

EXELON NUCLEAR
Nuclear Generation Group

OJT/TPE MATERIAL COVERSHEET

<input checked="" type="checkbox"/> X	Peach Bottom	<input type="checkbox"/>	Limerick	<input type="checkbox"/>	Common
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TYPE:	<input checked="" type="checkbox"/> JPM	<input type="checkbox"/> QUALIFICATION MANUAL	<input type="checkbox"/> OJT MODULE
PROGRAM:	Licensed Operator Requalification	CODE #:	PLOR-309CA
COURSE:	Licensed Operator Requalification	REV #:	011
AUTHOR:	M. J. Kelly	TYPIST:	mjk
TITLE:	Starting a Recirculation Pump (Alternate Path – Scoop Tube Lockup)		

APPROVALS:

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APPROVED FOR USE:

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SOC. SEC. NO. _____	COMPLETION DATE: _____				
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Training Review for Completeness: _____ Signature/Date	<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 50%;">PIMS CODE:</td><td style="width: 50%;"></td></tr><tr><td>PIMS ENTRY:</td><td></td></tr></table>	PIMS CODE:		PIMS ENTRY:	
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TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-309CA

REV. NO.: 011

TITLE: STARTING A RECIRCULATION PUMP (ALTERNATE PATH - SCOOP TUBE LOCKUP)

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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: 2020040101 / PLOR-309CA K/A: 202001A4.01

RO: 3.7 SRO: 3.7

TASK DESCRIPTION: STARTING A RECIRCULATION PUMP (ALTERNATE PATH - SCOOP
TUBE LOCKUP)

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

SO 2A.1.B-2, Rev. 45, "Starting the Second Recirculation Pump"

D. TASK STANDARD

1. Performance Location: Simulator
2. Satisfactory task completion is indicated when the "B" Reactor Recirculation Pump has been started and subsequently tripped due to a scoop tube lockup.
3. Estimated time to complete: 14 minutes Non-Time Critical

E. DIRECTIONS TO EXAMINEE

When given the initiating cue, perform necessary steps to start the "B" Reactor Recirculation Pump 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 "2B" Recirculation pump is being placed in service following a spurious trip.
2. All the prerequisite steps of SO 2A.1.B-2, "Starting the Second Recirculation Pump" have been successfully performed.
3. Steps 4.1 through 4.25 of SO 2A.1.B-2, "Starting the Second Recirculation Pump" have been successfully performed.
4. ST-O-02B-510-2, "Reactor Coolant Temperatures" has been performed. Data from ten minutes ago showed reactor dome to bottom head drain DT is 80°F and the loop to loop DT is 23°F.
5. An Equipment Operator is in place to visually verify relays at Panel 2BC152.

G. INITIATING CUE

The Control Room Supervisor directs you to start the "B" Reactor Recirculation Pump in accordance with SO 2A.1.B-2, "Starting the Second Recirculation Pump", beginning at step 4.26.

H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of procedure SO 2A.1.B-2.	P	A copy of procedure SO 2A.1.B-2 is obtained.
<p style="text-align: center;">*** NOTE ***</p> <p style="text-align: center;">The next step is not applicable if the 'A' Recirc pump speed is already less than 50%. This will depend on simulator initial conditions used.</p>			
*2	Lower "A" Recirc pump speed to less than 50% as read on SPI-2-02-184-016A. (Cue: SPI-2-02-184-016A is lowering, FR-2-02-154 is lowering, and reactor level is stable.)	P	Manual control knob is turned COUNTERCLOCKWISE until SPI-2-02-184-016A indicates < 50% at panel 20C004A. This step may not be applicable if initial conditions have the 'A' Recirc. Pump speed already less than 50%.
3	Verify the speed of the "A" Recirc pump is less than 50%. (Cue: SPI-2-02-184-016A indicates 45%.)	P	"A" Recirc pump speed is verified to be less than 50% on SPI-2-02-184-016A at panel 20C004A.
*4	Verify closed MO-2-02-053B, Recirc Pump B Discharge Valve. (Cue: MO-2-02-053B green light is on, red light is off.)	P	MO-2-02-053B green light is verified ON at panel 20C004A.
<p style="text-align: center;">*** NOTE ***</p> <p style="text-align: center;">When ready to perform a plant announcement to start the Recirc. Pump, inform the Examinee to <u>not</u> make the announcement if another JPM is being conducted simultaneously in the simulator.</p>			
5	Verify reactor coolant temperatures stated in step 4.17.1 and 4.17.2 are still valid. (Cue: ST-O-02B-510-2, "Reactor Coolant Temperatures" were performed satisfactorily 10 minutes ago. Reactor dome to bottom head drain DT is 80°F and the loop to loop DT is 23°F.)	P	Verifies that ST-O-02B-510-2, "Reactor Coolant Temperatures" were performed within the last 15 minutes indicating that Reactor dome to bottom head drain DT is < 145°F AND the loop to loop DT is < 50°F.
*6	Place "B" Recirc MG Set drive motor control switch to start. (Cue: Acknowledge control switch operation. Annunciator 214 G-3 is flashing.)	P	"B" Recirc MG Set Drive Motor Breaker control switch is momentarily placed in the START position at panel 20C004A.

STEP NO	STEP	ACT	STANDARD
7	Direct an operator to verify that relay 2-2A-K015B is energized. (Cue: Equipment operator acknowledges the direction and reports that relay 2-2A-K015B is energized.)	P	Equipment operator directed to verify relay 2-2A-K015B is energized.
8	Direct an operator to verify that relay 2-2A-K022B energizes 20 seconds after the drive motor starts. (Cue: Equipment operator acknowledges the direction and reports that relay 2-2A-K022B energized 20 seconds after the drive motor start.)	P	Equipment operator directed to verify relay 2-2A-K022B energizes 20 seconds after the drive motor starts.
9	Verify the "B" Recirc MG Set drive motor starts, generator speed reached 100% and field breaker closes in 21 seconds. (Cue: "B" Recirc MG Set Drive Motor Breaker red light is on, green light is off. SPI-2-02-184-16B indicates an increase to 100%. 21 seconds later, "B" Recirc MG Set Field Breaker red light is on, green light is off.)	P	"B" Recirc MG Set Drive Motor Breaker red light is verified ON, MG Set speed is verified to increase to 100% on SPI-2-02-184-16B and the "B" Recirc MG Set Field Breaker red light is verified ON at panel 20C004A.
<p style="text-align: center;">*** NOTE ***</p> <p style="text-align: center;">The next step may not be performed if the examinee decides to trip the 'B' Recirc. Drive Motor first.</p>			
10	Direct an Equipment operator to verify that relay 2-2A-K015B de-energized 6 seconds after the field breaker closes. (Cue: Equipment operator acknowledges the direction and reports that relay 2-2A-K015B de-energized 2 seconds after the field breaker closes.)	P	Equipment operator directed to verify relay 2-2A-K015B de-energized 2 seconds after the field breaker closes. This step may not be performed if the Examinee decides to immediately perform steps 11 & 12.
*11	When the field circuit breaker closes, the "B" RECIRC FLUID DRIVE SCOOP TUBE LOCK and "B" RECIRC FLUID DRIVE SCOOP TUBE POSITIONER TROUBLE annunciators are recognized alarming. (Cue: As soon as the field circuit breaker closes, SPI-2-02-184-016B reading drops to 40% and annunciators 213 C-3 and 214 J-1 begin flashing.)	P	Recognizes "B" RECIRC FLUID DRIVE SCOOP TUBE LOCK and "B" RECIRC FLUID DRIVE SCOOP TUBE POSITIONER TROUBLE annunciators are flashing at panels 213 C-3 and 214 J-1.

STEP NO	STEP	ACT	STANDARD
*12	Trip the "B" Recirc Pump Drive Motor. (Cue: "B" Recirc Pump Drive Motor breaker green light is on, red light is off.)	P	"B" Recirc Pump Drive Motor breaker control switch is momentarily placed in the STOP position at panel 20C004A.
13	Inform Control Room Supervisor of the receipt of the "B" RECIRC FLUID DRIVE SCOOP TUBE LOCK alarm and trip of the "B" Recirc Pump. (Cue: Control Room Supervisor acknowledges report.)	P	Receipt of the "B" RECIRC FLUID DRIVE SCOOP TUBE LOCK alarm and trip of the "B" Recirc Pump reported to CRS.
14	As evaluator ensure you have positive control of all exam material provided to the examinee (Task Condition / Prerequisites) <u>AND</u> procedures.	P	Positive Control established.

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

I. TERMINATING CUE

When the "B" Recirculation Pump has been started and subsequently tripped due to a scoop tube lockup, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

TASK CONDITIONS/PREREQUISITES

- 1. The "2B" Recirculation pump is being placed in service following a spurious trip.**
- 2. All the prerequisite steps of SO 2A.1.B-2, "Starting the Second Recirculation Pump" have been successfully performed.**
- 3. Steps 4.1 through 4.25 of SO 2A.1.B-2, "Starting the Second Recirculation Pump" have been successfully performed.**
- 4. ST-O-02B-510-2, "Reactor Coolant Temperatures" has been performed. Data from ten minutes ago showed reactor dome to bottom head drain DT is 80°F and the loop to loop DT is 23°F.**
- 5. An Equipment Operator is in place to visually verify relays at Panel 2BC152**

INITIATING CUE

The Control Room Supervisor directs you to start the "B" Reactor Recirculation Pump in accordance with SO 2A.1.B-2, "Starting the Second Recirculation Pump", beginning at step 4.26.

EXELON NUCLEAR
Nuclear Generation Group

OJT/TPE MATERIAL COVERSHEET

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TYPE:	<input checked="" type="checkbox"/> JPM <input type="checkbox"/> QUALIFICATION MANUAL <input type="checkbox"/> OJT MODULE
PROGRAM:	Licensed Operator Requalification CODE #: PLOR-300CA
COURSE:	Licensed Operator Requalification REV #: 013
AUTHOR:	M. J. Kelly TYPIST: mjk
TITLE:	Manually Initiate HPCI (Alternate Path – Manual Initiation Pushbutton Fails to Operate)

APPROVALS:	Signature / Title	Date
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APPROVED FOR USE:	Signature / Title	Date
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NAME: _____ <div style="display: flex; justify-content: space-between; width: 100%;"> Last First M.I. </div>	ISSUE DATE: _____				
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TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-300CA

REV. NO.: 013

TITLE: Manually Initiate HPCI (Alternate Path – Manual Initiation Pushbutton Fails to Operate)

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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: 2060050101 / PLOR-300CA

K/A: 295031EA1.02

URO: 4.5 SRO: 4.5

TASK DESCRIPTION: Manually Initiate HPCI (Alternate Path – Manual Initiation Pushbutton Fails to Operate)

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 23.1-2, Rev. 5, "HPCI System Operation During A Plant Event"

D. TASK STANDARD

1. Satisfactory task completion is indicated when HPCI is injecting to the RPV at 5000 gpm.
2. Estimated time to complete: 5 minutes Non-Time Critical

E. DIRECTIONS TO EXAMINEE

When given the initiating cue, perform necessary steps to manually initiate the HPCI system and inject to the Reactor vessel at a flow rate of 5000 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. RPV Level is -25 inches and lowering slowly.

G. INITIATING CUE

The Control Room Supervisor directs you to initiate the HPCI system using the HPCI Manual Initiation pushbutton and inject to the Reactor vessel at 5000 gpm using RRC 23.1-2 "HPCI System Operation During A Plant Event"

H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain copy of RRC 23.1-2 "HPCI System Operation During A Plant Event"	P	References Section A "HPCI Injection Using Manual Initiation Push-button".
2	Arm and depress the HPCI Manual Initiation Pushbutton 23A-S105. (Cue: Acknowledge pushbutton operation.)	P	HPCI Manual Initiation Pushbutton collar is rotated clockwise to the ARMED position and then the pushbutton is momentarily DEPRESSED at panel 20C004B.
*3	Recognize that the Manual Initiation pushbutton did not function. (Cue: HPCI discharge pressure, flow and speed indicate zero. Aux oil pump green light is on, red light is off.)	P	Manual Initiation pushbutton failure to function is recognized.
<p align="center">****NOTE****</p> <p align="center">IF NEEDED, REPEAT INITIATING CUE TO GET EXAMINEE TO CONTINUE</p> <p>The Control Room Supervisor directs you to initiate the HPCI system using the HPCI Manual Initiation pushbutton and inject to the Reactor vessel at 5000 gpm using RRC 23.1-2 "HPCI System Operation During A Plant Event"</p>			
<p align="center">****NOTE****</p> <p>Steps 4 through 11 can be performed by the Examinee using either RRC Section A "HPCI Injection Using Manual Initiation Push-button" <u>OR</u> RRC Section B "HPCI Injection By Manual Component Operation".</p>			
*4	Simultaneously start the Auxiliary Oil Pump, 20P026 and open MO-2-23-014 "Supply" valve. (Cue: Acknowledge control switch operation.)	P	Auxiliary oil pump control switch is placed in the START position while simultaneously placing MO-2-23-014 "Supply" control switch momentarily in the "OPEN" position at panel 20C004B.
5	Verify the Auxiliary Oil Pump started. (Cue: Auxiliary Oil pump red light is on green light is off and annunciator 222 D-5 is alarming, "HPCI AUXILIARY OIL PUMP RUNNING", Turbine Stop and Control valve red lights are on.)	P	Verify the Auxiliary Oil pump red light is ON at panel 20C004B or annunciator 222 D-5 is alarming at panel 20C204C.

STEP NO	STEP	ACT	STANDARD
6	Verify MO-2-23-014, "Supply" valve is open. (Cue: MO-14 red light is on, green light is off, HPCI discharge pressure and speed rise.)	P	MO-2-23-14 red light verified ON, HPCI discharge pressure (PI-2-23-109) and HPCI speed (SPI-4505) rising at panel 20C004B.
*7	Open MO-2-23-019, "To Feed Line" valve. (Cue: Acknowledge control switch operation.)	P	MO-2-23-019 control switch is momentarily placed in the OPEN position at panel 20C004B.
8	Verify MO-2-23-019, "To Feed Line" valve is open. (Cue: MO-19 red light is on, green light is off, HPCI flow rise.)	P	MO-2-23-019 red light is verified ON and flow (FI-2-23-108) rising at panel 20C004B.
9	Start the HPCI Gland Seal Condenser Vacuum Pump, 20K002. (Cue: Vac pump red light is on, green light is off.)	P	HPCI Gland Seal Condenser Vacuum Pump control switch is placed in the START position at panel 20C004B.
10	Verify pump flowrate of 5000 gpm. (Cue: FI-2-23-108 indicates 5000 gpm.)	P	A HPCI flowrate of approximately 5000 gpm is verified on FI-2-23-108 at panel 20C004B.
11	Adjust HPCI flow controller to maintain level. (Cue: Level is rising into 5 to 35" band.)	P	HPCI flow controller setpoint is adjusted as necessary to maintain vessel level 5 to 35 inches at panel 20C004B.
12	Inform Control Room Supervisor that HPCI was manually started and is injecting into the RPV. (Cue: Control Room Supervisor acknowledges report.)	P	Task completion reported.

13	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.
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Under "ACT" P - must perform
S - must simulate

I. TERMINATING CUE

When HPCI is injecting into the Reactor vessel at a flow rate of 5000 gpm, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

TASK CONDITIONS/PREREQUISITES

- 1. RPV Level is –25 inches and lowering slowly.**

INITIATING CUE

The Control Room Supervisor directs you to initiate the HPCI system using the HPCI Manual Initiation pushbutton and inject to the Reactor vessel at 5000 gpm using RRC 23.1-2, “HPCI System Operation During a Plant Event”.

OJT/TPE MATERIAL COVERSHEET

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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: 2000800501 / PLOR-083C

K/A: 239001A4.01

RO: 4.2 SRO: 4.0

TASK DESCRIPTION: Reopen the Main Steam Isolation Valves after a GP I Isolation

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 T-221-2, Rev. 8, "Main Steam Isolation Valve Bypass"

D. TASK STANDARD

1. Satisfactory task completion is indicated when Inboard MSIVs are open.
2. Estimated time to complete: 10 minutes Non-Time Critical

E. DIRECTIONS TO EXAMINEE

When given the initiating cue, perform necessary steps to reopen the 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. Use of this procedure has been directed by the TRIP procedures.
2. Main Condenser is available.
3. RPV level is known.
4. There is no indication of gross fuel failure.
5. There is no indication of a Main Steam Line break.
6. All T-221 Tool Packages have been obtained.
7. Inboard and Outboard MSIVs are closed.
8. Steps 4.1 thru 4.5 of T-221-2, "Main Steam Isolation Valve Bypass" are complete.

G. INITIATING CUE

The Control Room Supervisor directs you to perform T-221-2, "Main Steam Isolation Valve Bypass" steps 4.6 through 4.12 in order to reopen the MSIVs.

H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of procedure T-221-2.	P	A copy of procedure T-221-2 is obtained.
*2	Open AO-2-02-086A "A" Outboard MSIV. (Cue: Acknowledge control switch operation.)	P	AO-2-02-086A control switch is placed in the "AUTO/OPEN" position at panel 20C003-01.
3	Verify AO-2-02-086A "A" Outboard MSIV is open. (Cue: AO-2-02-086A red light is on, green light is off.)	P	AO-2-02-086A red light is verified ON at panel 20C003-01.
*4	Open AO-2-02-086B "B" Outboard MSIV. (Cue: Acknowledge control switch operation.)	P	AO-2-02-086B control switch is placed in the "AUTO/OPEN" position at panel 20C003-01.
5	Verify AO-2-02-086B "B" Outboard MSIV is open. (Cue: AO-2-02-086B red light is on, green light is off.)	P	AO-2-02-086B red light is verified ON at panel 20C003-01.
*6	Open AO-2-02-086C "C" Outboard MSIV. (Cue: Acknowledge control switch operation.)	P	AO-2-02-086C control switch is placed in the "AUTO/OPEN" position at panel 20C003-01.
7	Verify AO-2-02-086C "C" Outboard MSIV is open. (Cue: AO-2-02-086C red light is on, green light is off.)	P	AO-2-02-086C red light is verified ON at panel 20C003-01.
*8	Open AO-2-02-086D "D" Outboard MSIV. (Cue: Acknowledge control switch operation.)	P	AO-2-02-086D control switch is placed in the "AUTO/OPEN" position at panel 20C003-01.

STEP NO	STEP	ACT	STANDARD
9	Verify AO-2-02-086D "D" Outboard MSIV is open. (Cue: AO-2-02-086D red light is on, green light is off.)	P	AO-2-02-086D red light is verified ON at panel 20C003-01.
*10	Open MO-2-02-077, Outboard Main Steam Drain valve. (Cue: Acknowledge control switch operation.)	P	MO-2-02-077 control switch is momentarily placed in the "OPEN" position at panel 20C003-03.
11	Verify MO-2-02-077, Outboard Main Steam Drain valve open. (Cue: MO-77 red light is on, green light is off.)	P	MO-2-02-077 red light is verified ON at panel 20C003-03.
*12	Open MO-2-02-074, Inboard Main Steam Drain valve. (Cue: Acknowledge control switch operation.)	P	MO-2-02-074 control switch is momentarily placed in the "OPEN" position at panel 20C003-03.
13	Verify MO-2-02-074 Inboard Main Steam Drain valve is open. (Cue: MO-74 red light is on, green light is off.)	P	MO-2-02-074 red light is verified ON at panel 20C003-03.
14	Close MO-2-02-079, Orifice Bypass to Main Cndr valve. (Cue: MO-79 green light is on, red light is off.)	P	MO-2-02-079 green light is verified ON at panel 20C003-03.
*15	Open MO-2-02-078, Downstream Drain valve. (Cue: MO-78 red light is on, green light is off.)	P	MO-2-02-078 control switch is momentarily placed in the "OPEN" position at panel 20C003-03.

STEP NO	STEP	ACT	STANDARD
16	Verify MO-2-02-078 Downstream Drain valve is open. (Cue: MO-78 red light is on, green light is off.)	P	MO-2-02-078 red light is verified ON at panel 20C003-03.
17	Observe pressure differential across the Inboard MSIVs. Determine the difference between Reactor pressure on PI-2-06-090A(B)(C) and "Steam Line" pressure on PR-2865 on panel 20C008A. (Cue: PI-2-06-090A(B)(C) indicates 540 psig and "Main Steam Pressure A" and "Main Steam Pressure B" indicate 485 psig and rising slowly.)	P	Pressure differential across the Inboard MSIVs is determined using PI-2-06-090A(B)(C) at panel 20C005A, and "Steam Line" PR-2865 at panel 20C008A.
18	Verify differential pressure across the inboard MSIVs is less than 150 psid. (Cue: PI-2-06-090A(B)(C) is 400 psig and Main Steam Pressure is 300 psig.)	P	Differential pressure across the inboard MSIVs is verified less than 150 psig on PI-2-06-090A(B)(C) at panel 20C005A, and "Steam Line" PR-2865 at panel 20C008A.
*19	Open AO-2-02-080A "A" Inboard MSIV. (Cue: Acknowledge control switch operation.)	P	AO-2-02-080A control switch is placed in the "AUTO/OPEN" position at panel 20C003-01.
20	Verify AO-2-02-080A "A" Inboard MSIV is open. (Cue: AO-2-02-080A red light is on, green light is off.)	P	AO-2-02-080A red light is verified ON at panel 20C003-01.
*21	Open AO-2-02-080B "B" Inboard MSIV. (Cue: Acknowledge control switch operation.)	P	AO-2-02-080B control switch is placed in the "AUTO/OPEN" position at panel 20C003-01.
22	Verify AO-2-02-080B "B" Inboard MSIV is open. (Cue: AO-2-02-080B red light is on, green light is off.)	P	AO-2-02-080B red light is verified ON at panel 20C003-01.

STEP NO	STEP	ACT	STANDARD
*23	Open AO-2-02-080C "C" Inboard MSIV. (Cue: Acknowledge control switch operation.)	P	AO-2-02-080C control switch is placed in the "AUTO/OPEN" position at panel 20C003-01.
24	Verify AO-2-02-080C "C" Inboard MSIV is open. (Cue: AO-2-02-080C red light is on, green light is off.)	P	AO-2-02-080C red light is verified ON at panel 20C003-01.
*25	Open AO-2-02-080D "D" Inboard MSIV. (Cue: Acknowledge control switch operation.)	P	AO-2-02-080D control switch is placed in the "AUTO/OPEN" position at panel 20C003-01.
26	Verify AO-2-02-080D "D" Inboard MSIV is open. (Cue: AO-2-02-080D red light is on, green light is off.)	P	AO-2-02-080D red light is verified ON at panel 20C003-01.
27	Inform Control Room Supervisor of task completion. (Cue: Control Room Supervisor acknowledges report.)	P	Task completion reported.
28	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 MSIVs have been reopened, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

TASK CONDITIONS/PREREQUISITES

- 1. Use of this procedure has been directed by the TRIP procedures.**
- 2. Main Condenser is available.**
- 3. RPV level is known.**
- 4. There is no indication of gross fuel failure.**
- 5. There is no indication of a Main Steam Line break.**
- 6. All T-221 Tool Packages have been obtained.**
- 7. Inboard and Outboard MSIVs are closed.**
- 8. Steps 4.1 thru 4.5 of T-221-2, "Main Steam Isolation Valve Bypass" are complete.**

INITIATING CUE

The Control Room Supervisor directs you to perform T-221-2, "Main Steam Isolation Valve Bypass" steps 4.6 through 4.12 in order to reopen the MSIVs.

EXELON NUCLEAR
Nuclear Generation Group

OJT/TPE MATERIAL COVERSHEET

<input checked="" type="checkbox"/> X	Peach Bottom	<input type="checkbox"/>	Limerick	<input type="checkbox"/>	Common
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TYPE:	<input checked="" type="checkbox"/> JPM	<input type="checkbox"/> QUALIFICATION MANUAL	<input type="checkbox"/> OJT MODULE
PROGRAM:	LICENSED OPERATOR TRAINING	CODE #:	PLOR- ???CA
COURSE:	LICENSED OPERATOR REQUALIFICATION	REV #:	000
AUTHOR:	M. J. Kelly	TYPIST:	mjk
TITLE:	PERFORM CORE SPRAY B PUMP CAPACITY TEST FOR IST (Alternate Path -- Minimum Flow Valve Fails to Open)		

APPROVALS:

_____ Signature / Title	_____ Date
_____ Signature / Title	_____ Date
_____ Signature / Title	_____ Date
_____ Signature / Title	_____ Date

APPROVED FOR USE:

_____ Signature / Title	_____ Date
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EFFECTIVE DATE: ____/____/____

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

CODE NO.: PLOR-???CA

REV. NO.: 000

TITLE: PERFORM CORE SPRAY B PUMP CAPACITY TEST FOR IST (Alternate Path – Minimum Flow Valve Fails to Open)

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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: 2090140101 / PLOR-NEW1CA K/A: 209001A4.04
URO: 2.9 SRO: 2.9

TASK DESCRIPTION: Ability to manually operate and/or monitor Core Spray minimal flow valves in the control room

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. ST-O-014-212-2, Rev. 1, "Core Spray B Pump Capacity Test for IST"

D. TASK STANDARD

1. Satisfactory task completion is indicated when it is recognized that the Core Spray B Pump has no minimum flow protection, the pump is secured, and Core Spray B loop is returned to a normal standby lineup, as specified in the performance steps of ST-O-014-212-2, Section 6.0.
2. Estimated time to complete: 15 minutes Non-Time Critical

E. DIRECTIONS TO EXAMINEE

When given the initiating cue, perform necessary steps to perform Core Spray 2B pump capacity test for IST 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 plant is operating at 100% power.
2. An Equipment Operator is standing by in the 2B Core Spray Pump Room.
3. Communications are available between the Control Room, 2B Core Spray Pump Room, B and D Core Spray Pump Triangle Room, and Cable Spreading Room.
4. Core Spray pump 2B oil level is between the minimum and maximum lines on the sightglass.
5. Core Spray pump 2B static pump suction pressure is 6 psig.
6. All data recording will be performed (simulated) by a second operator.

G. INITIATING CUE

The Control Room Supervisor directs you to perform Core Spray 2B Pump Capacity Test for IST in accordance with ST-O-014-212-2 (provided).

Provide examinee a copy of ST-O-014-212-2 with the following items completed:

- Section 1 of the cover page
- Procedure section 2.0, "Test Equipment"
- Procedure section 3.0, "Prerequisites"

H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	CLOSE MO-2-14-011B "Core Spray Outboard Disch". (Cue: Acknowledge control switch operation)	P	MO-2-14-011B control switch is momentarily placed in "CLOSE" at Panel 20C003.
2	VERIFY CLOSED MO-2-14-011B "Core Spray Outboard Disch". (Cue: MO-2-14-011B green light is ON; red light is OFF.)	P	Verifies that MO-2-14-011B green light is ON; red light is OFF at Panel 20C003.
<p align="center">**** NOTE: ****</p> <p>If this JPM is being performed in parallel with another JPM, direct candidate <u>NOT</u> to make the plant page announcement prior to starting 2B Core Spray pump.</p>			
*3	START 2BP037 "Core Spray B Pump". (Cue: Acknowledge control switch operation.)	P	<p>"Starting 2B Core Spray pump" is announced on plant page prior to starting Core Spray pump 2B.</p> <p>2B Core Spray pump control switch is momentarily placed in the "START" position at Panel 20C003.</p>
4	VERIFY Core Spray 2B Pump STARTS and is RUNNING by observing motor current on 14A-M1B and discharge pressure on PI-2-14-048B "Core Spray Disch P". (Cue: Ammeter 14A-M1B indicates 40 amps, PI-2-14-048B indicates 350 psig.)	P	2B Core Spray pump green light is verified OFF, red light is verified ON. Pump motor amps on ammeter 14A-M1B and discharge pressure on PI-2-14-048B are verified rising at Panel 20C003.
5	VERIFY MO-2-14-005B "Core Spray B Min Flow" automatically OPENS. (Cue: MO-2-14-005B green light is OFF; red light is ON.)	P	MO-2-14-005B green light is verified OFF; red light is verified ON at Panel 20C003.
6	VERIFY 2DP037 "Core Spray D Pump" is NOT rotating. (Cue: When requested, report that the Core Spray D Pump is NOT rotating.)	P	Directs Equipment Operator to verify Core Spray D Pump is NOT rotating.

STEP NO	STEP	ACT	STANDARD
*7	OPEN MO-2-14-026B "Core Spray Full Flow Test". (Cue: Acknowledge control switch operation)	P	MO-2-14-026B control switch is momentarily placed in "OPEN" at Panel 20C003.
8	VERIFY OPEN MO-2-14-026B "Core Spray Full Flow Test". (Cue: MO-2-14-026B green light is OFF; red light is ON)	P	MO-2-14-026B green light is verified OFF; red light is verified ON at Panel 20C003.
9	VERIFY MO-2-14-005B "Core Spray B Min Flow" automatically CLOSES. (Cue: MO-2-14-005B green light is ON; red light is OFF.)	P	MO-2-14-005B green light is verified ON; red light is verified OFF at Panel 20C003.
<p align="center">**** NOTE: ****</p> <p>Time-compress by telling the examinee Core Spray B Pump has been running for 5 minutes.</p> <p>Remind examinee that a second operator has successfully recorded all full flow test data on Data Sheet 1.</p>			
*10	THROTTLE MO-2-14-026B "Core Spray Full Flow Test" to obtain Rated Flow of 3125 to 3175 gpm as read on computer point H056. (Cue: Acknowledge control switch and red pushbutton operation. MO-2-14-026B green light is ON; red light is OFF. Computer point H056 indicates 0 gpm.)	P	<p>MO-2-14-026B control switch is momentarily placed in "CLOSE" at Panel 20C003. Red pushbutton is depressed to stop valve stroke. Valve control switch and red pushbutton are operated as necessary to achieve 3125 to 3175 gpm as read on PMS computer point H056.</p> <p>Recognizes that the MO-2-14-026B has ramped close unexpectedly and that the green closed light is ON and that the red open light is verified OFF at Panel 20C003.</p> <p>Report to the CRS that the MO-2-14-026B full flow test valve for the 2B Core Spray Pump has failed to properly operate</p>

STEP NO	STEP	ACT	STANDARD
11	<p>VERIFY MO-2-14-005B "Core Spray B Min Flow" automatically OPENS.</p> <p>(Cue: MO-2-14-005B green light is ON; red light is OFF.)</p>	P	<p>Recognizes that the MO-2-14-005B green light is ON; red light is OFF at Panel 20C003. The Min. Flow Valve has not automatically opened.</p> <p>Report to the CRS that the minimum flow valve for the 2B Core Spray Pump has failed to properly operate.</p>
*12	<p>SHUTDOWN 2BP037 "Core Spray B Pump".</p> <p>(Cue: Acknowledge control switch operation. Core Spray B Pump green light is ON; red light is OFF. Pump motor amps and pump discharge pressure are zero.)</p>	P	<p>2B Core Spray pump control switch is momentarily placed in the "STOP" position at Panel 20C003.</p> <p>2B Core Spray pump green light is verified ON, red light is verified OFF. Pump motor amps on ammeter 14A-M1B and discharge pressure on PI-2-14-048B are verified at zero at Panel 20C003.</p>

**** NOTE: ****

As the Control room Supervisor, direct that the 2B Core Spray loop be returned to a normal lineup.

13	<p>Open MO-2-14-011B "Core Spray Outboard Disch".</p> <p>(Cue: Acknowledge control switch operation)</p>	P	MO-2-14-011B control switch is momentarily placed in "OPEN" at Panel 20C003.
14	<p>VERIFY OPEN MO-2-14-011B "Core Spray Outboard Disch".</p> <p>(Cue: MO-2-14-011B green light is OFF; red light is ON)</p>	P	MO-2-14-011B green light is verified OFF; red light is verified ON at Panel 20C003.
15	Inform Control Room Supervisor of task completion.	P	Control Room Supervisor notified MO-2-14-026B malfunction and test being aborted.
16	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 it is recognized that the Core Spray B Pump has no minimum flow protection, the pump is secured, and Core Spray B loop is returned to a normal standby lineup, as specified in the performance steps of ST-O-014-212-2, Section 6.0, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

TASK CONDITIONS/PREREQUISITES

- 1. The plant is operating at 100% power.**
- 2. An Equipment Operator is standing by in the 2B Core Spray Pump Room.**
- 3. Communications are available between the Control Room, 2B Core Spray Pump Room, B and D Core Spray Pump Triangle Room, and Cable Spreading Room.**
- 4. Core Spray pump 2B oil level is between the minimum and maximum lines on the sightglass.**
- 5. Core Spray pump 2B static pump suction pressure is 6 psig.**
- 6. All data recording will be performed (simulated) by a second operator.**

INITIATING CUE

The Control Room Supervisor directs you to perform Core Spray 2B pump capacity test for IST in accordance with ST-O-014-212-2 (provided).

EXELON NUCLEAR
Nuclear Generation Group

OJT/TPE MATERIAL COVERSHEET

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TYPE:	<input checked="" type="checkbox"/> JPM	<input type="checkbox"/> QUALIFICATION MANUAL	<input type="checkbox"/> OJT MODULE
PROGRAM:	LICENSED OPERATOR TRAINING	CODE #:	PLOR-024C
COURSE:	LICENSED OPERATOR REQUALIFICATION	REV #:	008
AUTHOR:	M. J. Kelly	TYPIST:	vmb
TITLE:	PERFORM A GROUP I PCIS ISOLATION RESET (GP-8A)		
APPROVALS:			
		_____ Signature / Title	_____ Date
		_____ Signature / Title	_____ Date
		_____ Signature / Title	_____ Date
		_____ Signature / Title	_____ Date
APPROVED FOR USE:			
		_____ Signature / Title	_____ Date
EFFECTIVE DATE: ____/____/____			

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

CODE NO.: PLOR-024C

REV. NO.: 008

TITLE: Perform a Group I PCIS Isolation Reset (GP-8A)

TCF #	TCF DATE	CHANGED SECTION #
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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: 2000490501 / PLOR-024C

K/A: 223002A4.03

URO: 3.6 SRO: 3.5

TASK DESCRIPTION: Perform a Group I PCIS Isolation Reset GP-8A)

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

Hand the Examinee a copy of C.O.L. GP-8.A with "As Found Position" column initials already filled in.

C. REFERENCES

1. Procedure GP-8.A, Rev. 10, "PCIS Isolation - Group I"
2. C.O.L. GP-8.A, Rev. 8, "Group I Isolation"

D. TASK STANDARD

1. Satisfactory task completion is indicated when the PCIS Group I Isolation is reset.
2. Estimated time to complete: 8 minutes Non-Time Critical

E. DIRECTIONS TO EXAMINEE

When given the initiating cue, perform necessary steps to reset the PCIS Group I isolation 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 plant had been at 100% power.
2. A PCIS Group I isolation has occurred and has been verified to be a result of Main Steam tunnel high temperature.
3. The cause of the PCIS Group I isolation has been corrected.
4. The plant is in a safe, stable shutdown condition.
5. CAV (Crack Arrest Verification) System is not in operation.
6. GP-8.A, "PCIS Isolation - Group I" steps 3.1 and 3.2 have been completed.
7. There is no indication of fuel damage.
8. There is no evidence of a steam leak.

G. INITIATING CUE

The Control Room Supervisor directs you to reset the PCIS Group I isolation logic per steps 4.1 through 4.4 of GP-8.A, "PCIS Isolation - Group I".

H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain copies of procedures GP-8A and COL GP-8A.	P	Copies of procedures GP-8A and COL GP-8A are obtained.
<p align="center">** NOTE**</p> <p align="center">Provide examinee with the marked up COL GP-8A.</p>			
*2	Place switch to "CLOSE" for AO-2-02-080A. (Cue: Acknowledge control switch operation.)	P	AO-2-02-080A control switch placed in the "CLOSE" position at panel 20C003-01.
3	Initial the AO-2-02-080A box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-2-02-080A initialed on COL GP-8A.
*4	Place switch to "CLOSE" for AO-2-02-080B. (Cue: Acknowledge control switch operation.)	P	AO-2-02-080B control switch placed in the "CLOSE" position at panel 20C003-01.
5	Initial the AO-2-02-080B box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-2-02-080B initialed on COL GP-8A.
*6	Place switch to "CLOSE" for AO-2-02-080C. (Cue: Acknowledge control switch operation.)	P	AO-2-02-080C control switch placed in the "CLOSE" position at panel 20C003-01.
7	Initial the AO-2-02-080C box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-2-02-080C initialed on COL GP-8A.
*8	Place switch to "CLOSE" for AO-2-02-080D. (Cue: Acknowledge control switch operation.)	P	AO-2-02-080D control switch placed in the "CLOSE" position at panel 20C003-01.

STEP NO	STEP	ACT	STANDARD
9	Initial the AO-2-02-080D box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-2-02-080D initialed on COL GP-8A.
*10	Place switch to "CLOSE" for AO-2-02-086A. (Cue: Acknowledge control switch operation.)	P	AO-2-02-086A control switch placed in the "CLOSE" position at panel 20C003-01.
11	Initial the AO-2-02-086A box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-2-02-086A initialed on COL GP-8A.
*12	Place switch to "CLOSE" for AO-2-02-086B. (Cue: Acknowledge control switch operation.)	P	AO-2-02-086B control switch placed in the "CLOSE" position at panel 20C003-01.
13	Initial the AO-2-02-086B box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-2-02-086B initialed on COL GP-8A.
*14	Place switch to "CLOSE" for AO-2-02-086C. (Cue: Acknowledge control switch operation.)	P	AO-2-02-086C control switch placed in the "CLOSE" position at panel 20C003-01.
15	Initial the AO-2-02-086C box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-2-02-086C initialed on COL GP-8A.
*16	Place switch to "CLOSE" for AO-2-02-086D. (Cue: Acknowledge control switch operation.)	P	AO-2-02-086D control switch placed in the "CLOSE" position at panel 20C003-01.
17	Initial the AO-2-02-086D box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-2-02-086D initialed on COL GP-8A.

STEP NO	STEP	ACT	STANDARD
18	Verify switch in "CLOSE" for AO-2-02-039. (Cue: Switch in "CLOSE".)	P	AO-2-02-039 control switch verified in the "CLOSE" position at panel 20C004A.
19	N/A or initial the AO-2-02-039 box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-2-02-039 N/A'd or initialed on COL GP-8A.
20	Verify switch in "CLOSE" for AO-2-02-040. (Cue: Switch in "CLOSE".)	P	AO-2-02-040 control switch verified in the "CLOSE" position at panel 20C004A.
21	N/A or initial the AO-2-02-040 box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-2-02-040 N/A'd or initialed on COL GP-8A.
22	Verify switch in "CLOSE" for AO-2-02-316. (Cue: Switch in "CLOSE".)	P	AO-2-02-316 control switch verified in the "CLOSE" position at panel 20C003-03.
23	N/A or initial the AO-2-02-316 box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-2-02-316 N/A'd or initialed on COL GP-8A.
24	Verify switch in "CLOSE" for AO-2-02-317. (Cue: Switch in "CLOSE".)	P	AO-2-02-317 control switch verified in the "CLOSE" position at panel 20C003-04.
25	N/A or initial the AO-2-02-317 box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-2-02-317 N/A'd or initialed on COL GP-8A.
26	Verify MO-2-02-074 is CLOSED. (Cue: MO-2-02-074 green light is on, red light is off.)	P	MO-2-02-074 green light verified ON at panel 20C003-03.
27	N/A or initial the MO-2-02-074 box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for MO-2-02-074 N/A'd or initialed on COL GP-8A.

STEP NO	STEP	ACT	STANDARD
28	Verify MO-2-02-077 is CLOSED. (Cue: MO-2-02-077 green light is on, red light is off.)	P	MO-2-02-077 green light verified ON at panel 20C003-04.
29	N/A or initial the MO-2-02-077 box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for MO-2-02-077 N/A'd or initialed on COL GP-8A.
30	Verify switch in "CLOSE" for AO-8098A. (Cue: Switch in "CLOSE".)	P	AO-8098A control switch verified in the "CLOSE" position at panel 20C003-04.
31	N/A or initial the AO-8098A box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-8098A N/A'd or initialed on COL GP-8A.
32	Verify switch in "CLOSE" for AO-8098C. (Cue: Switch in "CLOSE".)	P	AO-8098C control switch verified in the "CLOSE" position at panel 20C003-04.
33	N/A or initial the AO-8098C box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-8098C N/A'd or initialed on COL GP-8A.
34	Verify switch in "CLOSE" for AO-8099A. (Cue: Switch in "CLOSE".)	P	AO-8099A control switch verified in the "CLOSE" position at panel 20C003-04.
35	N/A or initial the AO-8099A box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-8099A N/A'd or initialed on COL GP-8A.
36	Verify switch in "CLOSE" for AO-8099C. (Cue: Switch in "CLOSE".)	P	AO-8099C control switch verified in the "CLOSE" position at panel 20C003-04.
37	N/A or initial the AO-8099C box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-8099C N/A'd or initialed on COL GP-8A.

STEP NO	STEP	ACT	STANDARD
38	Verify switch in "CLOSE" for AO-8098B (Cue: Switch in "CLOSE".)	P	AO-8098B control switch verified in the "CLOSE" position at panel 20C003-02.
39	N/A or initial the AO-8098B box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-8098B N/A'd or initialed on COL GP-8A.
40	Verify switch in "CLOSE" for AO-8098D. (Cue: Switch in "CLOSE".)	P	AO-8098D control switch verified in the "CLOSE" position at panel 20C003-02.
41	N/A or initial the AO-8098D box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-8098D N/A'd or initialed on COL GP-8A.
42	Verify switch in "CLOSE" for AO-8099B. (Cue: Switch in "CLOSE".)	P	AO-8099B control switch verified in the "CLOSE" position at panel 20C003-02.
43	N/A or initial the AO-8099B box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-8099B N/A'd or initialed on COL GP-8A.
44	Verify switch in "CLOSE" for AO-8099D. (Cue: Switch in "CLOSE".)	P	AO-8099D control switch verified in the "CLOSE" position at panel 20C003-02.
45	N/A or initial the AO-8099D box in the "CHECKED BY" column on COL GP-8A.	P	"CHECKED BY" column for AO-8099D N/A'd or initialed on COL GP-8A.
** NOTE**			
The C.O.L. steps for AO-2256 "Condenser Offgas to Mechanical Vacuum Pump (MVP)" and the MVP are not required to be performed and can be marked as N/A.			

46	<p>Verify isolation signal cleared.</p> <p>(Cue: The following annunciators are not lit: 227 B-2, 228 A-2, 228 E-3, 228 E-4)</p>	P	<p>The following Group I Isolation annunciators are verified not lit:</p> <p>227 B-2 and 228 A-2,</p> <p>OR</p> <p>228 E-3 and 228 E-4</p> <p>OR</p> <p>Verifies no alarms on Steam Leak Detection Panel (located on riverside back wall of simulator)</p>
*47	<p>Place the Inboard PCIS Reset Switch, 16A-S32, in the "GRP I" position.</p> <p>(Cue: Acknowledge reset switch operation.)</p>	P	<p>The Inboard PCIS Reset Switch is momentarily placed in the "GRP I" position at panel 20C005A.</p>
*48	<p>Place the Outboard PCIS Reset Switch, 16A-S33, in the "GRP I" position.</p> <p>(Cue: Acknowledge reset switch operation.)</p>	P	<p>The Outboard PCIS Reset Switch is momentarily placed in the "GRP I" position at panel 20C005A.</p>
49	<p>Verify "CHANNEL A and B GROUP I ISOLATION RELAYS NOT RESET" annunciators clear.</p> <p>(Cue: Annunciators 211 H-1 and 211 J-1 are not lit.)</p>	P	<p>The "CHANNEL A and B GROUP I ISOLATION RELAYS NOT RESET" annunciators 211 H-1 and 211 J-1 are verified not lit.</p>
50	<p>Inform Control Room Supervisor of task completion.</p> <p>(Cue: Control Room Supervisor acknowledges report.)</p>	P	<p>Task completion reported.</p>

51	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.
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Under "ACT" P - must perform
S - must simulate

I. TERMINATING CUE

When the PCIS Group I isolation is reset, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

TASK CONDITIONS/PREREQUISITES

- 1. The plant had been at 100% power.**
- 2. A PCIS Group I isolation has occurred and has been verified to be a result of Main Steam tunnel high temperature.**
- 3. The cause of the PCIS Group I isolation has been corrected.**
- 4. The plant is in a safe, stable shutdown condition.**
- 5. CAV (Crack Arrest Verification) System is not in operation.**
- 6. GP-8.A, "PCIS Isolation - Group I" steps 3.1 and 3.2 have been completed.**
- 7. There is no indication of fuel damage.**
- 8. There is no evidence of a steam leak.**

INITIATING CUE:

The Control Room Supervisor directs you to reset the PCIS Group I isolation logic per steps 4.1 through 4.4 of GP-8.A, "PCIS Isolation - Group I".

EXELON NUCLEAR
Nuclear Generation Group

OJT/TPE MATERIAL COVERSHEET

<input checked="" type="checkbox"/> X	Peach Bottom	<input type="checkbox"/>	Limerick	<input type="checkbox"/>	Common
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TYPE:	<input checked="" type="checkbox"/> X	JPM	<input type="checkbox"/>	QUALIFICATION MANUAL	<input type="checkbox"/>	OJT MODULE
PROGRAM:	LICENSED OPERATOR TRAINING				CODE #:	PLOR-031C
COURSE:	LICENSED OPERATOR REQUALIFICATION				REV #:	011
AUTHOR:	M. J. Kelly				TYPIST:	mda
TITLE:	EXCITING THE MAIN GENERATOR					
APPROVALS:						
			_____ Signature / Title		_____ Date	
			_____ Signature / Title		_____ Date	
			_____ Signature / Title		_____ Date	
			_____ Signature / Title		_____ Date	
APPROVED FOR USE:						
			_____ Signature / Title		_____ Date	
EFFECTIVE DATE: ____ / ____ / ____						

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

TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-031C

REV. NO.: 011

TITLE: EXCITING THE MAIN GENERATOR

TCF #	TCF DATE	CHANGED SECTION #
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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: 2370110101 / PLOR-031C

K/A: 262001A4.04

RO: 3.6 SRO: 3.7

TASK DESCRIPTION: EXCITING THE MAIN GENERATOR

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 50.1.A-2 Rev. 11, "Main Generator Synchronizing and Loading" (R)

D. TASK STANDARD

1. Performance Location: Simulator
2. Satisfactory task completion is indicated when the Main Generator is excited, generator terminal voltage is adjusted to 22 KV, and the automatic voltage regulator is in service.
3. Estimated time to complete: 10 minutes (A.5) Non-Time Critical

E. DIRECTIONS TO EXAMINEE

When given the initiating cue, perform necessary steps to excite the Main Generator 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 startup in progress with reactor power at approximately 18%.
2. All SO 50.1.A-2, "Main Generator Synchronizing and Loading" prerequisites are met.
3. The Power System Director has been notified.

G. INITIATING CUE

The Control Room Supervisor directs you, the Plant Reactor Operator, to excite the Main Generator and place the automatic voltage regulator in service in accordance with steps 4.1 through 4.8 of SO 50.1.A-2, "Main Generator Synchronizing and Loading."

H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of SO 50.1.A-2.	P	A copy of SO 50.1.A-2 is obtained
2	Verify "GENERATOR INSULATION OVER HEATING" annunciator is clear. (Cue: Annunciator 206 L-2 is not lit.)	P	"GENERATOR INSULATION OVER HEATING" annunciator is verified clear on alarm panel 206 L-2.
3	Verify the "Load Selector" pushbutton is selected to REMOTE/AUTO. (Cue: Load Selector REMOTE/AUTO light is on.)	P	Load Selector REMOTE/AUTO light is verified ON at panel 20C008A.
4	Verify "Reg/Transfer" switch 43-0601 in MANUAL. (Cue: "Reg/Transfer" switch is in manual, green light is on, red light is off.)	P	Regulator Transfer switch 43-0601 is verified in the MANUAL position at panel 20C009.
5	Verify the Manual DC Volt Regulator 70-0601 set at minimum. (Cue: Manual DC Volt Regulator green and amber lights are on, red light is off.)	P	Manual DC Voltage Regulator 70-0601 green and amber lights are verified ON at Panel 20C009.
6	Direct an Equipment Operator to periodically monitor machine gas pressure on PI-4356. (Cue: Equipment Operator reports PI-4356 indicates 75 psig.)	P	Equipment Operator is directed to periodically monitor machine gas pressure on PI-4356.
*7	Close the "Alt Exc Fld Bkr" 41-0601. (Cue: Acknowledge control switch operation, Alt Exciter Field Breaker red light is on, green light is off.)	P	Alterrex Exciter Field Breaker control switch 41-0601 is momentarily placed in the CLOSE position at panel 20C009.
8	Verify Field Volts, Amps and Generator Volts rise and red deexcitation backup light lit. (Cue: FIELD voltmeter indicates 100 volts, FIELD ammeter indicates 1400 amps, GENERATOR voltmeter indicates 17 kilovolts; DEEXCITATION backup red light is on, green light is off.)	P	FIELD AMPS and VOLTS and GENERATOR VOLTS are verified to RISE and DEEXCITATION backup red light is verified ON and green light OFF at panel 20C009.

STEP NO	STEP	ACT	STANDARD
*9	Adjust GENERATOR output voltage to obtain 21.5 - 22.5 KV using MAN. DC VOLT REGULATOR 70-0601. (Cue: Generator voltmeter indicates 22 KV. Manual DC voltage regulator green light off, yellow light on.)	P	Manual DC Voltage Regulator 70-0601 is adjusted to obtain a GENERATOR output voltage between 20.9 and 23.1 KV at panel 20C009.
10	Verify GENERATOR output voltage is between 21.5 - 22.5 KV. (Cue: GENERATOR VOLTMETER indicates 22 KV.)	P	GENERATOR output voltage is verified between 21.5 and 22.5 KV on GEN VOLTMETER at panel 20C009.
*11	Adjust the "Auto Voltage Reg Rheostat"(90P) to obtain a "Reg Man/Auto Deviation" voltage of 0 VDC. (Cue: Acknowledge CLOCKWISE Rheostat operation.)	P	Auto Voltage Reg Rheostat 90P is adjusted to obtain a reading within 2 volts of 0 on the Reg Man/Auto Deviation meter at panel 20C009.
12	Verify "Reg Man/Auto Deviation voltage is 0 VDC. (Cue: Reg Man/Auto Deviation meter indicates 0 VDC.)	P	Reg Man/Auto Deviation voltage is verified to be 0 VDC on the Reg Man/Auto Deviation voltmeter at panel 20C009.
13	Verify "GEN VOLT REG AUTO TO MAN UNBALANCED" annunciator is clear. (Cue: Annunciator 220 C-3 is not lit.)	P	"GEN VOLT REG AUTO TO MAN UNBALANCED" annunciator is verified clear on alarm panel 220 C-3.
*14	Place the "Reg/Transfer" switch 43-0601 in "AUTO". (Cue: Acknowledge control switch operation.)	P	Reg/Transfer switch 43-0601 is placed in the AUTO position at panel 20C009.
15	Verify the "Reg/Transfer" lights indicate auto regulation. (Cue: The Reg/Transfer red light is on, green light is off.)	P	Reg/Transfer red light is verified ON and green light verified OFF at panel 20C009.
16	Inform the Control Room Supervisor of task completion. (Cue: Control Room Supervisor acknowledges 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) <u>AND</u> procedures.	P	Positive control established.

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

I. TERMINATING CUE

When the Main Generator exciter field breaker is closed and the automatic voltage regulator is in service, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

TASK CONDITIONS/PREREQUISITES

- 1. Plant startup in progress with reactor power approximately 18%.**
- 2. All SO 50.1.A-2, "Main Generator Synchronization and Loading" prerequisites are met.**
- 3. The Power System Director has been notified.**

INITIATING CUE

The Control Room Supervisor directs you, the Plant Reactor Operator, to excite the Main Generator and place the automatic voltage regulator in service in accordance with steps 4.1 through 4.8 of SO 50.1.A-2, "Main Generator Synchronization and Loading."

EXELON NUCLEAR
Nuclear Generation Group

OJT/TPE MATERIAL COVERSHEET

<input checked="" type="checkbox"/> X	Peach Bottom	<input type="checkbox"/>	Limerick	<input type="checkbox"/>	Common
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TYPE:	<input checked="" type="checkbox"/> JPM	<input type="checkbox"/>	QUALIFICATION MANUAL	<input type="checkbox"/>	OJT MODULE
PROGRAM:	Licensed Operator Training			CODE #:	PLOR-004C
COURSE:	Licensed Operator Requalification			REV #:	011
AUTHOR:	J.R. Felice			TYPIST:	Jrf
TITLE:	Scram Reset				
APPROVALS:					
			_____ Signature / Title	_____ Date	
			_____ Signature / Title	_____ Date	
			_____ Signature / Title	_____ Date	
			_____ Signature / Title	_____ Date	
APPROVED FOR USE:					
			_____ Signature / Title	_____ Date	
EFFECTIVE DATE: ____ / ____ / ____					

NAME: _____ Last First M.I.	ISSUE DATE: _____				
SOC. SEC. NO. _____	COMPLETION DATE: _____				
COMMENTS:					
Training Review for Completeness: _____ Signature/Date	<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 50%;">PIMS CODE:</td><td style="width: 50%;"></td></tr><tr><td>PIMS ENTRY:</td><td></td></tr></table>	PIMS CODE:		PIMS ENTRY:	
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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: 2120090101 / PLOR-004C

K/A: 212000A4.14

RO: 3.8 SRO: 3.8

TASK DESCRIPTION: SCRAM RESET

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

Key for Scram Discharge Volume High Level Bypass Switch.

C. REFERENCES

GP-11.E, Rev. 21, "Reactor Protection System - Scram and ARI Reset"

D. TASK STANDARD

1. Satisfactory task completion is indicated when the Reactor Protection System is reset and the Scram Discharge Volume Vent and Drain valves are open.
2. Estimated time to complete: 19 minutes Non-Time Critical

E. DIRECTIONS TO EXAMINEE

When given the initiating cue, perform necessary steps to reset a scram and begin draining the Scram Discharge Volume 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. A Main Turbine trip has caused a reactor scram.
2. Plant conditions have stabilized with RPV level at 23 inches.
3. RPV pressure is being maintained below 1050 psig with Bypass Valves.
4. T-100, "Scram" is complete.
5. All scram valves are open. All SDV Vent and Drain valves are shut.
6. A CRD pump is operating.
7. Both RPS buses are energized.
8. The Reactor Mode switch is in "SHUTDOWN".
9. ARI was NOT initiated.
10. No fuel damage is suspected.

G. INITIATING CUE

The Control Room Supervisor directs you to reset the scram in accordance with GP-11.E, "Reactor Protection System - Scram and ARI Reset" and begin draining the Scram Discharge Volume.

H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of GP-11.E, "Reactor Protection System - Scram and ARI Reset".	P	A copy of GP-11.E, "Reactor Protection System - Scram and ARI Reset" is obtained.
2	Verify scram initiating signal clear or bypassed. (Cue: Annunciator 210 A-2 is lit.)	P	"TURBINE STOP VLV. CLOSURE AND CONTROL VLV. FAST CLOSURE SCRAM BYPASS" annunciator is verified lit on alarm panel 210 A-2.
*3	Place Scram Discharge Volume High Water Level Bypass Keylock Switch to "BYPASS". (Cue: Annunciator C-2 on alarm panel 210 is alarming.)	P	Key is obtained from CRS keybox, inserted into the Scram Discharge Volume High Water Level Bypass Keylock Switch 5A-S8 and placed in the "BYPASS" position at panel 20C005A.
4	Acknowledge the "SCRAM DISCHARGE VOLUME HI WATER LEVEL SCRAM BYPASS" annunciator. (Cue: Annunciator 210 C-2 is lit solid.)	P	The annunciator "ACKNOWLEDGE" pushbutton is depressed on panel 20C005A.
5	Prior to resetting a full scram, notify Radiation Protection. (Cue: Evaluator responds as Rad. Protection management and acknowledges notification.)	P	Contacts Rad. Protection personnel via radio, phone, or plant page.
*6	Place Scram Reset switch in Group 1 and 4 position then Group 2 and 3 position. (Cue: Acknowledge reset switch operation.)	P	Scram Reset switch 5A-S9 is taken to the "GROUP 1 & 4", and then "GROUP 2 & 3" positions at panel 20C005A.
7	Verify the four scram group white lights are lit on both the RPS cabinets. (Cue: All of the scram group white lights are lit on both 20C015 and 20C017.)	P	All scram group white lights verified LIT on panels 20C015 and 20C017.

STEP NO	STEP	ACT	STANDARD
8	Verify "A CHANNEL AUTO SCRAM" and "B CHANNEL AUTO SCRAM" annunciators are clear. (Cue: Annunciators 211 B-1 and 211 C-1 are not lit.)	P	"A CHANNEL REACTOR AUTO SCRAM" and "B CHANNEL REACTOR AUTO SCRAM" annunciators are verified clear on alarm panels 211 B-1 and 211 C-1.
9	Monitor Scram Air header pressure. (Cue: PI-2-3-312 indicated 73 psig.)	P	Scram air header pressure is verified to be approximately 70 psig on PI-2-3-312 on panel 20C205R.
10	Verify "SCRAM VALVE PILOT AIR HEADER PRESS HI-LOW" annunciator is clear. (Cue: Annunciator 211 D-2 is not lit.)	P	"SCRAM VALVE PILOT AIR HEADER PRESS HI-LOW" annunciator is verified clear on alarm panel 211 D-2.
11	Verify blue scram lights are off. (Cue: All of the blue scram lights are off on the Full Core Display.)	P	All blue scram lights are verified OFF on the Full Core Display.
12	Verify "ACCUMULATOR TROUBLE" lights are clear. (Cue: All of the "ACCUMULATOR TROUBLE" lights are clear on the Full Core Display.)	P	All "ACCUMULATOR TROUBLE" lights are verified clear on the Full Core Display.
13	Verify "CRD ACCUMULATOR LO PRESS HI LEVEL" annunciator is clear. (Cue: Annunciator 211 E-2 is not lit.)	P	"CRD ACCUMULATOR LO PRESS HI LEVEL" annunciator is verified clear on alarm panel 211 E-2.
<p align="center">** NOTE **</p> <p align="center">Step 14 will take approximately 5 minutes to complete.</p>			
14	Verify CRD System Cooling Water flow is 55 - 65 gpm. (Cue: FI-2-03-306 indicates 60 gpm.)	P	CRD System Cooling Water flow is verified to be 55 - 65 gpm on FI-2-03-306 on panel 20C005A.

STEP NO	STEP	ACT	STANDARD
15	Place the Rod Drift Alarm Reset switch to the "Reset" position. (Cue: Acknowledge reset switch operation.)	P	Rod Drift Alarm Reset switch 3A-S7 is momentarily placed to the "RESET" position and then released at panel 20C005A.
16	Verify the rod drift alarm lights are clear. (Cue: All of the rod drift alarm lights are clear on the full core display.)	P	All of the rod drift alarm lights are verified clear on the Full Core Display.
17	Verify "ROD DRIFT" annunciator is clear. (Cue: Annunciator 211 D-4 is not lit.)	P	"ROD DRIFT" annunciator is verified clear on alarm panel 211 D-4.
*18	Place SDV Inboard Vent and Drain Valves Switch, 5A-S14A, in "OPEN". (Cue: Acknowledge control switch operation.)	P	The SDV Inboard Vent and Drain Valve control switch 5A-S14A is momentarily placed in the "OPEN" position and then released at panel 20C005A.
19	Verify the SDV Inboard Vent and Drain Valves indicate open. (Cue: SDV Inboard Vent and Drain Valves red lights are on, green lights are off.)	P	SDV Inboard Vent and Drain Valves red lights are verified ON at panel 20C005A.
*20	Place SDV Outboard Vent and Drain Valves Switch, 5A-S14B, in "OPEN". (Cue: Acknowledge control switch operation.)	P	The SDV Outboard Vent and Drain Valve control switch 5A-S14B is momentarily placed in the "OPEN" position and then released at panel 20C005A.
21	Verify the SDV Outboard Vent and Drain Valves indicate open. (Cue: SDV Outboard Vent and Drain Valves red lights are on, green lights are off.)	P	SDV Outboard Vent and Drain Valves red lights are verified ON at panel 20C005A.
22	Inform Control Room Supervisor of task completion. (Cue: Control Room Supervisor acknowledges report.)	P	Task completion reported.

STEP NO	STEP	ACT	STANDARD
23	As an evaluator ensure 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 scram is reset and the Scram Discharge Volume Vents and Drains are open, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

TASK CONDITIONS/PREREQUISITES

- 1. A Main Turbine trip has caused a reactor scram.**
- 2. Plant conditions have stabilized with RPV level at 23 inches.**
- 3. RPV pressure is being maintained below 1050 psig with Bypass Valves.**
- 4. T-100, "Scram" is complete.**
- 5. All scram valves are open. All SDV Vent and Drain valves are shut.**
- 6. A CRD pump is operating.**
- 7. Both RPS buses are energized.**
- 8. The Reactor Mode switch is in "SHUTDOWN".**
- 9. ARI was NOT initiated.**
- 10. No fuel damage is suspected.**

INITIATING CUE

The Control Room Supervisor directs you to reset the scram in accordance with GP-11.E, "Reactor Protection System - Scram and ARI Reset" and begin draining the Scram Discharge Volume.

EXELON NUCLEAR
Nuclear Generation Group

OJT/TPE MATERIAL COVERSHEET

<input checked="" type="checkbox"/> X	Peach Bottom	<input type="checkbox"/>	Limerick	<input type="checkbox"/>	Common
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TYPE:	<input checked="" type="checkbox"/> X	JPM	<input type="checkbox"/>	QUALIFICATION MANUAL	<input type="checkbox"/>	OJT MODULE
PROGRAM:	LICENSED OPERATOR TRAINING				CODE #:	PLOR-NEW
COURSE:	LICENSED OPERATOR REQUALIFICATION				REV #:	000
AUTHOR:	M. J. Kelly				TYPIST:	mjk
TITLE:	VERIFY ISOLATION OF DRYWELL CHILLED WATER AND RBCCW					
APPROVALS:						
			_____ Signature / Title		_____ Date	
			_____ Signature / Title		_____ Date	
			_____ Signature / Title		_____ Date	
			_____ Signature / Title		_____ Date	
APPROVED FOR USE:						
			_____ Signature / Title		_____ Date	
EFFECTIVE DATE: ____ / ____ / ____						

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

TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-NEW

REV. NO.: 000

TITLE: Verify Isolation of Drywell Chilled Water and RBCCW

TCF #	TCF DATE	CHANGED SECTION #
1.		
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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. 18, "PCIS Isolation - Groups II and III" (R)

D. TASK STANDARD

1. Satisfactory task completion is indicated when the RBCCW to Drywell isolation valves MO-2373 and MO-2374 are closed AND both Recirculation Pumps are tripped.
2. Estimated time to complete: 10 minutes Non-Time Critical

E. DIRECTIONS TO EXAMINEE

When given the initiating cue, perform necessary steps of GP 8.B "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-20262 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 minus 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.
*6	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.
7	Verify <u>BOTH</u> Recirc pumps are tripped. (Cue: Both Recirc pumps breaker green lights are on and red lights are off.)	P	A and B Recirc "DRIVE MOTOR" breaker green lights are verified to be ON at panel 20C004A.
*8	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
9	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.
*10	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.
11	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.
12	Inform Control Room Supervisor of task completion. (Cue: Control Room Supervisor acknowledges report.)	P	Task completion reported.
13	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-20262 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"/> X	Peach Bottom	<input type="checkbox"/>	Limerick	<input type="checkbox"/>	Common
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TYPE:	<input checked="" type="checkbox"/> JPM	<input type="checkbox"/> QUALIFICATION MANUAL	<input type="checkbox"/> OJT MODULE
PROGRAM:	LICENSED OPERATOR TRAINING	CODE #:	PLOR-074P
COURSE:	LICENSED OPERATOR REQUALIFICATION	REV #:	013
AUTHOR:	K.A. Flacco	TYPIST:	mda
TITLE:	ISOLATING AND VENTING SCRAM AIR HEADER - UNIT 3 (T-214-3)		
APPROVALS:			
		_____ Signature / Title	_____ Date
		_____ Signature / Title	_____ Date
		_____ Signature / Title	_____ Date
		_____ Signature / Title	_____ Date
APPROVED FOR USE:		_____ Signature / Title	_____ Date
EFFECTIVE DATE: ____/____/____			

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

TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-074P

REV. NO.: 013

TITLE: ISOLATING AND VENTING SCRAM AIR HEADER - UNIT 3 (T-214-3)

TCF #	TCF DATE	CHANGED SECTION #
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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: 2003810599 / PLOR-074P

K/A: 295037EA1.03

RO: 4.1 SRO: 4.1

TASK DESCRIPTION: ISOLATING AND VENTING SCRAM AIR HEADER - UNIT 3 (T-214-3)

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

1. EOP Locker Key
2. T-214-3 Tool Package

C. REFERENCES

Procedure T-214-3, Rev. 7, "Isolating and Venting the Scram Air Header"

D. TASK STANDARD

1. Satisfactory task completion is indicated when the Unit 3 scram air header has been isolated and vented.
2. Estimated time to complete: 8 minutes Non-Time Critical

E. DIRECTIONS TO EXAMINEE

When given the initiating cue, perform necessary steps to isolate and vent the Unit 3 scram air header 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. A partial loss of feed flow on Unit 3 results in RPV level dropping below the scram setpoint.
2. Control Rods did NOT insert.
3. Blue scram lights on the Full Core Display are NOT lit.
4. Scram air header PI-3-03-312 on panel 30C124 reads 70 psig.
5. TRIP procedures have directed that the scram air header be depressurized.

G. INITIATING CUE

The Control Room Supervisor directs you, the Equipment Operator to perform T-214-3, "Isolating and Venting the Scram Air Header" on Unit 3.

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 <u>OR</u> examinee identifies the location of the WECS keybox and its associated key then evaluator should provide the EOP Tool Locker key. Examinee may produce their copy of Tool Locker Key.)	S	Emergency Operating Procedure Tool Locker Key requested from WECS <u>OR</u> examinee identifies the location of the WECS keybox and its associated key. Produces own copy of Tool Locker Key.
*2	Open Emergency Operating Procedure Tool Locker and obtain T-214 Tool Kit. (Cue: Equipment obtained.)	P	Tool Locker located on Radwaste Building El. 165' is unlocked, opened and T-214 Tool Kit located.
<p style="text-align: center;">****NOTE****</p> <p>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. <u>DO NOT</u> allow tools to be removed from the locker. Relock the locker before leaving the area.</p>			
*3	Close HV-3-3-123, Instr Air Header Block Vlv to Scram Pilot Valve Header. (Cue: Valve handwheel is turned [CLOCKWISE] until stem length above valve yoke lowers 1 inch then handwheel will not turn.)	S	HV-3-3-123 handwheel is turned CLOCKWISE until resistance of valve seat is felt. (Located on RB Unit 3 135' CRD Valve Nest.)
4	Verify closed IDV-3-3-312, PS-3-03-230 + PS-3-03-229 Instrument Drain Valve. (Cue: [CLOCKWISE] Valve handwheel did not move and stem length above valve yoke did not move.)	S	IDV-3-3-312 handwheel movement is attempted in the CLOCKWISE direction.
*5	Remove the cap from IDV-3-3-312. (Cue: Pipe cap is turned [COUNTERCLOCKWISE] until cap is removed.)	S	Pipewrench from Tool Kit is placed on IDV-3-3-312 pipe cap and is turned COUNTERCLOCKWISE until pipe cap is removed from pipe.
*6	Open IDV-3-3-312. (Cue: Valve is turned [COUNTER-CLOCKWISE] until stem length above valve yoke raises ¼ inch then will not turn, flow noise can be heard as valve is opened.)	S	IDV-3-3-312 is turned COUNTER-CLOCKWISE until resistance of valve backseat is felt.

STEP NO	STEP	ACT	STANDARD
7	Inform Control Room Supervisor of task completion. (Cue: Control Room Supervisor acknowledges report.)	S	Task completion reported using telephone, hand held radio, or GAI-TRONICS page system.
8	As an evaluator ensure 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 Unit 3 scram air header has been isolated and vented, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

TASK CONDITIONS/PREREQUISITES

- 1. A partial loss of feed flow on Unit 3 results in RPV level dropping below the scram setpoint.**
- 2. Control Rods did NOT insert.**
- 3. Blue scram lights on the Full Core Display are NOT lit.**
- 4. Scram air header PI-3-03-312 on panel 30C124 reads 70 psig.**
- 5. TRIP procedures have directed that the scram air header be depressurized.**

INITIATING CUE

The Control Room Supervisor directs you, the Equipment Operator to perform T-214-3, "Isolating and Venting the Scram Air Header" on Unit 3.

EXELON NUCLEAR
Nuclear Generation Group

OJT/TPE MATERIAL COVERSHEET

<input checked="" type="checkbox"/> X	Peach Bottom	<input type="checkbox"/>	Limerick	<input type="checkbox"/>	Common
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TYPE:	<input checked="" type="checkbox"/> JPM	<input type="checkbox"/> QUALIFICATION MANUAL	<input type="checkbox"/> OJT MODULE
PROGRAM:	Licensed Operator Training	CODE #:	PLOR-000C
COURSE:	Licensed Operator Requalification	REV #:	000
AUTHOR:	M. J. Kelly	TYPIST:	mjk
TITLE:	Defeat of RCIC Torus Suction Valve Auto Open Signal		
APPROVALS:			
		_____ Signature / Title	_____ Date
		_____ Signature / Title	_____ Date
		_____ Signature / Title	_____ Date
		_____ Signature / Title	_____ Date
APPROVED FOR USE:			
		_____ Signature / Title	_____ Date
EFFECTIVE DATE: ____ / ____ / ____			

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

TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-000C

REV. NO.: 000

TITLE: Defeat of RCIC Torus Suction Valve Auto Open Signal

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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: 2170280401 / PLOR-000C

K/A: 217000A2.04

URO: 3.0 SRO: 3.0

TASK DESCRIPTION: Defeat of RCIC Torus Suction Valve Auto Open Signal

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. Two (2) electrical boots for HFA relay contacts
2. Two blank Equipment Status tags

C. REFERENCES

1. AO 13.3-2, Rev. 1, "RCIC Torus Suction Valves, Defeat of Auto Open Signal"

D. TASK STANDARD

1. Satisfactory task completion is indicated when the Unit 2 RCIC Torus suction valve auto open signal has been defeated.
2. Estimated time to complete: 15 minutes Non-Time Critical

E. DIRECTIONS TO EXAMINEE

When given the initiating cue, perform necessary steps to defeat the Unit 2 RCIC Torus suction valve auto open signal 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. Shift Management has given permission to perform this task.
2. The Unit 2 Reactor Operator has given permission to perform this task.
3. Annunciator 222 (A-5) LOGIC POWER BUS LOST is in alarm.
4. Shift Management has changed AO 13.3-2, Attachment 1 steps 4.1.3 and 4.1.4, from required double verification (DV) to concurrent verification (CV).

G. INITIATING CUE

The Control Room Supervisor directs you, the Equipment Operator, to defeat the auto open signal to MO-2-13-39 and MO-2-13-41, RCIC Torus suction valves, by performing steps 4.1.3 through 4.1.6 of AO 13.3-2, "RCIC Torus Suction Valves, Defeat of Auto Open Signal".

H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of procedure AO 13.3-2, RCIC Torus Suction Valves, Defeat of Auto Open Signal. (Cue: When the Examinee requests the in-progress copy of AO 13.3-2 OR identifies how to obtain a controlled copy of the procedure, provide a hardcopy of procedure AO 13.3-2, RCIC Torus Suction Valves, Defeat of Auto Open Signal with Attachment 1 steps 4.1.1 and 4.1.2, for Shift Management and URO signoffs, already filled in AND steps 4.1.1 and 4.1.2 checked complete).	P	A copy procedure AO 13.3-2, RCIC Torus Suction Valves, Defeat of Auto Open Signal is obtained.
2	Obtain two electrical HFA relay contact boots and two blank Equipment Status tags. (Cue: two electrical relay contact boots AND two blank Equipment Status tags are obtained).	P	The Examinee obtains two electrical relay contact boots and two Equipment Status tags from the Main Control Room area or an alternate area such as an equipment cage or I&C instrument cage.
<p align="center">****NOTE****</p> <p>Prior to booting the contacts in the next steps the examinee may have to open the back of Panel 20C034 in order to verify the appropriate relay contact locations.</p>			
*3	Boot contacts 1-2 of relay 13A-K55. (Cue: Contacts 1-2 of relay 13A-K55 are booted)	S	In the Cable Spreading Room, panel 20C034, the cover of relay 13A-K55 is removed. A single electrical boot is slid over contacts 1-2 (first relay finger from the right).
4	Signoff Attachment 1 step 4.1.3. (Cue: AO 13.3-2 Attachment 1 step 4.1.3 is signed off on the "Initial" line)	P	AO 13.3-2 Attachment 1 step 4.1.3 is signed off on the "Initial" line.
5	Attach an Equipment Status tag to the boot on contacts 1-2 of relay 13A-K55. (Cue: Equipment Status tag is attached to boot on contacts 1-2 of relay 13A-K55).	S	Equipment Status tag with string is placed on boot of contacts 1-2 of relay 13A-K55.

*6	Boot contacts 3-4 of relay 13A-K55. (Cue: Contacts 3-4 of relay 13A-K55 are booted)	S	A single electrical boot is slid over contacts 3-4(second relay finger from the right).
7	Signoff Attachment 1 step 4.1.4. (Cue: AO 13.3-2 Attachment 1 step 4.1.4 is signed off on the "Initial" line)	P	AO 13.3-2 Attachment 1 step 4.1.4 is signed off on the "Initial" line
8	Attach an Equipment Status tag to the boot on contacts 3-4 of relay 13A-K55.	S	Equipment Status tag with string is placed on boot of contacts 3-4 of relay 13A-K55.
9	Inform Control Room Supervisor of task completion.	P	Task completion reported using either the telephone or the plant page system.
10	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 Attachment 1 of AO 13.3-2 has been completed, the Control Room Supervisor should be informed. The evaluator will then terminate the exercise.

TASK CONDITIONS/PREREQUISITES

- 1. Shift Management has given permission to perform this task.**
- 2. The Unit 2 Reactor Operator has given permission to perform this task.**
- 3. Annunciator 222 (A-5) LOGIC POWER BUS LOST is in alarm.**
- 4. Shift Management has changed AO 13.3-2, Attachment 1 steps 4.1.3 and 4.1.4, from required double verification (DV) to concurrent verification (CV).**

INITIATING CUE

The Control Room Supervisor directs you, the Equipment Operator, to defeat the auto open signal to MO-2-13-39 and MO-2-13-41, RCIC Torus suction valves, by performing steps 4.1.3 through 4.1.6 of AO 13.3-2, "RCIC Torus Suction Valves, Defeat of Auto Open Signal"

EXELON NUCLEAR
Nuclear Generation Group

OJT/TPE MATERIAL COVERSHEET

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TYPE:	<input checked="" type="checkbox"/> JPM	<input type="checkbox"/> QUALIFICATION MANUAL	<input type="checkbox"/> OJT MODULE
PROGRAM:	Licensed Operator Training	CODE #:	PLOR-NEWPA
COURSE:	Licensed Operator Requalification	REV #:	001
AUTHOR:	M J. Kelly	TYPIST:	Mjk
TITLE:	Drywell Chilled Water Low Level (Alternate Path - Manual Makeup to Drywell Chilled Water System)		

APPROVALS:

_____ Signature / Title	_____ Date
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APPROVED FOR USE:

_____ Signature / Title	_____ Date
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EFFECTIVE DATE: ____/____/____

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

TEMPORARY CHANGE FORM LOG

CODE NO.: PLOR-NEWPA

REV. NO.: 000

TITLE: Drywell Chilled Water Low Level (Alternate Path - Manual Makeup to Drywell Chilled Water System)

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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: 2200020401 / PLOR-NEWPA K/A: 295028EA1.03

URO: 3.9 SRO: 3.9

TASK DESCRIPTION: Take Actions For Drywell Chilled Water Low 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

1. ARC 217 H-5 DRYWELL CHILLED WATER LO LEVEL

C. REFERENCES

1. ARC 217 H-5 DRYWELL CHILLED WATER LO LEVEL, Rev. 3
2. T-223 "Drywell Cooler Fan Bypass"

D. TASK STANDARD

1. Satisfactory task completion is indicated when the drywell chilled water system has been restored to normal pressure.
2. Estimated time to complete: 15 minutes Non-Time Critical

E. DIRECTIONS TO EXAMINEE

When given the initiating cue, perform necessary steps to restore the drywell chilled water system to normal pressure. 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 manually scrammed due to rising drywell pressure.
2. Drywell pressure is 2.1 psig and rising slowly.
3. Drywell bulk average temperature is 146 degrees F and rising slowly.
4. T-223 "Drywell Cooler Fan Bypass" is in progress.
5. Annunciator 217 H-5 DRYWELL CHILLED WATER LO LEVEL has alarmed and the condition needs to be cleared to support restoring drywell cooling.

G. INITIATING CUE

The Control Room Supervisor directs you, the Equipment Operator, to perform Operator Action #3 of ARC 217 H-5 DRYWELL CHILLED WATER LO LEVEL until the annunciator is reset.

H. PERFORMANCE CHECKLIST

STEP NO	STEP	ACT	STANDARD
1	Obtain a copy of ARC 217 H-5 DRYWELL CHILLED WATER LO LEVEL. (Cue: Hand the Examinee a copy of ARC 217 H-5 DRYWELL CHILLED WATER LO LEVEL)	P	A copy of procedure ARC 217 H-5 is obtained.
2	Check drywell chilled water expansion tank pressure at PI-20265 "Chilled Water Expansion Tank". (Cue: PI-20265 "Chilled Water Expansion Tank" is indicating 20 psig and lowering slowly)	P	Locate PI-20265 for Drywell Chilled Water Expansion Tank 20T036 located on Turbine Building 165' elevation near the drywell chillers. Verify PI-20265 is reading ≥ 22 psig.
*3	Verify SV-20265 is OPEN. (Cue: SV-20265 is cold to the touch, there is no humming noise, and there is no flow noise. PI-20265 "Chilled Water Expansion Tank" is indicating 19 psig and continues to lower.)	P	Locate SV-20265 "Solenoid Operated Makeup to Chilled Water System". Attempt to verify that SV-20265 is energized by listening for humming noise, feeling that the SV is warm to the touch, and listening for system flow.
<p style="text-align: center;">****NOTE****</p> <p>During the performance of the following steps, if the examinee performs a system leak search, cue that no leaks were identified.</p>			
*4	OPEN HV-2-44A-23539 "Demineralized Water Makeup Bypass To Chilled Water System". (Cue: The lock and chain have been removed. HV-2-44A-23539 has been turned in the fully counter-clockwise direction and will no longer turn. System flow noise is heard.)	S	Obtain a locked valve key (every Equipment Operator in a posted position has a locked valve key). Unlock the lock on the valve and remove the chain. Turn HV-2-44A-23539 in the counter-clockwise direction until the valve handle no longer turns.
*5	Verify Drywell Chilled Water System pressure is 28 to 40 psig. (Cue: PI-20265 is indicating 30 psig and rising)	P	Locate PI-20265 for Drywell Chilled Water Expansion Tank 20T036 located on Turbine Building 165' elevation near the drywell chillers. Verify PI-20265 is reading 28 psig to 40 psig.

6	<p>CLOSE HV-2-44A-23539 "Demineralized Water Makeup Bypass To Chilled Water System".</p> <p>(Cue: HV-2-44A-23539 has been turned in the fully clockwise direction and will no longer turn. System flow noise has stopped. PI-20265 is indicating 35 psig and steady.)</p>	S	<p>Turn HV-2-44A-23539 in the clockwise direction until the valve handle no longer turns.</p> <p>Verify system pressure on PI-20265 for Drywell Chilled Water Expansion Tank 20T036</p>
7	<p>LOCK HV-2-44A-23539 "Demineralized Water Makeup Bypass To Chilled Water System".</p> <p>(Cue: The lock and chain have been reinstalled.)</p>	S	Reinstall the lock and chain on the valve.
8	<p>Contact main control room and ask if annunciator 217 H-5 DRYWELL CHILLED WATER LO LEVEL is reset.</p> <p>(Cue: Annunciator 217 H-5 DRYWELL CHILLED WATER LO LEVEL is reset.)</p>	S	Request using hand held radio, plant page system, or telephone.
9	<p>Inform Control Room of task completion.</p> <p>(Cue: Control Room acknowledges report.)</p>	S	Task completion reported using hand held radio, plant page system, or telephone.
10	As an evaluator ensure 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 HV-2-44A-23539 has been closed after restoring the Drywell Chilled Water System to normal pressure, and the Control Room reports that Annunciator 217 H-5 is reset, the evaluator will then terminate the exercise.

TASK CONDITIONS/PREREQUISITES

1. Unit 2 was manually scrammed due to rising drywell pressure.
2. Drywell pressure is 2.1 psig and rising slowly.
3. Drywell bulk average temperature is 146 degrees F and rising slowly.
4. T-223 "Drywell Cooler Fan Bypass" is in progress.
5. Annunciator 217 H-5 DRYWELL CHILLED WATER LO LEVEL has alarmed and the condition needs to be cleared to support restoring drywell cooling.

INITIATING CUE

The Control Room Supervisor directs you, the Equipment Operator, to perform Operator Action #3 of ARC 217 H-5 DRYWELL CHILLED WATER LO LEVEL until the annunciator is reset.