ENTERGY NUCLEAR NORTHEAST
JOB PERFORMANCE MEASURE

S/RO	2008 JPM A	TASK TITLE: Change In-Service RBCLC Pumps
APPL. TO	JPM NUMBER	

NRC K/A SYSTEM NUMBER: 400000 A401

ESTIMATED COMPLETION TIME: 12 Minutes

APPROVED: ______________________

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APPLICANT NAME: ______________________

JPM Completion ☐ Simulated ☒ Performed

Location: ☐ Plant ☒ Simulator

DATE PERFORMED: __________ TIME TO COMPLETE: ______ Minutes

PERFORMANCE EVALUATION: ☐ Satisfactory ☐ Unsatisfactory

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COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

SAFETY CONSIDERATIONS

None

REFERENCES

OP-40, Reactor Building Closed Loop Cooling, Rev 40
AOP-39, Loss of Coolant, Rev 17

TOOLS AND EQUIPMENT

Copy of AOP-39, Attachments 1 and 2.
Copy of AOP-11 Immediate Actions

SET UP REQUIREMENTS

A. Initialize simulator as follows:
   1. Reset into IC-248
      -or-
   2. Reset into an at-power IC **AND** set RBCLC Makeup Tank level low in the operating band with expert command "set swmrbw=21500".
B. Ensure RBCLC Pumps A and C are in operation and Pump C is in standby.
C. Establish Event Trigger #1: /*15P-2C */zlo11RBCC01(2)==1// 15P-2C RED LIGHT IS ON
D. Insert Malfunction SW11, "RBCLC Leakage in Drywell at 30%" on 1 minute ramp and tied to Event Trigger #1.
E. Override Drywell Cooler Inlet Valve control switch to the OPEN position:
   OR ZDI11RCCA10 DW CLR A & EQUIP SUMP INL OPEN

EVALUATOR NOTES

The applicant should, at a minimum, observe the change in equipment status light indication when equipment is operated.
If simulating this task, then inform the Applicant that the conditions of each step need only be properly identified and <u>not</u> actually performed.
The Applicant should demonstrate proper use of HU tools such as procedure use, self checking and three-point communication.

TASK CONDITIONS

Reactor is operating at power.
RBCLC Pump B is in standby

INITIATING CUE

Change In-Service RBCLC Pumps per OP-40, Section G.1.

*** - CRITICAL STEP**

	STEP	STANDARD	EVALUATION / COMMENT
1.	Obtain a controlled copy of OP-40, RBCLC.	The applicant obtains a controlled copy of OP-40	N/A
2.	Reviews the precautions.	Reviews the precautions associated with the procedure.	N/A
3.	Select the correct section to perform the task.	Selects Section G.1 of OP-40.	N/A
*4.	Start the standby RBCLC Pump	Starts standby RBCLC Pump **Note:** Leak malfunction is activated on trigger by pump start.	SAT / UNSAT
5.	Verify RBCLC pump motor current is LESS THAN maximum normal amps.	Observes normal amps.	SAT / UNSAT
*6.	Stop A RBCLC Pump	Places and holds control switch for the RBCLC pump to be shutdown in STOP until RBCLC System discharge header pressure is stable at GREATER THAN 75 psig, then release control switch.	SAT / UNSAT
7.	Verify RBCLC pump motor current is LESS THAN maximum normal amps.	Observes normal amps.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
8.	IF sidestream filter is in service, THEN throttle …	**Evaluator Cue:** Sidestream filter is not in service.	SAT / UNSAT
9.	Acknowledges RBC MAKEUP TK LVL HI OR LO alarm (09-6-2-22).	Acknowledges alarm.	SAT / UNSAT
10.	Refers to ARP 09-6-2-22: - Dispatches NPO to visually check tank water level - Monitors RBC discharge header pressure	Refers to ARP. **Evaluator Cue:** NPO reports tank level dropping rapidly and level control valve is fully open.	SAT / UNSAT
11.	Acknowledges Drywell Floor Sump alarm (09-4-2-12)	Acknowledges alarm. Reports to CRS.	SAT / UNSAT
12.	Refers to ARP 09-4-2-12. Enters AOP-39	Refers to ARP. Reports that ARP directs AOP-39 entry. **Evaluator Cue:** Announce: "Crew Update. Entering AOP-39". Then … **Evaluator Cue for ROs:** "Perform Attachment 2, Step 3 of AOP-39 to isolate suspected RBC leak into the DW". **Evaluator Cue for SROs:** Perform Attachment 1, Section 7 to confirm RBCLC leak conditions. Other operators will perform other sections of Attachment 1.	SAT / UNSAT
13.	**SROs:** Perform Attachment 1 leak detection Section 7: - Determines sump fill and pumpout rate. - Confirms head tank annunciator lit and makeup valve open.	Reports indications of RBCLC leak. **Evaluator Cue:** If needed, ask "do you have indications of RBC Drywell leak?" **Evaluator Cue:** Perform Attachment 2, Step 3 to isolate RBC Drywell Leak.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
*14.	**ROs & SROs:** Refer to Attachment 2, Step 3. Places keylock switch 1-1RBCA10 at Panel 09-75 in CLOSE.	Places switch in CLOSE. **Note:** Valves associated with keylock switch should not close per JPM setup. **Evaluator Cue:** If applicant indicates NPO would perform this action, direct the applicant to perform the action at Panel 09-75.	SAT / UNSAT
15.	Verify closed the following valves: - 130A, DW CLR INLET - 131A, DW CLR OUTLET - 134A, DW EQUIP DRN CLR OUTLET	Observes and reports that valves did NOT close. **Evaluator Cue:** Direct applicant to monitor RBC parameters from the 09-05 panel while an NPO performs remaining steps of Attachment 2, Step 3.	SAT / UNSAT
16.	Observes RBC conditions degrade, standby pump starts, header pressure degrades and motor amps fluctuate.	• Reports degrading conditions to CRS. • Recommends entry into the AOP for loss of reactor building cooling. **Evaluator Cue:** If needed, ask applicant what transient is occurring and how should this transient be addressed. **Evaluator Cue:** WHEN/IF applicant identifies the transient is a loss of RB cooling **AND** transient is addressed by a Loss of RB Cooling AOP (or AOP-11), THEN direct applicant to implement AOP-11 Immediate Actions.	SAT / UNSAT
*17.	Insert a Manual Scram	Inserts a Manual Scram	SAT / UNSAT
*18.	Trips RWR Pumps	Trips both RWR pumps	SAT / UNSAT
		EVALUATOR Terminate the task at this point.	

TASK CONDITIONS

A. Reactor is operating at power.

B. RBCLC Pump B is in standby.

INITIATING CUE

Change In-Service RBCLC Pumps per OP-40, Section G.1

ENTERGY NUCLEAR NORTHEAST
JOB PERFORMANCE MEASURE

S/RO	2008 JPM B	TASK TITLE: Start Reactor Recirc Pump
APPL. TO	JPM NUMBER	

NRC K/A SYSTEM NUMBER: 202001 A401

ESTIMATED COMPLETION TIME: 12 Minutes

APPROVED: ______________________

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APPLICANT NAME: ______________________

JPM Completion ☐ Simulated ☒ Performed

Location: ☐ Plant ☒ Simulator

DATE PERFORMED: __________ TIME TO COMPLETE: ______ Minutes

PERFORMANCE EVALUATION: ☐ Satisfactory ☐ Unsatisfactory

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COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

S/RO	2008 JPM B	TASK TITLE: Start Reactor Recirc Pump
APPL. TO	JPM NUMBER	

I. SAFETY CONSIDERATIONS

A. None

II. REFERENCES

A. OP-27, Recirculation System

III. TOOLS AND EQUIPMENT

A. None

IV. SET UP REQUIREMENTS

A. Initialize simulator to Mode 3 all rods in (IC-243).
B. RWR Pump 'B' at minimum flow.
C. RWR Pump 'A' ready to start, up through Step G.12.31.

V. EVALUATOR NOTES

A. The Applicant should, at a minimum, observe the change in equipment status light indication when equipment is operated.
B. If simulating this task, then inform the Applicant that the conditions of each step need only be properly identified and <u>not</u> actually performed.
C. The Applicant should demonstrate proper use of HU tools such as procedure use, self checking and three-point communication.

VI. TASK CONDITIONS

A. Plant is in Mode 3, all rods in.
B. RWR Pump 'B' is running at minimum speed.
C. RWR Pump 'A' is ready to start.

VII. INITIATING CUE

Start RWR Pump 'A' per OP-27, beginning at Step G.12.31.

*** - CRITICAL STEP**

	STEP	STANDARD	EVALUATION / COMMENT
1.	Obtain a controlled copy of OP-27, Recirculation System.	The Applicant obtains a controlled copy of OP-27	SAT / UNSAT
2.	Reviews the precautions.	Reviews the precautions associated with the procedure.	SAT / UNSAT
3.	Select the correct section to perform the task.	Selects Section G of OP-27.	SAT / UNSAT
*4.	Start RWR Pump 'A'	Starts RWR Pump 'A'	SAT / UNSAT
5.	Verify the following: a. Speed rises to approximately 80% on RWR MG A SPEED CNTRL. b. RWR MG A GEN FIELD BKR closes. c. Speed returns to approximately 30% on RWR MG A	Observes normal start parameters.	SAT / UNSAT
6.	Open RWR PMP A DISCH O2MOV-53A.	Opens discharge valve.	SAT / UNSAT
7.	Verify the following: • All white lights for RPS A and RPS B power source selectors are on at panel 09-16. • RWR Loop A flow rate	Observes normal pump parameters. **Booth Operator:** Initiate alarm on Annunciator 09-4-2-18, "RWR PMP A MTR VIB HI" approximately one minute after applicant starts the pump.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
	is approximately 10,000 gpm on LOOP FLOW 02FI-159A FLOW UNIT D. • Jet pump flow rate is approximately 1E6 lbs/hr on the following: - JP-1 FLOW 02-3FI-87A - JP-6 FLOW 02-3FI-87C • RWR Pump A differential pressure is approximately 10 psid on RWR LOOP A PMP DIFF PRESS 02DPI-156A. • RWR MG A motor current is approximately 100 amps on RWR MG A DRV MTR AMPS. • RWR MG A generator current is approximately 120 amps on RWR MG A GEN AMPS. • RWR MG A generator voltage is approximately 1000 volts on RWR MG A GEN VOLTS.		

	STEP	STANDARD	EVALUATION / COMMENT
	• 15TIC-100A is controlling oil temperature		
8.	Observes annunciator for high motor vibs (09-4-2-18).	Applicant acknowledges alarm and reports condition to supervisor (examiner).	SAT / UNSAT
9.	Refers to ARP 9-4-2-18.	Refers to ARP.	SAT / UNSAT
10.	Attempts to clear alarm by depressing RWR PMP A VIB Alarm P/B.	Depresses alarm P/B.	SAT / UNSAT
11.	Trip pump by:		
*a.	Close RWR PMP A DISCH 02MOV-53A.	Closes discharge valve.	SAT / UNSAT
b.	Verify RWR PMP 02-2P-1A is tripped.	Verifies pump tripped. **Booth Operator:** Remove hi vibs alarm when Recirc pump trips.	SAT / UNSAT
c.	Place Pump A control switch in PTL.	Stops Recirc pump by placing control switch in STOP or PTL.	SAT / UNSAT
12.	Verify MG A GEN FIELD BKR opens.	Verifies field breaker opens 17 seconds after drive motor breaker trips.	SAT / UNSAT
EVALUATOR Terminate the task at this point.			

TASK CONDITIONS

A. Plant is in Mode 3, all rods in.

B. RWR Pump 'B' is running at minimum speed.

C. RWR Pump 'A' is ready to start.

INITIATING CUE

Start RWR Pump 'A' per OP-27, beginning at Step G.12.31.

ENTERGY NUCLEAR NORTHEAST
JOB PERFORMANCE MEASURE

S/RO	2008 JPM C	TASK TITLE: Shutdown HPCI
APPL. TO	JPM NUMBER	

NRC K/A SYSTEM NUMBER: 206000 A4.13

ESTIMATED COMPLETION TIME: 12 Minutes

APPROVED: ______________________________

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APPLICANT NAME: ______________________________

JPM Completion ☐ Simulated ☒ Performed

Location: ☐ Plant ☒ Simulator

DATE PERFORMED: __________ TIME TO COMPLETE: ______ Minutes

PERFORMANCE EVALUATION: ☐ Satisfactory ☐ Unsatisfactory

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COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

S/RO	2008 JPM C	TASK TITLE: Shutdown HPCI
APPL. TO	JPM NUMBER	

I. SAFETY CONSIDERATIONS

A. None

II. REFERENCES

A. OP-15, High Pressure Coolant Injection, Current Revision

III. TOOLS AND EQUIPMENT

A. None

IV. SET UP REQUIREMENTS

A. Initialize simulator to any full power IC or IC-247.
B. Manually scram the Reactor and stabilize vessel level and pressure.
C. Secure feedwater and prohibit RCIC from starting.
D. Allow HPCI to start and run until high level trip.
E. Allow vessel level to decrease below 222.5 inches.
F. Re-establish feedwater to maintain vessel level above 126.5 inches and below 222.5 inches.
G. Override the red – open light ON for 23MOV-19.
H. Override the green – closed light OFF for 23MOV-19.
I. Remove both overrides when candidate takes the control switch for 23MOV-19 to close.

V. EVALUATOR NOTES

A. The candidate should, at a minimum, observe the change in equipment status light indication when equipment is operated.
B. If simulating this task, then inform the candidate that the conditions of each step need only be properly identified and <u>not</u> actually performed.
C. The candidate should demonstrate proper use of HU tools such as procedure use, self checking and three-point communication.

VI. TASK CONDITIONS

A. A Reactor Scram has occurred resulting in a HPCI initiation and trip on high Reactor vessel water level.
B. RPV level is being maintained by feedwater at 177" to 222".
C. The Control Room Supervisor has given direction to return HPCI to a normal standby line-up in accordance with OP-15.

VII. INITIATING CUE

Complete the shutdown and restore HPCI to a standby line-up per OP-15.

*** - CRITICAL STEP**

	STEP	STANDARD	EVALUATION / COMMENT
1.	Obtain a controlled copy of OP-15, High Pressure Coolant Injection.	The candidate determines where to obtain a controlled copy of OP-15 (Control Room, Merlin) **EVALUATOR**: Provide trainee a current copy of OP-15	SAT / UNSAT
2.	Reviews the precautions.	Reviews the precautions associated with the procedure.	SAT / UNSAT
3.	Select the correct section to perform the task.	Selects Section F of OP-15. **EVALUATOR:** Provide candidate a copy of section F.	SAT / UNSAT
*4.	Depresses TURB TRIP 23A-S19 pushbutton.	Depresses 23A-S-19 pushbutton on panel 09-3.	SAT / UNSAT
5.	If Drywell pressure is above 2.7 psig AND a HPCI low steam supply pressure isolation is present THEN close and protective tag HPCI EX HVAC BKR 23MOV-59.	N/A: Applicant should observe that Drywell Pressure is below 2.7 psig.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
6.	When both the following conditions exist: • RPV level is ABOVE 126.5 inches AND • Drywell pressure is BELOW 2.7 psig Continue with this procedure	Applicant should observe that RPV water level is above 126.5 inches and that drywell pressure is below 2.7 psig.	SAT / UNSAT
*7.	Ensure closed TURB STM SUPP VLV 23MOV-14.	Closes 23MOV-14 by taking its control switch to the CLOSE position.	SAT / UNSAT
*8.	Depress INITIATION SIG/MAN TURB TRIP RESET 23A-S17 pushbutton.	Depresses 23A-S17 pushbutton on panel 09-3.	SAT / UNSAT
9.	Verifies white INITIATION SIG 23A-DS63 light is off.	Observes that 23A-DS63 light is off on panel 09-3.	SAT / UNSAT
10.	If amber Rx HIGH LEVL SIG 23A-DS65 light is on at panel 09-3, THEN reset high water level trip as follows: Verify RPV level is LESS THAN value shown on Att. 3	Utilizes multiple indications to observe that RPV level is less than approximately 214 inches (Att. 3).	SAT / UNSAT
*11.	Depress HI LVL SIG RESET 23A-S25 pushbutton.	Depresses 23A-S25 pushbutton on panel 09-3.	SAT / UNSAT
12.	Verify amber Rx HI LVL SIG 23A-DS65 light is off.	Observes that amber RX HI LVL SIG 23A-DS65 light is off on panel 09-3.	SAT / UNSAT
13.	Verify annunciator 09-3-3-28 HPCI TURB TRIP SOLENOID ENERGIZED is clear.	Observes that annunciator 09-3-3-28 clears when annunciator reset pushbutton is pushed.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
*14.	Ensure closed INJ VLV 23MOV-19.	Observes that 23MOV-19 is NOT closed; closes 23MOV-19 by taking its control switch to the CLOSE position.	SAT / UNSAT
15.	Ensure closed TEST VLV TO SCT 23MOV-21.	Observes that the green – closed light for 23MOV-21 is on.	SAT / UNSAT
16.	If 23MOV-24 **is** **not** being used for RCIC operation THEN ensure closed HPCI & RCIC TEST VLV TO CST 23MOV-24.	Observes that the green – closed light for 23MOV-24 is on. **EVALUATOR**: Inform the candidate "Valve 23MOV-24 will not be used to support RCIC operation.	SAT / UNSAT
17.	When HPCI turbine is stopped, stop AUX OIL PMP 23P-150.	Observes that HPCI turbine is stopped by speed indicator on panel 09-3 reading 0 rpm. Stops 23P-150 by taking its control switch to the STOP position.	SAT / UNSAT
18.	Verify closed the following valves: • TURB STOP VLV 23HOV-1 • TURB STOP VLV 23HOV-2	Observes that the GREEN – closed lights for 23HOV-1 and 23HOV-2 are on.	SAT / UNSAT
19.	Verify open the following valves: • STM LINE DRAIN T RADW 23AOV-42 • STM LINE DRAIN T RADW 23AOV-43	Observes that the red – open lights for 23AOV-42 and 23AOV-43 are on.	SAT / UNSAT
20.	Ensure closed MIN FLOW VLV 23MOV-25.	Observes that the green – closed light for 23MOV-25 is on.	SAT / UNSAT
21.	Verify open STM LINE WARMING ISOL VLV 23MOV-60.	Observes that the red – open light for 23MOV-60 is on.	SAT / UNSAT
*22.	Ensure closed OUTBD STM SUPP VLV 23MOV-16.	Closes 23MOV-16 by taking its control switch to the CLOSE position.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
*23.	When HPCI turbine has been stopped for at least 15 minutes, stop GLAND SEAL CNDSR BLOWER 23P-140.	After a 15 minute wait, stop 24P-140 by taking its control switch to the STOP position. **EVALUATOR**: Inform candidate that 15 minutes has expired.	SAT / UNSAT
*24.	Ensure closed for the following valves: • HPCI GLAND SEAL SUCT 01-125MOV-13A • HPCI GLAND SEAL SUCT 01-125MOV-13B	Closes 01-125MOV-13A and 01-125MOV-13B by placing their control switches on the CLOSE position. **EVALUATOR**: These control switches are located on panel 09-75.	SAT / UNSAT
25.	If SGT operation **is not** required, THEN shutdown SGT per Section F of OP-20.	When the candidate states that he/she would shutdown SGT per OP-20, then inform candidate "Another operator has been assigned to shutdown SGT".	SAT / UNSAT
26.	Ensure TURB VIB MON 23VM-100 toggle switch is in off.	Verifies TURB VIB MON 23MV-100 toggle switch is in off.	SAT / UNSAT
27.	Verify HPCI is in a standby lineup per Step E.1.3.	**EVALUATOR**: Inform candidate that another operator will be performing this step.	SAT / UNSAT
EVALUATOR Terminate the task at this point.			

TASK CONDITIONS

A. A Reactor Scram has occurred resulting in a HPCI initiation and trip on high Reactor vessel water level.

B. RPV level is being maintained by feedwater at 177″ to 222″.

C. The Control Room Supervisor has given direction to return HPCI to a normal standby line-up in accordance with OP-15.

INITIATING CUE

Complete the shutdown and restore HPCI to a standby line-up per OP-15.

ENTERGY NUCLEAR NORTHEAST
JOB PERFORMANCE MEASURE

S/RO	2008 JPM D	TASK TITLE: MSIV Surveillance Test
APPL. TO	JPM NUMBER	

NRC K/A SYSTEM NUMBER: 239001 A203

ESTIMATED COMPLETION TIME: 12 Minutes

APPROVED: ____________________________

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APPLICANT NAME: ____________________________

JPM Completion ☐ Simulated ☒ Performed

Location: ☐ Plant ☒ Simulator

DATE PERFORMED: __________ TIME TO COMPLETE: ______ Minutes

PERFORMANCE EVALUATION: ☐ Satisfactory ☐ Unsatisfactory

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COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

S/RO	2008 JPM D	TASK TITLE:	MSIV Surveillance Test
APPL. TO	JPM NUMBER		

I. SAFETY CONSIDERATIONS

A. None

II. REFERENCES

A. ST-1I, MSIV Limit Switch Channel Functional Test, Rev.24

B. AOP-1, Reactor Scram

III. TOOLS AND EQUIPMENT

A. Stopwatch

B. Copy of ST-1I, with prerequisites signed off.

IV. SET UP REQUIREMENTS

A. Initialize simulator to IC #249; approx. 80% Rx power.

V. EVALUATOR NOTES

A. The Applicant should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. If simulating this task, then inform the Applicant that the conditions of each step need only be properly identified and <u>not</u> actually performed.

C. The Applicant should demonstrate proper use of HU tools such as procedure use, self checking and three-point communication.

VI. TASK CONDITIONS

A. Plant is at about 80% power. No other evolutions are in progress.

B. ST Prerequisites have been performed.

VII. INITIATING CUE

Perform MSIV Limit Switch Channel Functional Test IAW ST-1I, Section 8.

*** - CRITICAL STEP**

	STEP	STANDARD	EVALUATION / COMMENT
0a.	Obtain a controlled copy of ST-1I, MSIV Limit Switch Channel Functional Test.	**Evaluator Cue:** Provide applicant with controlled copy of ST-1I.	N/A
0b.	Reviews the precautions and limitations.	Reviews the precautions and limitations associated with the procedure.	SAT / UNSAT
1.	Verifies open: • MSIV 29AOV-86A • MSIV 29AOV-86B	Verifies valves open.	SAT / UNSAT
2.	Verifies the following lights are on: • RPS A SCRAM GROUPS 1, 2, 3, and 4 • RPS B SCRAM GROUPS 1, 2, 3, and 4	Group lights are on.	SAT / UNSAT
*3.	Remove fuse 5A-F3E inside panel 09-15.	Removes fuse (requests CRS to have fuse removed). **Booth Operator:** Use simulator remote function to remove fuse 5A-F3E inside panel 09-15. **Evaluator Cue:** Fuse has been removed. Dual concurrent verification is complete.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
4.	Verify MSIV CLOSURE TRIP 5A-K3E relay is de-energized at panel 09-15.	**Evaluator Cue:** Relay is de-energized.	N/A
5.	IF RX MODE switch is in a position other than RUN, ...	RX MODE switch is NOT in a position other than RUN.	N/A
		CAUTION: If the slow close pushbutton is depressed too long, MSIV could fully close due to steam forces on the valve.	
6.	WHILE performing partial closure of 29AOV-86A, perform the following concurrently: • Ensure personnel standing by to monitor RPV pressure and power • Measure partial closure time with stopwatch • IF any of the following...	**Evaluator Cue:** Personnel are standing by. Applicant has stopwatch	SAT / UNSAT
*7.	Depress and hold MSIV SLOW CLOSE 29AOV-86A pushbutton to start closing 29AOV-86A.	Depresses P/B.	SAT / UNSAT
8.	Verify the following relays are de-energized: • MSIV CLOSURE TRIP 5A-K3A on panel 09-15 • MSIV CLOSURE TRIP 5A-K3B on panel 09-17	**Evaluator Cue:** Relays are de-energized.	N/A

	STEP	STANDARD	EVALUATION / COMMENT
9.	Verify the following: • Annunciators 09-5-1-2, 09-5-1-3 are in alarm. • RPS A SCRAM GROUPS 1, 2, 3, and 4 lights are off. • EPIC-D-1241 RX SCRAM A indicates TRIP • EPIC-D-1286 MSIV A1 NOT OPEN indicates TRIP	Verifies expected response.	SAT / UNSAT
*10.	Release MSIV SLOW CLOSE 29AOV-86A pushbutton	Releases P/B.	SAT / UNSAT
11.	Verify open MSIV 29AOV-86A.	Verifies MSIV re-opens	SAT / UNSAT
12.	Verify the following relays are energized: • MSIV CLOSURE TRIP 5A-K3A on panel 09-15 • MSIV CLOSURE TRIP 5A-K3B on panel 09-17	Relays are energized.	SAT / UNSAT
13.	Verify the following: • Annunciator 09-5-1-2, MSIVS NOT FULL OPEN TRIP is clear • EPIC-D-1286 MSIV A1 NOT OPEN indicates NORMAL	Annunciator is clear; EPIC-D-1286 indicates NORMAL	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
*14.	Reset RPS A	Resets RPS A	SAT / UNSAT
15.	Verify the following: • Annunciator 09-5-1-3, RPS A AUTO SCRAM is clear. • RPS A SCRAM GROUPS 1, 2, 3, and 4 lights are on. • EPIC-D-1241 RX SCRAM A indicates RESET	Annunciator is clear; Scram group lights are on; and EPIC-D-1241 is RESET.	SAT / UNSAT
16.	Record partial closure time on placard above AOV-86A P/B	**Evaluator Cue:** Time has been recorded.	NA
*17.	Install fuse 5A-F3E inside Panel 09-15.	**Evaluator Cue:** Fuse has been re-installed.	SAT / UNSAT
		EVALUATOR Terminate the task at this point.	

TASK CONDITIONS

A. Plant is at about 80% power. No other evolutions are in progress.

B. ST Prerequisites have been performed.

INITIATING CUE

Perform MSIV Limit Switch Channel Functional Test IAW ST-1I, Section 8.

ENTERGY NUCLEAR NORTHEAST
JOB PERFORMANCE MEASURE

S/RO/NPO	2008 JPM E	TASK TITLE:	Isolate RBCLC Supply to the Drywell
APPL. TO	JPM NUMBER		

NRC K/A SYSTEM NUMBER: 223001 A2.01

ESTIMATED COMPLETION TIME: 10 Minutes

APPROVED: ______________________

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CANDIDATE NAME: ______________________

JPM Completion ☐ Simulated X Performed

Location: ☐ Plant X Simulator

DATE PERFORMED: __________ TIME TO COMPLETE: ______ Minutes

PERFORMANCE EVALUATION: ☐ Satisfactory ☐ Unsatisfactory

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COMMENTS:

EVALUATOR: ______________________
SIGNATURE/PRINTED

JOB PERFORMANCE MEASURE

REQUIRED TASK INFORMATION

S/RO/NPO	2008 JPM E	TASK TITLE:	Isolate RBCLC Supply to the Drywell
APPL. TO	JPM NUMBER		

I. SAFETY CONSIDERATIONS

A. Comply with JAF Safety Standards and Requirements.

II. REFERENCES

A. EP-12, Isolating RBCLC supply to the Drywell, Rev. 0.

III. TOOLS AND EQUIPMENT

A. Necessary material contained in the EP support boxes located adjacent to panels.

IV. SET UP REQUIREMENTS

A. Obtain a controlled copy of EP-12 for use by the candidate.

B. Reset simulator to IC-247, with "A" RWR pump tripped and "B" pump running.

C. Insert the following overrides:

OS	SWZDI11RBCA13	OPEN
OS	RWZDJ11RBCB10	OPEN

V. EVALUATOR NOTES

A. The candidate should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. If simulating this task, then inform the candidate that the conditions of each step need only be properly identified and <u>not</u> actually performed.

VI. TASK CONDITIONS

A. A leak has occurred in the drywell causing drywell temperature to exceed 260 degrees.

VII. INITIATING CUE

Isolate cooling water supply to the drywell coolers, RWR pump and motor coolers and drywell equipment sump cooler per EP-12.

*** - CRITICAL STEP**

	STEP	STANDARD	EVALUATION / COMMENT
1.	Obtain a controlled copy of EP-12.	Obtains a controlled copy of EP-12.	SAT / UNSAT
2.	Ensures RWR pumps are tripped.	Observes "A" RWR tripped. Informs Control Room that "B" RWR pump will be tripped. **EVALUATOR**: If needed, acting as supervisor, order applicant to trip the "B" RWR Pump.	SAT / UNSAT
*3.	Trips the "B" pump.	Trips "B" RWR pump by taking the 02-2P-1B to STOP. Notes green trip ON.	SAT / UNSAT
	EVALUATOR: Keylock switches are located at panel 09-75		
4.	Locates key lock switches	Locates keys at SNO desk.	SAT / UNSAT
*5.	Places the following keylock switches in CLOSE: • 1-1 RBCA10 • 1-1 RBCA13 • 1-1 RBCB10 • 1-1 RBCB12	Inserts key into keylock switch(s) and takes to switch(s) to CLOSE.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
6.	Verifies closed the following valves:	Verifies closed by observing the green light on, the following valves:	
	DW CLR A INLET 15AOV-130A	DW CLR A INLET	SAT / UNSAT
	DW CLR A OUTLET 15AOV-131A	DW CLR A OUTLET	SAT / UNSAT
	DW EQUIP DRN CLR OUTLET 15AOV-134A	DW EQUIP DRN CLR OUTLET	SAT / UNSAT
*	RWR PMP A CLR INLET 15AOV-132A	Notes RWR PMP A CLR INLET valve is NOT closed Takes action to close the valve by informing supervisor and recommending NPO locally close valve. **NOTE:** Evaluator may have to ask applicant what action he recommends. **EVALUATOR**: Acting as NPO inform candidate: Valve is CLOSED.	SAT / UNSAT
*	RWR PMP A CLR OUTLET 15AOV-133A	Notes RWR PMP A CLR OUTLET valve is NOT closed. Takes action to close the valve by informing supervisor and recommending NPO locally close valve. **NOTE:** Evaluator may have to ask applicant what action he recommends. **EVALUATOR**: Acting as NPO inform candidate: Valve is CLOSED.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
*	DW CLR B INLET 15AOV-130B	Notes DW CLR B INLET valve is NOT closed. Takes action to close the valve by informing supervisor and recommending NPO locally close valve. **NOTE:** Evaluator may have to ask applicant what action he recommends. **EVALUATOR**: Acting as NPO inform candidate: Valve is CLOSED.	SAT / UNSAT
*	DW CLR B OUTLET 15AOV-131B	Notes DW CLR B OUTLET valve is NOT closed. Takes action to close the valve by informing supervisor and recommending NPO locally close valve. **NOTE:** Evaluator may have to ask applicant what action he recommends. **EVALUATOR**: Acting as NPO inform candidate: Valve is CLOSED.	SAT / UNSAT
	RWR PMP B CLR INLET 15AOV-132B	RWR PMP B CLR INLET	SAT / UNSAT
	RWR PMP B CLR OUTLET 15AOV-133B	RWR PMP B CLR OUTLET	SAT / UNSAT
*7.	Close 02-2RWR-39A (RWR Pump A Seal Purge) 02-2RWR-39B (RWR Pump B Seal Purge)	Calls and directs NPO to CLOSE: 02-2RWR-39A 02-2RWR-39B **EVALUATOR**: Acting as NPO inform candidate: 02-2RWR 39A and B are CLOSED".	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
*8.	Closes the following valves: • 02MOV-43A RWR PMP A SUCT • 02MOV-53A RWR PMP A DISCH (not critical, valve already closed) • 02MOV-43B RWR PMP B SUCT • 02MOV-53B RWR PMP B DISCH	Takes switches to CLOSE; observes Red light out, green light on for the following valves: • 02MOV-43A RWR PMP A SUCT • 02MOV-53A RWR PMP A DISCH • 02MOV-43B RWR PMP B SUCT • 02MOV-53B RWR PMP B DISCH	SAT / UNSAT
EVALUATOR: Terminate the task at this point.			

TASK CONDITIONS

A leak has occurred in the drywell causing drywell temperature to exceed 260 degrees.

INITIATING CUE

Isolate cooling water supply to the drywell coolers, RWR pump and motor coolers and drywell equipment sump cooler per EP-12.

ENTERGY NUCLEAR NORTHEAST
JOB PERFORMANCE MEASURE

S/RO	2008 JPM F	TASK TITLE: Core Spray In-Service Test
APPL. TO	JPM NUMBER	

NRC K/A SYSTEM NUMBER: 209001 K407

ESTIMATED COMPLETION TIME: 12 Minutes

APPROVED: ____________________

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APPLICANT NAME: ____________________

JPM Completion ☐ Simulated ☒ Performed

Location: ☐ Plant ☒ Simulator

DATE PERFORMED: __________ TIME TO COMPLETE: ______ Minutes

PERFORMANCE EVALUATION: ☐ Satisfactory ☐ Unsatisfactory

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COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

JOB PERFORMANCE MEASURE

REQUIRED TASK INFORMATION

S/RO	2008 JPM F	TASK TITLE: Core Spray In-Service Test
APPL. TO	JPM NUMBER	

I. SAFETY CONSIDERATIONS

A. None

II. REFERENCES

A. ST-3PB, Core Spray Loop B Quarterly Operability Test (IST)

III. TOOLS AND EQUIPMENT

A. Stopwatch

B. Copy of ST-3PB with steps signed off through Step 8.1.22.

IV. SET UP REQUIREMENTS

A. Initialize simulator to a Mode 5 IC.

V. EVALUATOR NOTES

A. The Applicant should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. If simulating this task, then inform the Applicant that the conditions of each step need only be properly identified and <u>not</u> actually performed.

C. The Applicant should demonstrate proper use of HU tools such as procedure use, self checking and three-point communication.

VI. TASK CONDITIONS

A. Plant is in Mode 5.

B. ST-3PB, Core Spray Loop B Quarterly Operability Test, has been completed through Step 8.1.22.

VII. INITIATING CUE

Continue performance of ST-3PB, Core Spray Loop B Quarterly Operability Test, beginning at Step 8.1.23

*** - CRITICAL STEP**

	STEP	STANDARD	EVALUATION / COMMENT
1.	Obtain the working copy of ST-3PB	**Evaluator:** Hand the working copy of the procedure to the applicant.	
*2.	Close and time SUCT VLV 14MOV-7B.	Closes and times suction valve.	SAT / UNSAT
*3.	Open and time SUCT VLV.	Opens and times suction valve.	SAT / UNSAT
4.	Verify normal CS lube oil level	**Evaluator Cue:** NPO reports normal level.	SAT / UNSAT
5.	Record CS Pump 14P-IB suction pressure from 14PI-75B2.	**Evaluator Cue:** NPO reports suction pressure reading 5.4 psig. Applicant records pressure.	SAT / UNSAT
6.	Initiate EPIC display TRCS.	Initiates display.	SAT / UNSAT
7.	Verify the following: • Annunciator 09-3-1-10, CORE SPRAY A OR B DISCH LILNE NOT FULL is clear. • EPIC-D-274 indicates normal.	Verifies alarm is clear and EPIC indicates normal.	SAT / UNSAT
*8.	Start Core Spray Pump B.	Starts pump.	SAT / UNSAT
*9.	Throttle TEST VLV 14MOV-26B to establish Loop B flow rate ≥ 4265 gpm on EPIC display TRCS.	Throttles valve to flow rate ≥ 4265 gpm on EPIC display TRCS.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
10.	Verify MIN FLOW VLV 14MOV-5B closed.	Verifies valve closed.	SAT / UNSAT
11.	Record discharge pressure from EPIC-A-1154.	Records discharge pressure (approximately 285 psig).	SAT / UNSAT
12.	Record CS Pump 14P-IB suction pressure from 14PI-75B2.	**Evaluator Cue:** NPO reports suction pressure reading 5.1 psig. Applicant records pressure.	SAT / UNSAT
13.	If suction pressure < ...	Determines Step 8.1.34 is N/A.	SAT / UNSAT
*14.	If suction pressure is ≥ 0 psig, THEN calc pump TS d/p.	Calculates d/p (disch minus suction) as _____ ± ___ psig.	SAT / UNSAT
*15.	Throttle TEST VLV 14MOV-26B to establish average Loop B flow rate trend of 4700 gpm on EPIC display TRCS.	Throttles valve to establish average Loop B flow rate trend of 4700 gpm on EPIC display TRCS.	SAT / UNSAT
16.	Wait 5 minutes.	**Evaluator Cue:** Five minutes have elapsed.	N/A
17.	Record CS Pump 14P-IB suction pressure from 14PI-75B2.	**Evaluator Cue:** NPO reports suction pressure reading 4.9 psig. Applicant records pressure.	SAT / UNSAT
18.	Record discharge pressure from EPIC-A-1154.	Records discharge pressure (approximately 280 psig).	SAT / UNSAT
*19.	Record average flow rate trend from EPIC display TRCS.	Records average flow rate trend from EPIC display TRCS: (Acceptable range 4610 to 4790	SAT / UNSAT
EVALUATOR Terminate the task at this point.			

TASK CONDITIONS

A. Plant is in Mode 5.

B. ST-3PB, Core Spray Loop B Quarterly Operability Test, has been completed through Step 8.1.22

INITIATING CUE

Continue performance of ST-3PB, Core Spray Loop B Quarterly Operability Test, beginning at Step 8.1.23

NEW YORK POWER AUTHORITY{PRIVATE }
JOB PERFORMANCE MEASURE

S/RO	2008 JPM G	TASK TITLE: Perform the Emergency Diesel Generator Load Test (S/U and Load EDG's)
APPL. TO	JPM NUMBER	

NRC K/A SYSTEM NUMBER: 2640000 A4.04

ESTIMATED COMPLETION TIME: 18 Minutes

APPROVED: ________________

~ ~

CANDIDATE NAME: ____________________

JPM Completion: ( ) Simulated (X) Performed

Location: ( ) Plant (X) Simulator

DATE PERFORMED: ____________________ TIME TO COMPLETE: ____ Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

~ ~

COMMENTS:

EVALUATOR: ________________________________
SIGNATURE/PRINTED

S/RO	2008 JPM G	TASK TITLE: Perform the Emergency Diesel Generator Load Test (S/U and Load EDG's)
APPL. TO	JPM NUMBER	

I. SAFETY CONSIDERATIONS

A. None

II. REFERENCES

A. ST-9BB, EDG B & D FULL LOAD TEST AND ESW PUMP OPERABILITY TEST, Rev. 1

B. OP-22, DIESEL GENERATOR EMERGENCY POWER, Rev. 28

III. TOOLS AND EQUIPMENT

A. Stopwatch

B. Synchronizing Switch

IV. SET UP REQUIREMENTS

A. Initialize the simulator to any IC

B. Obtain a controlled copy of ST-9BB, EDG B & D FULL LOAD TEST AND ESW PUMP OPERABILITY TEST. Initial as complete Section 4.0, 5.0 and Steps 8.1 through and including Steps 8.19.

C. Copies of EDG Demand Log for EDG B & D forms from OP-22, DIESEL GENERATOR EMERGENCY POWER.

V. EVALUATOR NOTES

A. The candidate should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. If simulating this task, then inform the candidate that the conditions of each step need only be properly identified and <u>not</u> actually performed.

VI. TASK CONDITIONS

A. EDG B and D load testing is in progress with ST-9BB, EDG B & D FULL LOAD TEST AND ESW PUMP OPERABILITY TEST complete through Step 8.19.

VII. INITIATING CUE

For only EDG B, Perform ST-9BB, EDG B & D FULL LOAD TEST AND ESW PUMP OPERABILITY TEST, beginning at Step 8.20.

**** - CRITICAL STEP***

{PRIVATE}	***STEP***	***STANDARD***	***EVALUATION / COMMENT***
1.	Obtain a controlled copy of procedure ST-9BB, EDG B & D FULL LOAD TEST AND ESW PUMP OPERABILITY TEST	Obtains a controlled copy of ST-9BB	SAT / UNSAT
2.	Reviews the precautions	Reviews the precautions, making note of any that are applicable	SAT / UNSAT
3.	Select the correct section to begin the task.	Per cue, begins at step 8.20.	SAT / UNSAT
*4.	Trip tie Breaker 10604 and allow switch to spring return to AUTO position	Places the control switch for Breaker 10604, EDG B & D TIE BKR, to TRIP, allow switch to spring return to AUTO	SAT / UNSAT
*5.	Place EDG B and D governor mode switches in the droop position	Places the EDG GOV MODE toggle switches for EDGs B&D to DROOP	SAT / UNSAT
*6.	Place EDG B LOAD BKR SNCH SW in ON	Places the EDG B LOAD BKR SYNCH SW to ON	SAT / UNSAT
*7.	Adjust EDG B VOLT REG to match INCOMING and RUNNING voltages	Matches INCOMING (EDG) and RUNNING (bus 10600) voltages with EDG B VOLT REG adjustments	SAT / UNSAT
*8.	Adjust EDG B GOV to rotate synchroscope slowly in the FAST direction (clockwise)	Adjusts EDG B GOV to rotate synchroscope slowly in fast direction	SAT / UNSAT
*9.	When EDG B and the 10600 BUS are in phase (synchroscope at 12 o'clock) close EDG B LOAD BKR 10602	Places the control switch 10602, EDG B LOAD BKR, to CLOSE when synchroscope is at 12:00	SAT / UNSAT

{PRIVATE}	***STEP***	***STANDARD***	***EVALUATION / COMMENT***
*10.	Adjust EDG B GOV to raise EDG B load to between 100 and 300 kW	Places the EDG B GOV switch to RAISE and loads EDG B to between 100 and 300 kW	SAT / UNSAT
11	Place EDG B LOAD BKR SYNCH SW in OFF	Places the EDG B LOAD BKR SYNCH SW to OFF	SAT / UNSAT
*12.	Adjust EDG B GOV to raise EDG B load to 2600 kW over 3 to 5 minutes in approximately 800 kW increments	Adjusted EDG B GOV to raise EDG B load to 2600 kW over 3 to 5 minutes in 800 kW increments ***EVALUATOR***: State," 3 minutes have passed", after each load adjustment.	SAT / UNSAT
EVALUATOR: Terminate the task at this point			

TASK CONDITIONS

EDG B and D load testing is in progress with ST-9BB, EDG B & D FULL LOAD TEST AND ESW PUMP OPERABILITY TEST complete through Step 8.19.

INITIATING CUE

For only EDG B, Perform ST-9BB, EDG B & D FULL LOAD TEST AND ESW PUMP OPERABILITY TEST, beginning at Step 8.20.

Entergy
Nuclear Northeast

James A. FitzPatrick Nuclear Power Plant

OPERATIONS TRAINING PROGRAMS
JOB PERFORMANCE MEASURE

RO	2008 JPM H	TASK TITLE: Return an LPRM to Service
APPL. TO	JPM NUMBER	

NRC K/A SYSTEM NUMBER: 215005 A404

ESTIMATED COMPLETION TIME: 10 Minutes

APPROVED: ________________

~ ~

APPLICANT NAME: ____________________

JPM Completion: ( ) Simulated (X) Performed

Location: ( ) Plant (X) Simulator

DATE PERFORMED: ____________________ TIME TO COMPLETE: ____ Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

~ ~

COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

EVALUATOR: ________________________________
SIGNATURE/PRINTED

JOB PERFORMANCE MEASURE
REQUIRED TASK INFORMATION

RO	2008 JPM H	TASK TITLE: Return an LPRM to Service
APPL. TO	JPM NUMBER	

I. SAFETY CONSIDERATIONS

A. Comply with JAF Safety Standards and Requirements.

II. REFERENCES

A. OP-16, "Neutron Monitoring", Rev 27.

III. TOOLS AND EQUIPMENT

A. None

IV. SET UP REQUIREMENTS

A. Reset simulator to 50% power IC
B. LPRM 4C-28-13 bypassed per OP-16.
C. Obtain a controlled copy of OP-16 for use by the applicant.

V. EVALUATOR NOTES

A. The applicant should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. If simulating this task, then inform the applicant that the conditions of each step need only be properly identified and <u>not</u> actually performed.

VI. TASK CONDITIONS

A. The Reactor is at 50% power with all systems normal.
B. LPRM 4C-28-13 is ready to return to service.

VII. INITIATING CUE

Return LPRM 4C-28-13 (associated with 'C' APRM) to service per OP-16, Section E.13, "Returning an LPRM Assigned to an APRM to Service".

- ***- CRITICAL STEP***

	STEP	*STANDARD*	*EVALUATION / COMMENT*
1	Obtains OP-16.	References Section E.13	
*2.	Bypass APRM per Subsection E.16 by Placing APRM BYP switch in 'C' • APRM 'C' BYPASS indicating light is on • APRM 'C' EPIC alarm indicates bypassed	Bypasses APRM 'C' (located on bench board 09-5)	SAT / UNSAT
*3.	Verify BYP light for APRM 'C' is on at top panel 09-14.	Verifies light on (top row of lights)	SAT / UNSAT
*4.	Place LPRM amplifier card switch in OP (for 4C-28-13).	Amplifier switch is in OP.	SAT / UNSAT
5.	Verify the LPRM reading is reasonable when compared with symmetric LPRM readings.	Verifies reading - at LPRM Cabinet OR - on EPIC by selecting LPRM RD comparing 'C' levels on symmetric LPRMs	SAT / UNSAT
6.	Record date and LPRM reading on LPRM Bypass Information Sheet at Panel 09-14.	***Evaluator Cue:*** Date and reading recorded.	N/A

	STEP	STANDARD	EVALUATION / COMMENT
7.	Perform ST-5D	***Evaluator Cue:*** ST-5D completed and sat.	N/A
*8.	Depress TRIP RESET P/B to clear applicable upscale or downscale alarm lights for APRM 'C',	TRIP RESET P/B is depressed.	SAT / UNSAT
9.	Return associated APRM to service per Subsection E.17 by:	Refers to Section E.17	N/A
a.	Verify the following lights for APRM 'C' are off at Panel 09-14: • INOP • UPSCL NEUT TRIP • UPSCL THERM TRIP	Verifies lights are off.	SAT / UNSAT
*b.	Place APRM BYP switch for APRM 'C' in center position	Places APRM BYP switch in center position.	SAT / UNSAT
c.	Verify APRM 'C' is returned to service using one or both of the following: • APRM 'C' BYPASS indicating light is off • No EPIC bypassed alarms for the three APRMs	Verifies APRM 'C' is returned to service.	SAT / UNSAT
Terminate the task at this point.			

TASK CONDITIONS

A. The Reactor is at 50% power with all systems normal.

B. LPRM 4C-28-13 is ready to return to service.

INITIATING CUE

Return LPRM 4C-28-13 (associated with 'C' APRM) to service per OP-16, Section E.13, "Returning an LPRM Assigned to an APRM to Service".

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Nuclear Northeast

James A. FitzPatrick Nuclear Power Plant

OPERATIONS TRAINING PROGRAMS
JOB PERFORMANCE MEASURE

S/RO/NLO APPL. TO	2008 JPM I JPM NUMBER	TASK TITLE: Close an SRV Remotely by Pulling Fuses.

NRC K/A SYSTEM NUMBER: 239002 A2.03

ESTIMATED COMPLETION TIME: 10 Minutes

APPROVED: ________________

~ ~

APPLICANT NAME: ____________________

JPM Completion: (X) Simulated ( ) Performed

Location: (X) Plant ( ) Simulator

DATE PERFORMED: ____________________ TIME TO COMPLETE: ____ Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

~ ~

COMMENTS:

EVALUATOR: __________________________________
SIGNATURE/PRINTED

S/RO/NLO	20004233A	TASK TITLE: Close an SRV Remotely by Pulling Fuses.
APPL. TO	JPM NUMBER	

I. SAFETY CONSIDERATIONS

A. Ensure proper safety equipment and safety procedures are observed.

II. REFERENCES

A. AOP-36, Stuck Open Relief Valve(s), Rev. 13

III. TOOLS AND EQUIPMENT

A. Fuse Pullers
B. Flashlight

IV. SET UP REQUIREMENTS

A. Make a copy of AOP-36 for use by the Applicant.
B. Obtain Shift Manager's permission prior to performing this task.

V. EVALUATOR NOTES

A. If performing JPM in the plant, inform the Applicant that the conditions of each step need only be properly identified and not actually performed.

B. The Applicant should, at a minimum, identify the change in equipment status light indication when equipment operation is simulated.

C. Place keeping should be demonstrated by the Applicant during the performance of the task.

VI. TASK CONDITIONS

A. SORV 02-RV-71A has inadvertently opened and remains open.

B. AOP-36, Stuck Open Relief Valves, was entered and attempts to shut the valve from the 09-4 panel have been unsuccessful, steps C.2.1 through C.2.3.c are completed.

C. The next step to close the valve is to remove the control power fuses per step C.2.3.d

VII. INITIATING CUE

Attempt to close 02-RV-71A by removing its control power fuses per AOP-36.

** - CRITICAL STEP*

{PRIVATE}	*STEP*	*STANDARD*	*EVALUATION / COMMENT*
1.	Obtain a controlled copy of procedure AOP-36, Stuck Open SRV(s)	The Applicant obtains a controlled copy of AOP-36. ***EVALUATOR*** Hand copy of AOP-36 to Applicant	SAT / UNSAT
2.	Identify step C.2.3.(d) as appropriate step and obtain fuse puller.	Applicant may use C.2.3.d and Attachment 1 or Posted Attachment 1 inside 09-45 as guidance. Applicant points out locker containing fuse puller.	SAT / UNSAT
3.	Proceed to panel 09-45 in the Relay Room and access the panel.	Correct panel located and accessed.	SAT / UNSAT
4.	Using either a controlled copy of AOP-36, Stuck Open Relief Valve(s) or the posted attachment inside panel 09-45, determine the correct fuses to be removed.	Fuses F2(F3A), F12(F4A), F23(F11A), and F34(F12A) in panel 09-45 identified for removal.	SAT / UNSAT
*a.	Remove F2(F3A)	***EVALUATOR***: When the Applicant identifies which fuse is to be removed and describes how to remove it using the fuse pullers, tell the Applicant "The fuse is pulled".	SAT / UNSAT
*b.	Remove F12(F4A)	"The fuse is pulled"	SAT / UNSAT

{PRIVATE}	STEP	STANDARD	EVALUATION / COMMENT
*c.	Remove F23(F11A)	"The fuse is pulled"	SAT / UNSAT
*d.	Remove F34(F12A)	"The fuse is pulled"	SAT / UNSAT
6.	Contact the Control Room and inform them that the fuses have been removed.	***EVALUATOR***: Acknowledge the communication and as the Control Room Operator inform the Applicant that "The SRV now indicates closed".	SAT / UNSAT
EVALUATOR: Terminate the task at this point.			

TASK CONDITIONS

A. SORV 02-RV-71A has inadvertently opened and remains open.

B. AOP-36, Stuck Open Relief Valves, was entered and attempts to shut the valve from the 09-4 panel have been unsuccessful, steps C.2.1 through C.2.3.c are completed.

C. The next step to close the valve is to remove the control power fuses per step C.2.3.d

INITIATING CUE

Attempt to close SORV 02-RV-71A by removing its control power fuses per AOP-36.

ENTERGY NUCLEAR NORTHEAST {PRIVATE }
JOB PERFORMANCE MEASURE

S/RO	2008 JPM J	TASK TITLE: Changing In-Service CRD Flow Control Valves
APPL. TO	JPM NUMBER	

NRC K/A SYSTEM NUMBER: 201001 SG 9

ESTIMATED COMPLETION TIME: 15 Minutes

APPROVED: ________________

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APPLICANT NAME: ____________________

JPM Completion: (X) Simulated ( ) Performed

Location: (X) Plant ( ) Simulator

DATE PERFORMED: ____________________ TIME TO COMPLETE: ____ Minutes

PERFORMANCE EVALUATION: ( ) Satisfactory ( ) Unsatisfactory

~ ~

COMMENTS:

EVALUATOR: ________________________________
SIGNATURE/PRINTED

S/RO	2008 JPM J	TASK TITLE: Changing In-Service CRD Flow Control Valves
APPL. TO	JPM NUMBER	

I. SAFETY CONSIDERATIONS

A. Proper safety attire (hardhat, safety shoes, safety glasses, ear protection, etc.) is to be worn when out in the plant.

II. REFERENCES

A. OP-25, CONTROL ROD DRIVE HYDRAULIC SYSTEM, Rev. 70.

III. TOOLS AND EQUIPMENT

A. None

IV. SET UP REQUIREMENTS

A. Ensure that flow control valve 03FCV-19A is in-service.

V. EVALUATOR NOTES

A. The Applicant should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. If simulating this task, then inform the Applicant that the conditions of each step need only be properly identified and not actually performed.

VI. TASK CONDITIONS

A. The Control Rod Drive Hydraulic System is in operation.

B. The plant is operating at rated power. The Maintenance Department has requested that "A" CRD Flow Control Valve (03FCV-19A) be removed from service for preventive maintenance.

VII. INITIATING CUE

Place "B" CRD Flow Control Valve (03FCV19B) in-service, and place "A" CRD Flow Control Valve (03FCV-19A) in standby.

**** - CRITICAL STEP***

{PRIVATE}	***STEP***	***STANDARD***	***EVALUATION / COMMENT***
1.	Obtain a controlled copy of procedure OP-25, CONTROL ROD DRIVE HYDRAULIC SYSTEM.	***Evaluator***: The Applicant obtains a controlled copy of OP-25.	SAT / UNSAT
2.	Review the precautions.	***Evaluator***: The Applicant reviews the precautions, Section C2, making note of any that are applicable.	SAT / UNSAT
3.	G.15 ***Changing Inservice CRD Flow Control Valves***	***Evaluator***: The Applicant selects Section G.15, Changing In-Service CRD Flow Control Valves.	SAT / UNSAT
4.	G.15.1 Establish communication between Flow Control Hand Select Station and the Control Room.	***Evaluator***: The Applicant goes to the Rx Building 272' level to the area West of the West HCU's. When the Applicant states that he/she would establish communications between the Control Room and the master control station using either the West HCU area Gaitronics or nearby sound powered phone jack. ***Inform the Applicant:*** Communications with the Control Room are ESTABLISHED.	SAT / UNSAT
5.	G.15.2 Line up CRD FLOW CNTRL 03FIC-301 per the following steps: a. Ensure controller is in AUTO.	***EVALUATOR:*** When the Applicant states that he/she would ensure the controller is in AUTO. ***Inform the Applicant:*** Control Room reports that CRD Flow Controller 03FIC-301 is in AUTO.	SAT / UNSAT

6.	G.15.2 Continued: b. Adjust controller setpoint to zero gpm.	***EVALUATOR:*** When the Applicant states that he/she would request the Control Room place the CRD flow controller setpoint to 0 gpm ***Inform the Applicant:*** Control Room reports that CRD Flow Controller 03FIC-301 setpoint is at 0 gpm".	SAT / UNSAT
7.	G.15.3 Perform the following for the flow control valve to be placed in service: a. Verify open inlet isolation valve: • 03CRD-68B (CRD water 03FCV-19B inlet isol valve)	***EVALUATOR:*** When the Applicant states that he/she would check 03CRD-68B in the closed direction and verify it open. ***Inform the Applicant:*** "Valve 03CRD-68B is OPEN".	SAT / UNSAT
*8.	b. Slowly open outlet isolation valve: • 03CRD-69B (CRD water 03FCV-19B outlet isol valve)	***EVALUATOR:*** When the Applicant states that he/she would slowly open 03CRD-69B, by turning its valve handwheel in the counter-clockwise direction. ***Inform the Applicant:*** "Valve 03CRD-69B is OPEN".	SAT / UNSAT
*9.	G.15.4 Close outlet isolation valve for flow control valve to be removed from service. • 03CRD-69A (CRD water 03CRD-69A outlet isolation valve).	***EVALUATOR:*** When the Applicant states that he/she would close 03CRD-69A by turning its valve handwheel in the clockwise direction. ***Inform the Applicant:*** "Valve 03CRD-69A is CLOSED".	SAT / UNSAT
*10.	G.15.5 Place AUTO-MAN select knob is in AUTO for inservice flow control valve: • AUTO-MAN select knob at 03HSS-245B	***EVALUATOR:*** When the Applicant states that he/she would place AUTO-MAN select knob in AUTO at 03HSS-245B ***Inform the Applicant:*** "Select knob in AUTO at 03HSS-245B".	SAT / UNSAT

*11.	G.15.6 Ensure AUTO-MAN select knob is in MAN for standby flow control valve. • AUTO-MAN select knob at 03HSS-245A	***EVALUATOR:*** When the Applicant states that he/she would place AUTO-MAN select knob in MAN at 03HSS-245A ***Inform the Applicant:*** "Select knob in MAN at 03HSS-245A".	SAT / UNSAT
12.	G.15.7 Slowly raise setpoint on CRD FLOW CNTRL 03FIC-301 to establish 59 to 61 gpm on 03FI-310.	***EVALUATOR:*** When the Applicant states that he/she would request the Control Room to raise setpoint of 03FIC-310 to establish 59 to 61 gpm ***Inform the Applicant:*** "03FIC-310 setpoint is 60 gpm and flow indication is 60 gpm".	SAT / UNSAT
13.	G.15.8 Verify normal operating values on the following indicators at panel 09-5: • CHG WTR PRESS 03PI-302: ***BETWEEN*** 1390 and 1580 psig, not to exceed 1670 psig • DRV WTR DIFF PRESS 03DPI-303: 260 to 270 psid • CLG WTR DIFF PRESS 03DPI-304: approximately 10 to 26 psid • DRV WTR FLOW 03FI-305: zero when no CRD is being driven • FLOW 03FI-306: 59 to 61 gpm	***EVALUATOR:*** When the Applicant states that he/she would request the Control Room to verify the values. ***Inform the Applicant:*** "Values are normal". • CHG WTR PRESS 03PI-302: 1520 psig • DRV WTR DIFF PRESS 03DPI-303: 265 psid • CLG WTR DIFF PRESS 03DPI-304: 20 psid • DRV WTR FLOW 03FI-305: zero • FLOW 03FI-306: 60 gpm	SAT / UNSAT
EVALUATOR: ***Terminate the task at this point***			

TASK CONDITIONS

A. The Control Rod Drive Hydraulic System is in operation.

B. The plant is operating at rated power. The Maintenance Department has requested that "A" CRD Flow Control Valve (03FCV-19A) be removed from service for preventive maintenance.

INITIATING CUE

Place "B" CRD Flow Control Valve (03FCV-19B) in-service, and place "A" CRD Flow Control Valve (03FCV-19A) in standby.

ENTERGY NUCLEAR NORTHEAST
JOB PERFORMANCE MEASURE

S/RO/NPO	2008 JPM K	TASK TITLE:	SBO Start of EDG
APPL. TO	JPM NUMBER		

NRC K/A SYSTEM NUMBER: 264000A209

ESTIMATED COMPLETION TIME: 10 Minutes

APPROVED: ____________________

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APPLICANT NAME: ____________________

JPM Completion X Simulated ☐ Performed

Location: X Plant ☐ Simulator

DATE PERFORMED: __________ TIME TO COMPLETE: ______ Minutes

PERFORMANCE EVALUATION: ☐ Satisfactory ☐ Unsatisfactory

~~~~~~

COMMENTS: (MANDATORY FOR UNSATISFACTORY PERFORMANCE)

EVALUATOR: ____________________
SIGNATURE/PRINTED

I. SAFETY CONSIDERATIONS

A. Comply with JAF Safety Standards and Requirements.

II. REFERENCES

A. TSG-8, "Extending Site Black-Out Coping Time, Starting an EDG/Injecting to Vessel with No DC Power Available"

III. TOOLS AND EQUIPMENT

A. None

IV. SET UP REQUIREMENTS

A. Make copy of TSG-8 as handout for applicant.

V. EVALUATOR NOTES

A. The Applicant should, at a minimum, observe the change in equipment status light indication when equipment is operated.

B. If simulating this task, then inform the Applicant that the conditions of each step need only be properly identified and <u>not</u> actually performed.

C. The Applicant should demonstrate proper placekeeping techniques during the performance of the procedure.

D. The Applicant should demonstrate proper self-checking techniques during the performance of the procedure.

E. The Applicant should demonstrate proper three-point communication techniques during the performance of the procedure.

VI. TASK CONDITIONS

The site has experienced a station blackout and has entered AOP-49. No emergency diesel has started, due to no DC power at the EDGs.

VII. INITIATING CUE

Start EDG (B) per TSG-8, "Extending SBO Coping Time, Starting and EDG/Injecting to Vessel with No DC Power Available"

*** - CRITICAL STEP**

	STEP	STANDARD	EVALUATION / COMMENT
1	Report to B EDG enclosure	Report to B EDG enclosure.	SAT / UNSAT
*2	Manually close the 2B ESW pump breaker (71-12610, 46P-2B)	Closes 2B ESW Pump Breaker. **CUE:** NPO informs operator that ESW Pump Breaker is closed.	SAT / UNSAT
3	Verify 4KV bkrs assoc with B EDG are open, with exception of L-Gear 71-10660 (needed for ESW pump)	**CUE:** 4KV breakers are open; L-Gear Fdr Bkr closed.	SAT / UNSAT
4	Verify **either** Tie Breaker 71-10614 or 71-10404 is closed.	**CUE:** The selected tie breaker (71-10614 or 71-10404) is open.	SAT / UNSAT
*5	Open air starting solenoid valve 93SOV-1B or 93SOV-2B.	Opens the air starting solenoid valve by pushing down on T-handle at top of solenoid (located under desk near floor level below air start motors on either side of EDG). **CUE:** Operator can hear air flow noise, and engine rolls up to approximately 945 rpm.	SAT / UNSAT

	STEP	STANDARD	EVALUATION / COMMENT
*6	Close the air starting solenoid valve after engine is running.	Releases T-handle on air starting solenoid valve.	SAT / UNSAT
*7	Close EDG B output breaker.	Closes EDG B output breaker 71-10602 by depressing the black CLOSE button at base of breaker front. **CUE:** Breaker is closed.	SAT / UNSAT
Terminate the task at this point.			

TASK CONDITIONS

The site has experienced a station blackout and has entered AOP-49. No emergency diesel has started, due to no DC power at the EDGs.

INITIATING CUE

Start EDG (B) per TSG-8, "Extending SBO Coping Time, Starting and EDG/Injecting to Vessel with No DC Power Available"