.
2. System cues included in the performance checklist are to be provided to the examinee when no system response is available.
3. JPM Performance
  - a. "Control Room" JPMs are designed to be performed in the simulator. If a "Control Room" JPM is to be performed in the Control Room all perform steps (P) shall be simulated (S).
  - b. When performing "In-Plant" JPMs, no equipment will be operated without Shift Management approval.
4. Satisfactory performance of this JPM is accomplished if:
  - a. The task standard is met.
  - b. JPM completion time requirement is met.
    - 1) For non-time critical JPMs, completion within double the estimated time (listed in paragraph D.2) is acceptable provided the evaluator determines that the progress to completion is acceptable.
    - 2) For time critical JPMs, completion within the estimated time (listed in paragraph D.2) is required.
5. The estimated time to complete this JPM, though listed in the task standard, is not to be given to the examinee.

B. TOOLS AND EQUIPMENT

None

C. REFERENCES

GP-8.B, Rev. 17, "PCIS Isolation - Groups II and III" (R)

D. TASK STANDARD

1. Satisfactory task completion is indicated when the Drywell Chilled Water isolation valves, MO-2200A & B and MO-2201A & B are closed, The Drywell Chillers are tripped, and the DWCW Pump control switches are in "PULL TO LOCK".
2. Estimated time to complete: 12 minutes Non-Time Critical

E. DIRECTIONS TO EXAMINEE

When given the initiating cue, perform necessary steps of GP 8.B Section 3.5 "PCIS Isolation - Groups II and III". I will describe initial plant conditions and provide you access to the materials required to complete this task.

F. TASK CONDITIONS/PREREQUISITES

1. The Reactor has just been scrammed.
3. DWCW Return Header pressure as read on PI-2-0262 is 32 psig.
4. Drywell pressure is approximately 24 psig.

G. INITIATING CUE

The Control Room Supervisor directs you, the Plant Reactor Operator, to perform step 3.5 of GP-8.B, "PCIS Isolation - Groups II and III".

## H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of procedure GP-8.B.	P	A copy of procedure GP-8.B is obtained.
2	Verify MO-20245 AND MO-20246 aligned in the "CHILLED WATER" position.  (Cue: MO-20245 AND MO-20246 red "CHILLED WATER" lights are lit. MO-20245 AND MO-20246 red "RX BLDG CLG WATER" lights are out.)	P	MO-20245 AND MO-20246 red "CHILLED WATER" lights are lit. MO-20245 AND MO-20246 red "RX BLDG CLG WATER" lights are out at Panel 20C005A.
*3	Calculate corrected RBCCW pressure (CRP) by taking indicated RBCCW pressure on PI-2350 - 25 psig. (Cue: PI-2350 is indicating 40 psig.)	P	Indicated RBCCW pressure is checked, then 25 psig is subtracted to determine a CRP of approximately 15 psig.
4	Compare Drywell pressure to DWCW Return Header pressure. (Cue: Comparison acknowledged)	P	Recognize that DWCW Return Header pressure is greater than Drywell pressure and DWCW isolation is not required and not performed.
*5	Compare Drywell pressure to Corrected RBCCW Pressure (CRP) to determine which pressure is greater. (Cue: PR-2508 indicates 24 psig.)	P	Corrected RBCCW Pressure (CRP) is determined to be less than PR-2508 or PR-4805 or PR-8102A(B) at panels 20C003/ 20C004C.
*5	Trip <u>BOTH</u> Recirc pumps. (Cue: Both Recirc pumps breaker green lights are on and red lights are off. Annunciators 214 C-3 and H-3 are lit.)	P	The control switches for the Drive Motor Breakers on both A and B Recirc "DRIVE MOTOR" breakers are placed in TRIP at panel 20C004A.
6	Verify <u>BOTH</u> Recirc pumps are tripped. (Cue: Both Recirc pumps breaker green lights are on and red lights are off. Annunciators 214 C-3 and H-3 are lit.)	P	A and B Recirc "DRIVE MOTOR" breaker green lights are verified to be ON at panel 20C004A.
*6	Close MO-2373, RBCCW Isolation valve. (Cue: Acknowledge control switch operation.)	P	MO-2373 control switch is momentarily placed in the "CLOSE" position at panel 20C012.

STEP NO	STEP	ACT	STANDARD
7	Verify the MO-2373, the RBCCW Isolation valve is closed.  (Cue: MO-2373 green light is on, red light is off.)	P	MO-2373 green light is verified ON and red light is verified OFF at panel 20C012.
*8	Close MO-2374, the RBCCW Isolation valve.  (Cue: Acknowledge control switch operation.)	P	MO-2374 control switch is momentarily placed in the "CLOSE" position at panel 20C012.
9	Verify the MO-2374, the RBCCW Isolation valve is closed.  (Cue: MO-2374 green light is on, red light is off.)	P	MO-2374 green light is verified ON and red light is verified OFF at panel 20C012.
10	Inform Control Room Supervisor of task completion.  (Cue: Control Room Supervisor acknowledges report.)	P	Task completion reported.
11	As an evaluator, ensure that you have positive control of all exam material provided to the examinee (Task Conditions/Prerequisites) <u>AND</u> procedures.	P	Positive control established.

Under "ACT" P - must perform  
S - must simulate

#### I. TERMINATING CUE

When step 3.5 of GP-8.B has been completed, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

## **TASK CONDITIONS/PREREQUISITES**

- 1. The Reactor has just been scrammed.**
- 2. DWCW Return Header pressure as read on PI-2-0262 is 32 psig.**
- 3. Drywell pressure is 24 psig.**

## **INITIATING CUE**

**The Control Room Supervisor directs you, the Plant Reactor Operator, to perform step 3.5 of GP-8.B, "PCIS Isolation - Groups II and III".**

**EXELON NUCLEAR**  
**Nuclear Generation Group**

**OJT/TPE MATERIAL COVERSHEET**

<input checked="" type="checkbox"/> <b>X</b>	<b>Peach Bottom</b>	<input type="checkbox"/>	<b>Limerick</b>	<input type="checkbox"/>	<b>Common</b>
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	<input checked="" type="checkbox"/> <b>X</b>	JPM	<input type="checkbox"/>	QUALIFICATION MANUAL	<input type="checkbox"/>	OJT MODULE
LICENSED OPERATOR TRAINING						PLOR-034C
LICENSED OPERATOR REQUALIFICATION						011
Jan Felice						jrf
CAD SYSTEM NITROGEN ADDITION TO CONTAINMENT DURING NORMAL OPERATIONS						
<b>APPROVALS:</b>						
			<i>Phyllis E. Fisher / Regulatory Exam Admin</i>		15 Nov 2004	
			Signature / Title		Date	
			<i>R. J. O'Neil / SRO</i>		11-16-4	
			Signature / Title		Date	
			Signature / Title		Date	
			Signature / Title		Date	
<b>APPROVED FOR USE:</b>						
			Signature / Title		Date	
EFFECTIVE DATE: ____ / ____ / ____						

NAME: _____ Last First M.I.			ISSUE DATE: _____		
SOC. SEC. NO. _____			COMPLETION DATE: _____		
COMMENTS:					
Training Review for Completeness:			PIMS CODE:		
Signature/Date			PIMS ENTRY:		



# TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-034C

REV. NO.: 011

TITLE: CAD System Nitrogen Addition To Containment During Normal Operations

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EXELON NUCLEAR  
PEACH BOTTOM ATOMIC POWER STATION  
JOB PERFORMANCE MEASURE

POSITION TITLE: Unit Reactor Operator/Senior Reactor Operator

TASK-JPM DESIGNATOR: 2240130101 / PLOR-034C

K/A: 223001A4.10

URO: 3.2    SRO: 3.2

TASK DESCRIPTION: CAD System Nitrogen Addition To Containment During Normal Operations

A. NOTES TO EVALUATOR:

1. An asterisk (\*) before the step number denotes a CRITICAL STEP. CRITICAL STEPS are those steps which when not performed correctly will prevent the system from functioning properly or prevent successful task completion.
2. System cues included in the performance checklist are to be provided to the examinee when no system response is available.
3. JPM Performance
  - a. "Control Room" JPMs are designed to be performed in the simulator. If a "Control Room" JPM is to be performed in the Control Room all perform steps (P) shall be simulated (S).
  - b. When performing "In-Plant" JPMs, no equipment will be operated without Shift Management approval.
4. Satisfactory performance of this JPM is accomplished if:
  - a. The task standard is met.
  - b. JPM completion time requirement is met.
    - 1) For non-time critical JPMs, completion within double the estimated time (listed in paragraph D.2) is acceptable provided the evaluator determines that the progress to completion is acceptable.
    - 2) For time critical JPMs, completion within the estimated time (listed in paragraph D.2) is required.
5. The estimated time to complete this JPM, though listed in the task standard, is not to be given to the examinee.

**B. TOOLS AND EQUIPMENT**

None

**C. REFERENCES**

Procedure SO 7C.1.B-2, Rev. 18, "CAD System Nitrogen Addition to Containment During Normal Operations" (R)

**D. TASK STANDARD**

1. Satisfactory task completion is indicated when Nitrogen has been added to containment with an N<sub>2</sub> flow of 55-65 scfm.
2. Estimated time to complete: 14 minutes (A.5) Non-Time Critical

**E. DIRECTIONS TO EXAMINEE**

When given the initiating cue, perform necessary steps to perform a normal nitrogen addition to the Drywell from the CAD system using appropriate procedures. I will describe initial plant conditions and provide you access to the materials required to complete this task.

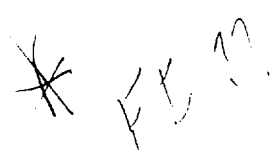
**F. TASK CONDITIONS/PREREQUISITES**

1. All SO 7C.1.B-2, "CAD System Nitrogen Addition to Containment During Normal Operations" procedural prerequisites are met.
2. Primary Containment venting is NOT required.
3. CAD Tank level is 45 inches.

**G. INITIATING CUE**

The Control Room Supervisor directs you, the Plant Reactor Operator, to add nitrogen to the Drywell using "A" loop of the CAD system at 60 scfm in accordance with SO 7C.1.B-2, "CAD System Nitrogen Addition to Containment During Normal Operations".

# H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of procedure SO 7C.1.B-2.	P	A copy of procedure SO 7C.1.B-2 is obtained.
*2	Open SV-4948A Drywell Nitrogen Supply valve.  (Cue: Acknowledge control switch operation.)	P	SV-4948A control switch is placed in the OPEN position at panel 20C484A.
3	Verify SV-4948A Drywell Nitrogen Supply valve is open.  (Cue: SV-4948A red light is on and green light is off.)	P	SV-4948A red light is verified ON at panel 20C484A.
*4	Open SV-4949A Drywell Nitrogen Supply Valve.  (Cue: Acknowledge control switch operation.)	P	SV-4949A control switch is placed in the OPEN position at panel 20C484A.
5	Verify SV-4949A Drywell Nitrogen Supply Valve is open.  (Cue: SV-4949A red light is on and green light is off.)	P	SV-4949A red light is verified ON at panel 20C484A.
*6	Open CV-4947A using HCS-4947A to obtain a flow rate of 60 scfm on FI-4947A.  (Cue: [CLOCKWISE HCS-4947A manual adjustment knob is rotated.] HCS-4947A indicates 55% controller output; FI-4947A indicates 60 scfm; FR-4947A indicates 62 scfm.	P	HCS-4947A manual adjustment knob is rotated clockwise until 50 to 70 scfm is obtained on FI-4947A at panel 20C484A.  <i>No (H) and pressure gauge</i> 
7	Inform the Control Room Supervisor of task completion.  (Cue: Control Room Supervisor acknowledges report.)	P	Task completion reported.
8	As an evaluator, ensure that you have positive control of all exam material provided to the examinee (Task Conditions/Prerequisites) <u>AND</u> procedures.	P	Positive control established.

Under "ACT" P - must perform  
S - must simulate

I. TERMINATING CUE

When nitrogen is being added to the Drywell at a flow rate of 60 scfm, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

## **TASK CONDITIONS/PREREQUISITES**

- 1. All SO 7C.1.B-2, "CAD System Nitrogen Addition to Containment During Normal Operations" procedural prerequisites are met.**
- 2. Primary Containment venting is NOT required.**
- 3. CAD Tank level is 45 inches.**


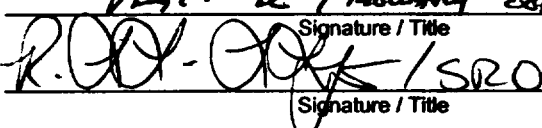
## **INITIATING CUE**

**The Control Room Supervisor directs you, the Plant Reactor Operator, to add nitrogen to the Drywell using "A" loop of the CAD system at 60 scfm in accordance with SO 7C.1.B-2, "CAD System Nitrogen Addition to Containment During Normal Operations".**

**EXELON NUCLEAR**  
**Nuclear Generation Group**

**OJT/TPE MATERIAL COVERSHEET**

<input checked="" type="checkbox"/> <b>X</b>	<b>Peach Bottom</b>	<input type="checkbox"/>	<b>Limerick</b>	<input type="checkbox"/>	<b>Common</b>
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	<input checked="" type="checkbox"/> <b>JPM</b>	<input type="checkbox"/> <b>QUALIFICATION MANUAL</b>	<input type="checkbox"/> <b>OJT MODULE</b>
	LICENSED OPERATOR TRAINING		PLOR
	LICENSED OPERATOR REQUALIFICATION		000
	P.E. Nielsen		pen
	MANUALLY INITIATE RCIC (ALTERNATE PATH – COOLING WATER FAILS TO AUTOMATICALLY ALIGN)		
<b>APPROVALS:</b>			
			15 Nov 2004
	Signature / Title		Date
			11-16-04
	Signature / Title		Date
	_____ Signature / Title		_____ Date
	_____ Signature / Title		_____ Date
<b>APPROVED FOR USE:</b>			
	_____ Signature / Title		_____ Date
EFFECTIVE DATE: ____/____/____			

<b>NAME:</b> _____ Last First M.I.		ISSUE DATE: _____	
SOC. SEC. NO. _____		COMPLETION DATE: _____	
<b>COMMENTS:</b>			
Training Review for Completeness:  _____ Signature/Date		PIMS CODE:	
		PIMS ENTRY:	

# TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-3??CA

REV. NO.: 000

TITLE: Manually Initiate RCIC (Alternate Path – Cooling Water Fails to Automatically Align)

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EXELON NUCLEAR  
PEACH BOTTOM ATOMIC POWER STATION  
JOB PERFORMANCE MEASURE

POSITION TITLE: Unit Reactor Operator/Senior Reactor Operator

TASK-JPM DESIGNATOR: 2008070501 / PLOR-3??CA

K/A: 295031EA1.05

URO: 4.3 SRO: 4.3

TASK DESCRIPTION: Manually Initiate RCIC (Alternate Path – Cooling Water Fails to Automatically Align)

A. NOTES TO EVALUATOR:

1. An asterisk (\*) before the step number denotes a CRITICAL STEP. CRITICAL STEPS are those steps which when not performed correctly will prevent the system from functioning properly or prevent successful task completion.
2. System cues included in the performance checklist are to be provided to the examinee when no system response is available.
3. JPM Performance
  - a. "Control Room" JPMs are designed to be performed in the simulator. If a "Control Room" JPM is to be performed in the Control Room all perform steps (P) shall be simulated (S).
  - b. When performing "In-Plant" JPMs, no equipment will be operated without Shift Management approval.
4. Satisfactory performance of this JPM is accomplished if:
  - a. The task standard is met.
  - b. JPM completion time requirement is met.
    - 1) For non-time critical JPMs, completion within double the estimated time (listed in paragraph D.2) is acceptable provided the evaluator determines that the progress to completion is acceptable.
    - 2) For time critical JPMs, completion within the estimated time (listed in paragraph D.2) is required.
5. The estimated time to complete this JPM, though listed in the task standard, is not to be given to the examinee.

**B. TOOLS AND EQUIPMENT**

1. None

**C. REFERENCES**

1. RRC 13.1-2 Rev. 0, "RCIC System Operation During A Plant Event"

**D. TASK STANDARD**

1. Satisfactory task completion is indicated when RCIC is injecting to the RPV with cooling water properly aligned.
2. Estimated time to complete: 6 minutes Non-Time Critical

**E. DIRECTIONS TO EXAMINEE**

When given the initiating cue, perform necessary steps to manually initiate the RCIC system and inject into the Reactor vessel at a flow rate of approximately 600 gpm using appropriate procedures. I will describe initial plant conditions and provide you access to the materials required to complete this task.

**F. TASK CONDITIONS/PREREQUISITES**

1. Reactor Scram has occurred on low level due to a loss of all Feedwater.
2. Reactor level is -25" and dropping slowly.

**G. INITIATING CUE**

The Control Room Supervisor directs you, the Plant Reactor Operator, to initiate the RCIC System using the RCIC Manual Initiation pushbutton and inject to the Reactor vessel at approximately 600 gpm using RRC 13.1-2 "RCIC System Operation During a Plant Event."

## H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of procedure RRC 13.1-2.	P	A copy of procedure RRC 13.1-2 is obtained.
*2	Arm the RCIC Manual Initiation pushbutton, 13A-S80.  (Cue: Acknowledge pushbutton collar operation; annunciator A-2 on alarm panel 222 is alarming.)	P	RCIC Manual Initiation pushbutton collar is rotated clockwise to the ARMED position at panel 20C004C.
*3	Depress the RCIC Manual Initiation pushbutton, 13A-S80.  (Cue: Acknowledge Manual Initiation pushbutton operation; annunciator 222 C-5 "RCIC Barometric Condenser Vacuum Pump Running" is alarming.)	P	RCIC Manual Initiation pushbutton is momentarily DEPRESSED at panel 20C004C.
4	Acknowledge the "RCIC BAROMETRIC CONDENSER VACUUM PUMP RUNNING" annunciator.  (Cue: Annunciator 222 C-5 is lit solid.	P	The annunciator "ACKNOWLEDGE" pushbutton is depressed.
5	Verify MO-2-13-131, RCIC Turbine Supply valve, opens.  (Cue: MO-131 red light is on, green light is off.)	P	MO-2-13-131 red light is verified ON at panel 20C004C.
6	Verify MO-2-13-021, RCIC to Feed Line valve, opens.  (Cue: MO-021 red light is on, green light is off.)	P	MO-2-13-021 red light is verified ON at panel 20C004C.
*7	Verify MO-2-13-132, RCIC Cooling Water valve, is open.  (Cue: MO-132 green light is on, red light is off.)	P	MO-2-13-132 red light discovered to be OFF at panel 20C004C.

STEP NO	STEP	ACT	STANDARD
*8	Place the switch for MO-2-13-132, RCIC Cooling Water valve, to the OPEN position.  (Cue: Acknowledge switch manipulation.)		The control switch for MO-2-13-132 is placed in the OPEN position until the valve begins stroking open.
9	Verify MO-2-13-132, RCIC Cooling Water valve, is open.  (Cue: MO-132 red light is on, green light is off.)	P	MO-2-13-132 red light is verified to be to be ON at panel 20C004C.
10	Verify AO-2-13-034 and AO-2-13-035, RCIC Drain Isol to Mn Cndr valves, close.  (Cue: AO-034 and AO-035 green lights are on, red lights are off.)	P	AO-2-13-034 and AO-2-13-035 green lights verified ON at panel 20C004C.
11	Verify 20P046, Vacuum Pump, starts.  (Cue: 20P046 red light is on, green light is out. Alarm 222 C-5 lit.)	P	20P046 red light verified ON at panel 20C004C.
12	Verify RCIC system flowrate is 600 gpm.  (Cue: FI-2-13-091 indicates 600 gpm. RCIC Flow Controller output meter indicates 80%.)	P	RCIC Flow is verified to be 600 gpm on panel 20C004C.
13	Verify MO-2-13-027, RCIC Min Flow valve, closes after normal flowrate is established.  (Cue: MO-27 green light is on, red light is off at normal RCIC pump flow.)	P	MO-2-13-027 red light verified ON at panel 20C004C when RCIC pump flowrate reaches 600 gpm.
14	Inform Control Room Supervisor of task completion.  (Cue: Control Room Supervisor acknowledges report.)	P	Task completion reported.
15	As an evaluator ensure that you have positive control of all exam material provided to the examinee (Task Conditions/Prerequisites) <u>AND</u> procedures.	P	Positive control established.

Under "ACT" P - must perform  
S - must simulate

#### TERMINATING CUE

When RCIC is injecting into the Reactor vessel with cooling water aligned, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

## **TASK CONDITIONS/PREREQUISITES**

- 1. Reactor Scram has occurred on low level due to a loss of all Feedwater.**
- 2. Reactor level is –25” and dropping slowly.**

## **INITIATING CUE**

**The Control Room Supervisor directs you, the Plant Reactor Operator” to initiate the RCIC System using the RCIC Manual Initiation pushbutton and inject to the Reactor vessel at approximately 600 gpm using RRC 13.1-2 “RCIC System Operation During a Plant Event”.**

**EXELON NUCLEAR**  
**Nuclear Generation Group**

**OJT/TPE MATERIAL COVERSHEET**

<input checked="" type="checkbox"/> <b>X</b>	<b>Peach Bottom</b>	<input type="checkbox"/>	<b>Limerick</b>	<input type="checkbox"/>	<b>Common</b>
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	<input checked="" type="checkbox"/> <b>X</b>	JPM	<input type="checkbox"/>	QUALIFICATION MANUAL	<input type="checkbox"/>	OJT MODULE
LICENSED OPERATOR TRAINING						PLOR-NEW
LICENSED OPERATOR REQUALIFICATION						000
Philip E. Nielsen						pen
INJECT SBLC (ALTERNATE PATH - LOW SBLC DISCHARGE PRESSURE)						
<b>APPROVALS:</b>						
			<i>Philip E. Nielsen / Learning Exam Action</i>		15 NOV 2014	
			Signature / Title		Date	
			<i>R. O. O. / SRO</i>		11-16-4	
			Signature / Title		Date	
			Signature / Title		Date	
			Signature / Title		Date	
<b>APPROVED FOR USE:</b>						
			Signature / Title		Date	
EFFECTIVE DATE: ____ / ____ / ____						

<b>NAME:</b> _____ Last First M.I.			<b>ISSUE DATE:</b> _____		
<b>SOC. SEC. NO.</b> _____			<b>COMPLETION DATE:</b> _____		
<b>COMMENTS:</b>					
<b>Training Review for Completeness:</b>			<b>PIMS CODE:</b>		
Signature/Date			<b>PIMS ENTRY:</b>		

# TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-NEW

REV. NO.: 000

TITLE: Inject SBLC (Alternate Path - Low SBLC Discharge Pressure)

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EXELON NUCLEAR  
PEACH BOTTOM ATOMIC POWER STATION  
JOB PERFORMANCE MEASURE

POSITION TITLE: Unit Reactor Operator/Senior Reactor Operator

TASK-JPM DESIGNATOR: 2130220401/ PLOR-NEW

K/A: 295024EA1.07

URO: 3.8 SRO: 3.9

TASK DESCRIPTION: Inject SBLC (Alternate Path - Low SBLC Discharge Pressure)

A. NOTES TO EVALUATOR:

1. An asterisk (\*) before the step number denotes a CRITICAL STEP. CRITICAL STEPS are those steps which when not performed correctly will prevent the system from functioning properly or prevent successful task completion.
2. System cues included in the performance checklist are to be provided to the examinee when no system response is available.
3. JPM Performance
  - a. "Control Room" JPMs are designed to be performed in the simulator. If a "Control Room" JPM is to be performed in the Control Room all perform steps (P) shall be simulated (S).
  - b. When performing "In-Plant" JPMs, no equipment will be operated without Shift Management approval.
4. Satisfactory performance of this JPM is accomplished if:
  - a. The task standard is met.
  - b. JPM completion time requirement is met.
    - 1) For non-time critical JPMs, completion within double the estimated time (listed in paragraph D.2) is acceptable provided the evaluator determines that the progress to completion is acceptable.
    - 2) For time critical JPMs, completion within the estimated time (listed in paragraph D.2) is required.
5. The estimated time to complete this JPM, though listed in the task standard, is not to be given to the examinee.

**B. TOOLS AND EQUIPMENT**

None

**C. REFERENCES**

RRC 11.1-2, Rev. 0, Standby Liquid System Initiation During a Plant Event

**D. TASK STANDARD**

1. Satisfactory task completion is indicated when Standby Liquid Control is injecting into the RPV at adequate discharge pressure using the 'B' SBLC Pump.
2. Estimated time to complete: 12 minutes Non-Time Critical

**E. DIRECTIONS TO EXAMINEE**

When given the initiating cue, inject SBLC into the RPV using the 'A' SBLC Pump using RRC 11.1-2, Standby Liquid System Initiation during a Plant Event. I will describe initial plant conditions and provide you access to the materials required to complete this task.

**F. TASK CONDITIONS/PREREQUISITES**

1. An attempt has been made to scram the reactor.
2. An Electric ATWS has resulted and SBLC injection is required.
3. Reactor Pressure is 1000 psig with the Turbine EHC system in control.
4. Reactor Level is in the normal band with feedwater in automatic control.

**G. INITIATING CUE**

The Control Room Supervisor directs you, the Plant Reactor Operator, to inject Standby Liquid Control using the 'A' SBLC Pump in accordance with RRC 11.1-2, Standby Liquid System Injection During a Plant Event.

## H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of procedure RRC 11.1-2.	P	A copy of procedure RRC 11.1-2 is obtained.
2	Verify CLOSED the AO-39 AND AO-40, "Recirc Sample Inboard and Outboard Isolation" valves.  (Cue: AO-39 AND AO-40 green lights are ON and red lights are OFF.)	P	AO-39 AND AO-40 green lights are ON and red lights are OFF on Panel 20C005A.
*3	Start the 'A' SBLC Pump.  (Cue: Acknowledge switch movement.)	P	The SBLC switch is placed in the "START SYS A" position on Panel 20C005A.
4	Verify that the RWCU system isolates.  (Cue: Valves checked have the green lights ON and the red lights off.)	P	Verify green lights ON and red lights OFF for the following valves on Panel 20C004A:  MO-2-12-15, RWCU Inboard Isolation MO-2-12-18, RWCU Outboard Isolation MO-2-12-68, RWCU Outlet valve
*5	Verify that SBLC is injecting.  (Cue: Pump Red Light is on, Discharge pressure 400 psig, tank level steady.)	P	Recognize that SBLC Pump discharge pressure on PI-2-11-065 is lower than reactor pressure and therefore SBLC is NOT injecting.
<p align="center"><b>NOTE:</b></p> <p>Candidate may immediately move to inject with the 'B' SBLC Pump OR may notify the CRS of the failure to inject. If the candidate notifies the CRS, then direct him to inject with the 'B' SBLC Pump.</p>			
*6	Start the 'B' SBLC Pump.  (Cue: Acknowledge switch operation.)	P	The SBLC switch is placed in the "START SYS B" position on Panel 20C005A.
7	Verify that SBLC is injecting.  (Cue when checked: Pump Red Light is on, Discharge pressure 1050 psig, tank level is lowering.)	P	Verify that SBLC Discharge pressure is now greater than reactor pressure.

STEP NO	STEP	ACT	STANDARD
8	Inform Control Room Supervisor of task completion.  (Cue: Control Room Supervisor acknowledges report.)	P	Task completion reported.
9	As an evaluator, ensure that you have positive control of all exam material provided to the examinee (Task Conditions/Prerequisites) <u>AND</u> procedures.	P	Positive control established.

Under "ACT" P - must perform  
S - must simulate

#### I. TERMINATING CUE

When SBLC is injecting at greater than reactor pressure, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

## **TASK CONDITIONS/PREREQUISITES**

- 1. An attempt has been made to scram the reactor.**
- 2. An Electric ATWS has resulted and SBLC injection is required.**
- 3. Reactor Pressure is 1000 psig with the Turbine EHC system in control.**
- 4. Reactor Level is in the normal band with feedwater in automatic control.**

## **INITIATING CUE**

**The Control Room Supervisor directs you, the Plant Reactor Operator, to inject Standby Liquid Control using the 'A' SBLC Pump in accordance with RRC 11.1-2, Standby Liquid System Injection During a Plant Event.**

**PECO NUCLEAR**  
**Nuclear Generation Group**  
**OJT/TPE MATERIAL COVERSHEET**

<input checked="" type="checkbox"/> <b>X</b>	<b>Peach Bottom</b>	<input type="checkbox"/>	<b>Limerick</b>	<input type="checkbox"/>	<b>Common</b>
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<input checked="" type="checkbox"/> <b>X</b>	<b>JPM</b>	<input type="checkbox"/>	<b>QUALIFICATION MANUAL</b>	<input type="checkbox"/>	<b>OJT MODULE</b>
				<b>PLOR-023C</b>	
P. E. Nielsen				pen	
ADS RESET FOLLOWING BLOWDOWN				006	
<b>APPROVALS:</b>					
<i>P.E. Nielsen / PLOR-023C / 15 NOV 2004</i>					
<i>R. O. O. / SRO / 11-16-4</i>					
<b>APPROVED FOR USE:</b>					
<b>EFFECTIVE DATE:</b> ____/____/____					

<b>NAME:</b> _____ Last First M.I.	<b>SOC. SEC. NO.</b> _____				
<b>ISSUE DATE:</b> _____	<b>COMPLETION DATE:</b> _____				
<b>COMMENTS:</b>					
<table border="1" style="display: inline-table;"><tr><td style="width: 50%;"><b>PIMS CODE:</b></td><td style="width: 50%;"></td></tr><tr><td><b>PIMS ENTRY:</b></td><td></td></tr></table>		<b>PIMS CODE:</b>		<b>PIMS ENTRY:</b>	
<b>PIMS CODE:</b>					
<b>PIMS ENTRY:</b>					

# TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-023C

REV. NO.: 006

TITLE: ADS RESET FOLLOWING BLOWDOWN

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PECO NUCLEAR  
PEACH BOTTOM ATOMIC POWER STATION  
JOB PERFORMANCE MEASURE

POSITION TITLE: Unit Reactor Operator/Senior Reactor Operator

TASK-JPM DESIGNATOR: 2180040101 / PLOR-023C

K/A: 218000A4.03

RO: 4.2 SRO: 4.2

TASK DESCRIPTION: ADS RESET FOLLOWING BLOWDOWN

A. NOTES TO EVALUATOR:

1. An asterisk (\*) before the step number denotes a CRITICAL STEP. CRITICAL STEPS are those steps which when not performed correctly will prevent the system from functioning properly or prevent successful task completion.
2. System cues included in the performance checklist are to be provided to the examinee when no system response is available.
3. JPM Performance
  - a. "Control Room" JPMs are designed to be performed in the simulator. If a "Control Room" JPM is to be performed in the Control Room all perform steps (P) shall be simulated (S).
  - b. When performing "In-Plant" JPMs, no equipment will be operated without Shift Management approval.
4. Satisfactory performance of this JPM is accomplished if:
  - a. The task standard is met.
  - b. JPM completion time requirement is met.
    - 1) For non-time critical JPMs, completion within double the estimated time (listed in paragraph D.2) is acceptable provided the evaluator determines that the progress to completion is acceptable.
    - 2) For time critical JPMs, completion within the estimated time (listed in paragraph D.2) is required.
5. The estimated time to complete this JPM, though listed in the task standard, is not to be given to the examinee.



**B. TOOLS AND EQUIPMENT**

None

**C. REFERENCES**

Procedure SO 1G.7.C-2, Rev. 8, "Automatic Depressurization System Reset Following Blowdown" (R)

**D. TASK STANDARD**

1. Satisfactory task completion is indicated when ADS logic reset, Vacuum breaker position indication reset, and ADS relief valve position indication reset.
2. Estimated time to complete: 7 minutes (A.5) Non-Time Critical

**E. DIRECTIONS TO EXAMINEE**

When given the initiating cue, perform necessary steps to reset the ADS system using appropriate procedures. I will describe initial plant conditions and provide you access to the materials required to complete this task.

**F. TASK CONDITIONS/PREREQUISITES**

1. RPV water level is greater than -160" and the capability exists to maintain level above -160".
2. The following annunciators have been reset:
  - a. "System I ECCS REAC VESSEL LO-LO-LO LEVEL", panel 227 D-2.
  - b. "System II ECCS REAC VESSEL LO-LO-LO LEVEL", panel 228 C-2.
3. Blowdown of the RPV is complete by evidence of valves closed due to lack of pressure to keep them open.
4. Relief Valve Tailpipe Temperatures indicated on TR-2-02-103 on Panel 20C003-01 are all 200°F and lowering.
5. Reactor pressure is 20 psig.
6. Drywell pressure is 0.25 psig.

**G. INITIATING CUE**

The Control Room Supervisor directs you to reset the ADS system following an automatic initiation by completing SO 1G.7.C-2, Automatic Depressurization System Reset Following Blowdown.

## H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
*1	Depress the "A" ADS LOGIC RESET-TIMER pushbutton, 2E-S2A.  (Cue: Acknowledge pushbutton operation.)	P	The "A" ADS LOGIC TIMER RESET pushbutton, 2E-S2A, is momentarily depressed at panel 20C003-01.
*2	Depress the "B" ADS LOGIC RESET-TIMER pushbutton, 2E-S2B.  (Cue: Acknowledge pushbutton operation.)	P	The "B" ADS LOGIC TIMER RESET pushbutton, 2E-S2B, is momentarily depressed at panel 20C003-01.
3	Reset the following annunciators:  a. "BLOWDOWN AUX RELAYS ENERGIZED RHR OR CS" (227 E-4)  b. "BLOWDOWN RELIEF VALVES HIGH TEMP" (227 B-4)  (Cue: Acknowledge pushbutton operation.)	P	The alarm "RESET" Pushbutton is momentarily depressed on panel 20C003.
4	Verify "BLOWDOWN AUX RELAYS ENERGIZED RHR OR CS" and "BLOWDOWN RELIEF VALVES HIGH TEMP" annunciators are clear.  (Cue: Annunciators 227 E-4 and 227 B-4 are not lit.)	P	"BLOWDOWN AUX RELAYS ENERGIZED RHR OR CS" and "BLOWDOWN RELIEF VALVES HIGH TEMP" annunciators are verified clear on alarm panels 227 E-4 and 227 B-4.
5	Verify "BLOWDOWN TIMERS INITIATED" annunciator reset.  (Cue: Annunciator 227 D-4 is not lit.)	P	"BLOWDOWN TIMERS INITIATED" annunciator is verified clear on alarm panel 227 D-4.
6	Verify "SAFETY RELIEF VALVE OPEN" annunciator reset.  (Cue: Annunciator 210 D-2 is not lit.)	P	"SAFETY RELIEF VALVE OPEN" annunciator is verified clear on alarm panel 210 D-2.
7	Verify the ADS valves indicate closed.  (Cue: RV-2-02-71A, B, C, G, & K green lights are on, red lights are off.)	P	RV-2-02-71A, B, C, G, & K green lights verified ON at panel 20C003-01.
<p style="text-align: center;">***NOTE***</p> <p>If candidate begins to look at TR-2-02-103 to check SRV Tailpipe Temperatures, then refer them to the initial task conditions information provided.</p>			

STEP NO	STEP	ACT	STANDARD
8	Monitor temperature recorder TR-2-02-103 to ensure each valve has reseated.  (Cue: TR-2-02-103 points TE-2-2-113A, B, C, G, & K read 200°F and decreasing slowly.)	P	TR-2-02-103 monitored to ensure each ADS valve has reseated at panel 20C003-01.
*9	Depress the "A" ADS LOGIC RESET - DRYWELL HIGH PRESS pushbutton, 2E-S3A.  (Cue: Acknowledge pushbutton operation.)	P	The "A" ADS DRYWELL HIGH PRESSURE LOGIC RESET pushbutton, 2A-S3A, is momentarily depressed at panel 20C003-01.
*10	Depress the "B" ADS LOGIC RESET DRYWELL HIGH PRESS pushbutton 2E-S3B.  (Cue: Acknowledge pushbutton operation.)	P	The "B" ADS DRYWELL HIGH PRESS LOGIC RESET pushbutton, 2E-S3B, is momentarily depressed at panel 20C003-01.
11	Reset the following annunciators:  a. "DRYWELL HI PRESS SIGNAL SEALED IN" (227 A-4).  b. "HIGH DRYWELL PRESSURE BYPASS TIMERS INITIATED" (227 A-3).  (Cue: Acknowledge pushbutton operation.)	P	The alarm "RESET" pushbutton is momentarily depressed on panel 20C003.
12	Verify "DRYWELL HI PRESS SIGNAL SEALED IN" and "HIGH DRYWELL PRESSURE BYPASS TIMERS INITIATED" annunciators are clear.  (Cue: Annunciators 227 A-4 and 227 A-3 are not lit.)	P	"DRYWELL HI PRESS SIGNAL SEALED IN" and "HIGH DRYWELL PRESSURE BYPASS TIMERS INITIATED" annunciators are verified clear on alarm panels 227 A-4 and 227 A-3.
13	Verify "MSRV DISCH LIN VAC RELIEF VALVE OPEN" annunciator is clear.  (Cue: Annunciator 219 C-5 is not lit.)	P	"MSRV DISCH LINE VAC RELIEF VALVE OPEN" annunciator is verified clear on alarm panel 219 C-5.
14	Verify vacuum breaker amber lights out.  (Cue: All ADS valve vacuum breaker amber lights are not lit.)	P	All of the ADS valve vacuum breaker amber lights verified OUT at panel 20C003-01.

STEP NO	STEP	ACT	STANDARD
15	Direct an Equipment Operator to perform Steps 4.3.1, 4.3.2, and 4.3.3 of SO 1G.7.C-2 in the Cable Spread Room.  (Cue: Equipment Operator acknowledges direction.)	P	Equipment Operator directed to perform Steps 4.3.1, 4.3.2, and 4.3.3 of SO 1G.7.C-2.
16	Depress the SRV MEMORY RESET pushbutton, 2E-S9.  (Cue: Acknowledge pushbutton operation.)	P	The SRV MEMORY RESET pushbutton, 2E-S9 is momentarily depressed at panel 20C003-01.
17	Verify the ADS Valve "MEMORY" lights go out.  (Cue: RV-2-02-71A, B, C, G, & K white memory lights are not lit.)	P	RV-2-02-71A, C, C, G, & K white memory lights verified OUT at panel 20C003-01.
18	Inform the Control Room Supervisor of task completion.  (Cue: Control Room Supervisor acknowledges report.)	P	Task completion reported.

Under "ACT" P - must perform  
S - must simulate

#### I. TERMINATING CUE

When the ADS logic has been reset, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

## **TASK CONDITIONS/PREREQUISITES**

- 1. RPV water level is greater than -160" and the capability exists to maintain level above -160".**
- 2. The following annunciators have been reset:**
  - a. "System I ECCS REAC VESSEL LO-LO-LO LEVEL", panel 227 D-2.**
  - b. "System II ECCS REAC VESSEL LO-LO-LO LEVEL", panel 228 C-2.**
- 3. Blowdown of the RPV is complete by evidence of valves closed due to lack of pressure to keep them open.**
- 4. Relief Valve Tailpipe Temperatures indicated on TR-2-02-103 on Panel 20C003-01 are all 200°F and lowering**
- 4. Reactor pressure is 20 psig.**
- 5. Drywell pressure is 0.25 psig.**

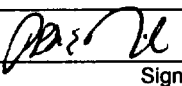
## **INITIATING CUE**

**The Control Room Supervisor directs you to reset the ADS system following an automatic initiation by completing SO 1G.7.C-2, Automatic Depressurization System Reset Following Blowdown.**

**EXELON NUCLEAR**  
Nuclear Generation Group

**OJT/TPE MATERIAL COVERSHEET**

<b>X</b>	<b>Peach Bottom</b>	<input type="checkbox"/>	<b>Limerick</b>	<input type="checkbox"/>	<b>Common</b>
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<b>TYPE:</b>	<input checked="" type="checkbox"/> JPM	<input type="checkbox"/> QUALIFICATION MANUAL	<input type="checkbox"/> OJT MODULE
<b>PROGRAM:</b>	LICENSED OPERATOR TRAINING	<b>CODE #:</b>	NEW HPCI AP
	LICENSED OPERATOR REQUALIFICATION		000
	Philip E. Nielsen		pen
	RAISE HPCI FLOW (ALTERNATE PATH - SUCTION VALVES FAIL TO AUTO SWAP ON LOW CST LEVEL)		
<b>APPROVALS:</b>	 Signature / Title		21 Jan 2025 Date
	_____ Signature / Title		_____ Date
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<b>APPROVED FOR USE:</b>	_____ Signature / Title		_____ Date
EFFECTIVE DATE: ____/____/____			

<b>NAME:</b> _____ <div style="display: flex; justify-content: space-between; width: 100%;"> <span>Last</span> <span>First</span> <span>M.I.</span> </div> <b>SOC. SEC. NO.</b> _____	<b>ISSUE DATE:</b> _____  <b>COMPLETION DATE:</b> _____				
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<b>Training Review for Completeness:</b>  _____ Signature/Date	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"><b>PIMS CODE:</b></td> <td style="width:50%;"></td> </tr> <tr> <td><b>PIMS ENTRY:</b></td> <td></td> </tr> </table>	<b>PIMS CODE:</b>		<b>PIMS ENTRY:</b>	
<b>PIMS CODE:</b>					
<b>PIMS ENTRY:</b>					

# TEMPORARY CHANGE FORM LOG

CODE NO.: NEW HPCI AP

REV. NO.: 000

TITLE: Raise HPCI Flow (Alternate Path - Suctions Fail to Auto Swap on Low CST Level)

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EXELON NUCLEAR  
PEACH BOTTOM ATOMIC POWER STATION  
JOB PERFORMANCE MEASURE

POSITION TITLE: Unit Reactor Operator/Senior Reactor Operator

TASK-JPM DESIGNATOR: 2060250101 / PLOR-323CA K/A: 206000A2.09

URO: 3.5 SRO: 3.7

TASK DESCRIPTION: Raise HPCI Flow (Alternate Path - Suction Valves Fail to Auto Swap on Low CST Level)

A. NOTES TO EVALUATOR:

1. An asterisk (\*) before the step number denotes a CRITICAL STEP. CRITICAL STEPS are those steps which when not performed correctly will prevent the system from functioning properly or prevent successful task completion.
2. System cues included in the performance checklist are to be provided to the examinee when no system response is available.
3. JPM Performance
  - a. "Control Room" JPMs are designed to be performed in the simulator. If a "Control Room" JPM is to be performed in the Control Room all perform steps (P) shall be simulated (S).
  - b. When performing "In-Plant" JPMs, no equipment will be operated without Shift Management approval.
4. Satisfactory performance of this JPM is accomplished if:
  - a. The task standard is met.
  - b. JPM completion time requirement is met.
    - 1) For non-time critical JPMs, completion within double the estimated time (listed in paragraph D.2) is acceptable provided the evaluator determines that the progress to completion is acceptable.
    - 2) For time critical JPMs, completion within the estimated time (listed in paragraph D.2) is required.
5. The estimated time to complete this JPM, though listed in the task standard, is not to be given to the examinee.



**B. TOOLS AND EQUIPMENT**

None

**C. REFERENCES**

1. Alarm Response Card 221 C-3, Condensate Stor Tank Level Low-Low
2. Procedure SO 23.7.B-2, Rev. 5, "Transfer of HPCI Pump Suction from CST to Torus" (R)

**D. TASK STANDARD**

1. Satisfactory task completion is indicated when HPCI flow has been raised to 5000 gpm and pump suction is manually transferred from the CST to the Torus (Torus suction valves open and CST suction valve closed) without adverse effects on RPV injection.
2. Estimated time to complete: 10 minutes Non-Time Critical

**E. DIRECTIONS TO EXAMINEE**

When given the initiating cue, perform necessary steps raise HPCI flowrate to 5000 gpm and maintain injection to the RPV. I will describe initial plant conditions and provide you access to the materials required to complete this task.

**F. TASK CONDITIONS/PREREQUISITES**

1. HPCI is injecting into the RPV at 4000 gpm in response to a plant transient.
2. RCIC is isolated.
3. Torus Cooling is in service per SO 10.1.D-2, "Residual Heat Removal System Torus Cooling."
4. SBTGT is in service per SO 9A.1.B, "Standby Gas Treatment System Manual Startup."
5. ST-O-007-540-2, "Torus Water Temperatures" is in progress.

**G. INITIATING CUE**

The Control Room Supervisor directs you, the Plant Reactor Operator, to raise the HPCI flowrate to 5000 gpm and maintain HPCI injection.

## H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
*1	Raise HPCI Flow Rate to 5000 gpm.  (Cue: The HPCI Flow Controller is now indicating 5000.)	P	The HPCI Flow Controller knob is adjusted in the clockwise direction to raise the flow rate setting to 5000.
2	HPCI Flow is verified to rise to 5000 gpm.  (Cue: The Flow Indicator is reading 5000 gpm.)	P	FI-2-23-108 is monitored to verify that the actual flow rate rises to 5000 gpm.
<p style="text-align: center;"><b>NOTE</b></p> <p style="text-align: center;">Approximately 1 minute after flow has been raised to 5000 gpm, Annunciator 221 C-3 "CONDENSATE STOR TANK LEVEL LOW - LOW" will be received initiating the next part of the JPM.</p>			
*3	Recognize the Condensate Storage Tank Low Level Condition alarm.  (Cue: Report Annunciator 221 C-3 is alarming.)	P	Recognize by reporting annunciator 221 C-3 is alarming indicating a Low CST Level condition.
4	Obtain a copy of Alarm Response Card 221 C-3.	P	Candidate references ARC 221 C-3, CONDENSATE STOR TANK LEVEL LOW - LOW.
<p style="text-align: center;"><b>NOTE</b></p> <p style="text-align: center;">The next step requires an evaluator cue (as indicated) to inform the candidate that CST Level is reading 5 feet on all indications.</p>			
5	Verify the Low CST Level Condition.  (Cue: <b>When the candidate checks any of the CST Level indications, report to the candidate that level is indicating 5 feet.</b> )	P	Candidate verifies that CST Level is low by referencing LR-2217 on 20C007A or LI-2217 OR LI-8453 on 20C004. (The candidate may also send an EO to verify level on LI-2210.)
*6	Recognize that HPCI failed to automatically swap suction paths on low CST level.  (Cue: Acknowledge report.)	P	Candidate will recognize by reporting that the HPCI suction path failed to automatically swap. (A RCIC suction swap is not required due to RCIC being isolated.)
7	Check Level Switches responsible for the automatic swap.  (Cue: Acknowledge direction	P	Direct that LS-2-23-74 and LS-2-23-75 be checked for proper operation due to the failed auto transfer.

STEP NO	STEP	ACT	STANDARD
8	Obtain a copy of procedure SO 23.7.B-2.		A copy of procedure SO 23.7.B-2 is obtained.
*9	Open MO-2-23-057 HPCI Torus Suction valve.  (Cue: Acknowledge control switch operation.)	P	MO-2-23-057 control switch is momentarily placed in the OPEN position then released at panel 20C004B.
*10	Open MO-2-23-058, HPCI Torus Suction valve.  (Cue: Acknowledge control switch operation.)	P	MO-2-23-058 control switch is momentarily placed in the OPEN position then released at panel 20C004B.
11	Verify MO-2-23-057 and MO-2-23-058, HPCI Torus Suction valves are open.  (Cue: MO-57 and MO-58 red lights are on, green lights are off.)	P	MO-2-23-057 and MO-2-23-058 red lights are verified ON, and green lights OFF at panel 20C004B.
12	Verify MO-2-23-017 Cond Tank Suction valve automatically closes when MO-2-23-057 and MO-2-23-058 are full open.  (Cue: MO-17 green light is off, red light is on.)	P	Recognize that MO-2-23-017 failed to close as indicated by the green light verified OFF and red light verified ON at panel 20C004B.
*13	Close MO-2-23-017, Cond Tank Suction valve.  (Cue: Acknowledge control switch operation.)	P	MO-2-23-017 control switch is momentarily placed in the CLOSE position then released at panel 20C004B.
14	Verify MO-2-23-017, Cond Tank Suction valve is closed.  (Cue: MO-17 green light is on, red light is off.)	P	MO-2-23-017 green light is verified ON, and red light OFF at panel 20C004B.
15	Verify HPCI has been declared inoperable. (Cue: Acknowledge report.)	S	Control Room Supervisor is informed that HPCI is inoperable.

STEP NO	STEP	ACT	STANDARD
16	Inform Control Room Supervisor of task completion.  (Cue: Acknowledge report.)	P	Task completion reported.
17	As an evaluator, ensure that you have positive control of all exam material provided to the examinee (Task Conditions/Prerequisites) AND procedures.	P	Positive control established.

Under "ACT" P - must perform  
S - must simulate

#### I. TERMINATING CUE

When the HPCI suction has been transferred to the Torus, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

## **TASK CONDITIONS/PREREQUISITES**

- 1. HPCI is injecting into the RPV at 4000 gpm in response to a plant transient.**
- 2. RCIC is isolated.**
- 3. Torus Cooling is in service per SO 10.1.D-2, "Residual Heat Removal System Torus Cooling."**
- 4. SBGT is in service per SO 9A.1.B, "Standby Gas Treatment System Manual Startup."**
- 5. ST-O-007-540-2, "Torus Water Temperatures" is in progress.**

## **INITIATING CUE**

**The Control Room Supervisor directs you, the Plant Reactor Operator, to raise the HPCI flowrate to 5000 gpm and maintain HPCI injection.**

**EXELON NUCLEAR**  
**Nuclear Generation Group**

**OJT/TPE MATERIAL COVERSHEET**

<input checked="" type="checkbox"/> <b>X</b>	<b>Peach Bottom</b>	<input type="checkbox"/>	<b>Limerick</b>	<input type="checkbox"/>	<b>Common</b>
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	<input checked="" type="checkbox"/> <b>X</b>	JPM	<input type="checkbox"/>	QUALIFICATION MANUAL	<input type="checkbox"/>	OJT MODULE
LICENSED OPERATOR TRAINING						
LICENSED OPERATOR REQUALIFICATION						000
P.E. Nielsen						pen
DIESEL GENERATOR SYNCHRONIZATION AND LOADING						
<b>APPROVALS:</b>						
			<u><i>[Signature]</i></u> / <u>TEAM LEADER</u>		<u>21 JAN 2005</u>	
			Signature / Title		Date	
			Signature / Title		Date	
			Signature / Title		Date	
			Signature / Title		Date	
<b>APPROVED FOR USE:</b>						
			Signature / Title		Date	
EFFECTIVE DATE: ____ / ____ / ____						

<b>NAME:</b> _____ Last First M.I.			<b>ISSUE DATE:</b> _____		
<b>SOC. SEC. NO.</b> _____			<b>COMPLETION DATE:</b> _____		
<b>COMMENTS:</b>					
<b>Training Review for Completeness:</b>			<b>PIMS CODE:</b>		
_____ Signature/Date			<b>PIMS ENTRY:</b>		

## TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR

REV. NO.: 000

TITLE: Diesel Generator Synchronization and Loading

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EXELON NUCLEAR  
PEACH BOTTOM ATOMIC POWER STATION  
JOB PERFORMANCE MEASURE

POSITION TITLE: Unit Reactor Operator/Senior Reactor Operator

TASK-JPM DESIGNATOR: 2640020101 / PLOR-322CA

K/A: 264000A4.04

URO: 3.7 SRO: 3.7

TASK DESCRIPTION: Diesel Generator Synchronization and Loading

A. NOTES TO EVALUATOR:

1. An asterisk (\*) before the step number denotes a CRITICAL STEP. CRITICAL STEPS are those steps which when not performed correctly will prevent the system from functioning properly or prevent successful task completion.
2. System cues included in the performance checklist are to be provided to the examinee when no system response is available.
3. JPM Performance
  - a. "Control Room" JPMs are designed to be performed in the simulator. If a "Control Room" JPM is to be performed in the Control Room all perform steps (P) shall be simulated (S).
  - b. When performing "In-Plant" JPMs, no equipment will be operated without Shift Management approval.
4. Satisfactory performance of this JPM is accomplished if:
  - a. The task standard is met.
  - b. JPM completion time requirement is met.
    - 1) For non-time critical JPMs, completion within double the estimated time (listed in paragraph D.2) is acceptable provided the evaluator determines that the progress to completion is acceptable.
    - 2) For time critical JPMs, completion within the estimated time (listed in paragraph D.2) is required.
5. The estimated time to complete this JPM, though listed in the task standard, is not to be given to the examinee.



**B. TOOLS AND EQUIPMENT**

Synchronizing Switch Removable Handle

**C. REFERENCES**

Procedure SO 52A.1.B, Rev. 32, "Diesel Generator Operations" (R)

**D. TASK STANDARD**

1. Satisfactory task completion is indicated when the EDG has been synchronized and appropriate load has been picked up.
2. Estimated time to complete: 15 minutes Non-Time Critical

**E. DIRECTIONS TO EXAMINEE**

When given the initiating cue, synchronize the E-4 Diesel to the E-43 bus and pick up 200 - 300 KW and 100 KVAR for testing purposes using appropriate procedures. I will describe initial plant conditions and provide you access to the materials required to complete this task.

**F. TASK CONDITIONS/PREREQUISITES**

1. The E-4 Diesel Generator has been "SLOW" started and is running in accordance with Section 4.1 of SO 52A.1.B, "Diesel Generator Operations."
2. The E-4 Diesel Generator is running at rated frequency and voltage.
3. The E-43 Bus is being supplied by 2SUE.
4. The ESW system is supplying Diesel Generator cooling water.

**G. INITIATING CUE**

The Control Room Supervisor directs you, the Plant Reactor Operator, to synchronize the E-4 Diesel Generator to the E-43 Bus and pick up 200 - 300 KW and 100 KVAR in accordance with Section 4.2 of SO 52A.1.B, "Diesel Generator Operations."

## H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of procedure SO 52A.1.B.	P	A copy of procedure SO 52A.1.B is obtained.
2	Verify E-4 D/G is running at rated frequency and voltage.  (Cue: E-4 D/G frequency is 60 HZ and voltage is 4280 volts.)	P	E-4 D/G frequency is verified at 58.8 to 61.2 Hz on E-4 D/G Freq. meter. E-4 D/G voltage is verified at 4.16 to 4.4 KV on E-4 D/G Volt meter.
*3	Insert Sync scope key in E-43 Breaker Sync Switch and turn ON.  (Cue: Both Sync Scopes rotating, incoming and running lights "ON" at Bottom Dead Center and "OFF" at Top Dead Center.)	P	E-43 Breaker Sync Switch (3-125-1807) is placed in the "ON" position at panel 00C026A.
4	Verify E-4 D/G speed control.  (Cue: "GOVERNOR" control switch raises, lowers frequency 0.5 Hz above/below the initial value, then returns to initial value.)	P	E-4 D/G frequency is raised to 60.5 Hz then lowered to 55.5 Hz on E-4 D/G FREQ meter using the "GOVERNOR" control switch (165-DG12) then returned to the initial value at panel 00C026D.
5	Verify E-4 D/G voltage control.  (Cue: "AUTO VOLT REG" raises then lowers voltage 50 volts above/below initial value, then returns to initial value.)	P	E-4 D/G voltage is raised and lowered 50 volts above/below initial value on E-4 D/G volts meter using the "AUTO VOLT REG" control switch (90-DG14) then returned to the initial value at panel 00C026D.
6	Check both synchronizing lights for proper operation.  (Cue: Both lights "ON" when sync scope at "Bottom Dead Center" and both lights "OFF" when sync scope at "Top Dead Center".)	P	Both sync lights are verified "ON" at Bottom Dead Center and "OFF" at Top Dead Center at panels 00C026A or 00C026C.

STEP NO	STEP	ACT	STANDARD
*7	Adjust E-4 D/G engine speed using "GOVERNOR" control switch until sync scope is rotating slowly in "FAST" direction.  (Cue: Acknowledge control switch operation. Synchroscope is rotating slowly in the fast direction.)	P	Sync scope is verified rotating slowly in "FAST" direction at panels 00C026A OR 00C026C.
8	Adjust E-4 diesel generator voltage until "INCOMING" voltmeter is slightly higher than "RUNNING" voltmeter.  (Cue: Acknowledge control switch operation. Incoming is slightly higher than running.)	P	Incoming voltmeter about 50 volts but less than 100 volts above bus voltage at panel 00C026C.
9	Verify sync scope rotating slowly in "FAST" direction.  (Cue: Sync scope rotating slowly in "FAST".)	P	Sync scope is verified rotating slowly in "FAST" direction at Panels 00C026A OR 00C026C.
*10	Close the E-43 breaker when the sync scope is within 13 degrees of "Top Dead Center".  (Cue: Acknowledge [CLOCKWISE] breaker control switch operation.)	P	When the sync scope is within 13 degrees of "Top Dead Center", the E-43 breaker control switch is taken to the "CLOSED" position and released at panel 00C026D.
11	Verify the E-43 breaker is closed.  (Cue: E-43 breaker red light on, both sync scopes stopped at 12 o'clock and sync lights "OFF".)	P	E-43 breaker red light lit, sync scope stopped at 12 o'clock, and sync lights "OFF" verified at panel 00C026C and 00C026D.
*12	Immediately load the E-4 diesel to 200-300 KW.  (Cue: [CLOCKWISE, "GOVERNOR" control switch is taken to "RAISE"].)	P	E-4 D/G KW load is promptly raised by momentarily placing the "GOVERNOR" control switch (165-DG12) to "RAISE" at panel 00C026D. No reverse power trip of the E-43 breaker occurs.
13	Verify E-4 D/G load is 200-300 KW.  (Cue: E-4 D/G load is 250 KW.)	P	E-4 D/G load is verified to be 150 - 350 KW on the E-4 D/G KW meter at panel 00C026D.

STEP NO	STEP	ACT	STANDARD
14	Immediately load the E-4 Diesel Generator to 100 KVAR.  (Cue: [CLOCKWISE, AUTO VOLT REG control switch is taken to "RAISE"].)	P	E-4 D/G KVAR load is promptly raised by momentarily placing the AUTO VOLT REG control switch (90-DG14) in "RAISE" at panel OOC026D.
15	Verify E-4 D/G load is 100 KVAR.  (Cue: E-4 D/G load is 100 KVAR.)	P	E-4 D/G load is verified to be 50-150 KVAR on the E-4 D/G KVAR meter at panel OOC026D.
16	Place the E-43 "BKR SYNC" switch to "OFF".  (Cue: Acknowledge COUNTERCLOCKWISE control switch operation.)	P	E-43 "BKR SYNC" switch taken to "OFF" at Panel 00C026D.
17	Verify the E-43 "BKR SYNC" in "OFF".  (Cue: INCOMING AND RUNNING voltmeters drop to zero.)	P	"BKR SYNC" verified in "OFF" via INCOMING and RUNNING voltmeters dropping to zero.
18	As an evaluator, ensure that you have positive control of all exam material provided to the examinee (Task Conditions/Prerequisites) <u>AND</u> procedures.	P	Positive control established.

Under "ACT" P - must perform  
S - must simulate

#### I. TERMINATING CUE

When the Diesel is Loaded and the Synch Switch is in "OFF", the evaluator will terminate the exercise.

## **TASK CONDITIONS/PREREQUISITES**

- 1. The E-4 Diesel Generator has been "SLOW" started and is running in accordance with Section 4.1 of SO 52A.1.B, "Diesel Generator Operations."**
- 2. The E-4 Diesel Generator is running at rated frequency and voltage.**
- 3. The E-43 Bus is being supplied by 2SUE.**
- 4. The ESW system is supplying Diesel Generator cooling water.**

## **INITIATING CUE**

**The Control Room Supervisor directs you, the Plant Reactor Operator, to synchronize the E-4 Diesel Generator to the E-43 Bus and pick up 200 - 300 KW and 100 KVAR in accordance with Section 4.2 of SO 52A.1.B, "Diesel Generator Operations."**

**PECO NUCLEAR**  
**Nuclear Generation Group**  
**OJT/TPE MATERIAL COVERSHEET**

<input checked="" type="checkbox"/> <b>X</b>	<b>Peach Bottom</b>	<input type="checkbox"/>	<b>Limerick</b>	<input type="checkbox"/>	<b>Common</b>
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<input checked="" type="checkbox"/> <b>X</b>	<b>JPM</b>	<input type="checkbox"/>	<b>QUALIFICATION MANUAL</b>	<input type="checkbox"/>	<b>OJT MODULE</b>
				<b>PLOR-067C</b>	
P.E. Nielsen				<b>MDA</b>	
PLACING THE STANDBY SJAE IN SERVICE AND PLACING THE IN-SERVICE SJAE IN STANDBY				<b>008</b>	
<b>APPROVALS:</b>					
<div style="display: flex; justify-content: space-between;"><div><i>Alt. E. Nielsen / Recovery Equip. Author</i> <i>R. D. O'Neil / SRO</i></div><div><i>15 Nov 2004</i> <i>11-16-4</i></div></div>					
<b>APPROVED FOR USE:</b>					
<b>EFFECTIVE DATE:</b> /    /					

<b>NAME:</b> _____ <div style="display: flex; justify-content: space-around; font-size: small;"><span>Last</span><span>First</span><span>M.I.</span></div>	<b>SOC. SEC. NO.</b> _____				
<b>ISSUE DATE:</b> _____	<b>COMPLETION DATE:</b> _____				
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<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 50%;"><b>PIMS CODE:</b></td><td style="width: 50%;"></td></tr><tr><td><b>PIMS ENTRY:</b></td><td></td></tr></table>		<b>PIMS CODE:</b>		<b>PIMS ENTRY:</b>	
<b>PIMS CODE:</b>					
<b>PIMS ENTRY:</b>					

# TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-067C

REV. NO.: 008

TITLE: Placing the Standby SJAE In-Service and Placing the In-Service SJAE in Standby

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PECO NUCLEAR  
PEACH BOTTOM ATOMIC POWER STATION  
JOB PERFORMANCE MEASURE

POSITION TITLE: Unit Reactor Operator/Senior Reactor Operator

TASK-JPM DESIGNATOR: 2550030101 / PLOR-067C

K/A: 271000A4.09

URO: 3.3    SRO: 3.2

TASK DESCRIPTION: Placing the Standby SJAE In-Service and Placing the In-Service SJAE in Standby

A. NOTES TO EVALUATOR:

1. An asterisk (\*) before the step number denotes a CRITICAL STEP. CRITICAL STEPS are those steps which when not performed correctly will prevent the system from functioning properly or prevent successful task completion.
2. System cues included in the performance checklist are to be provided to the examinee when no system response is available.
3. JPM Performance
  - a. "Control Room" JPMs are designed to be performed in the simulator. If a "Control Room" JPM is to be performed in the Control Room all perform steps (P) shall be simulated (S).
  - b. When performing "In-Plant" JPMs, no equipment will be operated without Shift Management approval.
4. Satisfactory performance of this JPM is accomplished if:
  - a. The task standard is met.
  - b. JPM completion time requirement is met.
    - 1) For non-time critical JPMs, completion within double the estimated time (listed in paragraph D.2) is acceptable provided the evaluator determines that the progress to completion is acceptable.
    - 2) For time critical JPMs, completion within the estimated time (listed in paragraph D.2) is required.
5. The estimated time to complete this JPM, though listed in the task standard, is not to be given to the examinee.



**B. TOOLS AND EQUIPMENT**

None

**C. REFERENCES**

1. Procedure SO 8A.6.A-2 Rev. 13, "Placing the Standby SJAE In-Service and Placing the In-Service SJAE in Standby" (R)
2. P&ID M-310, "Air Ejector and Off-Gas" (A)
3. P&ID M-307, "Condensate System" (A)

**D. TASK STANDARD**

1. Satisfactory task completion is indicated when "B" SJAE placed in service and "A" SJAE placed in standby.
2. Estimated time to complete: 25 minutes Non-Time Critical

**E. DIRECTIONS TO EXAMINEE**

When given the initiating cue, perform necessary steps to place "B" SJAE in service and place "A" SJAE in standby using appropriate procedures. I will describe initial plant conditions and provide you access to the materials required to complete this task.

**F. TASK CONDITIONS/PREREQUISITES**

1. Plant is at steady state conditions.
2. "A" SJAE in service.
3. Air ejector inter/after condenser loop seals have been established IAW GP-2 Attachment 4.

**G. INITIATING CUE**

The Control Room Supervisor directs you to place the "B" SJAE in service and place "A" SJAE in standby in accordance with SO 8A.6.A-2 "Placing the Standby SJAE In-Service and Placing the In-Service SJAE in Standby".

## H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of procedure SO 8A.6.A-2.	P	A copy of procedure SO 8A.6.A-2 is obtained.
2	Verify MO-2104B, SPE B Isolation valve and MO-2105B, SJAE B Isolation valve are open.  (Cue: MO-2104B and MO-2105B red lights are on, green lights are off.)	P	MO-2104B and MO-2105B, red lights are verified ON at panel 20C007A.
3	Verify PIC-2239B, B SJAE Main Steam Supply Hdr Controller is in "MANUAL" and the control valve is closed by adjusting the setpoint to minimum.  (Cue: PIC-2239B (SP) is in "MANUAL".)	P	PIC-2239B is verified to be in "MANUAL", point at panel 20C007A by ensuring lower portion of auto/manual selector switch is lit.
4	Adjust PIC-2239B setpoint to the minimum position and depress the "CLOSE" button.  (Cue: PIC-2239B controller indicates 0 psig with a controller output of 100%.)	P	PIC-2239B auto setpoint knob is verified at 0 psig. Controller manual close pushbutton is depressed as required to ensure setpoint at minimum, controller output of 100%.
*5	Open AO-2244/45/47B, Air Ejector Inlet B 2nd Stage valves.  (Cue: Acknowledge control switch operation.)	P	AO-2244/45/47B control switch is placed in the "OPEN" position at panel 20C007A.
6	Verify AO-2244/45/47B, Air Ejector Inlet B 2nd Stage valves are open.  (Cue: AO-2244/45/47B red light is on, green light is off.)	P	AO-2244/45/47B red light is verified ON and green light is verified OFF at panel 20C007A.
<p style="text-align: center;"><b>***NOTE***</b></p> <p style="text-align: center;">The following direction to the Equipment Operator requires simulator instructor action:</p> <p style="text-align: center;"><b>MRF MSS05B OPEN</b></p>			

STEP NO	STEP	ACT	STANDARD
*7	Direct Equipment Operator to adjust HCS-2-8A-2466B, Main Steam Isolation Valve to SJAE 2B, for 35 to 40 psi.  (Cue: Equipment Operator acknowledges direction and reports HCS-2-8A-2466B adjusted to 35 psi.)	P	Equipment Operator directed to adjust HCS-2-8A-2466B for 35 to 40 psi.
*8	Place PIC-2239B in "AUTO".  (Cue: PIC-2239B is in "AUTO".)	P	PIC-2239B auto portion of Auto/Manual selector switch is depressed and verified lit.
*9	Raise setpoint on PIC-2239B in 20 psig increments to between 115 and 125 psig.  (Cue: PI-2472B is slowly increasing, controller setpoint (SP) and Process Valve (PV) slowly increase. Controller output is slowly decreasing until PI-2472B reaches 120 psig.)	P	PIC-2239B control knob is rotated in the CLOCKWISE direction in increments (20 psig increments over several minutes) at panel 20C007A to increase SJAE B steam pressure to 115 to 125 psig on PI-2472B at panel 20C006B.
*10	Open AO-2238D, E, F "Air Ejector Inlet B 1st Stage"/AO-2540B "Air Ejector Inner Cdsr Drain" valves when SJAE B 2nd stage pressure is greater than 13 inches Hg.  (Cue: Acknowledge control switch operation.)	P	AO-2238D, E & F/AO-2540B control switch is placed in the "OPEN" position at panel 20C007A when SJAE B 2nd stage pressure is greater than 13 inches of mercury on PI-2246B at panel 20C006B.
11	Verify AO-2238D,E,F, Air Eject Inlet B 1st Stage valves are open.  (Cue: AO-2238D,E,F red light is on, green light is off.)	P	AO-2238D,E,F/AO-2540B red light is verified ON and green light is verified OFF at panel 20C007A.
*12	When steam pressure reaches 115 to 125 psig, place the control switch for AO-2236D/E/F "Air Ejector Off-Gas Inlet B" in "AUTO".  (Cue: Steam pressure is 120 psig, AO-2236D/E/F is in "AUTO".)	P	Steam pressure on PI-2472B is verified to be 115 to 125 psig and the control switch for AO-2236D/E/F is placed in "AUTO".

STEP NO	STEP	ACT	STANDARD
13	Verify AO-2236D,E and F Off Gas Inlet B in AUTO.  (Cue: AO-2236D,E and F red light on, green light off.)	P	AO-2236D,E and F red light is verified ON and green light is verified OFF at panel 20C007A.
*14	Place control switch for AO-2236A,B,C, Air Ejector Off Gas Inlet A valves in CLOSE.  (Cue: Acknowledge control switch operation.)	P	AO-2236A,B,C control switch is placed in the "CLOSE" position at panel 20C007A.
15	Verify AO-2236A,B,C Air Ejector Off Gas Inlet A valves closed.  (Cue: AO-2236A,B,C green light is on, red light is off.)	P	AO-2236A,B,C green light is verified ON and red light verified OFF at panel 20C007A.
*16	Adjust setpoint on PIC-2239A to 0 psi.  (Cue: PI-2472A is quickly decreasing, controller setpoint (SP) and Process Valve (PV) are slowly decreasing. Controller output stabilizes at 100.)	P	Control knob on PIC-2239A is rotated in the COUNTERCLOCKWISE direction until the setpoint is at minimum at panel 20C007A.
<p style="text-align: center;">***NOTE***</p> <p style="text-align: center;">The following direction to the Equipment Operator requires simulator instructor action:</p> <p style="text-align: center;">MRF MSS05A CLOSE</p>			
17	Direct Equipment Operator to adjust HCS-2-8A-2466A, Main Steam Isolation valve to SJAE 2A, to 0 psi.  (Cue: Equipment Operator acknowledges direction and reports HCS-2-8A-2466A adjusted to 0 psi.)	P	Equipment Operator directed to adjust HCS-2-8A-2466A to 0 psi, at panel 20C156.
18	Verify pressure on PI-2472A decreases to 0 psig.  (Cue: PI-2472A indicates 0 psig.)	P	Pressure on PI-2472A is verified to be at 0 psig at panel 20C006B.

STEP NO	STEP	ACT	STANDARD
*19	Close AO-2238A,B,C, "Air Ejector Inlet A 1st Stage"/AO-2540A "Air Ejector Inter Cdsr Drain" valves when steam pressure decreases to 30 psig.  (Cue: Acknowledge control switch operation.)	P	AO-2238A,B,C/AO-2540A, control switch is placed in the "CLOSE" position at panel 20C007A when steam pressure decreases to 30 psig.
20	Verify AO-2238A,B,C, "Air Ejector Inlet A 1st Stage" AO-2540A "Air Ejector Inter Cdsr Drain", valves are closed.  (Cue: AO-2238A,B,C green light is on, red light is off.)	P	AO-2238A,B,C, AO-2540A, green light is verified ON and red light is verified OFF at panel 20C007A.
*21	Close AO-2244/45/47A, Air Ejector Inlet A 2nd Stage valves.  (Cue: Acknowledge control switch operation.)	P	AO-2244/45/47A control switch is placed in the "CLOSE" position at panel 20C007A.
22	Verify AO-2244/45/47A, Air Ejector Inlet A 2nd Stage valves are closed.  (Cue: AO-2244/45/47A green light is on, red light is off.)	P	AO-2244/45/47A green light is verified ON and red light is verified OFF at panel 20C007A.
23	Verify "B" SJAE parameters are within desired limits.  (Cue: PR-2154 is 28" Hg; PI-2472B indicates 120 psig, PI-2246B indicates 15" Hg.)	P	"B" SJAE 1st stage pressure on PI-2472B is verified to be within 115-125 psig and "B" SJAE 2nd stage pressure is verified to be greater than 13 inches Hg at panel 20C006B.
24	Inform Control Room Supervisor of task completion.  (Cue: Control Room Supervisor acknowledges report.)	P	Task completion reported.

Under "ACT" P - must perform  
S - must simulate

I. TERMINATING CUE

When SJAE B is in service and SJAE A is in standby, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

## **TASK CONDITIONS/PREREQUISITES**

- 1. Plant is at steady state conditions.**
- 2. "A" SJAE in service.**
- 3. Air ejector inter/after condenser loop seals have been established IAW GP-2 Attachment 4.**

## **INITIATING CUE**

**The Control Room Supervisor directs you to place the "B" SJAE in service and place "A" SJAE in standby in accordance with SO 8A.6.A-2 "Placing the Standby SJAE In-Service and Placing the In-Service SJAE in Standby".**

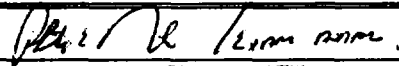
**EXELON NUCLEAR**  
**Nuclear Generation Group**

**OJT/TPE MATERIAL COVERSHEET**

<input checked="" type="checkbox"/> <b>X</b>	<b>Peach Bottom</b>	<input type="checkbox"/>	<b>Limerick</b>	<input type="checkbox"/>	<b>Common</b>
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<input checked="" type="checkbox"/> <b>X</b>	<b>JPM</b>	<input type="checkbox"/>	<b>QUALIFICATION MANUAL</b>	<input type="checkbox"/>	<b>OJT MODULE</b>
<b>LICENSED OPERATOR TRAINING</b>				<b>PLOR-062P</b>	
<b>LICENSED OPERATOR REQUALIFICATION</b>				<b>015 NRC</b>	
<b>P. E. Nielsen</b>				<b>pen</b>	
<b>RESTORE CONTROL ROOM VENTILATION FOLLOWING A HIGH RADIATION TRIP</b>					

**APPROVALS:**

 Signature / Title	21 Jan 2015 Date
_____ Signature / Title	_____ Date
_____ Signature / Title	_____ Date
_____ Signature / Title	_____ Date

**APPROVED FOR USE:**

_____ Signature / Title	_____ Date
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**EFFECTIVE DATE:** \_\_\_\_/\_\_\_\_/\_\_\_\_

<b>NAME:</b> _____ Last First M.I.	<b>ISSUE DATE:</b> _____				
<b>SOC. SEC. NO.</b> _____	<b>COMPLETION DATE:</b> _____				
<b>COMMENTS:</b>					
<b>Training Review for Completeness:</b>  _____ Signature/Date	<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 50%;"><b>PIMS CODE:</b></td><td style="width: 50%;"></td></tr><tr><td><b>PIMS ENTRY:</b></td><td></td></tr></table>	<b>PIMS CODE:</b>		<b>PIMS ENTRY:</b>	
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<b>PIMS ENTRY:</b>					



# TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-062P

REV. NO.: 015

TITLE: Restore Control Room Ventilation Following a High Radiation Trip

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EXELON NUCLEAR  
PEACH BOTTOM ATOMIC POWER STATION  
JOB PERFORMANCE MEASURE

POSITION TITLE: Unit Reactor Operator/Senior Reactor Operator

TASK-JPM DESIGNATOR: 2880010101/ PLOR-062P

K/A: 29003A4.01

URO: 3.2 SRO: 3.2

TASK DESCRIPTION: Restore Control Room Ventilation Following a High Radiation Trip

A. NOTES TO EVALUATOR:

1. An asterisk (\*) before the step number denotes a CRITICAL STEP. CRITICAL STEPS are those steps which when not performed correctly will prevent the system from functioning properly or prevent successful task completion.
2. System cues included in the performance checklist are to be provided to the examinee when no system response is available.
3. JPM Performance
  - a. "Control Room" JPMs are designed to be performed in the simulator. If a "Control Room" JPM is to be performed in the Control Room all perform steps (P) shall be simulated (S).
  - b. When performing "In-Plant" JPMs, no equipment will be operated without Shift Management approval.
4. Satisfactory performance of this JPM is accomplished if:
  - a. The task standard is met.
  - b. JPM completion time requirement is met.
    - 1) For non-time critical JPMs, completion within double the estimated time (listed in paragraph D.2) is acceptable provided the evaluator determines that the progress to completion is acceptable.
    - 2) For time critical JPMs, completion within the estimated time (listed in paragraph D.2) is required.
5. The estimated time to complete this JPM, though listed in the task standard, is not to be given to the examinee.

**B. TOOLS AND EQUIPMENT**

None

**C. REFERENCES**

Procedure SO 40D.1.A Rev. 11, "Control Room Ventilation Startup and Control Room Emergency Ventilation High Radiation Trip Restoration and Automatic Operation Alignment"

**D. TASK STANDARD**

1. Restoration and startup of Control Room Ventilation completed following a trip due to high radiation. This will include:
  - a. Placing all Control Room ventilation fans to "OFF".
  - b. Startup of Control Room A/C Supply, A/C Return, and Fresh Air Supply Fans.
  - c. Startup of Toilet Room Fan and Control Room Office cooling unit.
2. Estimated time to complete: 24 minutes Non-Time Critical

**E. DIRECTIONS TO EXAMINEE**

When given the initiating cue, perform necessary steps to restore and startup Control Room Ventilation following a high radiation trip using appropriate procedures. I will describe initial plant conditions and provide you access to the materials required to complete this task.

**F. TASK CONDITIONS/PREREQUISITES**

1. Initially, the "A" Control Room Ventilation fans were running.
2. Control Room Ventilation spuriously tripped on high radiation and CREV initiated on its "A" Fan.
3. Control Room Chilled Water is available to the Control Room Ventilation System in accordance with SO 44B.
4. 480V MCC System is available to the Control Room Ventilation System in accordance with SO 56.
5. Heating Steam System is available to Control Room Ventilation System in accordance with SO 24.1.A, "Startup of Auxiliary Steam System".
6. Instrument Air is available to Control Room Ventilation System in accordance with SO 36B.
7. 120 VAC is available to the Control Room Ventilation System in accordance with SO 58A.

8. The Control Room Emergency Ventilation Filter Plenum A(B) is available for operation with all filters installed and operable.
9. Airborne activity levels in the ventilation intake have been verified acceptable by Health Physics.
10. Communication is established between 00C133 and Control Room (simulated).
11. Shift management has determined that COL 40D.1.A is not required to be performed.

#### **G. INITIATING CUE**

The Control Room Supervisor directs you, the Equipment Operator, to reset Control Room Ventilation following a high radiation trip and restore the Control Room Ventilation System using SO 40D.1.A, "Control Room Ventilation Startup and Control Room Emergency Ventilation High Radiation Trip Restoration and Automatic Operating Alignment", to the following line-up:

- "A" Control Room Ventilation fans running.
- Both Control Room Emergency Ventilation Supply Fans aligned for automatic start.
- "B" Control Room Ventilation fans aligned for automatic start.

Steps 4.1 - 4.12 of SO 40D.1.A have been completed, begin with Step 4.13. Notify the control room when the system is running and another operator will perform the routine inspection.

## H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of procedure SO 40D.1.A.	P	A copy of procedure SO 40D.1.A is obtained.
*2	Start OAV-079, "Control Rm Fresh Air Supply Fan A".  (Cue: Acknowledge control switch operation.)	S	OAV-079 fan control switch is placed in "RUN" at panel OOC133.
3	Verify Fan OAV-079, Control Room Fresh Air Supply is running.  (Cue: Fan OAV-079 red light is on.)	S	OAV-079 Control Room Fresh Air Supply Fan red light is verified ON at panel OOC133.
4	Verify that "CONTROL ROOM SUPPLY FAN OA-BV79 STANDBY FAN" annunciator is clear.  (Cue: Annunciator 00C133 P-4 is not lit.)	S	"CONTROL ROOM SUPPLY FAN OA-BV79 STANDBY FAN" annunciator is verified clear at panel 00C133.
*5	Place standby fan, OBV-079, control switch in "AUTO".  (Cue: Acknowledge control switch operation.)	S	OBV-079 fan control switch is placed in "AUTO" at panel 00C133.
*6	Start OAV-028, "Control Room A/C Supply Fan A."  (Cue: Acknowledge control switch operation.)	S	OAV-028 control switch is placed in "RUN" at panel 00C133.
7	Verify OAV-028, Control Room A/C Supply is running.  (Cue: Fan OAV-028 red light is on.)	S	OAV-028 Control Room A/C Supply Fan red light is verified ON at panel OOC133."
8	Verify that "CONTROL ROOM SUPPLY FAN OA-BV28 STANDBY FAN" annunciator is clear.  (Cue: Annunciator 00C133 R-1 is not lit.)	S	"CONTROL ROOM SUPPLY FAN OA-BV28 STANDBY FAN" annunciator is verified clear at panel 00C133.
9	Place the standby fan, OBV-028, control switch in "AUTO".  (Cue: Acknowledge control switch operation.)	S	OBV-028 fan control switch is placed in "AUTO" at panel 00C133.

STEP NO	STEP	ACT	STANDARD
*10	Start OAV-029, "Control Room A/C Return Fan A".  (Cue: Acknowledge control switch operation.)	S	OAV-029 fan control switch is placed in "RUN" at panel OOC133.
11	Verify OAV-029, "Control Room A/C Return Fan A" is running. (Cue: Fan OAV-029 red light is on.)	S	OAV-029 Control Room A/C Return Fan red light is verified ON at panel OOC133.
12	Verify that "CONTROL ROOM RETURN FAN OA-BV29 STANDBY FAN" annunciator is clear.  (Cue: Annunciator OOC133-0-1 is not lit	S	"CONTROL ROOM RETURN FAN OA-BV29 STANDBY FAN" annunciator is verified clear at panel OOC133.
13	Place the standby fan, OBV-029, control switch to "AUTO".  (Cue: Acknowledge control switch operation.)	S	OBV-029 fan control switch is placed in "AUTO" at panel OOC133
14	Place HS-2-63L-J180 and J181 to the "RESET" position at panel OOC133 and release.  (Cue: Acknowledge control switch operation.)	S	HS-2-63L-J180 and J181 momentarily placed in "RESET" and released.
15	Request the Control Room personnel place the Control Room Vent Purge Control switch to "OFF" on panel C012 and verify FR-0765 on panel C010 indicates 2500-3000 cfm (or that they perform steps 4.17 and 4.18).  (Cue: The Control Room reports that the Control Room Vent Purge control switch is in "OFF" and FR-0765 indicates 2800 cfm or that steps 4.17 and 4.18 are complete.)	S	The Control Room is requested to place the Control Room Vent Purge Control switch to "OFF" on panel 20C012 and verify FR-0765 on panel 20C010 indicates 2500 -3000 cfm (or to complete steps 4.17 and 4.18).
*16	Start OOV-33, the "Toilet Room Exhaust Fan".  (Cue: Acknowledge control switch operation.)	S	OOV-33 control switch is placed in "ON" at panel 00C133..
17	Verify OOV-33, Toilet Room Exhaust is running.  (Cue: Fan OOV-33 red light is on.)	S	OOV-33 Toilet Room Exhaust Fan red light is verified ON at panel 00C133.

STEP NO	STEP	ACT	STANDARD
*18	Start OOV-326, the "Control Room Office Area Cooling Unit".  (Cue: Acknowledge control switch operation on.)	S	OOV-326 control switch is placed in "ON" at panel 00C133. OOV-326 Control Room Office Area Cooling Unit red light is verified ON at panel 00C133.
19	Verify Fan OOV-326 Control Room Office Area Cooling Unit is running.  (Cue: Unit OOV-326 red light is on.) switch is in the Filter 'A' position.)	S	OOV-326 Control Room Office Area Cooling Unit red light is verified ON at panel 00C133.
20	Request that Control Room personnel place the "Outside Air Filter Select SV-00154" control switch to FILTER 'A'('B') (or complete step 4.21.1).  (Cue: The Control Room reports that the "Outside Air Filter Select SV-00154" control switch is in the Filter 'A' position or that step 4.21.1 is complete.)	S	The Control Room is requested to place the "Outside Air Filter Select SV-00154" control switch to FILTER 'A'('B') or to complete step 4.21.1.
21	Request that Control Room personnel place the "Outside Air Filter Bypass SV-00153" to "BYPASS" (or perform step 4.21.2).  (Cue: The Control Room reports that the "Outside Air Filter Bypass SV-00153" is in the "BYPASS" position or that step 4.21.2 is complete	S	The Control Room is requested to place the "Outside Air Filter Bypass SV-00153" to "BYPASS" or complete step 4.21.2.
22	Verify OBV030, "Control Room Emergency Ventilation Supply Fan B" to the "AUTO-STBY" position on Panel OOC133.  (Cue: OBV030, "Control Room Emergency Ventilation Supply Fan B is in the "AUTO-STBY" position on Panel OOC133.)	S	OBV030, "Control Room Emergency Ventilation Supply Fan B" is verified in the "AUTO-STBY" position on Panel OOC133.
23	Place OAV030, "Control Room Emergency Ventilation Supply Fan A" to the "AUTO" position on Panel OOC133.  (Cue: OAV030, "Control Room Emergency Ventilation Supply Fan A is in the "AUTO" position on Panel OOC133.)	S	OAV030, "Control Room Emergency Ventilation Supply Fan A" is placed to the "AUTO" position on Panel OOC133.

STEP NO	STEP	ACT	STANDARD
24	Inform the Control Room Supervisor that Control Room Ventilation has been restored IAW SO 40D.1.A.  (Cue: Control Room Supervisor acknowledges report.)	P	Task completion reported using a hand held radio or GAI-TRONICS page system.
25	As an evaluator ensure that you have positive control of all exam material provided to the examinee (Task Conditions/Prerequisites) <u>AND</u> procedures.	P	Positive control established.

Under "ACT" P - must perform  
S - must simulate

#### I. TERMINATING CUE

When the Control Room Ventilation system is in operation, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.



## **TASK CONDITIONS/PREREQUISITES**

1. Initially, the "A" Control Room Ventilation fans were running.
2. Control Room Ventilation spuriously tripped on high radiation and CREV initiated on its "A" Fan.
3. Control Room Chilled Water is available to the Control Room Ventilation System in accordance with SO 44B.
4. 480V MCC System is available to the Control Room Ventilation System in accordance with SO 56.
5. Heating Steam System is available to Control Room Ventilation System in accordance with SO 24.1.A, "Startup of Auxiliary Steam System".
6. Instrument Air is available to Control Room Ventilation System in accordance with SO 36B.
7. 120 VAC is available to the Control Room Ventilation System in accordance with SO 58A.
8. The Control Room Emergency Ventilation Filter Plenum A(B) is available for operation with all filters installed and operable.
9. Airborne activity levels in the ventilation intake have been verified acceptable by Health Physics.
10. Communication is established between 00C133 and Control Room (simulated).
11. Shift management has determined that COL 40D.1.A is not required to be performed.

## **INITIATING CUE**

The Control Room Supervisor directs you, the Equipment Operator, to reset Control Room Ventilation following a high radiation trip and restore the Control Room Ventilation System using SO 40D.1.A, "Control Room Ventilation Startup and Control Room Emergency Ventilation High Radiation Trip Restoration and Automatic Operating Alignment", to the following line-up:

- "A" Control Room Ventilation fans running.
- Both Control Room Emergency Ventilation Supply Fans aligned for automatic start.
- "B" Control Room Ventilation fans aligned for automatic start.

Steps 4.1 - 4.12 of SO 40D.1.A have been completed, begin with Step 4.13. Notify the control room when the system is running and another operator will perform the routine inspection.

**EXELON NUCLEAR**  
**Nuclear Generation Group**

**OJT/TPE MATERIAL COVERSHEET**

<input checked="" type="checkbox"/> <b>X</b>	<b>Peach Bottom</b>	<input type="checkbox"/>	<b>Limerick</b>	<input type="checkbox"/>	<b>Common</b>
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<input checked="" type="checkbox"/> <b>X</b>	<b>JPM</b>	<input type="checkbox"/> <b>QUALIFICATION MANUAL</b>	<input type="checkbox"/> <b>OJT MODULE</b>
<b>LICENSED OPERATOR TRAINING</b>		<b>PLOR-075P</b>	
<b>LICENSED OPERATOR REQUALIFICATION</b>		<b>012</b>	
<b>P.E. Nielsen</b>		<b>pen</b>	
<b>SCRAM SOLENOID DE-ENERGIZATION - UNIT 2 (T-213-2)</b>			
<b>APPROVALS:</b>			
<i>P.E. Nielsen / Primary Exam Admin</i>		<i>15 Nov 2024</i>	
Signature / Title		Date	
<i>R. O. O. O. / SRO</i>		<i>11-16-4</i>	
Signature / Title		Date	
_____ Signature / Title		_____ Date	
_____ Signature / Title		_____ Date	
<b>APPROVED FOR USE:</b>			
_____ Signature / Title		_____ Date	
<b>EFFECTIVE DATE:</b> ____/____/____			

<b>NAME:</b> _____ Last First M.I.	<b>SOC. SEC. NO.</b> _____				
<b>ISSUE DATE:</b> _____	<b>COMPLETION DATE:</b> _____				
<b>COMMENTS:</b>    <table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 50%; padding: 5px;"><b>PIMS CODE:</b></td><td style="width: 50%;"></td></tr><tr><td style="padding: 5px;"><b>PIMS ENTRY:</b></td><td></td></tr></table>		<b>PIMS CODE:</b>		<b>PIMS ENTRY:</b>	
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<b>PIMS ENTRY:</b>					

# TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-075P

REV. NO.: 012

TITLE: SCRAM SOLENOID DE-ENERGIZATION - UNIT 2 (T-213-2)

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EXELON NUCLEAR  
PEACH BOTTOM ATOMIC POWER STATION  
JOB PERFORMANCE MEASURE

POSITION TITLE: Unit Reactor Operator/Senior Reactor Operator

TASK-JPM DESIGNATOR: 2003730599 / PLOR-075P

K/A: 295037EA1.01

URO: 4.6    SRO: 4.6

TASK DESCRIPTION: Scram Solenoid De-energization - Unit 2 (T-213-2)

A. NOTES TO EVALUATOR:

1. An asterisk (\*) before the step number denotes a CRITICAL STEP. CRITICAL STEPS are those steps which when not performed correctly will prevent the system from functioning properly or prevent successful task completion.
2. System cues included in the performance checklist are to be provided to the examinee when no system response is available.
3. JPM Performance
  - a. "Control Room" JPMs are designed to be performed in the simulator. If a "Control Room" JPM is to be performed in the Control Room all perform steps (P) shall be simulated (S).
  - b. When performing "In-Plant" JPMs, no equipment will be operated without Shift Management approval.
4. Satisfactory performance of this JPM is accomplished if:
  - a. The task standard is met.
  - b. JPM completion time requirement is met.
    - 1) For non-time critical JPMs, completion within double the estimated time (listed in paragraph D.2) is acceptable provided the evaluator determines that the progress to completion is acceptable.
    - 2) For time critical JPMs, completion within the estimated time (listed in paragraph D.2) is required.
5. The estimated time to complete this JPM, though listed in the task standard, is not to be given to the examinee.

**B. TOOLS AND EQUIPMENT**

1. T-213-2 Tool Package from the Main Control Room Emergency Operating Procedure Tool Box
2. EOP Tool Box Key

**C. REFERENCES**

Procedure T-213-2, Rev. 9, "Scram Solenoid De-energization" (R)

**D. TASK STANDARD**

1. Satisfactory task completion is indicated when Unit 2 Control Rod 26-15 scram solenoid fuses are removed.
2. Estimated time to complete: 5 minutes Non-Time Critical

**E. DIRECTIONS TO EXAMINEE**

When given the initiating cue, perform necessary steps to de-energize Unit 2 Control Rod 26-15 scram solenoids using appropriate procedures. I will describe initial plant conditions and provide you access to the materials required to complete this task.

**F. TASK CONDITIONS/PREREQUISITES**

1. Unit 2 was initially at 100% power.
2. RPV level then drops to the scram setpoint due to partial loss of feedwater flow.
3. Several Control Rods are stuck at position 48 with their blue scram lights NOT lit on the Full Core Display.
4. Use of procedure T-213-2, "Scram Solenoid De-energization" has been directed by the T-100 procedures.
5. Prerequisites and procedure steps up to and including step 4.3 of procedure T-213-2 have been completed.

**G. INITIATING CUE**

The Control Room Supervisor directs you, the Equipment Operator, to de-energize Unit 2 Control Rod 26-15 scram solenoids in accordance with Steps 4.4.1 - 4.4.3 of procedure T-213-2, "Scram Solenoid De-energization".

## H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
*1	Obtain the key for the Emergency Operating Procedure Tool Locker.  (Cue: When examinee requests EOP Tool Locker key from WECS OR examinee identifies the location of the WECS key box and its associated key then evaluator should provide the EOP Tool Locker key.)	S	Emergency Operating Procedure Tool Locker Key requested from WECS OR examinee identifies the location of the WECS key box and its associated key.
*2	Open Emergency Operation Procedure Tool Locker and obtain T-213 Tool Kit equipment.  (Cue: Equipment obtained.)	P	Tool Locker located on Radwaste Building E. 165' is unlocked, opened and T-213 Tool Kit is located.
<p align="center"><b>****NOTE****</b></p> <p><b>When examinee locates tool kit, inform him that he now has the tools to perform the procedure. Provide the examinee with a copy of the T-200 procedure which corresponds to the tool kit that has been chosen. DO NOT allow equipment to be removed from the locker. Relock the locker before leaving the area.</b></p>			
*3	Open panel 2CC068 door.  (Cue: Panel 2CC068 door is open.)	P	Panel fasteners unfastened, door pulled outward to gain access to Control Rod 26-15 fuses.
*4	Pull the Channel A fuse for Control Rod 26-15.  (Cue: Fuse is removed.)	S	Control Rod 26-15 Channel A fuse is removed at panel 2CC068 using fusepuller from T-213-2 Tool Kit.
*5	Pull the Channel B fuse for Control Rod 26-15.  (Cue: Fuse is removed. Control Room reports Control Rod 26-15 is inserting.)	S	Control Rod 26-15 Channel B fuse is removed at panel 2CC068 using fusepuller from T-213-2 Tool Kit.
6	Initial on Table 1 by Control Rod 26-15.  (Cue: Acknowledge initialing Table 1.)	P	T-213-2, Table 1 is initialed under "FUSES REMOVED" column by Control Rod 26-15.

STEP NO	STEP	ACT	STANDARD
7	Inform Control Room of task completion.  (Cue: Control Room acknowledges report. Control Rod 26-15 blue scram lights are lit.)	S	Task completion reported using telephone, hand held radio or GAI-TRONICS page system.
8	As an evaluator ensure that you have positive control of all exam material provided to the examinee (Task Conditions/Prerequisites) <u>AND</u> procedures.	P	Positive control established.

Under "ACT" P - must perform  
S - must simulate

#### I. TERMINATING CUE

When Control Rod 26-15 scram solenoid fuses have been pulled, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

## **TASK CONDITIONS/PREREQUISITES**

- 1. Unit 2 was initially at 100% power.**
- 2. RPV level then drops to the scram setpoint due to partial loss of feedwater flow.**
- 3. Several Control Rods are stuck at position 48 with their blue scram lights NOT lit on the Full Core Display.**
- 4. Use of procedure T-213-2, "Scram Solenoid De-energization" has been directed by the T-100 procedures.**
- 5. Prerequisites and procedure steps up to and including step 4.3 of procedure T-213-2 have been completed.**

## **INITIATING CUE**

**The Control Room Supervisor directs you, the Equipment Operator, to de-energize Unit 2 Control Rod 26-15 scram solenoids in accordance with Steps 4.4.1 - 4.4.3 of procedure T-213-2, "Scram Solenoid De-energization".**



**EXELON NUCLEAR**  
Nuclear Generation Group

**OJT/TPE MATERIAL COVERSHEET**

<input checked="" type="checkbox"/> <b>X</b>	<b>Peach Bottom</b>	<input type="checkbox"/>	<b>Limerick</b>	<input type="checkbox"/>	<b>Common</b>
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<b>TYPE:</b>	<input checked="" type="checkbox"/> JPM	<input type="checkbox"/> QUALIFICATION MANUAL	<input type="checkbox"/> OJT MODULE
<b>PROGRAM:</b>	LICENSED OPERATOR TRAINING	<b>CODE #:</b>	
	LICENSED OPERATOR REQUALIFICATION		000
	P.E. Nielsen		pen
	CLOSING A STUCK OPEN MSIV – UNIT 3 (ALTERNATE PATH - AC FUSES DO NOT ISOLATE MSIVs)		
<b>APPROVALS:</b>			
	_____ Signature / Title		_____ Date
	_____ Signature / Title		_____ Date
	_____ Signature / Title		_____ Date
	_____ Signature / Title		_____ Date
<b>APPROVED FOR USE:</b>			
	_____ Signature / Title		_____ Date
EFFECTIVE DATE: ____/____/____			

<b>NAME:</b> _____ Last First M.I.	<b>ISSUE DATE:</b> _____	
<b>SOC. SEC. NO.</b> _____	<b>COMPLETION DATE:</b> _____	
<b>COMMENTS:</b>		
Training Review for Completeness:  _____ Signature/Date	<b>PIMS CODE:</b>	
	<b>PIMS ENTRY:</b>	

# TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR

REV. NO.: 000

TITLE: Closing a Stuck Open MSIV – Unit 3 (Alternate Path - AC Fuses do not isolate MSIVs)

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EXELON NUCLEAR  
PEACH BOTTOM ATOMIC POWER STATION  
JOB PERFORMANCE MEASURE

POSITION TITLE: Unit Reactor Operator/Senior Reactor Operator

TASK-JPM DESIGNATOR: 2390110401 / PLOR-118P

K/A: 239001G.2.4.35

URO: 3.3    SRO: 3.5

TASK DESCRIPTION: Closing a Stuck Open MSIV – Unit 3

A. NOTES TO EVALUATOR:

1. An asterisk (\*) before the step number denotes a CRITICAL STEP. CRITICAL STEPS are those steps which when not performed correctly will prevent the system from functioning properly or prevent successful task completion.
2. System cues included in the performance checklist are to be provided to the examinee when no system response is available.
3. JPM Performance
  - a. "Control Room" JPMs are designed to be performed in the simulator. If a "Control Room" JPM is to be performed in the Control Room all perform steps (P) shall be simulated (S).
  - b. When performing "In-Plant" JPMs, no equipment will be operated without Shift Management approval.
4. Satisfactory performance of this JPM is accomplished if:
  - a. The task standard is met.
  - b. JPM completion time requirement is met.
    - 1) For non-time critical JPMs, completion within double the estimated time (listed in paragraph D.2) is acceptable provided the evaluator determines that the progress to completion is acceptable.
    - 2) For time critical JPMs, completion within the estimated time (listed in paragraph D.2) is required.
5. The estimated time to complete this JPM, though listed in the task standard, is not to be given to the examinee.

B. TOOLS AND EQUIPMENT

Insulated Fuse Pullers

C. REFERENCES

AO 1A.2-3, Rev. 9, "Closing a Stuck Open Inboard or Outboard Main Steam Isolation Valve"

D. TASK STANDARD

1. Satisfactory task completion is indicated when the Unit 3 Outboard MSIV AC AND DC solenoid valve control power fuses are removed.
2. Estimated time to complete: 15 minutes Non-Time Critical

E. DIRECTIONS TO EXAMINEE

When given the initiating cue, perform necessary steps to close the stuck open outboard MSIVs using appropriate procedures. I will describe initial plant conditions and provide you access to the materials required to complete this task.

F. TASK CONDITIONS/PREREQUISITES

1. Unit 3 has just been manually scrammed (Unit 3 Mode Switch in "Shutdown").
2. RPV level is -175 inches (Group I isolation signal is present).
3. All Outboard MSIVs failed to isolate.
4. The MSIVs did not close using the Test Pushbuttons in accordance with Steps 4.1.1 and 4.1.2 of AO 1A.2-3, Closing a Stuck Open Inboard or Outboard MSIV.
5. Radiological conditions do NOT allow entry into the Outboard MSIV Room.

G. INITIATING CUE

The Control Room Supervisor directs you, the Equipment Operator, to close the Unit 3 Outboard MSIVs using AO 1A.2-3, "Closing a Stuck Open Inboard or Outboard MSIV" beginning with step 4.1.3.

## H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of procedure AO 1A.2-3.	P	A copy of procedure AO 1A.2-3 is obtained.
<p align="center"><b>** NOTE **</b></p> <p align="center">Examinee should utilize Section 4.1 of AO 1A.2-3.</p>			
*2	Open panel 30C042 front panel doors. (Cue: Panel 30C042 doors are open.)	P	Door handle turned, doors pulled outward to gain access to the outboard MSIV AC and DC solenoid valve fuses at the front of panel 30C042 in the Cable Spreading Room.
*3	Pull the outboard MSIV AC solenoid valve fuse 16A-F12B. (Cue: Fuse is removed.)	S	Fuse 16A-F12B is identified as the fourth fuse from the top of terminal strip BB located inside the left/rear of Panel 30C042. Fuse puller is attached to outboard MSIV AC solenoid valve fuse 16-F12B fuse is pulled outward until fuse is free of fuse holder.
4	Direct the Unit Reactor Operator to monitor outboard MSIV position indication. (Cue: Outboard MSIVs are open.)	S	Unit Reactor Operator is contacted to monitor outboard MSIV position indication.
*5	Pull the outboard MSIV DC solenoid valve fuse for 16A-F11B. (Cue: Fuse is removed.)	S	Fuse 16A-F11B is identified as the eighth fuse from the top of terminal strip BB located inside the left/rear of Panel 20C042. Fuse puller is attached to outboard MSIV DC solenoid valve fuse 16A-F11B. Fuse is pulled outward until fuse is free of fuse holder.
6	Direct the Unit Reactor Operator to monitor Main Steam line flow using FI-3-06-088A,B,C,D on panel 30C008A. (Cue: Main steam line FI-2-06-088A,B,C,D read 0 Mlbm/hr.	S	Unit Reactor Operator is contacted to monitor Main Steam line flow on FI-3-06-088A,B,C,D at panel 30C008A.
7	Close panel 30C042 front panel doors. (Cue: Panel 30C042 doors are closed.)	P	Door closed and relatched using handle.
8	Inform Control Room of task completion. (Cue: Control Room acknowledges report. Outboard MSIV are closed.)	S	Task completion reported using telephone or GAI-TRONICS page system.

STEP NO	STEP	ACT	STANDARD
9	As an evaluator ensure you have positive control of all exam material provided to the examinee (Task Conditions/Prerequisites) AND procedures.	P	Positive control established

Under "ACT" P - must perform  
S - must simulate

#### I. TERMINATING CUE

When the Unit 3 Outboard MSIVs are closed, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.